

# Experts Going Transnational: Education at World Exhibitions during the Second Half of the Nineteenth Century

Volume I

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*Pour ma grande amie!*



*Figure 1: Education experts studying the New Jersey educational exhibit at the Columbian Exposition in Chicago in 1893 (Catalogue and report of special committee of the New Jersey School Exhibit at the World's Columbian Exposition at Chicago, 1893, Trenton, John L. Murphy Pub. Co., 1894, opposite to frontpage).*

## **Abstract**

This thesis investigates the educational sections of the great international exhibitions of the latter half of the nineteenth century. This thesis takes into account the participation of actors from France, Germany, Japan and the United States. Focusing on education experts, this thesis is a contribution to a sociocultural history of an intellectual and administrative elite in an age of early globalisation. World exhibitions were one of the major media for the transnational circulation of educational knowledge. The central question is why education experts from these four countries invested so many resources in order to prepare and visit world exhibitions. Why did they go transnational? The thesis proposes two answers. First, education experts used world exhibitions in order to appropriate the most advanced pedagogical models for their own institutional contexts. The concept of cultural transfers is a useful tool to analyse these appropriations. Knowledge circulation at world exhibitions made a crucial contribution to the institutionalisation of primary education and technical education. Second, education experts used world exhibitions to stage their own institutions on an international stage. The proud representation of the educational achievements of one's own context was the final phase of successful cultural transfers. Educational displays became increasingly embedded in nationalist discourses. During the 1870s pedagogical know-how circulated relatively easily. Towards the turn of the century the self-representation of institutions became predominant. This original approach aims at furthering the understanding of globalisation in the nineteenth century. Still, the thesis argues that world exhibitions were in a large measure media for transnational professional discourses in many fields, including education.

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## **Declaration**

Whilst registered as a candidate for the above degree, I have not been registered for any other research award. The results and conclusions embodied in this thesis are the work of the named candidate and have not been submitted for any other academic award.

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## **Abbreviations**

ANF	Archives nationales de France
BArch	Bundesarchiv, Berlin
DRO	Diplomatic Record Office, Tokyo
GSta PK	Geheimes Staatsarchiv Preußischer Kulturbesitz, Berlin
LoC	Library of Congress, Washington DC
NARA	United States National Archives and Record Administration, College Park, Maryland, USA
NEA	National Educational Association (USA)

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## Dissemination

### PUBLICATIONS

- “Die amerikanische Referenz der republikanischen Grundschule Frankreichs: Kulturtransfer auf Weltausstellungen im 19. Jahrhundert”, in: Wolfgang Gippert, Petra Götte, Elke Kleinau (eds), *Transkulturalität. Gender- und bildungshistorische Perspektiven*, Bielefeld, Transcript, 2008, p. 161-179.
- with Wolfram Kaiser, “Political Communication at the World Exhibitions: Transnational Negotiation of Social and Education Policy, 1889-1904” in: Mathias Albert, Gesa Bluhm, Jan Helmig, Andreas Leutsch, Jochen Walter (eds), *Transnational Political Spaces. Agents – Structures – Encounters*, Frankfurt am Main, Campus-Verlag, 2009, p. 162-184.
- “La modernisation du système éducatif à travers les Expositions universelles, 1873-1904”, in: *Japon pluriel 8*, Arles, Picquier, 2010 (forthcoming).
- “Deutsche Berichterstattung über die Bildungssektionen der Weltausstellungen des 19. Jahrhunderts. Ein Literaturüberblick”, in: Sylvia Kesper-Biermann, Johannes Wischmeyer (eds), *Bildungsräume und transnationale Kommunikation im 19. Jahrhundert. Wissenstransfers im Schul- und Hochschulbildungssektor – Pädagogik, Theologie, Jurisprudenz*, Mainz, Institut für Europäische Geschichte, 2011 (forthcoming).
- “Die Repräsentationen der deutschen Länder in den Bildungssektionen der Weltausstellungen der zweiten Hälfte des 19. Jahrhunderts”, in: Eckhardt Fuchs (ed.), *Bildungsräume*, Bad Heilbrunn, Klinckschardt, 2011 (forthcoming).
- “Appropriation, Representation and Cooperation as Transnational Practices: The Example of Ferdinand Buisson”, in: Isabella Löhr, Roland Wenzlhuemer (eds), *The Nation State and Beyond: Governing Globalization Processes in the Nineteenth and Early Twentieth Century*, Heidelberg/New York, Springer, 2011 (forthcoming).

### CONFERENCE PAPERS

- with Wolfram Kaiser, “Political Communication at the World Exhibitions. Discourses on Education and the Social Question, 1889-1904”, conference *The Communicative Construction of Transnational Political Spaces*, Universität Bielefeld, Germany, 27-29 April 2007.
- “World Exhibitions and Educational Policies in an Age of First Globalization, 1889-1904”, University of Portsmouth, Centre for European and International Studies Research, Postgraduate Research Student Conference, Portsmouth, UK, 9 May 2007.
- “Bildungspolitik auf Weltausstellungen im 19. Jahrhundert – Akteure, Praktiken und Diskurse in einem globalen Zeitalter“, International Summer School for Doctoral Students *Mobility and Cultural Exchange*, Universität Leipzig, Germany, 24-28 September 2007.

- “Bildungspolitik auf Weltausstellungen im 19. Jahrhundert – Akteure, Praktiken und Diskurse in einem Zeitalter früher Globalisierung”, German Historical Institute Paris, France, 30 October 2007.
- “Transnational Exchange on Material Aspects of Schooling at World Exhibitions in the Nineteenth Century: The ‘School Desk Question’”, annual conference of the History of Education Society (UK) *Education and Globalization*, University of Birmingham, UK, 07-09 December 2007.
- “Die amerikanische Referenz der republikanischen Grundschule Frankreichs: Kulturtransfer auf Weltausstellungen im 19. Jahrhundert“, conference *Transkulturalität und Gender in bildungshistorischer Perspektive*, Universität Köln, Germany, 08-09 February 2008.
- “Bildungspolitik auf Weltausstellungen im 19. Jahrhundert: Akteure, Praktiken und Diskurse in einem Zeitalter früher Globalisierung”, German Institute for Japanese Studies Tokyo, Japan, 14 May 2008.
- “Educational Policies at World Exhibitions in the Nineteenth Century – Cultural Transfers and Self-Representation”, research seminar of Professor Wolfgang Schwentker, Ōsaka Daigaku, Japan, 28 May 2008.
- “Education at World Exhibitions in the Nineteenth Century (1867-1904): Cultural Transfers and National Representations”, International Standing Conference on the History of Education (ISCHE) 30 *Education and Inequality: Historical Approaches to Schooling and Social Stratification*, Rutgers University, Newark, New Jersey, USA, 23-26 July 2008.
- “Bildungspolitik auf Weltausstellungen im 19. Jahrhundert”, German Historical Institute Washington DC, USA, 17 September 2008.
- “The Japanese Participation in the Educational Sections of World’s Fairs in the Late Nineteenth Century (1867-1904)”, New York Conference on Asian Studies (NYCAS) *Cultural Connections, Convergences, and Collisions: Past and Present*, Hamilton College, Clinton, New York, USA, 26-27 September 2008.
- “La modernisation du système éducatif à travers les Expositions universelles, 1873-1904”, Eighth annual meeting of the Société Française des Etudes Japonaises *Modernité japonaise en perspective*, Université Charles de Gaulle – Lille 3, France, 18-20 December 2008.
- “Les pédagogues étrangers au Japon de l’époque Meiji: éléments d’une histoire socio-culturelle transnationale”, 5e Journées de l’Orient. *Entre Mer de Chine et Mer du Nord. Migration des savoirs, transfert des connaissances, transmission des sagesses. De l’Antiquité à nos jours*, Université catholique de Louvain, Louvain-la-Neuve, Belgium, 11-13 March 2009.
- “World Exhibitions and the Transfer of Universal Primary Education to France and Japan in the 1870s”, Graduate Conference on European History (GRACEH) *Migration and Movement in European History*, European University Institute, Florence, Italy, 28-30 April 2009.

- “Bildungspolitik auf Weltausstellungen im 19. Jahrhundert: Aneignungsprozesse und Selbstdarstellung anhand einiger Beispiele aus den Vereinigten Staaten von Amerika”, research seminar of the Institut für Europäische Geschichte Mainz, Germany, 19 May 2009.
- “Transfer von Bildungspolitik auf Weltausstellungen des 19. Jahrhunderts: Beispiele aus den deutschen Ländern”, thematic workshop *Transnationale Bildungsräume im 19. Jahrhundert: Maßstäbe, Konstellationen, Institutionen des Wissenstransfers im Schul- und Hochschulbildungssektor*, Institut für Europäische Geschichte Mainz, Germany, 17 June 2009.
- “Japanese Educational Exhibits at World’s Fairs and European Reactions to Them in the Late Nineteenth Century”, International Convention of Asia Scholars 6 *Think Asia!*, Daejeon, Korea, 6-9 August 2009.
- “Transfers of Industrial Education at World Exhibitions, 1862-1904”, International Standing Conference on the History of Education 31 *Educating the People, the History of Popular Education*, Utrecht University, Netherlands, 26-29 August 2009.
- “Der Augenarzt Hermann Cohn und der transnationale Austausch über Schulbänke auf Weltausstellungen des 19. Jahrhunderts”, Annual meeting of the section on historical educational research *Die Materialität der Erziehung*, Marbach, Germany, 19-21 September 2009.
- “Appropriation, Representation and Cooperation as Transnational Actions: The Example of Ferdinand Buisson“, conference *The Nation State and Beyond: Governing Globalization Processes in the Nineteenth and Early Twentieth Century*, University of Heidelberg, Heidelberg, Germany, 3-5 December 2009.
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- “Japanese School Exhibits and European Perceptions of Japanese Education at World Exhibitions in the Late Nineteenth Century, 1876-1904”, Institute of Japanese Studies, Seoul National University, 15 December 2010.

#### POSTERS

- “Bildungspolitik auf Weltausstellungen im 19. Jahrhundert”, Institut für Europäische Geschichte Mainz, Germany, June 2009.

# INTRODUCTION

## Theme

The Great Exhibition of the Works of Industry of All Nations took place in London in 1851 in the especially erected Crystal Palace. Further great international exhibitions, most of them organised in Paris and the United States, followed this model until the First World War. They have generally been known, to contemporaries and historians alike, as world exhibitions in British and world's fairs in American English, *Expositions universelles* in French, *Weltausstellungen* in German and *bankoku hakurankai* (万国博覧会) in Japanese. Today, people generally remember some of their architectural landmarks, such as the mentioned Crystal Palace, the Eiffel Tower or Chicago's White City; historians usually emphasise the nationalism and racism inherent in the layout of most expositions. It is less well known – even to historians of the nineteenth century – that world exhibitions also comprised important educational sections.

Education had a central place at international exhibitions in the nineteenth century. Right from the first exhibition of 1851 onwards education has been at stake when the technical superiority of French artisans' products convinced British decision-makers to improve the education of the workforce. The third world exhibition, which once more took place in London in 1862, saw for the first time one of its sections officially dedicated to education. The subsequent exhibitions were characterised by the steady expansion of the educational sections in terms of the number of exhibits and space used and the presentation of an increasingly more diverse content. On some occasions education even headed the classification schemes, as it was the case in Paris in 1900. By that stage, visitors could discover school equipment from various countries on several hundred square metres. They

gained an impression of the latest trends in school architecture and furniture by looking at school houses in original or miniature size and a variety of school desks. They found masses of educational literature and textbooks assembled on shelves. Display cases presented globes, calculating machines and many other educational appliances. Visitors could also examine thousands of volumes of class work of school children from all over the world.

The central place of education at nineteenth-century expositions reflects the importance of learning and training in contemporary debates. The nineteenth century was a time when administrations in various countries established new and reformed existing systems of education. Municipal, state and national administrations were engaged in introducing elementary instruction. With the ongoing industrialisation process and growing global trade, technical education for industry and commerce acquired increasing relevance as well. Changes in higher education had an impact on elite formation and scientific research. Education was an integral part of civilisation and modernity, as contemporaries perceived them. From this perspective the central role of education at the exhibitions is no longer surprising.

The exhibits presented nearly all aspects of contemporary education. They gave rise to often pathetic discourses that linked education to the individual, society and abstract concepts such as the nation and progress. The institutional organisation of primary, secondary and higher education was the most central and pressing issue. These organisational issues ranged from general questions on the advantages of national, state and local supervision through the organisation of teacher training and payment to questions relating to the coeducation of girls and boys. The exhibits showed all imaginable material aspects of education, too. The pedagogical organisation was at stake when the exhibits aimed at demonstrating the advantages of graded schools or object teaching, for example. The actual contents taught in classes

was an important dimension, too, for example when manual training began to make its way into the curricula.<sup>1</sup>

Administrators of education systems carried out reforms in separate, mostly national, political and bureaucratic spaces. This fragmentation disconnected experts from one another. Nevertheless education experts everywhere felt the need to discuss reforms with their colleagues from other institutional spaces. These discussions took different forms. They frequently fostered the careful investigation of foreign educational systems; but they could also develop into an arrogant staging of one's own achievements and presumed superiority. World exhibitions were one of the most important arenas for the transnational circulation of educational knowledge. World exhibitions required historical actors to cross borders, or to address foreign visitors in their own country. International exhibitions were expressions of a sociability that allowed people from all over the world to come together and interact. They were one of the "few genuinely international cultural institutions"<sup>2</sup> of their time.

Focusing on this transnational dimension, this thesis is concerned with analysing exhibitions as media for professional and specialist communication on education. The thesis is concerned with the role of education experts, especially those from France, Germany, Japan and the United States. In fact, the most eminent educational administrators of their time were engaged in the organisation of world exhibitions and participated in them. They included the American Henry Barnard (1811-1900), the French Ferdinand Buisson (1841-1932), the Japanese Tanaka Fujimaro (田中不

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<sup>1</sup> Jean-Michel Chapoulie distinguished between the institutional and pedagogical organisation as well as the contents of instruction in order to analyse an education system. See CHAPOULIE, Jean-Michel, « L'organisation de l'enseignement primaire de la IIIe République: ses origines provinciales et parisiennes, 1850-1880 », in: *Histoire de l'éducation*, 105, 2005, p. 3-44. Reference to the material organisation and the discourses on the education system may broaden this scheme.

<sup>2</sup> GEPPERT, Alexander C. T., « Supermen in the Exhibition World: Imre Kiralfy, Ludwig Max Goldberger and Other Imperial Networkers », Paper for the Sixth International Conference on Urban History, University of Edinburgh, September 2002, [http://esh.ed.ac.uk/urban\\_history/text/geppertM3.doc](http://esh.ed.ac.uk/urban_history/text/geppertM3.doc), accessed on 08 March 2007.

二磨, 1845-1909) and the Prussian Friedrich Althoff (1839-1908), to cite some famous examples.

Against this background the thesis proposes an interpretation of the educational exhibits in a transnational perspective. Investigating the activities of education experts in an actor-centred perspective, this thesis is a socio-cultural history of an intellectual and administrative elite in an age of globalisation. Concentrating on actors from different institutional backgrounds and countries, this thesis is a comparative history of transnational appropriations and self-representations. In this way, this research contributes a new piece to the “archaeological jigsaw of cultural transfers”.<sup>3</sup>

The motivations and intentions of the historical actors are at the core of my interest. Who precisely were the historical actors who prepared and visited the exhibitions? Why did education experts spend so much time and financial resources on the preparation of educational exhibits? Why did they undertake exhausting travels to visit world exhibitions? Bearing in mind the border-crossing dimension of world exhibitions, the thesis asks why education experts went transnational. Secondly, the thesis asks which were the major educational themes that were discussed at the exhibitions and why? This will show how world exhibitions contributed to the circulation of educational knowledge. Moreover, the thesis asks what the study of the practices of education experts at world exhibitions reveals about globalisation during the second half of the nineteenth century.

## **Historiography**

In answering the research questions this thesis draws on a rich scholarly literature in three sub-fields of historiography: the history of education, the history of

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<sup>3</sup> MIDDELL, Matthias, « Kulturtransfer und transnationale Geschichte », in: MIDDELL, Matthias (ed.), *Dimensionen der Kultur- und Gesellschaftsgeschichte: Festschrift für Hannes Siegrist zum 60. Geburtstag*, Leipzig, Leipziger Universitätsverlag, 2007, p. 49-72, here p. 65.

exhibitions in the nineteenth century and conceptual works in the field of transnational history. The history of education constitutes the first set of consulted research literature. As this thesis concentrates on education experts from France, Germany, Japan and the United States, it draws on works on the history of primary, secondary and higher education in these four countries. Moreover, the history of technical education is closely related to the history of science. Research literature on transnational aspects in these countries, especially when already focusing on exhibitions, receives particular attention in this survey.<sup>4</sup>

There is a vast scholarly literature on French education.<sup>5</sup> Most studies on primary education focus on the relationship between Republicanism and education at the beginning of the Third Republic in a national framework.<sup>6</sup> Transnational aspects of primary education have so far only been treated marginally.<sup>7</sup> Because of its high standing and efficiency in the nineteenth century, technical education in France attracted scholarly attention.<sup>8</sup> So far, the transnational circulation of educational knowledge involving France has been studied most extensively for the sector of

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<sup>4</sup> On the history of education in Europe see COMPERE, Marie Madeleine, *L'histoire de l'éducation en Europe: essai comparatif sur la façon dont elle s'écrit*, Paris, Institut national de recherche pédagogique/Peter Lang, 1995.

<sup>5</sup> General introductions to French education in the nineteenth century provide MAYEUR, Françoise, *Histoire générale de l'enseignement et de l'éducation en France. Tome III, De la Révolution à l'École républicaine, 1789-1930*, Paris, Perrin, 2004 and PROST, Antoine, *Histoire de l'enseignement en France, 1800-1967*, Paris, Armand Colin, 1968.

<sup>6</sup> See for example OZOUF, Jacques, OZOUF, Mona, *La république des instituteurs*, Paris, Gallimard/Le Seuil, 2000.

<sup>7</sup> BASTOS, Maria Helena Camara, « Leituras da Ilustração Brasileira: Célestin Hippeau (1803-1883) », in: *Revista brasileira de história da educação*, 3, 1, 2002, p. 67-112; CASPARD, Pierre, « Reflektieren Spiegel? Bausteine zu einer vergleichenden Betrachtung der unentgeltlichen und entkonfessionalisierten Pflichtschule in Frankreich und in der Schweiz », in: HOFSTETTER, Rita (ed.), *Eine Schule für die Demokratie: zur Entwicklung der Volksschule in der Schweiz im 19. Jahrhundert*, Bern, Lang, 1999, p. 377-401; GERBOD, Paul, « L'enseignement à l'étranger vu par les pédagogues français (1800-1914) – Approche bibliographique », in: *Histoire de l'éducation*, 5, 1979, p. 19-29; MATASCI, Damiano, « Le système scolaire français et ses miroirs. Les missions pédagogiques entre comparaison internationale et circulation des savoirs (1842-1914) », in: *Histoire de l'éducation*, 125, 2010; TROUILLET, Bernard, *"Der Sieg des preußischen Schulmeisters" und seine Folgen für Frankreich 1870-1914*, Köln, Böhlau, 1991.

<sup>8</sup> FOX, Robert, WEISZ, George (eds.), *The Organization of science and technology in France: 1808-1914*, Cambridge/Paris, Cambridge University Press/Éditions de la Maison des sciences de l'homme, 1980.

higher education, especially in the research by Christophe Charle.<sup>9</sup> This research underlined the importance of the German model of university organisation for French reforms throughout the nineteenth century.<sup>10</sup> The role of world exhibitions for the French context has rarely been approached in a systematic way.<sup>11</sup>

Despite the administrative fragmentation of education in the German states, historical research almost unanimously adopted a Prussian-centred national framework.<sup>12</sup> Only recently has scholarship refocused on particular states, as in the works by Sylvia Kesper-Biermann on Kurhessen and Hans-Martin Moderow on Saxony.<sup>13</sup> This translates into a renewed interest for the intra-German circulation of experts and concepts. Bernd Zymek's work on reporting on foreign educational systems in German pedagogical journals was an early contribution to transnational issues in the history of education.<sup>14</sup> The works of Eckhardt Fuchs are crucial for formulating transnational perspectives, especially with reference to German-American contacts and the participation in world exhibitions.<sup>15</sup> Research on technical

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<sup>9</sup> CHARLE, Christophe, *La République des universitaires: 1870-1940*, Paris, Seuil, 1994. On French higher education see RINGER, Fritz, *Fields of Knowledge: French Academic Culture in Comparative Perspective, 1890-1920*, Cambridge, Cambridge University Press/Maison des Sciences de l'Homme, 1992 and WEISZ, George, *The Emergence of modern universities in France: 1863-1914*, Princeton, Princeton University Press, 1983.

<sup>10</sup> SCHALENBERG, Marc, *Humboldt auf Reisen?: Die Rezeption des "deutschen Universitätsmodells" in den französischen und britischen Reformdiskursen (1810 - 1870)*, Basel, Schwabe, 2002.

<sup>11</sup> NOVOA, António Manuel Sampaio da, *La construction du 'modèle scolaire' dans l'Europe du Sud-Ouest (Espagne, France, Portugal): des années 1860 aux années 1920*, sous la direction de Jean-Noël Luc, thèse de doctorat, Paris IV, 2006, p. 237-292.

<sup>12</sup> BERG, Christa (ed.), *Handbuch der deutschen Bildungsgeschichte. Band 4. 1870-1918: von der Reichsgründung bis zum Ende des Ersten Weltkriegs*, München, Beck, 1991.

<sup>13</sup> KESPER-BIERMANN, Sylvia, *Staat und Schule in Kurhessen 1813-1866*, Göttingen, Vandenhoeck & Ruprecht, 2001; MODEROW, Hans-Martin, *Volksschule zwischen Staat und Kirche: das Beispiel Sachsen im 18. und 19. Jahrhundert*, Köln et al., Böhlau, 2007; See also GREEN, Abigail, *Fatherlands: State-Building and Nationhood in Nineteenth-Century Germany*, Cambridge, Cambridge University Press, 2001, p. 189-222.

<sup>14</sup> ZYMEK, Bernd, *Das Ausland als Argument in der pädagogischen Reformdiskussion: schulpolitische Selbstrechtfertigung, Auslandspropaganda, internationale Verständigung und Ansätze zu einer vergleichenden Erziehungswissenschaft in der internationalen Berichterstattung deutscher pädagogischer Zeitschriften, 1871-1952*, Ratingen/Kastellaun, Henn, 1975.

<sup>15</sup> With references to exhibitions see FUCHS, Eckhardt, in: « Gouvernentaler Internationalismus und Bildung: Deutschland und die USA am Anfang des 20. Jahrhunderts », in: SCHRIEWER, Jürgen, *Weltkultur und kulturelle Bedeutungswelten: Zur Globalisierung von Bildungsdiskursen*, Frankfurt am Main, Campus, 2007, p. 45-73.

education, especially in the lower grades, is relatively underdeveloped.<sup>16</sup> The German higher education sector early engendered interest in issues of transnational circulation.<sup>17</sup>

The history of Japanese education is easily accessible in languages other than Japanese. As the appropriation of foreign organisational patterns after the Meiji restoration was a distinctive Japanese policy, the description of transfers of educational policies to Japan is part of nearly all syntheses of the Japanese history of education.<sup>18</sup> Most scholars stress a transpacific dimension, concentrating on links between Japan and the United States.<sup>19</sup> The contacts between Japanese and European, especially Prussian, education have been studied to a lesser extent.<sup>20</sup> Recent analyses have taken into account the difficulties and resistances in implementing a national education system in Meiji Japan, increasingly focusing on the local level.<sup>21</sup> Nobuhiro Miyoshi has studied the history of Japanese technical

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<sup>16</sup> LUNDGREEN, Peter, « Fachschulen », in: JEISMANN, Karl-Ernst, LUNDGREEN, Peter (eds), *Handbuch der deutschen Bildungsgeschichte. Band 3. 1800-1870: Von der Neuordnung Deutschlands bis zur Gründung des Deutschen Reiches*, München, Beck, 1987, p. 293-305. But see the works by Philipp Gonon: GONON, Philipp, « Kaisertroue statt Internationalismus: Reformpädagogische Befindlichkeiten um die Jahrhundertwende », in: BÖHM, Winfried (ed.), *Reformpädagogik kontrovers*, Würzburg, ERGON-Verlag, 1995, p. 177-200.

<sup>17</sup> BROCKE, Bernhard von, « Der deutsch-amerikanische Professoren Austausch. Preußische Wissenschaftspolitik, Internationale Wirtschaftsbeziehungen und die Anfänge einer deutschen auswärtigen Kulturpolitik vor dem Ersten Weltkrieg », in: *Zeitschrift für Kulturaustausch*, 31, 1981, p. 128-182; BRUCH, Rüdiger vom, « Gesellschaftliche Initiativen in den auswärtigen Kulturbeziehungen Deutschlands vor 1914. Der Beitrag des deutschen Bildungsbürgertums », in: *Zeitschrift für Kulturaustausch*, 31, 1981, p. 43-67; SCHWINGES, Rainer Christophe (ed.), *Humboldt international: der Export des deutschen Universitätsmodells im 19. und 20. Jahrhundert*, Basel, Schwabe, 2001.

<sup>18</sup> See recently DUKE, Benjamin C., *The History of Modern Japanese Education: Constructing the National School System, 1872-1890*, New Brunswick, Rutgers University Press, 2009.

<sup>19</sup> In the Japanese context the works of Ishizuki Minoru were of foremost importance, for example ISHIZUKI, Minoru, *Sekai to Deau Nihon no Kyōiku*, Tōkyō, Kyōiku Kaihatsu Kenkyusho, 1992. An empirical study is LINCICOME, Mark Elwood, *Principle, Praxis, and the Politics of Educational Reform in Meiji Japan*, Honolulu, University of Hawaii Press, 1995, Honolulu, University of Hawaii Press, 1995.

<sup>20</sup> OGASAWARA, Michio, « Die Rezeption der deutschen Pädagogik und deren Entwicklung in Japan », in: *Jahrbuch für historische Bildungsforschung*, 11, 2005, p. 283-298. Two studies concentrate on the role of Emil Hausknecht: MÖLLER, Jörg, *Damit 'in keinem Haus ein Unwissender zu finden sei.' Zum Wirken von Emil Hausknecht und der Herbart-Rezeption in Japan*, München, Iudicium, 1995; TERASAKI, Masao, TAKENAKA, Teruo, KUREMATSU, Kahoru, *Oyatoi kyōshi Hausukunehito no kenkyū*, Tōkyō, Tōkyō Daigaku Shuppankai, 1991.

<sup>21</sup> PLATT, Brian, *Burning and Building: Schooling and State Formation in Japan, 1750-1890*, Cambridge, Harvard University Asia Center, 2004; SCHWEBER, Abigail, *Imposing Education: the*

education.<sup>22</sup> In this field of instruction relations between Japan and Britain prevailed. Japanese higher education and science saw fundamental changes during the Meiji era.<sup>23</sup> The central role of world exhibitions for the institutionalisation of Japanese education is an established fact in research literature. Some of the aforementioned works already include world exhibitions in their considerations.<sup>24</sup> In a recent article Komatsu Kayoko analysed the impact of international exhibitions on Japanese education, through the involvement of the Tokyo Educational Museum.<sup>25</sup> Japanese higher education has been studied in a transnational dimension, too.<sup>26</sup>

In contrast to their French colleagues, American historians of education have been reconsidering earlier optimistic teleological accounts on the implementation of the Republican education systems since the 1960s.<sup>27</sup> These revisionist historians have

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*Establishment of Japan's First National Education System, 1872-1879*, PhD dissertation, University of Michigan, 2003.

<sup>22</sup> For example MIYOSHI, Nobuhiro, *Tejima Seiichi to nihon kōgyo kyōiku hattatsushi*, Tōkyō, Fūgen shōbo, 1999. Unfortunately only one of his books has been translated into English: MIYOSHI, Nobuhiro, *Henry Dyer: Pioneer of Engineering Education in Japan. Translated by Takuji and Aiko Sarada*, Folkstone, Global Oriental, 2004.

<sup>23</sup> BARTHOLOMEW, James R., *The formation of science in Japan*, New Haven, Yale University Press, 1989; NAKAYAMA, Shigeru, *Academic and scientific traditions in China, Japan, and the West, translated by Jerry Dusenbury*, Tokyo, University of Tokyo Press, 1984.

<sup>24</sup> On Japanese education at world exhibitions see also GALAN, Christian, « Le nouveau paradigme éducatif du début de Meiji. Analyse d'une liasse de compositions écrites par des écoliers japonais durant les années 1870 », in: HORIUCHI, Annick (ed.), *Education au Japon et en Chine. Eléments d'histoire*, Paris, Les Indes savantes, 2006, p. 21-48; MIZUE, Chieko, « Building the Educational Museum – Japan's Encounter with Canada at the 1876 Expo », *JSAC 2006 Annual Conference*, Kamloops, British Columbia, 2006, [http://www.tru.ca/jsac2006/pdf/jsac2006\\_proceedings\\_mizoue\\_chieko\\_manuscript.Pdf](http://www.tru.ca/jsac2006/pdf/jsac2006_proceedings_mizoue_chieko_manuscript.Pdf). See the bibliography for works in Japanese.

<sup>25</sup> KOMATSU, Kayoko, « Formation and Transformation of Education in Japan through Exhibitions: Focused on the Educational Museum Founded in 1877 », in: LAWN, Martin (ed.), *Modelling the Future. Exhibitions and the Materiality of Education*, Oxford, Symposium Books, 2009, p. 73-86. In Japanese see SHIINA, Noritaka, *Nihon hakubutsukan seirisoshi: hakurankai kara hakubutsukan e*, Tōkyō, Yūzankaku Shuppan, 2005; HORIMATSU, Buichi, « Shobutsu Shikyo no Tenkai to Tōkyō Kyōiku Hakubutsukan no Yakuwari », in: *The Bulletin of Tokyo Gakugei University. Series I. Science of Education*, 20, 1969, p. 119-144.

<sup>26</sup> SCHWENTKER, Wolfgang, « Fremde Gelehrte. Japanische Nationalökonomien und Sozialreformer im Kaiserreich », in: HÜBINGER, Gangolf, MOMMSEN, Wolfgang J., *Intellektuelle im Deutschen Kaiserreich*, Frankfurt am Main, Fischer Taschenbuch Verlag, 1993, p. 172-197.

<sup>27</sup> There are two excellent review articles on the historiography of education in the United States: NOVOA, António, « La nouvelle Histoire américaine de l'éducation », in: *Histoire de l'éducation*, 73, 1997, p. 3-48; JABLONKA, Ivan, « Les historiens américains aux prises avec leur école. L'évolution récente de l'historiographie de l'éducation aux Etats-Unis (1961-2001) », in: *Histoire de l'éducation*, 89, 2001, p. 3-58. A good introduction to the American history of education from an outside

criticised negative aspects of education in the nineteenth century United States, such as the marginalisation of minority groups. Research analysed the change from early republican ideals towards the progressive education movement.<sup>28</sup> The development of American research universities is well documented, too.<sup>29</sup> The history of education in the United States has to a limited degree been opened up to transnational conceptualisations. Nevertheless it is well known that the public school reformers of the 1830s referred to German models.<sup>30</sup> The impact of the exhibit of the Russian polytechnic schools at the Centennial Exhibition is another example of the few episodes that found entry into synthesis on the history of American education.<sup>31</sup> Historians researched educational connections between the United States and Germany, especially in the field of higher education.<sup>32</sup> Until today no scholar has followed Lawrence Arthur Cremins' suggestion to write a "fascinating monograph" on the circulation of pedagogical ideas in the United States through exhibitions, though.<sup>33</sup>

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perspective provides MONTAGUTELLI, Malie, *Histoire de l'enseignement aux Etats-Unis*, Paris, Belin, 2000.

<sup>28</sup> TYACK, David, HANSOT, Elisabeth, *Managers of virtue: public school leadership in America, 1820-1980*, New York, Basic Books, 1982.

<sup>29</sup> VEYSEY, Laurence, *The Emergence of the American University*, Chicago, University of Chicago Press, 1965.

<sup>30</sup> See for example KAESTLE, Carl F., *Pillars of the republic: common schools and American society, 1780-1860*, New York, Hill and Wang, 1983, p. 73.

<sup>31</sup> Most pronounced in CREMIN, Lawrence Arthur, *The Transformation of the School: Progressivism in American Education, 1876-1957*, New York, Knopf, 1961, p. 25-29.

<sup>32</sup> GEITZ, Henry, HEIDEKING, Jürgen, HERBST, Jürgen (eds), *German influences on education in the United States to 1917*, Washington/Cambridge, German Historical Institute/Cambridge University Press, 1995; GOLDSCHMIDT, Dietrich, «Historical Interaction Between Higher Education in Germany and in the United States», in: TEICHLER, Ulrich, WASSER, Henry (eds), *German and American Universities: Mutual Influences, Past and Present*, Kassel, Wissenschaftliches Zentrum für Berufs- und Hochschulforschung der Gesamthochschule Kassel, 1992, p. 11-33; FÜSSL, Karl-Heinz, *Deutsch-amerikanischer Kulturaustausch im 20. Jahrhundert: Bildung, Wissenschaft, Politik*, Frankfurt am Main et al., Campus, 2004, p. 23-57; LÖSER, Philipp, STRUPP, Christoph (eds.), *Universität der Gelehrten - Universität der Experten: Adaptionen deutscher Wissenschaft in den USA des neunzehnten Jahrhunderts*, Stuttgart, Steiner, 2005.

<sup>33</sup> CREMIN, Lawrence Arthur, *The Wonderful World of Ellwood Patterson Cubberley: An Essay on the Historiography of American Education*, New York, Teachers College – Columbia university, 1965, p. 58.

Concerning scholarship with a wider than national focus, there are syntheses on education in a global or at least European perspective.<sup>34</sup> The writings of the institutionalist Stanford School analysed the diffusion of mass schooling throughout the world. Applying a macro-sociological approach, these authors analysed this phenomenon as the progressive spread of a world ideology.<sup>35</sup> The history of universities gained attention from a European perspective.<sup>36</sup> The same is true for major debates on secondary education.<sup>37</sup> The works of Jürgen Schriewer in comparative education and the history of education were influential. Eckhardt Fuchs' publications provide empirical insight into the circulation of ideas in the field of education. The research of Marcelo Caruso discussed the transnational circulation of the monitorial system of instruction and paid particular attention to the transnational circulation of this pedagogical form.<sup>38</sup> Some transnational studies on education at world exhibitions have inquired into the materialities of education.<sup>39</sup> The only monographic study on educational exhibits at world exhibitions so far has been on

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<sup>34</sup> FRIJHOFF, Willem, *L'offre d'école: éléments pour une étude comparée des politiques éducatives au XIXe siècle: actes du Troisième colloque international, Sèvres, 27-30 septembre 1981*, Paris, Publications de la Sorbonne/Institut national de recherche pédagogique, 1983; SCHMALE, Wolfgang, DODDE, Nan L. (eds), *Revolution des Wissens? Europa und seine Schulen im Zeitalter der Aufklärung (1750-1825). Ein Handbuch zur europäischen Schulgeschichte*, Bochum, Winkler, 1991; STEARNS, Peter N., *Schools and students in industrial society: Japan and the West, 1870-1940*, Boston, Bedford Books, 1998.

<sup>35</sup> BOLI, John, RAMIREZ, Francisco O., MEYER, John W., « Explaining the Origins and Expansion of Mass Education », in: *Comparative Education Review*, 29, 1985, p. 145-170.

<sup>36</sup> CHARLE, Christophe, VERGER, Jacques, *Histoire des universités*, Paris, Presses Universitaires de France, 1994; RÜEGG, Walter (ed.), *Geschichte der Universität in Europa. Band III. Vom 19. Jahrhundert zum Zweiten Weltkrieg (1800-1945)*, München, Beck, 2004.

<sup>37</sup> RINGER, Fritz K., *Education and society in modern Europe*, Bloomington/London, Indiana University Press, 1979.

<sup>38</sup> Among the numerous articles see for example CARUSO, Marcelo, « Locating Educational Authority: teaching monitors, educational meanings and the importing of pedagogical models. Spain and the German States in the Nineteenth Century », in: PHILLIPS, David, OCHS, Kimberley (eds), *Educational policy borrowing: historical perspectives*, Oxford, Symposium Books, 2004, p. 59-87.

<sup>39</sup> LAWN, Martin, GROSVENOR, Ian (eds), *Materialities of schooling: design, technology, objects, routines*, Oxford, Symposium Books, 2005; LAWN, Martin (ed.), *Modelling the Future. Exhibitions and the Materiality of Education*, Oxford, Symposium Books, 2009.

Brazil.<sup>40</sup> More transnationally oriented literature in the history of education will be discussed in the conceptual section of the introduction.

The second set of research literature with relevance for this thesis is on the history of exhibitions in the nineteenth century. Some general works made an important contribution to the understanding of nineteenth century exhibitions.<sup>41</sup> Beyond numerous research articles, specialised monographs cover most of the larger expositions. This is the case for the Great Exhibition of London of 1851<sup>42</sup>, the Paris exhibitions of 1867<sup>43</sup>, 1889<sup>44</sup> and 1900<sup>45</sup>, as well as for the exhibitions of Vienna<sup>46</sup>, Philadelphia<sup>47</sup>, Chicago<sup>48</sup> and St. Louis<sup>49</sup>. Some publications focus on national participations in the exhibitions. For Germany, historians have analysed participation in the light of the national unification process and political cycles.<sup>50</sup> The Japanese

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<sup>40</sup> KUHLMANN, Moysés Jr., *As grandes festas didáticas: a educação brasileira e as exposições internacionais (1862-1922)*, Tese de doutoramento, FFLCH/USP, São Paulo, 1996.

<sup>41</sup> As general introductions see GREENHALGH, Paul, *Ephemeral vistas: the Expositions universelles, great exhibitions and world's fairs, 1851-1939*, Manchester, Manchester University Press, 1988; SCHROEDER-GUDEHUS, Brigitte, RASMUSSEN, Anne, *Les fastes du progrès: le guide des expositions universelles, 1851-1992*, Paris, Flammarion, 1992. An extensive literature review on European expositions provides GEPPERT, Alexander C.T., « Welttheater: Die Geschichte des europäischen Ausstellungswesens im 19. und 20. Jahrhundert. Ein Forschungsbericht », in: *Neue Politische Literatur*, 47, 1, 2002, p. 10-61. With a focus on the United States see RYDELL, Robert W., FINDLING, John E., PELLE, Kimberly D., *Fair America: World's fairs in the United States*, Washington, Smithsonian Institution Press, 2000.

<sup>42</sup> AUERBACH, Jeffrey A., *The Great Exhibition of 1851: A Nation on Display*, New Haven, Yale University Press, 1999; HALTERN, Utz, *Die Londoner Weltausstellung von 1851: Ein Beitrag zur Geschichte der bürgerlich-industriellen Gesellschaft im 19. Jahrhundert*, Münster, Aschendorff, 1971.

<sup>43</sup> Besides Volker Barth's study see also MAINARDI, Patricia, *Art and politics of the Second Empire: the universal expositions of 1855 and 1867*, New Haven, Yale University Press, 1987.

<sup>44</sup> ORY, Pascal, *L'expo universelle*, Bruxelles, Editions Complexe, 1989.

<sup>45</sup> MANDELL, Richard D., *Paris 1900: The Great World's Fair*, Toronto, University of Toronto Press, 1967.

<sup>46</sup> PEMSEL, Jutta, *Die Wiener Weltausstellung von 1873: Das gründerzeitliche Wien am Wendepunkt*, Wien/Köln, Böhlau, 1989.

<sup>47</sup> GIBERTI, Bruno, *Designing the Centennial: A History of the 1876 International Exhibition in Philadelphia*, Lexington, University Press of Kentucky, 2002.

<sup>48</sup> FINDLING, John E., *Chicago's great world's fairs*, Manchester, Manchester University Press, 1994.

<sup>49</sup> GILBERT, James, *Whose Fair? Experience, Memory, and the History of the Great St. Louis Exposition*, Chicago, University of Chicago Press, 2009.

<sup>50</sup> CORNELISSEN, Christoph, « Die politische und kulturelle Repräsentation des Deutschen Reiches auf den Weltausstellungen des 19. Jahrhunderts », in: *Geschichte in Wissenschaft und Unterricht*, 52, 3, 2001, p. 148-161; FUCHS, Eckhardt, « Das Deutsche Reich auf den Weltausstellungen vor dem Ersten Weltkrieg », in: *Comparativ*, 9, 5/6, 1999, p. 61-88; POHL, Heinz-Alfred, « Die Weltausstellungen im 19. Jahrhundert und die Nichtbeteiligung Deutschlands in den Jahren 1878 und

participation at world exhibitions also attracted scholarly interest, notably in conjunction with the modernisation of the country.<sup>51</sup> For the United States, the influential works of Robert Rydell focused on the ideology of the American middle class.<sup>52</sup>

Generally speaking, two historiographical approaches to the study of the great international exhibitions have emerged throughout the last decades, their main difference lying in the understanding of social interaction at the exhibitions. Firstly, there are various works of an actor-centered social and economic history. Utz Haltern virtually set the agenda of this thesis when writing that an analysis of the various exhibition reports would make possible a comparison of the technological, industrial, economic – and one may add educational – progress of participating countries. According to Haltern, such an analysis would reveal the communicative function of the exhibitions.<sup>53</sup> In the same way, Evelyn Kroker conceptualised world exhibitions as places where economic and other actors met on an international stage. These actors exchanged the state of the art of their field. When studying the participation of the heavy industry of the Ruhr area, Kroker has distinguished between a ‘giving’ and a ‘taking’ function of world exhibitions. The ‘giving’

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1889. Zum Problem der Ideologisierung der außenpolitischen Beziehungen in der zweiten Hälfte des 19. Jahrhunderts », in: *Mitteilungen des Instituts für Österreichische Geschichtsforschung*, 97, 1988, p. 381-425.

<sup>51</sup> CONANT, Ellen P., « Refractions of the Rising Sun: Japan's Participation in International Exhibitions, 1862-1910 », in: SATO, Tomoko, WATANABE, Toshio (eds), *Japan and Britain: an aesthetic dialogue 1850-1930*, London, Lund Humphries in association with the Barbican Art Gallery and Setagaya Art Museum, 1991, p. 79-92; HARRIS, Neil, « All the World a Melting Pot? Japan at American Fairs, 1876-1904 », in: IRIYE, Akira (ed.), *Mutual Images: Essays in American-Japanese Relations*, Cambridge, Harvard University Press, 1975, p. 24-54; LANGLOIS, Lisa Kaye, *Exhibiting Japan: Gender and National Identity at the World's Columbian Exposition of 1893*, PhD dissertation, University of Michigan, 2004; LOCKYER, Angus, *Japan at the Exhibitions, 1867-1970*, PhD dissertation, Stanford University, 2000. The main reference on exhibitions in Japanese is YOSHIMI, Shun.ya., *Hakurankai no Seijigaku*, Tōkyō, Chūkō Shinsho, 1992.

<sup>52</sup> RYDELL, Robert W., *All the World's a Fair: Visions of Empire at American International Expositions, 1876-1916*, Chicago, University of Chicago Press, 1987.

<sup>53</sup> HALTERN, Utz, *Die Londoner Weltausstellung von 1851: Ein Beitrag zur Geschichte der bürgerlich-industriellen Gesellschaft im 19. Jahrhundert*, Münster, Aschendorff, 1971, p.158-159. See also the excellent article HALTERN, Utz, « Die „Welt als Schaustellung“. Zur Funktion und Bedeutung der internationalen Industrieausstellung im 19. und 20. Jahrhundert », in: *Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte*, 60, 1, 1973, p. 1-40

function comprised representations prepared by the great industrial enterprises. The ‘taking function’, for Kroker, lay in the potential for technological innovation through participation in the exhibitions. Representatives of companies could study the exhibits of their colleagues and competitors from diverse countries and get in contact with them in a direct way. In this sense, Kroker analysed the circulation of technological knowledge through the exhibitions. Even though Kroker’s terminology did not yet offer the precision of today’s terminological tools in transnational history, her study remains an important piece of exhibition historiography.<sup>54</sup>

Exhibition studies experienced a cultural turn in the 1980s. Works inspired by cultural history have in most cases concentrated on cultural representations put forward by the organisers as representatives of national cultures. These works also conceptualised the exhibitions as media that transmit ideology from the organisers to the audience. Given the social realities of power relations, they studied how elites tried to influence masses according to their own concepts. To take an example for a study in cultural history, Volker Barth has recently argued that the 1867 exposition was materialised ideology.<sup>55</sup> In this light, the activities of the commissioner general Frédéric Le Play (1806-1882) and the president of the international jury Michel Chevalier (1806-1879) had decisive significance. Barth employed a communication model including sender, medium and recipients.<sup>56</sup> According to this scheme, a limited number of organisers used exhibits to influence visitors. Barth himself is sceptical regarding the capacity of organisers to put into practice their programme.

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<sup>54</sup> KROKER, Evelyn, *Die Weltausstellungen im 19. Jahrhundert: industrieller Leistungsnachweis, Konkurrenzverhalten und Kommunikationsfunktion unter Berücksichtigung der Montanindustrie des Ruhrgebietes zwischen 1851 und 1880*, Göttingen, Vandenhoeck & Ruprecht, 1975, p. 14-15, 20, 119-120. For a similar perspective see AHLSTRÖM, Göran, *Technological development and industrial exhibitions, 1850-1914: Sweden in an international perspective*, Lund/Bromley, Lund University Press/Chartwell-Bratt, 1996.

<sup>55</sup> BARTH, Volker, *Mensch versus Welt: Die Pariser Weltausstellung von 1867*, Darmstadt, Wissenschaftliche Buchgesellschaft, 2007, especially p. 12, 21-22.

<sup>56</sup> On this scheme more in detail see ORY, Pascal, *L’histoire culturelle*, Paris, PUF, 2004.

The exhibition acquired a dynamic of its own and became impossible to control for general organisers. The actual exhibition finally looked different compared to initial intentions.

Robert Rydell, too, studied the American expositions from a cultural perspective. Rydell notably stressed the racism inherent in American displays.<sup>57</sup> In the case of the London exhibitions recent research is also part of British imperial history, as is the case of Peter H. Hoffenberg's study. In a similar way to Barth, Hoffenberg uses a "reader response approach". For Hoffenberg, exhibitions were social texts which were authored by the organisers and read by visitors.<sup>58</sup> The reading did not necessarily correspond to the intended message. This resulted in the understanding that exhibitions were not coherent enterprises. Instead, their official messages could be contested and interpreted in different ways. With regard to the reciprocity of organisers and visitors two articles have been of particular importance. Tony Bennett spoke of an "exhibitionary complex."<sup>59</sup> He has drawn on Foucault's works on prisons as normalising agencies and argued that world exhibitions and museums were not institutions of refinement, but of an exhibition complex of disciplinary and power relations put forward by ruling elites. In turn, Bennett was criticised for taking into account exclusively organisers and neglecting visitors. From a visitor's perspective, Manon Niquette and William J. Buxton argued, exhibitions became media of reflexivity and negotiation of self-identity.<sup>60</sup> Also when taking into account a history of representations as proposed by Roger Chartier, the perspective of visitors

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<sup>57</sup> RYDELL, Robert W., *All the World's a Fair: Visions of Empire at American International Expositions, 1876-1916*, Chicago, University of Chicago Press, 1987.

<sup>58</sup> "Crystal Palace displays were the product not of the organizers' totalizing vision, but of negotiation and compromise between British organizers and potential exhibitors around the globe." HOFFENBERG, Peter H., *An Empire on Display: English, Indian, and Australian Exhibitions from the Crystal Palace to the Great War*, Berkeley, University of California Press, 2001, especially p.xvi-xviii, quote p. xviii.

<sup>59</sup> BENNETT, Tony, « The Exhibitionary Complex », in: *New Formations*, 4, 1988, p. 73-102.

<sup>60</sup> NIQUETTE, Manon, BUXTON, William J., « Meet Me at the Fair: Sociability and Reflexivity in Nineteenth-Century World Expositions », in: *Canadian Journal of Communication*, 22, 1997, p. 81-113.

is increasingly taken into account.<sup>61</sup> Combining the normalising moment and reflexivity, Thomas Großbölting recently analysed German industrial exhibitions as “Deutungsangebote und Erfahrungsorte für den technischen und industriellen Fortschritt, die Ausbildung der Konsumgesellschaft, die Verlockungen und Angebote einer entstehenden Freizeitindustrie.”<sup>62</sup>

Alexander C.T. Geppert has studied the great European exhibitions of the turn of the century in a perspective of cultural history, although his approach has been more comprehensive. Geppert criticised the emphasis on identity of many historical studies on exhibitions, calling identity a “conceptional chimaera”.<sup>63</sup> He has also discussed the spatial dimension of expositions, especially regarding their relation to the urban context.<sup>64</sup> Furthermore, Geppert has uncovered transnational networks of exhibition organisers.<sup>65</sup> Attempting to theorise great international exhibitions, Geppert insisted on the exhibitions’ isomorphism, their transitory character and their role as chronotopes, that is their invitation to time travels.<sup>66</sup>

Research literature on global transfers, entanglements and comparisons makes up the third set of research literature. The notion of transnational history engendered a vast amount of scholarly literature within the last decades. Historians have started to

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<sup>61</sup> “L’appropriation telle que nous l’entendons vise une histoire sociale des usages et des interprétations, rapportés à leurs déterminations fondamentales et inscrits dans les pratiques spécifiques qui les produisent.” CHARTIER, Roger, « Le monde comme représentation », in: *Annales ESC*, 44, 6, 1989, p. 1505-1520, here p. 1511.

<sup>62</sup> GROSSBÖLTING, Thomas, *“Im Reich der Arbeit”. Die Repräsentation gesellschaftlicher Ordnung in den deutschen Industrie- und Gewerbeausstellungen 1790-1914*, München, Oldenbourg Wissenschaftsverlag, 2008, p. 11. The quote also insists on the role of exhibitions for the development of consumerism.

<sup>63</sup> GEPPERT, Alexander C. T., « Exponierte Identitäten? Imperiale Ausstellungen, ihre Besucher und das Problem der Wahrnehmung, 1870-1930 », in: HIRSCHHAUSEN, Ulrike von, LEONHARD, Jörn (eds.), *Nationalismen in Europa: West- und Osteuropa im Vergleich*, Göttingen, Wallstein, 2001, p. 180-203, here p. 199.

<sup>64</sup> GEPPERT, Alexander C. T., « Luoghi, città, prospettive: le esposizioni e l’urbanistica fin-de-siècle », in: *Memoria e Ricerca*, 12, 2003, p. 115-136.

<sup>65</sup> GEPPERT, « Supermen in the Exhibition World ».

<sup>66</sup> GEPPERT, Alexander C. T., « Città brevi: storia, storiografia e teoria delle pratiche espositive europee, 1851-2000 », in: *Memoria e Ricerca*, 17, 2004, p. 7-18, here p. 12-13.

inquire into the historical dimension of globalisation.<sup>67</sup> Debates on the relationship between nationalism and internationalism during the latter half of the nineteenth century are of particular interest. This period appears as a time of reinforced global interaction. Economic historians speak of a first globalisation.<sup>68</sup> The question of how to locate different parts of the world entailed the need to study the nation from a global perspective.<sup>69</sup> Comparisons, such as between Germany and Japan, also provide valuable insights.<sup>70</sup> Charles Maier introduced the term territoriality as a decisive feature of the period from 1860 to 1960, pointing out that the nation became the dominant form of societal organisation on a global scale.<sup>71</sup> Other studies attributed less importance to the nation. Pierre-Yves Saunier, for example, analysed the circulation of know-how on municipal governance in the late nineteenth and early twentieth centuries.<sup>72</sup> Rather than engaging in methodological discussions, the practical side of this literature will be outlined when presenting the concepts and methods. The debate on transnational history provides us with a toolbox of methodologies that can be applied for this research.

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<sup>67</sup> BRIGHT, Charles, GEYER, Michael, « World history in a global age », in: *American Historical Review*, 100, 4, 1995, p. 1034-1060; OSTERHAMMEL, Jürgen, PETERSSON, Niels P., *Geschichte der Globalisierung. Dimensionen, Prozesse, Epochen*, München, Beck, 2003.

<sup>68</sup> O'ROURKE, Kevin H., WILLIAMSON, Jeffrey G., *Globalization and History: the Evolution of a Nineteenth-Century Atlantic Economy*, Cambridge, MIT Press, 1999.

<sup>69</sup> For Germany see CONRAD, Sebastian, *Globalisierung und Nation im Deutschen Kaiserreich*, München, C. H. Beck, 2006, for the United States see BENDER, Thomas, *A Nation Among Nations. America's Place in World History*, New York, Hill and Wang, 2006; TYRELL, Ian, *Transnational Nation. United States History in Global Perspective since 1789*, Houndmills, Palgrave Macmillan, 2007.

<sup>70</sup> GEYER, Michael, « Deutschland und Japan im Zeitalter der Globalisierung. Überlegungen zu einer komparativen Geschichte jenseits des Modernisierungs-Paradigmas », in: CONRAD, Sebastian, OSTERHAMMEL, Jürgen (eds.), *Das Kaiserreich transnational. Deutschland in der Welt 1871-1914*, Göttingen, Vandenhoeck & Ruprecht, 2004, p. 68-86; MARTIN, Bernd, *Japan and Germany in the Modern World*, Providence/Oxford, Berghahn Books, 1995. On Japan see also MORRIS-SUZUKI, Tessa, *Re-inventing Japan: time, space, nation*, Armonk, M.E. Sharpe, 1998.

<sup>71</sup> MAIER, Charles S., « Consigning the Twentieth Century to History: Alternative Narratives for the Modern Era », in: *American Historical Review*, 105, 3, 2000, p. 807-831.

<sup>72</sup> See for example SAUNIER, Pierre-Yves, « La toile municipale aux XIXe et XXe siècles: un panorama vu d'Europe », in: *Urban History Review/Revue d'Histoire Urbaine*, 34, 2, 2006, p.163-176.

## Concepts

This thesis uses a number of concepts in order to understand the role of historical actors and to analyse their transnational activities. As Marc Bloch once remarked, historiography is the science of human beings in time.<sup>73</sup> Hence, even when studying phenomena that potentially affected the entire globe, individuals remain the basic reference for historians. This is also why this thesis has a strong dimension of social history. It notably refers to debates in the French and German contexts where, as elsewhere, social history has liberated itself from the excessive macro focus on large aggregate groups and developed more sophisticated sociocultural approaches that also implied a *retour de l'acteur* stressing the micro perspective. Here, the historical actors and their strategies are at the centre of interest. Social realities are analysed as historical constructions of actors.<sup>74</sup> As Jürgen Kocka puts it, social history provides a historian of global phenomena with sober empiricism.<sup>75</sup>

This thesis inquires into the activities of education experts as an intellectual and administrative elite.<sup>76</sup> It is therefore essential to analyse the composition of this group and to find out “who the guys were”.<sup>77</sup> They were born at specific paces and dates, had names, addresses and institutional affiliations; and they came from different backgrounds and had specific interests; they stayed in contact with

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<sup>73</sup> BLOCH, Marc, *Apologie pour l'histoire ou le métier d'historien*, Paris, Armand Colin, 1949, p. 4.

<sup>74</sup> CHARLE, Christophe (ed.), *Histoire sociale, histoire globale? Actes du colloque des 27-28 janvier 1989, organisé par l'Institut d'histoire moderne et contemporaine*, Paris, Editions de la Maison des sciences de l'homme, 1993. See also DELACROIX, Christian, DOSSE, François, GARCIA, Patrick, *Les courants historiques en France: XIXe-XXe siècle. Edition revue et augmentée*, Paris, Gallimard, 2007, p. 484-525.

<sup>75</sup> “Die Sozialgeschichte hat den Globalhistorikern vieles zu bieten: vor allem nüchterne Empirie als antispekulatives Widerlager und Angebot zur Ursachenanalyse.” KOCKA, Jürgen, « Sozialgeschichte im Zeitalter der Globalisierung », in: *Merkur. Deutsche Zeitschrift für europäisches Denken*, 60, 4, 2006, p. 305-316, here p. 316.

<sup>76</sup> For a detailed discussion of education experts see below, part one, chapter III, section 1.

<sup>77</sup> PYENSON, Lewis, « ‘Who the Guys Were’: Prosopography in the History of Science », in: *History of Science*, 15, 3, 1977, p. 155-188. On prosopographic approaches see also PERRONET, Michel, « Pour un renouveau des études biographiques: approches méthodiques », in: *Actes du 91e Congrès des Sociétés Savantes, Rennes, 1966*, Paris, Bibliothèque nationale, 1969, p. 7-18 and STONE, Laurence, « Prosopography », in: GILBERT, Felix, GRAUBARD, Stephen R., *Historical Studies Today*, New York, Norton, 1972, p. 107-140.

colleagues for professional and private reasons. This information is obtained through a prosopographical analysis. Collective biographies thus inform us about individual paths and typical career patterns. Such a type of approach has also been used by the proponents of micro-analyses, such as *microstoria*.<sup>78</sup>

Discussions around the spatial turn are currently amongst the most fascinating in historiography.<sup>79</sup> Thus, firstly, the insertion of actors into space is a central question when applying an actor-centred approach. Historians have suggested different ways of empirically analysing this relationship. Paul-André Rosental has proposed the notion of *espace investi* in the history of migration. The “invested space” of an individual for him describes the space a person actively regards as his or her domestic surrounding.<sup>80</sup> This concept can be employed for this thesis. For the purpose of studying education experts, their institutional affiliations are crucial for analysing their invested spaces. For an education expert the invested space was the space on which his decisions directly impacted. The space administered by a ministry of education, for example, or a school supervised by its director were such invested spaces. Charles Maier has termed these spaces “decision spaces”.<sup>81</sup> Sylvia Kesper-Biermann in turn, with a stronger focus on the history of education, has

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<sup>78</sup> On micro-history see also GINZBURG, Carlo, PONI, Carlo, « Il nome e il come: Scambio ineguale e mercato storiografico », in: *Quaderni storici*, 14, 1, 1979, p. 181-190; LEVI, Giovanni, « Les usages de la biographie », in: *Annales ESC*, 44, 6, 1989, p. 1325-1336; LEVI, Giovanni, « On Microhistory », in: BURKE, Peter (ed.), *New Perspectives on Historical Writing*, University Park, Pennsylvania State University Press, 1995, p. 93-113. For a micro-historical approach to transnational history see HAUSBERGER, Bernd, « Globalgeschichte als Lebensgeschichte(n) », in: HAUSBERGER, Bernd (ed.), *Globale Lebensläufe: Menschen als Akteure des weltgeschichtlichen Geschehens*, Wien, Mandelbaum-Verlag, 2006, p. 9-27 and WOOLLACOTT, Angela, DEACON, Desley, RUSSELL, Penny (eds), *Transnational Lives. Biographies of Global Modernity, 1700-present*, Palgrave Macmillan, 2010.

<sup>79</sup> MIDDELL, Matthias, « Der Spatial Turn und das Interesse an der Globalisierung in der Geschichtswissenschaft », in: DÖRING, Jörg, THIELMANN, Tristan (eds), *Spatial Turn. Das Raumparadigma in den Kultur- und Sozialwissenschaften*, Bielefeld, Transcript, 2008, p. 103-124.

<sup>80</sup> “L’espace investi [...] est celui dans lequel sont censés s’incarner les objectifs visés par l’individu.” ROSENTAL, Paul-André, « Maintien/rupture: un nouveau couple pour l’analyse des migrations », in: *Annales ESC*, 6, 1990, p. 1403-1431, here p. 1408.

<sup>81</sup> MAIER, « Consigning the Twentieth Century to History », p. 816.

called them “educational spaces”.<sup>82</sup> Throughout this thesis, however, the expression “one’s own institutional context” is used.

Secondly, a micro-historical approach also makes it possible to locate individual actors and their activities within differentiated spatial frameworks, from the local to the global level. This corresponds to the *jeux d’échelles* proposed by Jacques Revel. According to Revel, a micro-analysis is based on two assumptions:

“Il pose, en premier lieu, que chaque acteur historique participe, de façon proche ou lointaine, à des processus – et donc s’inscrit dans des contextes – de dimensions et de niveaux variables, du plus local au plus global. *Il n’existe donc pas d’hiatus, moins encore d’opposition entre histoire locale et histoire globale.* Ce que l’expérience d’un individu, d’un groupe, d’un espace permet de saisir, c’est une modulation particulière de l’histoire globale. Particulière et originale car ce qui le point de vue micro-historique offre à l’observation, ce n’est pas une version atténuée, ou partielle, ou mutilée de réalités macro-sociales: c’en est, et c’est le second point, une version différente.”<sup>83</sup>

In other words, Revel suggests that a micro-analysis can help us to understand larger processes. Following Revel one can analyse a school director as the head of one particular institution in a particular city, as an official of a national ministry of education and someone who was well integrated in transnational networks. When a director of a single school saw himself as a representative of a national education system, his self-perception creates an “identity space”, in Charles Maier’s words.<sup>84</sup> This reconstruction of space prevents us from adapting simplifying national perspectives. Concrete individual actors, not nation-states, are thus the basic units of this study. Still, the invested space of an educator can be national. The national level is one spatial configuration of many. In fact, only a detailed analysis will show within which spaces transferred knowledge was applied and which spatial entities

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<sup>82</sup> KESPER-BIERMANN, Sylvia, « Kommunikation, Austausch, Transfer. Bildungsräume im 19. Jahrhundert », in: KESPER-BIERMANN, Sylvia, WISCHMEYER, Johannes, *Transnationale Bildungsräume im 19. Jahrhundert. Wissenstransfers im Schul- und Hochschulsektor – Pädagogik, Theologie, Jurisprudenz*, Mainz, Institut für europäische Geschichte, 2010 (forthcoming).

<sup>83</sup> REVEL, Jacques, « Micro-analyse et construction du social », in: REVEL, Jacques (ed.), *Jeux d’échelles. La micro-analyse de l’expérience*, Paris, Seuil, 1996, p. 15-36, here p. 26. I am emphasising.

<sup>84</sup> MAIER, « Consigning the Twentieth Century to History », p. 816.

educational exhibits did represent. Two paradigmatic examples can illustrate this issue. Ferdinand Buisson was affiliated to the Ministry of Education of the centralised French state. His activities almost exclusively concerned the national level. The case of Alwin Pabst, the director of the *Deutsche Lehrerbildungsanstalt für Knabenhandarbeit* in Leipzig, in contrast, involves multiple spatial levels. As the director, he had direct power over his own school. Furthermore, he was well integrated in the municipal context of Leipzig. Pabst was an official of the Saxon Ministry of Education which paid his salary. Above the federal state context, Pabst also invested resources in the national level as a leading figure in the *Deutscher Verein für Knabenhandarbeit*.

Thirdly, a micro-historical perspective permits the deconstruction of the inner social context of the analysed spaces. Neither nation-states nor national ministries were socially unified forces that could subordinate all related individuals. Dominant positions in national discursive fields did not represent an essentialist national nature, but relied on power relations.<sup>85</sup> It is therefore important to insist on the diversity of actors and interests. The micro approach also permits the differentiation between the social positions of actors. Some were in leading positions and could implement their ideas on the institutional level. Others were in subordinate positions and their actions had only a limited impact. This thesis therefore presents a variety of possibilities which do not necessarily fit into homogenous (national) patterns:

“En prenant en compte dans leurs analyses une pluralité de destins particuliers, [les micro-historiens] cherchent à reconstituer un espace des possibles – en fonction des ressources propres à chaque individu ou à chaque groupe à l’intérieur d’une configuration donnée.”<sup>86</sup>

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<sup>85</sup> BOURDIEU, Pierre, « Les conditions sociales de la circulation internationale des idées », in: *Actes de la recherche en sciences sociales*, 145, 2002, p. 3-8.

<sup>86</sup> REVEL, « Micro-analyse et construction du social », p. 25.

Research has to take into account the political, social, and discursive positions of the actors involved. Actors were in very particular situations that drove them to “go transnational” and make cultural transfers. Reference to foreign models often was a way of contesting prevailing orthodoxies. The efforts of actors of cultural transfers were creative and frequently also intellectually rebellious and subversive. In the 1870s, for example, there was no consensual French participation in the educational sections of world exhibitions. Participation was highly politicised opposing Catholic and secular educators. Also, even the most impressive German educational exhibits in fact turned out to be Prussian educational exhibits, highly contested by actors from the remaining federal states and promoters of manual training. The educational sociologist Margaret Archer convincingly argued that explanations of educational change are to be found in internal, mostly national, debates. The struggles for educational control before the implementation of state educational systems were crucial moments. Dominant and subordinate social groups negotiated prospective institutional arrangements. This negotiation re-patterned the relationship between education and society. After major institutionalisations the opposition between these groups largely ceased and gave way to new hegemonic models.<sup>87</sup>

Actors went transnational whenever they crossed the boundaries of their own institutional space.<sup>88</sup> When “going transnational” education experts had specific intentions, pursued specific agendas and used conscious strategies. These strategies can be summarised in three categories. First, they went transnational in order to appropriate foreign features for their own institutions, to learn from abroad. The concept of cultural transfers is the best tool to analyse this practice. Second, they

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<sup>87</sup> ARCHER, Margaret S., *Social Origins of Educational Systems*, London, Sage Publications, 1984.

<sup>88</sup> Compare to MIDDELL, Matthias, NAUMANN, Katja, « Global history and the spatial turn: from the impact of area studies to the study of critical junctures of globalization », in: *Journal of Global History*, 2010, 5, 1, p. 149–170, here p. 160.

wanted to represent their own institutions and achievements on an international stage. Christophe Charle's interpretation of European societies around 1900 as imperial societies is especially helpful for understanding the competition of this period. Third, actors wanted to cooperate on the international level, transcending the boundaries of their own institution or nation-state. This relates to Madeleine Herren's concept of governmental internationalism which permits the uncovering of how they tried to regulate the national modernisation efforts on the international level.<sup>89</sup> Akira Iriye's interpretation of international organisations as the nucleus of a global community also reflects this transnational practice.<sup>90</sup> This third category will not be treated in this thesis, however. The model of individual actors pursuing three different goals when going transnational is the conceptual core of this thesis.

The first category concerns the appropriation of foreign models. Appropriation is used here as a general term that subsumes numerous cross-border activities which Eckhardt Fuchs has labelled as the triad of information, documentation and transfer.<sup>91</sup> This goes beyond a mere uninterested perception of foreign systems. Appropriation means the establishment of new or the development of existing institutions by reference to foreign (this is beyond one's own institutional context) knowledge. In a world of institutional fragmentation, innovations did not spread automatically from one place to another. Instead, innovations had to be appropriated in creative ways, involving reinterpretation and the fitting of the transferred items to the new context. Scholars of the history of education have developed transfer

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<sup>89</sup> HERREN, Madeleine, *Hintertüren zur Macht: Internationalismus und modernisierungsorientierte Außenpolitik in Belgien, der Schweiz und den USA 1865-1914*, München, Oldenbourg, 2000.

<sup>90</sup> IRIYE, Akira, *Global Community. The Role of International Organizations in the Making of the Contemporary World*, Berkeley, University of California Press, 2002.

<sup>91</sup> FUCHS, Eckhardt, « Bildungsgeschichte als internationale Geschichte und Globalgeschichte: Einführende Bemerkungen », in: FUCHS, Eckhardt (ed.), *Bildung International: Historische Perspektiven und aktuelle Entwicklungen*, Würzburg, Ergon, 2006, p. 7-25, here p. 14.

models.<sup>92</sup> Kimberley Ochs and David Philipps proposed a model of educational policy borrowing which consists of four steps: cross-national attraction, decision-making, implementation, internalisation.<sup>93</sup> This model is similar to the concept of cultural transfers which is the best tool for describing such appropriations and is used in this thesis. A group of French specialists of German studies were the first to have developed this approach since the mid-1980s.<sup>94</sup> Transfer history developed against the limitations of comparative history.<sup>95</sup> The concept of cultural transfers allows explaining how actors within specific contexts responded to specific situations by referring to foreign models. The concept rejects diffusionist explanatory models. Cultural transfers were usually centred on specific actors or groups of actors who were actively engaged efforts of appropriation. The approach thus underlines the agency of the actors of the receiving context.

When studying processes of appropriation, early research on cultural transfers concentrated on the transfer vehicles in bi-national relationships. Since then the bilateral character of transfers has been challenged.<sup>96</sup> Instead of concentrating on flows between two nations, research has started to investigate appropriations by specific individual and institutional actors, their strategies and their embeddedness in

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<sup>92</sup> A summary of recent scholarship can be found in FUCHS, Eckhardt, LÜTH, Christoph, « Transnationale Bildungsbemühungen und die Konstruktion des Raumes in historischer Perspektive. Einleitung zu diesem Heft », in: *Bildung und Erziehung*, 61, 1, 2008, p. 1-9.

<sup>93</sup> OCHS, Kimberley, PHILLIPS, David, « Processes of Educational Borrowing in Historical Context », in: PHILLIPS, David, OCHS, Kimberley (eds), *Educational policy borrowing: historical perspectives*, Oxford, Symposium Books, 2004, p. 7-23, especially p. 9-11.

<sup>94</sup> ESPAGNE, Michel, WERNER, Michael, « Deutsch-französischer Kulturtransfer im 18. und 19. Jahrhundert. Zu einem neuen interdisziplinären Forschungsprogramm des CNRS », in: *Francia. Forschungen zur westeuropäischen Geschichte* 13, 1985, p. 502-510; ESPAGNE, Michel, WERNER, Michel, « La constitution d'une référence culturelle allemande en France », in: *Annales ESC*, 4, 1987, p. 969-992; ESPAGNE, Michel, WERNER, Michael (eds), *Transferts. Les relations interculturelles dans l'espace franco-allemand (XVIIIe et XIXe siècles)*, Paris, Editions Recherche sur la Civilisation, 1988.

<sup>95</sup> ESPAGNE, Michel, « Sur les limites du comparatisme en histoire culturelle », in: *Genèses*, 17, 1994, p. 112-121; MIDDELL, Matthias, « Kulturtransfer und historische Komparatistik. Thesen zu ihrem Verhältnis », in: *Comparativ*, 1, 2000, p. 7-41.

<sup>96</sup> KAELBLE, Hartmut, « Herausforderungen an die Transfergeschichte », in: *Comparativ*, 16, 3, 2006, p. 7-12; KAISER, Wolfram, « Transnational Mobilization and Cultural Representation: Political Transfer in an Age of Proto-Globalization, Democratization and Nationalism 1848-1914 », in: *European Review of History*, 12, 2, 2005, p. 403-424.

various spatial frameworks. Concerned with the circulation of concepts of social welfare, Thomas Bender has proposed the image of the internet as a non-place providing open access from anywhere in the world where everyone could exchange and download files:

“One could surf this network for potentially useful policy ideas or models. There was no fixed pattern of buyers and sellers, or ‘importers’ and ‘exporters’ of ideas.”<sup>97</sup>

Matthias Middell has distinguished four phases of cultural transfers.<sup>98</sup> First, actors became aware of a deficit in their own institutional context. The understanding that features of one’s own context did not meet contemporary demands anymore in an appropriate way was the point of departure for that actors actively searched for suitable foreign models. The deficit was usually widely perceived and present in the debates of a certain educational space or national context. Regime changes could boost the perception of deficits and accelerate reform debates, as was the case in France and Japan in the early 1870s. Such impulses could also come from world exhibitions where international comparison could make deficits evident to a large number of observers. The fear to fall back in international competition was an additional incentive to find remedies for prevailing problems.

Second, conscious about the existing deficits, actors chose contexts for their rhetorical and material appropriations. The participation of many countries in international exhibitions could guide the actors from deficient contexts to the models that best fitted their needs. World exhibitions could lead to the “discovery” of models that the actors might not yet have been aware of, as in the case of John D. Runkle’s visit to the Centennial Exhibition and his encounter with the Russian method of

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<sup>97</sup> BENDER, Thomas, *A Nation Among Nations. America’s Place in World History*, New York, Hill and Wang, 2006, p. 287-288.

<sup>98</sup> MIDDELL, Matthias, « Kulturtransfer und transnationale Geschichte », in: MIDDELL, Matthias (ed.), *Dimensionen der Kultur- und Gesellschaftsgeschichte: Festschrift für Hannes Siegrist zum 60. Geburtstag*, Leipzig, Leipziger Universitätsverlag, 2007, p. 49-72, here p. 54-55.

workshop instruction. Experts established first contacts with colleagues from the interested country.

Third, actors engaged in a range of mediation and translation processes. This was the key phase of cultural transfers. Experts of different countries established more stable contacts, sometimes friendships, which could take a network character.<sup>99</sup> Actors purchased and exchanged materials. Enormous publication projects favoured the translation of foreign materials and the compilations of original studies. The large amount of materials the Japanese brought to the archipelago after world exhibitions, especially from the United States, illustrate well this phase.

The final phase was the implementation of the appropriated elements. This included the reform of existing or the establishment of new institutions. Legislation was changed, new methods were introduced and curricula revised. In this fourth phase world exhibitions did not play any role, as these decisions were made in parliaments, by government or directly in a school or university. This phase was obviously not traceable at world exhibitions.

As education experts went to exhibitions and referred to foreign models in different phases of their institution building, one always has to ask for the specific phase they were in at a given moment. Sometimes appropriation efforts were blocked half-way and not pursued anymore. Often the visit to a world exhibition inspired experts to publish on foreign educational systems without their writings resulting in institutional changes.

Jürgen Schriewer speaks of spatial and temporal externalisations. For Schriewer, the notion of spatial externalisations has a similar meaning to that of cultural transfers. With temporal externalisation he describes how actors reappropriated certain elements of their own institutional or national tradition and made them

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<sup>99</sup> For a definition of networks see below, part one, chapter III, section 1.

relevant for their current purposes.<sup>100</sup> The creative experimentation with innovations without recourse to foreign experiences could obviously also be a way of developing educational institutions.

One should therefore keep in mind that institutional and national path dependency played a great role in institutionalisation and reform process, even in times of intensified transfers. Analysing the institutionalisation of the discipline of history in the United States, Eckhardt Fuchs has suggested that it was less a result of adopting a German model, but “the consequence of the inner logic of the development of an academic discipline”.<sup>101</sup> In her study on the same subject, Gabriele Lingelbach even came to the result that no transfers took place.<sup>102</sup> The same is true for the establishment and reform of systems of education at large. Moreover, resistance to transfers could be strong. Reference to national traditions, ideological opposition to models and opposition to models based on negative nationalist discourses about a country could prevent transfers altogether.

In this perspective it is important to underline that the principal preoccupation of actors of cultural transfers was to do service to their own institutions. Openness to developments abroad was a categorical precondition for advancing one’s own work. In the conclusion of his report from the Centennial Exhibition Ferdinand Buisson wrote:

“Ç’a été notre ambition et ce sera notre plus chère récompense d’apporter notre contingent de renseignements utiles à ceux qui veulent que l’instruction primaire en France, sans se modeler sur autrui, s’inspire assez de ce que produisent de

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<sup>100</sup> SCHRIEWER, Jürgen, *Welt-System und Interrelations-Gefüge: die Internationalisierung der Pädagogik als Problem vergleichender Erziehungswissenschaft [Antrittsvorlesung, 7. Dezember 1992]*, Berlin, Humboldt-Universität, 1994; SCHRIEWER, Jürgen, « L’internationalisation des discours sur l’éducation: adoption d’une ‘idéologie mondiale’ ou persistance du style de ‘réflexion systémique’ spécifiquement nationale? », in: *Revue française de pédagogie*, 146, 2004, p. 7-26.

<sup>101</sup> FUCHS, Eckhardt, « Conceptions of Scientific History in the Nineteenth-Century West », in: WANG, Q. Edward, IGGERS, Georg G. (eds), *Turning Points in Historiography: A Cross-Cultural Perspective*, Rochester, The University of Rochester Press, 2002, p. 147-161, here p. 151.

<sup>102</sup> LINGELBACH, Gabriele, *Klio macht Karriere: die Institutionalisierung der Geschichtswissenschaft in Frankreich und den USA in der zweiten Hälfte des 19. Jahrhunderts*, Göttingen, Vandenhoeck & Ruprecht, 2003, especially p. 10, 673.

meilleur tous les autres pays pour n'avoir à redouter la comparaison avec d'eux."<sup>103</sup>

Similarly Andrew S. Draper, New York state commissioner of education, wrote in 1889 that reference to foreign contexts was a necessity or even an obligation:

“It is obligatory upon everyone engaged in this work to have full knowledge of all that is being done the wide-world over to diffuse public education, and it is their duty to seize hold of those methods, *and put them to use here.*”<sup>104</sup>

These quotes are representative of many others that underline the central role which knowledge circulation played for contemporary decision-makers. They show that actors, when going transnational, were not primarily occupied with a vague sense of international harmony, but cared about developing their own institutional context. Most institutions in the late nineteenth century were established in national frameworks. For this reason cultural transfers were major contributions to nation-building. The success of cultural transfers can be measured by the accomplishment of a well working institutional framework.

In conclusion, it is suggested that education experts frequented world exhibitions in order to get informed about the state of the art of education in foreign countries. They used the exhibitions in order to appropriate certain foreign features to their own institutional contexts.

The second category why education experts went transnational was to represent their own institutions on an international scene. Appropriation processes, despite their constant reference to abroad, were introverted, as they aimed at the development of specific institutional contexts. Representation, in contrast, was extraverted. Representation is used in this thesis as a general term that encompasses a range of activities that were designed to convince foreign observers of the quality

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<sup>103</sup> BUISSON, Ferdinand, *Rapport sur l'instruction primaire à l'Exposition universelle de Philadelphie en 1876*, Paris, Imprimerie nationale, 1878, p. 677.

<sup>104</sup> Cited in TYACK, David Bruce, *The One Best System: A History of American Urban Education*, Cambridge/London, Harvard University Press, 1974, p. 40. I am emphasising.

and assumed superiority of one's own institutions. This was especially urgent when competitions among nation-states played a major role.

This kind of competition is addressed in Christophe Charle's interpretation of turn-of-the-century European societies as *sociétés impériales*.<sup>105</sup> He defined the concept of imperial societies as follows:

“[...] C'est un champ de forces (internes et externes) jouant différemment selon les contextes nationaux mais toujours en interaction avec les sociétés impériales voisines. Ce qu'elle a de spécifique par rapport aux notions usuelles plus larges comme équilibre européen, rivalités impériales, sociétés industrielles, c'est de posséder une double dimension, à la fois interne et externe (dont sont privées ces autres notions), matérielle et culturelle, politique et sociale, nationale et internationale.”<sup>106</sup>

For Charle, only France, Great Britain and Germany fully correspond to the definition of imperial societies. These countries were the most powerful economically and politically. Furthermore they controlled territories beyond their mainland or foreign-language communities within their borders. They also claimed the superiority of their cultural models through universalism and internationally wide-spread languages. Charle's work on imperial societies focused on Europe. In a global context, however, the concept of imperial societies if one includes Japan and the United States in this framework. These countries were, or were at least about to become, imperial societies.

According to Charle, imperial societies were based on a common language and culture diffused by national education systems. More importantly, imperial societies tried to dominate and civilise the exterior world according to their own standards which they presumed as superior. This cultural imperialism combined with other forms of domination to create an unprecedented accumulation of power in the homeland. Multiple domination led to a “complex of superiority”. This complex did

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<sup>105</sup> CHARLE, Christophe, *La Crise des sociétés impériales: Allemagne, France, Grande-Bretagne, 1900-1940. Essai d'histoire sociale comparée*, Paris, Seuil, 2001.

<sup>106</sup> *Ibid.*, p. 27.

not only affect high level decision makers, but all levels of society, for example in the form of popular racism. Charle saw a potential for confrontation in the founding processes and national myths of the imperial societies which often developed in opposition to neighbouring national projects. Wars additionally mobilised resources, engendered further national consolidation and created national heroes.

As Charle emphasised, cultural presence on the international scene was a foremost concern for imperial societies. This led to an obsession with competition which was most visible in the Franco-German context.<sup>107</sup> This competition permits to explain the behaviour of education officials in international contexts and their motivations in preparing extensive exhibits. The educational sections of world exhibitions were stages for the cultural confrontation of imperial societies. Each expert of education belonged to one of the imperial societies. Education systems being constituent parts of these societies, education experts saw themselves as having a crucial role in formulating imperial ideologies and projects. Thus, world exhibitions became scenes for the staging of imperial societies.

Staging one's own institutions involved the following pattern: elaboration of a proper tradition with specific references, constant (mostly negative) reference to the neighbouring nations or institutions and prestige. The actors' motivation was pride in their own institutions and achievements.<sup>108</sup> Staging the educational system was a strategy of cultural diplomacy or cultural imperialism.<sup>109</sup>

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<sup>107</sup> CHARLE, Christophe, « Les références étrangères des universitaires: Essai de comparaison entre la France et l'Allemagne, 1870-1970 », in: *Actes de la recherche en sciences sociales*, 148, 2003, p. 8-19, here p. 10.

<sup>108</sup> See the emphasis on national competition in FUCHS, Eckhardt, « Nationale Repräsentation, kulturelle Identität und imperiale Hegemonie auf den Weltausstellungen. Einleitende Bemerkungen », in: *Comparativ*, 5/6, 1999, p. 8-14.

<sup>109</sup> See the contributions to the *Zeitschrift für Kulturaustausch*, 31, 1 and 2, 1982 for examples on the relation of education and cultural diplomacy in the German Empire as well as BRUCH, Rüdiger vom, *Weltpolitik als Kulturmission: Auswärtige Kulturpolitik und Bildungsbürgertum in Deutschland am Vorabend des Ersten Weltkrieges*, Paderborn et al., Schöningh, 1982; PYENSON, Lewis, *Cultural imperialism and exact sciences: German expansion overseas 1900-1930*, New York et al., Lang, 1985; PYENSON, Lewis, *Civilizing mission: exact sciences and French overseas expansion (1830-*

In conclusion, in periods of confidence and high self-esteem educators tried to expand their invested space and to influence others in line with their own concepts.<sup>110</sup> Actors went transnational in order to stage their own institutions in the international arenas of world exhibitions. Thus, individuals belonging to an intellectual and administrative elite acted in two ways on an international stage. They went transnational in order to appropriate something according to their own needs; and they staged their own institutional arrangements to demonstrate their advanced state or even their superiority.

During the period covered by this thesis we can observe a chronological shift from more mutual learning to more self-representation. Of course, staging one's own educational system was a basic exhibition practice from the beginning. Nevertheless this thesis refers to representation only as a second step for good reason. Matthias Middell has argued that the period from 1860 to about 1900 was characterised by transnational learning processes. Although actors did not deny national traditions, they saw a basic compatibility between national institutions. At the same time state authority increased and specific national systems emerged. Later on, from the turn of the century to the First World War, national systems entered into a phase of competition. Everyone now claimed to possess the best institutions.<sup>111</sup> Middell also showed that transfer processes did not lead to homogenisation. One could rather

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1940), Baltimore, Johns Hopkins University Press, 1993. Forms of communication are discussed more in detail below, first part, chapter III, section 1.

<sup>110</sup> With reference to Britain and free trade see KAISER, Wolfram, « Inszenierung des Freihandels als weltgesellschaftliche Entwicklungsstrategie: Die ‚Great Exhibition‘ und der politische Kulturtransfer nach Kontinentaleuropa », in: BOSBACH, Franz, DAVIS, John R. (ed.), *Die Weltausstellung von 1851 und ihre Folgen/The Great Exhibition and its Legacy*, München, Saur, 2002, p. 162-180.

<sup>111</sup> MIDDELL, Matthias, « Das ‚Spiel mit den Maßstäben‘ gestern und heute. Kompatibilität oder Diversität europäischer Wissenschaftssysteme – ein Blick auf die Transferprozesse im 19. Jahrhundert », in: SCHALENBERG, Marc, WALTHER, Peter Th. (eds), *„... immer im Forschen bleiben“: Rüdiger vom Bruch zum 60. Geburtstag*, Stuttgart, Steiner, 2004, p. 199-212. For a similar argument see LINGELBACH, *Klio macht Karriere*, p. 679-681. The DFG project “Akteure der kulturellen Globalisierung, 1860-1930” also applies a similar conceptualisation, see [http://www.geschkult.fu-berlin.de/e/oas/japanologie/forschung/Akteure\\_kulturelle\\_Globalisierung/index.html](http://www.geschkult.fu-berlin.de/e/oas/japanologie/forschung/Akteure_kulturelle_Globalisierung/index.html), accessed on 06 May 2008.

observe the opposite. Various appropriations accomplished by different actors resulted in differentiated solutions, depending to the institutional contexts.<sup>112</sup> The proud representation of national education systems to the world at large was the final phase of successful institutionalisation processes which had been based on cultural transfers.

This way of thinking about transfer and representation also relates to the concept of multiple modernities proposed by Shmuel Eisenstadt.<sup>113</sup> It sees the contemporary world “as a story of continual constitution and reconstitution of a multiplicity of cultural programs.”<sup>114</sup> Eisenstadt argued that specific actors with social, political and intellectual agendas pursued specific programs of modernity. “Through the engagement of these actors with broader sectors of their respective societies, unique expressions of modernity are realised.”<sup>115</sup> Due to the specificities of actors and their agendas, modernity looks different within different settings. “[Appropriations] entailed the continuous selection, reinterpretation, and reformulation of [...] imported ideas. These brought about continual innovation, with new cultural and political programs emerging, exhibiting novel ideologies and institutional patters.”<sup>116</sup> It was crucial to appropriate and interpret modernity in one’s own terms. Eisenstadt concluded: “The trends of globalization show nothing so clearly as the continual reinterpretation of the cultural program of modernity; the construction of multiple modernities; attempts by various groups and movements to reappropriate and redefine the discourse of modernity in their own terms.”<sup>117</sup>

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<sup>112</sup> MIDDELL, Matthias, « Transnationalisierung und Globalgeschichte », in: *Traverse. Zeitschrift für Geschichte – Revue d’histoire*, 1, 2005, p. 19-48, here p. 37.

<sup>113</sup> EISENSTADT, S. N., « Multiple Modernities », in: *Daedalus*, 129, 1, 2000, p. 1-29.

<sup>114</sup> *Ibid.*, p. 2.

<sup>115</sup> *Ibidem.*

<sup>116</sup> *Ibid.*, p. 15.

<sup>117</sup> *Ibid.*, p. 24.

The notion of appropriation is at the core of the notion of multiple modernities. Multiple educational modernities emerged as a result of cultural transfers carried out by actors from various contexts. World exhibition subsequently became stages where these key actors showcased these similar, but nevertheless divergent, institutionalisations of education. World exhibitions thus offered a panorama of multiple modernities. Specific actors were eager to present their forms of modernity as legitimate and potentially superior.

Bringing together experiences of education experts from different countries, this is a comparative history of the use of educational sections of world exhibitions for cultural transfers and self-representation.<sup>118</sup> The thesis uses a dynamic comparison that takes into account the agency and strategies of the actors. The communicative function of the exhibitions did not reside primarily in the transmission of a previously formulated message from a limited group of organisers to a large audience, as recent works in cultural history have implicitly assumed. Instead, the predominant communication processes took place between experts with professional interests who participated in the exhibitions with clear intentions. Focusing on education, this is the first study which analyses a larger sample of experts involved in the preparation of and participation in world exhibitions in the nineteenth century. The global dimension of this thesis does not lie in the conceptualisation of the exhibitions as distinct global spaces. The global moment rather resides in the juxtaposition of empirically saturated micro analyses of individuals or groups of experts who, bound to their diverse home contexts, intentionally used the exhibitions

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<sup>118</sup> Philipp Ther has recently insisted that comparative history does not primarily compare nation-states but smaller units: THER, Philipp, « Beyond the Nation: The Relational Basis of a Comparative History of Germany and Europe », in: *Central European History*, 36, 1, 2003, p. 45-73, especially p. 45-46.

as a means of communication for appropriation and representation purposes and in this way interacted with each other.<sup>119</sup>

### **Chronological, Geographical and Content Delimitations**

The chronology of exhibitions in the nineteenth century provides the time frame for this thesis. Organisers established the first educational section at the London exhibition of 1862. In consequence, this exhibition is a convenient starting point for investigations. The focus is on the great international expositions of the highest category.<sup>120</sup> However, two minor and specialist exhibitions make also part of the sample, as they had a considerable impact on educational affairs. This is the case of the International Health and Education Exhibition of London in 1884 and the World's International and Cotton Centennial Exposition of New Orleans from late 1884 to mid-1885. The Louisiana Purchase Exposition of 1904 was the last big exposition before the First World War. It is therefore a logical ending point for this research. At some points reference will also be made to source materials related to the Japan-Britain Exposition held in London in 1910. At a glance, the focus is on the following exhibitions:

01 May 1862 – 15 November 1862	London	London International Exhibition on Industry and Art
01 April 1867 – 03 November 1867	Paris	Exposition universelle de Paris
01 May 1873 – 01 November 1873	Vienna	Weltausstellung
10 May 1876 – 01 November 1876	Philadelphia	Centennial Exhibition. International Exhibition of Arts, Manufactures and Products of the Soil and Mine
01 May 1878 – 10 November 1878	Paris	Exposition universelle de 1878
01 May 1884 – 31 October 1884	London	International Health and Education Exhibition
16 December 1884 – 01 June 1885	New Orleans	World's Industrial and Cotton

<sup>119</sup> This thesis does not make a systematic analysis of the reception of educational exhibits.

<sup>120</sup> FUCHS, Eckhardt, « Nationale Repräsentation, kulturelle Identität und imperiale Hegemonie auf den Weltausstellungen. Einleitende Bemerkungen », in: *Comparativ*, 5/6, 1999, p. 8-14, here p. 8.

		Centennial Exposition
06 May 1889 – 06 November 1889	Paris	Exposition universelle de Paris de 1889
01 May 1893 – 30 October 1893	Chicago	World's Columbian Exposition
15 April 1900 – 12 November 1900	Paris	Exposition universelle et internationale de Paris
30 April 1904 – 01 December 1904	St. Louis	Louisiana Purchase Exposition

**Table 1: Expositions treated in this thesis.**

This thesis concentrates on actors from France, Germany, Japan and the United States. In all these countries major political changes announced the shift towards a new territorial regime.<sup>121</sup> In France, the transition from the Second Empire to the Republic was a catalyst for educational debates. French education officials made extensive use of exhibitions as a means of transnational communication. Additionally, the French government was a major organiser of world exhibitions during the second half of the nineteenth century. Education experts from Germany are the second group to be analysed in this thesis. By Germany reference is generally made to the German Empire founded in 1871. However state traditions remained strong even after unification, educational policy being assigned to states. The main focus will be on Prussia and Saxony. Japan experienced a period of major political, economic, social and cultural change lasting from the conclusion of a first trade treaty with the United States in 1854 until the promulgation of the constitution in 1889. The “opening” of the country to international trade entailed the *meiji ishin* (明治維新) – mostly translated as Meiji restoration, but also as revolution or renovation – which made an end to two hundred years of Tokugawa rule and re-established the authority of the Emperor.<sup>122</sup> A new ruling class engaged in a programme of sustained

<sup>121</sup> MAIER, « Consigning the Twentieth Century to History ».

<sup>122</sup> ZÖLLNER, Reinhard, *Geschichte Japans. Von 1800 bis zur Gegenwart*, Paderborn et al., Schöningh, 2006, p. 181-194. On the significance of the Meiji Restoration see SAALER, Sven, « Die Bedeutung der Epochenmarke 1868 in der japanischen Geschichte: Restauration, Revolution,

political, economic, social and cultural change. World exhibitions played a crucial role in this process. The United States acquired increasing importance on the international scene due to its fast economic and demographic development. Americans soon belonged to the most eager organisers of world exhibitions.

This choice of countries prefigures the outcomes of the research in a decisive way. These countries had autochthonous decision-making processes. They were, in Christophe Charle's sense, imperial societies, none of these countries experienced colonial rule during the studied period.<sup>123</sup> They belonged to the "civilised world" or the "Kulturländer", as contemporaries used to say.<sup>124</sup> Moreover, these countries were often at the forefront of educational developments during the latter half of the nineteenth century. But there were important differences as well. France and Japan were or became highly centralised nation-states. Federal states, on the contrary, made up Germany and the United States. Responsibilities for education were placed at different (national, state, local) levels, as well. Moreover, France and the United States were republics, whereas Germany and Japan were authoritarian monarchies. The development of industry and capitalism took different shapes and occurred at different moments in these four countries.

This thesis concentrates on the primary, secondary, higher and technical education sectors as the core of modern education systems. Special emphasis is put on primary education on the one hand and technical education on all three levels on the other. These were the most represented fields at the exhibitions. In turn, the thesis leaves out other themes, such as early childhood or education in colonial contexts, although

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Reform », in: *Saeculum*, 56, 2005, 69-104 and recently HEDINGER, Showcases of Revolutionary Transformation, p. 79-83.

<sup>123</sup> It should be mentioned, however, that a set of so-called unequal treaties restricted Japanese sovereignty until the beginning of the twentieth century.

<sup>124</sup> On the notion of civilisation see MAZLISH, Bruce, *Civilization and its contents*, Stanford, Stanford University Press, 2004.

they also featured at the expositions. These aspects are not object of a systematic analysis, but in some cases they gained special importance and need to be mentioned.

## **Methods and Sources**

This thesis – as a piece of historiographical research – is methodologically based on the scientific analysis of text documents. Firstly, a relational database created with Filemaker.Pro helped in collecting and exploiting prosopographical data.<sup>125</sup> A prosopographical method offers a tool to get to know the actors, their biographies, institutional affiliations, specific activities regarding exhibitions, such as for example participation in committees and missions, publications and the intercourse with foreign colleagues. This information was gathered from the sources in a systematic way.

Secondly, the sources underwent a hermeneutic reading. On the one hand it was necessary to extract from source materials all details that provide information on appropriations and cultural transfers. On the other hand everything that illustrates the staging of educational exhibits had to be analysed. This notably relates to a rational classification of source materials.

This thesis is mainly based on contemporary published sources. There was a range of literature published in direct relation to the expositions. This exhibition literature can be divided into five main categories. Firstly, catalogues were an essential feature of each exposition. Catalogues differed in volume and contents. The organisers of the exhibitions published voluminous catalogues which retained the totality of exhibited objects in all sections and from all countries. National commissions prepared catalogues that presented all displayed items of the country. Smaller bodies, as for example ministries of education, published special catalogues concentrating on their

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<sup>125</sup> DEDIEU, Jean Pierre, « Les grandes bases de données: une nouvelle approche de l'histoire sociale. Le système Fichoz », in: *História. Revista da Faculdade de Letras*, 3, 5, 2004, p. 101-114.

exhibited items. The quality of catalogues varied enormously. In some cases they were sober lists of objects. In other cases the descriptions were much more elaborated. Introductory remarks can provide useful insight into the preparation of the exhibit or general descriptions of education in a given country.

Secondly, materials especially published for the exhibitions are a major source for this thesis. Ministries and other public authorities as well as schools, colleges, and universities prepared publications in order to present their situation to a large audience. They range from small brochures and booklets to extensive and complete presentations of educational systems in several volumes, as for example the works of the German economist Wilhelm Lexis prepared for the Chicago and St. Louis exhibitions. Ministries also prepared historical accounts of education in particular countries or regions to present them at the world exhibitions. Especially prepared materials are overwhelmingly sources to analyse how institutions staged themselves at the exhibitions.

Thirdly, exposition reports are central documents for this thesis. National commissions usually published extensive reports in several volumes on all classes of the exposition, including education. On the one hand these reports had administrative character reflecting upon success or failure of the exhibits. On the other hand they described the exhibits from an expert's perspective. In this way exposition reports provided panoramas of the state of the art of almost every field of knowledge. Specialised educational reports focused on all aspects of education, or even more particular questions, as for example school desks. Reports were always retrospective writings. Their authors reflected upon the exhibits and the lessons they could learn from them. Retrospective reports are thus likely to present traces of appropriations and cultural transfers.

Fourthly, international conferences taking place in the framework of the expositions generated sources, such as programmes and proceedings. Sometimes proceedings provide a direct insight into passionate verbal confrontations.

Finally, there are various other sorts of publications of unequal importance for this thesis. Draft classifications, circulars and other publications directed to potential exhibitors give evidence about the preparation process. Visitor guides and maps can be very useful in locating educational exhibits on the exhibition grounds and inside the exhibition halls. Memorial publications had certainly a role in popularising the outcomes of the exhibitions, but their impact on professional discourses was limited.<sup>126</sup> The thesis sets out to retrieve, classify, analyse and interpret this set of exhibition literature.

Beyond the literature published in direct relationship with the exhibitions, this thesis is based upon a variety of contemporary books on education. They are not only useful sources for contextualisation, but provide in some cases numerous references to exhibitions. A whole range of programmatic writings on contemporary controversial topics, as compulsory education or technical education, makes almost constantly such reference. Annual reports of ministries and other authorities, as for example the United States Bureau of Education, mention the exhibits prepared during the year. As world exhibitions entailed social interaction, autobiographical accounts and obituaries provide precious hints to transnational activities of educators.

Periodical publications had a foremost role in announcing and reporting on the educational exhibits. Educators who had visited exhibition used specialised

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<sup>126</sup> A famous example is BANCROFT, Robert Howe, *The book of the fair: an historical and descriptive presentation of the world's science, art, and industry, as viewed through the Columbian Exposition at Chicago in 1893*, Chicago, Bancroft, 1893. An French example was MONOD, Emile, *L'Exposition universelle de 1889: grand ouvrage illustré historique, encyclopédique, descriptif. Publié sous le patronage de M. le Ministre du Commerce, de l'Industrie et des Colonies*, Paris, Dentu, 1890.

pedagogical journals to report on their experiences. Pedagogical journals played also a role in announcing and inviting participation in upcoming exhibitions. Newspapers also reported on educational exhibits. Newspaper coverage of the world exhibitions was not object of a systematic analysis. Newspapers and journals are used case by case.

The thesis also draws on unpublished sources in order to complement published documents. The French *Archives nationales* in Paris hold important collections. The series F12 (*Commerce et industrie*) and F17 (*Instruction publique*) comprise materials which highlight the preparation, visit, operation and disposal of the educational sections. Materials concern exhibitions held in Paris as well as the French participation in exhibitions abroad. The series AJ71 (*Musée pédagogique*) was also helpful. The library of the *Institut national de la recherche pédagogique* in Lyon holds some interesting documents, among them a dossier on Ferdinand Buisson. The collections of the Diplomatic Record Office (外交資料館, *Gaikōshiryōkan*) in Tokyo document the Japanese participation in world exhibitions in a general way. However, they do not provide insight into the educational sections. The *Geheimes Staatsarchiv Preußischer Kulturbesitz* in Berlin-Dahlem disposes of materials relating to the participation of the Prussian Ministry of education in several exhibitions. The *Bundesarchiv* in Berlin-Lichterfelde notably holds documents related to German participation in the Chicago and St. Louis exhibitions. Most fruitful is correspondence between organisers. The United States National Archives in College Park, Maryland preserve letters from the United States Commissioner of Education which provide useful information on the involvement of the Bureau of Education in exhibitions. The Library of Congress Manuscript Division holds the papers of some educators involved in exhibitions, for example David Murray. The collections of the Missouri Historical Society in St. Louis comprise materials of the

Louisiana Purchase Exposition. Documents in the New York Public Library and the Free Library of Philadelphia are also used.

## **Structure**

The first part provides a general introduction to the institutionalisation of education, the role of experts, the transnational circulation of educational knowledge and world exhibitions in the nineteenth century. Firstly, it discusses the institutionalisation of modern primary education as a public or state institution. It is suggested that the institutionalisation of primary education took place in subsequent transnational waves throughout the late eighteenth and nineteenth century. The institutional situation of primary education in France, Germany, Japan and the United States, as will be shown, differed when the world exhibitions set in. Secondly, it is discussed how technical education developed throughout the nineteenth century. It is argued that schooling progressively replaced other forms of training for industrial careers. As for primary education, the situation in the four countries differed. Thirdly, the group of education experts is presented. These actors frequently “went transnational” in the nineteenth century. It will be shown which vehicles they used for transnational communication. Finally, the first part provides an outline of educational sections at world exhibitions in the nineteenth century. It recalls the major characteristics of the great international exhibition of that period. It sets out to locate the place of education within the exhibitions. It also evokes the standard practices of actors involved in the organisation and visit of the educational sections. The common features of these sections are discussed.

In the following parts, the thesis combines the two conceptual approaches of appropriation and self-representation outlined above. The second and third part concentrate on appropriations and cultural transfers in the field of primary and

technical education respectively. These two parts discuss the institutional construction and subversion of school models through world exhibitions. The fourth part features the representations of national education systems as the results of successful appropriation and institutionalisation processes. At some points, however, the representation (as opposed to appropriation) of educational systems at the exhibitions had to be integrated in parts two and three. This is notably the case of part one where one chapter discusses the staging of the American free school system and one section analyses the Japanese representations at the *Exposition universelle* of 1878.

The second part analyses the appropriation of modern primary education by Japanese and French officials in the framework of the expositions of the 1860s and 1870s. As education experts from both countries referred mostly to the United States, the second part begins with the proud staging of American public schools. The “common school crusaders”, who had started to build up the American free school system some decades earlier, were the organisers of these exhibits. A set of publications which the organisers prepared for the Centennial Exhibition will be analysed. It will also be shown that American educators wanted to emancipate themselves from European influence. One of the commissions that showed most interest in American education was that of Japan. The international missions of the early Meiji period were vehicles to get in contact with American pedagogy. Special attention will be paid to the Centennial Exhibition where Japanese educators intensively exchanged ideas with their American colleagues. The section on the Paris exhibition of 1878 describes transfer processes, but also sheds lights on how Japanese represented their recent institutionalisation efforts. Besides the Japanese, French experts were highly interested in the American free school system when they were preparing the compulsory education legislation of the 1880s. However, in a

section on French reports from the exhibitions of the 1860s it will be shown that the German model was still the most important under the Second Empire. Later, starting with the Vienna exhibition, republican reform-oriented educators around Ferdinand Buisson took over the control of French educational sections and started to get acquainted with American educators. This strategy culminated with an educational mission to the Centennial Exhibition. Two years later the American educators were invited to Paris. It will be argued that the network of American, Japanese and French educators which regularly met at the exhibitions of the 1870s had a decisive impact on the institutionalisation of modern primary education in Japan and France.

The third part discusses the circulation of knowledge on technical instruction in the framework of world exhibitions. The primary, secondary, and higher education sectors are of joint interest here. Firstly, it is shown how education experts from the United States referred to technical schools of Europe. Four particular cases are presented. John Milton Gregory, as president of Illinois Industrial University, participated in the so-called land-grant movement that saw the foundation of technically oriented colleges. John D. Runkle of the Massachusetts Institute of Technology was inspired by the exhibits of the Russian polytechnic schools at the Centennial Exhibition and introduced project-oriented methods to college education. Another visitor to the Centennial Exhibition, Calvin M. Woodward, became the foremost promoter of manual training high schools. Transfers at world exhibitions played also a role for the introduction of industrial drawing into primary education. It is argued that these appropriations had a considerable impact on American competence in technical education. These transfers were responsible for sanctioning the practical orientation of schooling in the United States as one of its most significant characteristics. It will be shown subsequently how education experts from other parts of the world referred to the new American institutions. This was the case

for Japanese and French education experts whose experiences will be analysed. The German case is treated with more detail, as reform-oriented educators from this country showed great interest in American developments. It is discussed how professors of technical universities referred to American examples. Other experts were concerned about the lower grades of the education system and wanted to introduce practical elements to primary education. The strategy of appropriating foreign knowledge was most pronounced in the case of the *Deutsche Lehrerbildungsanstalt für Knabenhandarbeit* in Leipzig whose directors used the exhibitions extensively for contacts with American experts. The participation of several German commissioners sent to the Louisiana Purchase Exposition is analysed. The third part argues that education experts went to the exhibitions because they were engaged in constructing institutions that aimed at preparing youths for industrial careers.

The fourth part analyses how educational administrations represented their own institutions at the world exhibitions of the turn of the century. The part builds on the assumption that the institutionalisation processes of earlier decades gave rise to specific national systems which were now integrated in national narratives. Four country cases are presented. French exhibits mainly highlighted the republican primary school and put it in a more and more national discourse. Prussian officials displayed well-administered primary schools and the German university model. It will be shown that this Prussian version was highly contested within Germany. Japanese commissioners depicted the coming of age of the country's education system and put it in a specific tradition. For the United States it is shown how a new generation of education administrators and academics represented new forms of education based on practical skills as well as the recently established universities. It

is argued that the educational exhibits were expressions of the competition between the imperial societies.

The conclusion aims to integrate the results of parts two, three and four. It summarises this thesis' contribution to the history of education, studies on nineteenth century exhibitions and transnational history. The conclusion also makes suggestions for future research.

# **FIRST PART: SETTING THE SCENE – EDUCATION AT WORLD EXHIBITIONS**

The first educational section at a world exhibition appeared in 1862. This part discusses the historical development of primary education until this date and presents its situation during the latter half of the nineteenth century. The development of technical education is introduced in the same way. It is furthermore crucial to define the emerging group of education experts and to analyse the means of communication they used for transnational communication. Finally, this part introduces the educational sections of world exhibitions as one of the vehicles for the transnational circulation of knowledge on education. In a modest manner, it provides elements for a sociology of education experts at the nineteenth-century exposition.

## ***I. Primary Education***

At the beginning of the 20th century, free and compulsory primary schooling for children from six to fourteen years of age was established in countries throughout the world. This had not always been the case and was the result of long-term developments.

### **1. Transnational Waves of Appropriation – The Implementation of Modern Primary Education**

The establishment of elementary schooling can be traced back to early modern European developments. Philippe Ariès in his work on the history of childhood in early modern Europe analysed education in its social context, going beyond the restricted framework of studying pedagogical institutions.<sup>127</sup> Ariès argued that the appearance of schooling extended childhood and entailed a new conceptualisation of

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<sup>127</sup> ARIES, Philippe, *L'enfant et la vie familiale sous l'Ancien Régime*, Paris, Plon, 1960.

the child. Schooling replaced other forms of instruction, such as imitation of cultural norms within the family, initiation ceremonies and early insertion into adult activities.<sup>128</sup> At the same time as Ariès, Bernard Bailyn in an important essay on education in American society argued that at the end of the eighteenth century the character of schooling started to change dramatically in a similar way to Europe.<sup>129</sup>

Reformation and Counter-Reformation had a major impact on the development of education in Europe. The same is true for enlightenment, although the relationship between enlightenment and education has been analysed to a much lesser extent.<sup>130</sup>

The aforementioned changes describe how primary education turned from a personal to a social, but not public, issue in early modern Europe and colonial America. Governments practised a 'liberal' or *laissez-faire* approach. In this context liberal does not refer to liberal values as curricular contents, but to restricted interference of public authorities in education. Liberal meant that the state did not interfere or only loosely regulated private organisations that offered education. Because they ran most schools, religious institutions profited from this arrangement. The state did neither restrict the liberty of the family head (*pater familias*) who could decide whether to send his children to school or not. The number of children frequenting school already reached a high level in urbanised areas. However, this liberal model failed in bringing education to the entire population in industrialising and more and more complex societies. In her comparative study of education in

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<sup>128</sup> See also CHARTIER, Roger, JULIA, Dominique, COMPERE, Marie-Madeleine, *L'éducation en France du XVIIe au XVIIIe siècle*, Paris, Société d'Education d'Enseignement Supérieur, 1976, p. 293.

<sup>129</sup> BAILYN, Bernard, *Education in the forming of American society: needs and opportunity for study*, Chapel Hill, Published for the Institute of early American history and culture at Williamsburg (Virginia) by The University of North Carolina Press, 1960.

<sup>130</sup> SCHMALE, Wolfgang, « Allgemeine Einleitung. Revolution des Wissens? Versuch eines Problemaufrisses über Europa und seine Schule im Zeitalter der Aufklärung », in: SCHMALE, Wolfgang, DODDE, Nan L. (eds), *Revolution des Wissens? Europa und seine Schulen im Zeitalter der Aufklärung (1750-1825). Ein Handbuch zur europäischen Schulgeschichte*, Bochum, Winkler, 1991, p. 1-46.

Baden and Vaucluse, Mary Jo Maynes has argued that the liberalism of bourgeois France discouraged the development of education:

“The commitment to voluntarism in education that was so compatible with the ascendant liberalism of the increasingly bourgeois national government of France had the ironic consequence of allowing local governments to obstruct school reform plans, and of allowing parents to keep their children home.”<sup>131</sup>

Education experts started to attack the *laissez-faire* philosophy.<sup>132</sup> They increasingly regarded education as a public rather than a private affair. Instead of the head of the family’s unrestricted authority, they advanced the right of the child to education. This also meant to impose taxation for schooling. Thus, elementary education turned into an issue of public administration. Education became linked to civic preparation and occupational training. It was a prerequisite for political and economic adulthood, a governable citizenry and productive labour force. Increasingly state authorities struggled with religious bodies and philanthropist institutions, that had previously held a virtual monopoly on the control of education.

Modern primary education can be defined as a system where education was under the control of public authority, be it on the national, state or local level. This entailed the bureaucratisation and formalisation of elementary instruction. Laws and decrees minutely regulated procedures and responsibilities. Teacher training had to be organised. The trend went to the scholarisation of the whole population between six and fourteen or so years of age, making education compulsory and free of charge. The history of primary education in the nineteenth century saw the progressive implementation of a statist model of education that replaced a liberal or *laissez-faire* model. Similarly, the sociologist Andy Green concluded convincingly that the rise of

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<sup>131</sup> MAYNES, Mary Jo, *Schooling for the people: Comparative local studies of schooling history in France and Germany, 1750-1850*, New York, Homes and Meier, 1985, p. 180.

<sup>132</sup> CURTI, Merle, *The social ideas of American educators, with new chapter on the last twenty-five years*, Paterson, Pageant Books, 1959, p. 194.

education during the nineteenth century was overwhelmingly linked to the increasing role of the state in opposition to more liberal policies.<sup>133</sup>

This institutionalisation of modern primary education took place in successive transnational waves.<sup>134</sup> Each wave was based on missions to foreign countries, translations, publications and, thus, on cultural transfers. The school reformers of the early nineteenth century with their “common vision of an enlightened humanity”<sup>135</sup> contacted with one another. Experts from more backward countries could learn from more advanced countries. This asynchronicity was responsible for the processes of appropriation and representation which are the object of the following parts. Learning from earlier institutionalisations was the guiding force in the implementation of primary education. Educational experts and writers have attributed the idea of free compulsory primary education one after another to many different countries. Thus, modern primary education appeared successively as a German, American and French idea.

A first wave can be observed during the second half of the eighteenth century. Building on Reformation ideas, education officials from the German states passed legislation on compulsory schooling for the first time. In 1763 the Prussian *General-Landschulen-Reglement* forced all children to frequent a school for eight years. The *Allgemeines Landrecht* of 1794 confirmed this arrangement.<sup>136</sup> A high percentage of the population followed these measures. Elementary education became nearly

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<sup>133</sup> GREEN, Andy, *Education and State Formation: the Rise of Education Systems in England, France, and the USA*, New York, St. Martin's Press, 1990.

<sup>134</sup> Compare to the periodisations mentioned in MODEROW, Hans-Martin, *Volksschule zwischen Staat und Kirche: das Beispiel Sachsen im 18. und 19. Jahrhundert*, Köln et al., Böhlau, 2007, p. 465-466. Also compare to the conceptualisation of the Stanford School, for example RAMIREZ, Francisco O., BOLI, John, « The Political Construction of Mass Schooling: European Origins and Worldwide Institutionalization », in: *Sociology of Education*, 60, 1, 1987, p. 2-17.

<sup>135</sup> MAYNES, *Schooling for the people*, p. 8.

<sup>136</sup> WITTMÜTZ, Volkmar, « Die preußische Elementarschule im 19. Jahrhundert », in: FISCH, Stefan, GAUZY, Florence, METZGER, Chantal (eds), *Lernen und Lehren in Frankreich und Deutschland = Apprendre et enseigner en Allemagne et en France*, Stuttgart, Steiner, 2007, p. 15-32, here p. 18.

universal in Prussia and other German states at this time. During the revolutionary period in France, politicians discussed numerous projects on primary education. The marquis Condorcet (1743-1794), for example, proposed a plan for national education.<sup>137</sup> In the United States, Thomas Jefferson (1743-1826) unsuccessfully proposed a public school system for Virginia in 1779.<sup>138</sup>

A second wave of institutionalisation of modern primary education took place during the first half of the nineteenth century, culminating in the 1830s. The German states made considerable efforts to put their education system on a better institutionalised basis. Prussia founded the *Königlich preußisches Ministerium der geistlichen, Unterrichts- und Medizinalangelegenheiten* (Ministry of Spiritual, Educational and Medical Affairs)<sup>139</sup> in 1817. Saxony passed a first comprehensive law on primary education in 1835.<sup>140</sup>

Educators in the United States started to establish systems of public education and created school boards. Prussia became the main reference for these experts.<sup>141</sup> The two major individual educators related to this wave of institutionalisation were Horace Mann (1796-1859) and Henry Barnard. Mann served as the first secretary of the Massachusetts Board of Education from 1837 onwards. He made a trip to Europe in order to study educational institutions.<sup>142</sup> Barnard, an admirer of Mann, was the

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<sup>137</sup> GREVET, René, *L'avènement de l'École contemporaine en France (1789-1835). Laïcisation et professionnalisation de la culture scolaire*, Villeneuve-d'Ascq, Presses universitaires du Septentrion, 2001.

<sup>138</sup> KAESTLE, Carl F., *Pillars of the republic: common schools and American society, 1780-1860*, New York, Hill and Wang, 1983, p. 8.

<sup>139</sup> Throughout this thesis the term "ministry of education" is used, even if ministries did not officially have this name.

<sup>140</sup> MODEROW, *Volksschule zwischen Staat und Kirche*, p. 102-125.

<sup>141</sup> JEISMANN, Karl-Ernst, « American Observations Concerning the Prussian Educational System in the Nineteenth Century », in: GEITZ, Henry, HEIDEKING, Jürgen, HERBST, Jürgen (eds), *German influences on education in the United States to 1917*, Washington/Cambridge, German Historical Institute/Cambridge University Press, 1995, p. 21-41.

<sup>142</sup> The account of Mann's trip to Europe is to be found in the *Seventh Annual Report of the Board of Education: Together with the Seventh Annual Report of the Secretary of the Board*, Boston, Dutton and Wentworth, 1844. It has been reprinted in Britain as *Report of an educational tour in Germany, France, Holland, and parts of Great Britain and Ireland, being part of the seventh annual report of Horace Mann, with preface and notes*, by W. B. Hodgson, London, Simkin, Marshall & Company,

first superintendent of the Connecticut Board of Education. Pennsylvania was the first state that eliminated inscription fees and introduced free of charge education in 1834. In 1852, Massachusetts was the first state that made primary education compulsory. Protestantism was one of the major forces underlying the establishment of systems of public schooling in the United States. However, instruction became non-sectarian, involving all the Protestant denominations. Mann, Barnard and their followers did not want to abandon lectures of the Bible in class. According to Kaestle, the decisive fact was that Americans, adhering to these values, eventually accepted the state public school systems.<sup>143</sup>

In a society of continuous immigration public schools were also a means to produce loyal American citizens. Expanded primary education would also help the population to become fit for capitalist society. From this perspective it was not surprising that the United States – or at least the majority of the states that made up the Union –, as the contemporary and future capitalist country *par excellence* that had implemented most liberal economic policies, was one of the first countries to introduce free and compulsory public primary education. This was the victory of the statist model over a liberal model in education. Education became a public service. Translated into party politics the approach to education of the Whigs and later Republicans won over that of the Democrats. Democrats negatively referred to the Prussian origins of primary education and feared that this system would lead to authoritarianism.<sup>144</sup>

In France, the state started to regulate elementary instruction with the ordinance of 1816. In the 1830s, when reformers in the United States started to promote public

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1847. See also STOWE, Calvin, *Report on Elementary Public Instruction in Europe: Made to the Thirty-sixth General Assembly of the State of Ohio, December 19, 1837*, Boston, Dutton and Wentworth, 1838.

<sup>143</sup> KAESTLE, *Pillars of the republic*.

<sup>144</sup> *Ibid.*, p. 152-161.

schooling, the school debate in France saw an important advance as well. The July Revolution of 1830 had led to a limited liberalisation of political life. The Minister of Public Instruction François Guizot (1787-1874) envisioned the propagation of primary instruction in order to prevent revolutionary troubles and support industrial and commercial progress. One of his closest collaborators was the philosopher Victor Cousin (1792-1867). In order to prepare the educational reforms, Cousin travelled to the German states and got in contact with, mostly Prussian, education experts.<sup>145</sup> The Guizot Law of 1833, as an outcome of these efforts, organised primary education in France. Christian Nique has argued that the efforts of the 1830s under the July monarchy were by far more important for the implementation of modern primary education in France than later efforts of the Third Republic.<sup>146</sup> As in the United States there was a liberal paradox, even though the law was not so far reaching to introduce compulsion. In an epoch of triumphing liberalism of the July Monarchy the state started to organise the youth's education.

The 1870s saw a further wave of institutionalisation in the primary education sector. The German states, now united in the Empire but preserving their autonomy in educational affairs, passed new laws during the 1870s. The German states and some of the federal states making up the United States of America were the most advanced in the introduction of modern primary education, notably due to having introduced gratuity and compulsion. This was not yet the case in France and Japan. Experts from these countries made considerable efforts in building up and perfecting their systems of primary education in the 1870s. These appropriations took largely place in the framework of world exhibitions. They will be analysed empirically in the second part of this thesis.

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<sup>145</sup> COUSIN, Victor, *Rapport sur l'état de l'instruction publique dans quelques pays de l'Allemagne et particulièrement en Prusse*, Paris, Imprimerie royale, 1832.

<sup>146</sup> NIQUE, Christian, *Comment l'Ecole devint une affaire d'Etat (1815-1840)*, Paris, Nathan, 1990.

## 2. The Model Institutionalised – Primary Education during the Second Half of the Nineteenth Century

Primary education, as it was actually institutionalised, took different shapes in the four analysed countries. The major legislation, the levels of administrative authority, the sex and class bias of the education system as well as the influence of religious instances characterised the different institutional arrangements.

As has been shown above, the reforms of Guizot were a landmark in the French history of education, but did not make primary education compulsory. The Falloux Law of 1850, named after its author, the Minister of Public Instruction Alfred de Falloux (1811-1886), marked the transition to the Second Empire. Falloux' policies stressed social disciplining and rather hindered the development of schooling. Most education experts considered them a regression. Some years later, Victor Duruy (1811-1894), Falloux' successor as Minister of Education, deliberately fostered the expansion of primary education. The change of the Minister of Public Instruction reflected more general changes towards the liberal Empire of the 1860s. Duruy's tenure as Minister is generally depicted as a period of modernisation. His ambition to introduce compulsory primary education ultimately failed, however. The Catholic Church had a considerable hold over public instruction. Representatives of the major religious groups sat in the *Conseil impériale de l'instruction publique*<sup>147</sup>, the major forum for educational decision-making. Religious orders often successfully competed with public schools in organising elementary education. The question whether education should be based on Catholicism or whether religion should be completely kept out of the curricula developed into a major and controversial debate.

Primary schools received the children of the lower classes of society. Bourgeois families sent their children to the preparatory classes of secondary schools (*lycées* or

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<sup>147</sup> Later renamed in *Conseil supérieur de l'instruction publique*.

*collèges*). In terms of teaching staff and career patterns, primary education was completely separated from the academically oriented secondary and higher education sectors. Even an excellent graduate of a primary school could – in most cases – not continue his educational career in schools of secondary learning.<sup>148</sup> French primary schools practised segregation by sex. Coeducational schools were only accepted in small villages with a low number of children in school age. School attendance and, in turn, literacy differed to a great extent throughout the nation. An imaginary line from Saint Malo to Geneva divided the country. In the northeastern part literacy was high, in the southwestern part it was relatively low.<sup>149</sup>

Beyond the Rhine, the German situation differed in some important points.<sup>150</sup> School attendance was significantly higher. In 1816, about sixty percent of children frequented primary schools. By 1870, this number had risen to ninety percent, reaching almost total frequentation in the 1880s. Saxony had the highest rate of school attendance and the lowest rate of illiteracy worldwide, as even the reports of the United States Bureau of Education stated. The development in Prussia, for contemporaries and historians alike the reference in educational affairs, did not differ significantly from Saxony. In the conservative period of the restauration just after the failed revolution, the reactionary *Stiehlsche Regulative* of 1854 were directed against the emancipation of the teaching profession from the clergy. These regulations stayed in force until 1872. In this year the Prussian ministry promulgated the *Allgemeine Bestimmungen betreffend das Volksschul-, Präparanden- und Seminarwesen*. With the *Schulaufsichtsgesetz* of 1872 the state acquired authority of school inspection, at least in the cities whereas the clergy continued to inspect rural

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<sup>148</sup> On this segmentation of education, as it called Fritz Ringer see, RINGER, Fritz K., *Education and society in modern Europe*, Bloomington/London, Indiana University Press, 1979, p. 22.

<sup>149</sup> CHARLE, Christophe, *Histoire sociale de la France au XIXe siècle*, Paris, Seuil, 1991.

<sup>150</sup> For a recent concise presentation see KRAUS, Hans-Christof, *Kultur, Bildung und Wissenschaft im 19. Jahrhundert*, München, Oldenbourg Wissenschaftsverlag, 2008, p. 45-50.

schools until the beginning of the twentieth century. This started the culture wars (*Kulturkampf*) in which chancellor Bismarck attempted to minimise and control the societal influence of the Catholic Church.<sup>151</sup> The 1870s saw an impulse of expansion and innovation with better equipped schools and new subjects introduced to the curricula. Public expenditures for primary schooling had risen fourfold since 1800. The class bias of education in the German states was similar to the French case. While primary schools received the masses of peasants and workers, middle-class families sent their offspring to the *gymnasien* and private preparatory schools. In contrast to France, however, German primary schools were in most cases coeducational. Also in contrast to France, separate public schools continued to exist for Protestant, Catholic and Jewish children. German schools were well administered, but comprised authoritarian elements. An imperial order of 1889 charged primary schools with fighting against social democracy, for example. Historians evaluated German elementary education as both supporting and hindering the formation of a modern civil society in Germany.<sup>152</sup>

Outside of Europe, Japan had been isolated from the rest of the world with only limited foreign intercourse for centuries. Consequently the situation of primary education differed from that in Europe. Nevertheless some features were strikingly similar to European developments. Tokugawa Japan was a class society where samurai warriors served their lord of their domain.<sup>153</sup> Education was characterised by separate tracks for youth of the samurai and commoners. The samurai received their instruction at shogunal schools supported by the domains. Commoners received

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<sup>151</sup> For a transnational evaluation of the *Kulturkampf* see the special issue of *Comparativ*, 12, 5/6, 2002, edited by Christopher Clark and Wolfram Kaiser.

<sup>152</sup> NIPPERDEY, Thomas, *Deutsche Geschichte 1800-1866: Bürgerwelt und starker Staat*, München, Beck, 1983, p. 451. See also KUHLEMANN, Frank-Michael, *Modernisierung und Disziplinierung: Sozialgeschichte des preußischen Volksschulwesens 1794-1872*, Göttingen, Vandenhoeck & Ruprecht, 1992. Kuhlemann speaks of a partial modernisation.

<sup>153</sup> SCHWENTKER, Wolfgang, *Die Samurai*, München, Beck, 2003.

elementary instruction in reading and writing in the so-called temple schools (寺子屋, *terakoya*).<sup>154</sup> This segmentation persisted until the beginning of the Meiji period when the samurai status was officially abolished. The *terakoya* were open to youths of both sexes. According to Herbert Passin, who used a classical approach of modernisation theory, a well working education in Tokugawa Japan prepared the population for success in modern society. School attendance and literacy were relatively high when compared to European standards.<sup>155</sup>

The establishment of diplomatic contacts between Japan and the United States in 1853 also had repercussions on debates in the field of education. After the events of the Meiji Restoration local lords initiated autonomous efforts of introducing comprehensive education systems on the local level. The lord of the domain of Fukui in central Japan engaged the American William E. Griffis (1843-1928) as an instructor.<sup>156</sup> The city of Kyoto established a system of primary schools which had a model character.<sup>157</sup> The establishment of the prefectural system in 1871 shifted authority to the central government in Tokyo, abolished the old domains, deprived their lords from power and thus put an end to local modernisation efforts. The creation of the Ministry of Education (文部省, *monbushō*) in July 1871 transferred

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<sup>154</sup> DORE, Ronald Philip, *Education in Tokugawa Japan*, Berkeley, University of California Press, 1965.

<sup>155</sup> PASSIN, Herbert, *Society and Education in Japan*, New York, Bureau of Publications – Teachers College – Columbia University, 1965, p. 52.

<sup>156</sup> Griffis later became a professor at the *kaisei gakkō* in Tokyo. BEAUCHAMP, Edward R., *William Elliot Griffis and Japan: Yatoi, Historian and educational educator*, PhD thesis, University of Washington, 1973.

<sup>157</sup> Fukuzawa Yukichi described the Kyoto education system in 1872: FUKUZAWA, Yukichi, « The school system in Kyoto », in: *Fukuzawa Yukichi on education: selected works; translated and edited by Eiichi Kiyooka; introduction by Kazuyoshi Nakayama*, Tokyo, University of Tokyo Press, 1985, p. 73-78.

the central authority in educational affairs to the capital. Ōki Takatō (大木喬任, 1832-1899), the first Minister of Education<sup>158</sup>, pursued a modernising policy.

On the other side of the Pacific Ocean, American common school crusaders were building up their free school system. The historian Micheal B. Katz spoke of “democratic localism” as the school districts remained the central units of school organisation.<sup>159</sup> The parents of children had a direct influence on school affairs and decided, for example, on the engagement of a particular teacher. State legislation provided but a loose organisational framework. State boards of education usually consisted of one superintendent and some employees, usually less than ten. Before the Civil War no federal or national institution dealing with education existed. Only in the 1870s state administrations slowly began to centralise power which found expression in financial transfers and standardisation. States decided on their own terms on gratuity and compulsion. Whereas some northeastern states disposed of education systems ranging amongst the best of the world, others were rudimentary, which also reflects the ongoing westward expansion of the United States. Attendance greatly varied throughout the Union, being lowest in the Southern states.

Public schools of the United States received children from all classes of society. The children of poor and rich families learned side by side, at least theoretically. In Europe, public elementary schools were finishing schools. They did not prepare for secondary and higher education. By contrast, in the United States primary schools were also fitting schools that prepared pupils to enter high schools or private academies. The way to higher education started in a public elementary school. Nevertheless, most pupils did not use this possibility and dropped off earlier. In the

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<sup>158</sup> The term “minister” is used here for convenience. Technically, however, this term should not be used before 1885 when the cabinet system was introduced. See PASSIN, *Society and education in Japan*, p. 70.

<sup>159</sup> KATZ, Micheal B., *The Irony of early school reform, educational innovation in mid-nineteenth century Massachusetts*, Cambridge, Harvard University Press, 1968.

public schools of the United States girls and boys learned side by side, although segregational strategies persisted. In the higher grades of public schools most pupils were actually girls, as boys used to quit school early in order to find work and earn money.<sup>160</sup> Moreover, most elementary teachers were women. Being a teacher was a precarious job, as instructors were hired only for the year in course. Often it was a transitory occupation for young women who would stop to teach once they got married. A peculiarity of education in the United States was the racial bias.

## **II. Technical Education**

The introduction of compulsory primary schooling was not the only educational innovation of the nineteenth century. The development of technical education was another distinctive feature of this period. Around 1900 the preparation for industrial and commercial careers took to a large extent place in specialised educational institutions. Moreover, elementary schools in most countries introduced young children to the basics of industrial procedures. This was the result of long-term developments.

Technical education stood in a close relationship with industrialisation.<sup>161</sup> Industrialisation profoundly changed the social and economic preconditions of education. The question was how to adapt education to the needs of this fast developing society. The answer was to train youth for specific careers in industry in schools, instead of training them directly at the work place. But historians still debate in which way technical education actually influenced the industrialisation process. Peter Lundgreen has argued that it did not have a significant impact on the economic

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<sup>160</sup> TYACK, David, HANSOT, Elisabeth, *Learning together: a history of coeducation in American public schools*, New Haven/New York, Yale University Press/Russell Sage Foundation, 1992.

<sup>161</sup> On industrialisation see LANDES, David Saul, *The unbound Prometheus: technological change and industrial development in Western Europe from 1750 to the present*, Cambridge, Cambridge University Press, 1969.

development during the nineteenth century, concluding that technical education was not the key factor in economic growth.<sup>162</sup> The contemporary debates on technical education went far beyond its official definition, lately adopted at the *Congrès international de l'enseignement technique* at the Paris exposition of 1889. At this congress delegates agreed that technical education was a general term comprising industrial and commercial education on all levels.<sup>163</sup>

In the chapters on technical education several issues will thus be discussed. They include the establishment of technical universities as well as modifications in the orientation of secondary education. The introduction of manual training and industrial drawing to primary education was a further issue. Vocational training or education prepared young people for specific jobs that were based on non-academic manual or practical activities. All these issues are held together by an emphasis on the practicality of acquired knowledge. Thus, the debates on technical education in all industrialising countries affected the entire education systems.

## **1. The Rise of Technical Education – The Emergence of School Culture in the Nineteenth Century**

It is difficult to find a convincing starting point for discussing the development of technical education. Most accounts start with the foundation of some great French institutions at the end of the eighteenth century, although technical education had already appeared earlier on a smaller scale.<sup>164</sup> In this perspective, the *Ecole polytechnique*, established at Paris in 1794, was the birthplace of modern engineering

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<sup>162</sup> LUNDGREEN, Peter, « Industrialization and the Educational Formation of Manpower in Germany », in: *Journal of Social History*, 9, 1, 1975, p. 64-80, here p. 70, 73. See also LUNDGREEN, Peter, *Bildung und Wirtschaftswachstum im Industrialisierungsprozess des 19. Jahrhunderts: methodische Ansätze, empirische Studien und internationale Vergleiche*, Berlin, Colloquium-Verlag, 1973.

<sup>163</sup> *Congrès international de l'enseignement technique commercial et industriel. Deuxième session tenue à Paris du 8 au 13 juillet 1889. Compte rendu analytique*, Paris, Imprimerie nationale, 1890, p. 9.

<sup>164</sup> This was notably the case of the *Ecole du génie de Mézières* founded in 1749: CHARTIER, Roger, « Un recrutement scolaire au XVIIIe siècle: l'Ecole royale du Génie de Mézières », in: *Revue d'histoire moderne et contemporaine*, 20, 3, 1973, p. 353-375.

education.<sup>165</sup> This school offered a theoretical curriculum preparing students for entry into three specialised application schools. These were the *Ecole du genie militaire*, the *Ecole des ponts et chaussées* and the *Ecole des mines*. Mathematics became the scientific foundation and basic curricular component of technical instruction.

The graduates of the *Ecole polytechnique* and the application schools became state officials and formed up a state corps of civil and military engineers. In contrast, the *Ecole centrale des arts et manufactures* was founded as a private institution in 1829 and taken over by the state in 1856. The school had a practical orientation, as opposed to the theoretical orientation of the *Ecole polytechnique*. Its main purpose was to train an industrial elite for the private sector.<sup>166</sup> These two models of the *Ecole polytechnique* and the *Ecole centrale* which trained state servants and engineers for the private sector respectively became a central paradigm in higher technical education.

At various places throughout the world governments saw the need to foster industrialisation through the development of technical education and applied science during the first half of the nineteenth century. Almost all of them made reference to the aforementioned French institutions.<sup>167</sup> The German chemist Justus von Liebig (1803-1873) was one of the actors who brought scientific procedures to the German states after his stay in Paris. Liebig built up a laboratory at the University of Giessen

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<sup>165</sup> NAKAYAMA, Shigeru, *Academic and scientific traditions in China, Japan, and the West*, translated by Jerry Dusenbury, Tokyo, University of Tokyo Press, 1984, p. 163.

<sup>166</sup> On the *Ecole centrale* see WEISS, John Hubbel, *The Making of Technological Man: the Social Origins of French Engineering Education*, Cambridge/London, MIT, 1982.

<sup>167</sup> See the convincing call for transfer analysis of technical education in KARVAR, Anousheh, « Model reception in the domain of engineering education: Mediation and Negotiation », in: *History and Technology*, 12, 2, 1995, 81-93.

in Hesse.<sup>168</sup> In other parts of Germany, partly inspired by French models, technical schools flourished, too. The *Großherzogliche Badische Polytechnische Schule* in Karlsruhe was established in 1833. In Prussia, the *Bauakademie* for the training of state engineers opened in 1799. The *Gewerbeinstitut* of Berlin which had to foster trade followed in 1821, mainly inspired through Peter Christian Wilhelm Beuth (1781-1953) of the Ministry of Trade.<sup>169</sup> French experts transformed the United States Military Academy at Westpoint on the model of the *Ecole polytechnique*.<sup>170</sup> The Russian government encouraged French experts to come to Russia in order to establish technical schools.<sup>171</sup> It has been argued that the multiple transfers of technical knowledge entailed the formation of an international community of engineers and experts of technical education.<sup>172</sup>

The introduction of technical institutions and curricula in higher education provoked criticism amongst those who defended a more intellectual education. The neohumanistic model which was based on the study of the ancient civilisations and languages of Greece and Rome was introduced at the same time. The debates between supporters and opponents of technically oriented education were present all over the world, but took various shapes in each country, depending on who had more cultural capital and the most powerful position in the decision making process. In Germany, for example, the promoters of technical education did only succeed late

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<sup>168</sup> On Liebig, with further bibliographic references, see VOGEL, Jakob, *Ein schillerndes Kristall: eine Wissensgeschichte des Salzes zwischen Früher Neuzeit und Moderne*, Köln, Böhlau, 2008, p. 290-296 and 330-357.

<sup>169</sup> LUNDGREEN, Peter, « Fachschulen », in: JEISMANN, Karl-Ernst, LUNDGREEN, Peter (eds), *Handbuch der deutschen Bildungsgeschichte. Band 3. 1800-1870: Von der Neuordnung Deutschlands bis zur Gründung des Deutschen Reiches*, München, Beck, 1987, p. 293-305, here p. 295-297.

<sup>170</sup> KARVAR, Anousheh, « Model reception in the domain of engineering education: Mediation and Negotiation », in: *History and Technology*, 12, 2, 1995, 81-93, here p. 86.

<sup>171</sup> See below, third part, chapter one.

<sup>172</sup> GOUZEVITCH, Irina, BRET, Patrice (eds), *Naissance d'une communauté internationale d'ingénieurs (première moitié du XIXe siècle). Actes des journées d'étude 15-16 décembre 1994*, Paris, Centre de recherche en histoire des sciences et des techniques – Cité des sciences et de l'Industrie, 1997.

and in a limited way to impose themselves against the supporters of neohumanistic ideals.

The technical dimension of education developed in a more unrestricted way in Japan. Three academic traditions coexisted on the archipelago. First, the so-called Chinese learning was based on the Confucian classics. Second, the approach of national learning referred to genuinely Japanese traditions, mainly Shintoism. Although one should not overstrain similarities, one can argue that in the Japanese academic field Confucian learning acquired a position similar to that of the neo-humanistic direction in Europe. The third strain of Japanese education was referred to as Western learning (洋学, *yōgaku*).<sup>173</sup> This kind of learning meant that scholars absorbed notions of European (and American) civilisation. Doing so, the European distinction between academic and practical knowledge, which found its best expression in the German distinction between humanistic universities and practically oriented polytechnical schools, was far less important in Japan. Furthermore, the new Meiji leaders, who had in most cases received such a Western education, soon disqualified Confucian and native knowledge. The historian of science Shigeru Nakayama observed that

“[there] was no particular reason for the mid-nineteenth-century Japanese to distinguish between science and technology when facing the impact of modern Western military aggression. To the Japanese it appeared that modern science and modern technology grew in a single Western tradition. It was not the science-versus-technology dichotomy but rather the tradition-versus-Western dichotomy over which the Japanese were seriously concerned. [...] While science in nineteenth century Europe was still in the main a cultural activity [...] rather than a means of achieving economic growth, the Japanese image of science in the late nineteenth century was perhaps the most modern. It was exclusively utilitarian

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<sup>173</sup> As the Dutch were the only Europeans who were allowed to have restricted intercourse with Japan during the period of seclusion, Japanese also spoke of Dutch learning (蘭学, *rangaku*). GOODMAN, Grant K., *Japan: The Dutch Experience*, London, Athlone, 1986.

and pragmatic, planned for national interest if not purely for profit-making, specialised and compartmentalized.”<sup>174</sup>

Technical education did not only reach Japan, but spread in all industrialised countries. As shown above, the technical schools founded since the late eighteenth and early nineteenth century in France and Germany responded to two different needs, namely the training of state officials and the training of industrialists.<sup>175</sup> What was new during the second half of the century was the emergence of more and more courses that aimed at preparing technical specialists for positions in industry.<sup>176</sup> In France and Germany, a limited number of such schools had already been founded during the first half of the century. These countries, as Lundgreen called it, possessed a “school culture”. School culture means that industrial engineers and experts are trained in schools. In the United States (and Britain) no corps of state engineers existed. Private businesses did not rely on schools, but trained their experts in situ. Lundgreen called this model “shop culture”. Afterwards, during the second half of the nineteenth century with a new wave of industrialisation taking place school culture imposed itself in the United States, too, and was still reinforced in continental Europe.<sup>177</sup>

Not only the higher education sector saw changes and growth. The apprenticeship system was in a slow but steady decline throughout the century. The development of industry made the apprentice system obsolete where an apprentice learned a trade under a long-term patriarchal guidance of a master. Modern industry needed other training. Also, the mechanisation of industry made the use of illiterate youth

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<sup>174</sup> NAKAYAMA, Shigeru, *Characteristics of Scientific Development in Japan*, New Delhi, Centre for the Study of Science, Technology, and Development, 1977, p. 42.

<sup>175</sup> LUNDGREEN, Peter, « Engineering Education in Europe and the USA, 1750-1930: The Rise to Dominance of School Culture and the Engineering Professions », in: *Annals of Science*, 47, 1, 1990, p. 33-75.

<sup>176</sup> FOX, Robert, GUAGNINI, Anna, « Introduction », in: FOX, Robert, GUAGNINI, Anna (eds), *Education, technology and industrial performance in Europe: 1850-1939*, Cambridge/Paris, Cambridge University Press/Editions de la Maison des sciences de l'homme, 1993, p. 1-10, here p. 1.

<sup>177</sup> LUNDGREEN, « Engineering Education in Europe and the USA », p. 39.

unattractive.<sup>178</sup> This is one reason why industrial components were introduced to primary schools and vocational schools founded.

Besides the institutional framework, the pedagogical organisation of technical instruction engendered major debates, hence the frequent focus on courses of study in exhibition reports. The so-called project method that conveyed a sense of “learning by doing” received particular attention. Workshops that served exclusively educational purposes were slowly introduced. This more practical form of instruction supplemented theoretical classes.<sup>179</sup>

Moreover, education experts who promoted technical education sought to advance different aims. The workshop method was first used in higher education. Then the idea that manual training in primary and secondary education can train a better working force and stimulate economic development became common among education experts of the late nineteenth century. Subsequently this culminated in programmes of vocational guidance that lead working class youths towards unambitious tracks which prepared them for work life and allowed a social control of this group. But manual training, some experts argued, could also contribute to a more wholesome, that is not exclusively academic, education of the child. Similar debates on the social needs and pedagogical forms of manual training took place in many contexts, including Argentina and China.<sup>180</sup>

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<sup>178</sup> CHASSAGNE, Serge, « Le travail des enfants au XVIIIe et XIXe siècles », in: BECCHI, Egle, JULIA, Dominique (eds), *Histoire de l'enfance en Occident. 2. Du XVIIIe siècle à nos jours*, Paris, Seuil, 1998, p. 239-288.

<sup>179</sup> KNOLL, Michael, « The Project Method – Its Origin and International Influence », in: RÖHRS, Hermann, LENHART, Volker (eds), *Progressive Education Across the Continents. A Handbook*, Frankfurt am Main, Peter Lang, 1995, p. 307-318; KNOLL, Michael, « Europa – nicht Amerika. Zum Ursprung der Projektmethode in der Pädagogik, 1702-1875 », in: *Zeitschrift für internationale erziehungs- und sozialwissenschaftliche Forschung*, 8, 1991, p. 103-127.

<sup>180</sup> OELSNER, Verónica, SCHULTE, Barbara, « Variationen des Anderen: Die Wahrnehmung ausländischer Bildungsmodelle in der argentinischen und chinesischen Bildungsdebatte im späten 19. und frühen 20. Jahrhundert », in: *Comparativ*, 16, 3, 2006, p. 44-67.

Technical education had a major impact on professionalisation, not only of teachers.<sup>181</sup> The profession of engineers emerged.<sup>182</sup> Education officially legitimised a technical elite. Training for commercial careers became professionalised as well. John W. Hoyt (1831-1912), United States commissioner to the universal exhibition of 1867, stated that “in France, commerce [was] henceforth a profession.”<sup>183</sup> But technical education also had a political dimension. The engineer became an important figure in the national imagery. The possession of up-to-date technical schools was a symbolic claim for modernity and legitimacy on the international arena.<sup>184</sup>

It will be shown empirically below, how educators used the world exhibition in order to transfer school culture and the project method to their countries. Closely related to the development of industrial society, the circulation of knowledge on technical instruction was the key for institutionalisation processes in various parts of the world.

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<sup>181</sup> On professionalisation see also McCLELLAND, Charles E., *The German experience of professionalization: modern learned professions and their organizations from the early nineteenth century to the Hitler era*, Cambridge, Cambridge University Press, 1991; SIEGRIST, Hannes (ed.), *Bürgerliche Berufe: zur Sozialgeschichte der freien und akademischen Berufe im internationalen Vergleich*, Göttingen, Vandenhoeck & Ruprecht, 1988.

<sup>182</sup> LUNDGREEN, « Engineering Education in Europe and the USA », p. 67-75. Terry Shinn has shown for France how the notion of ‘engineer’ passed from a member of a state corps to a professional in industry: SHINN, Terry, « From ‘corps’ to ‘profession’: the emergence and definition of industrial engineering in modern France », in: FOX, Robert, WEISZ, George (eds), *The Organization of science and technology in France: 1808-1914*, Cambridge/Paris, Cambridge University Press/Editions de la Maison des sciences de l’homme, 1980, p. 183-208

<sup>183</sup> HOYT, John W., *Report on Education*, Washington, Government Printing Office, 1870, p. 191. See also the brochure of one of the leading engineers of the United States THURSTON, Robert Henry, *Educational problems: electrical engineering as a profession*, 1898. Robert Henry Thurston (1839-1903) was a member of the American scientific commission to the Vienna exhibition and editor of the United States official reports.

<sup>184</sup> PETITJEAN, Patrick, « Scientific development, engineering schools and the building of a modern state », in: *History and Technology*, 12, 2, 191-204, here p. 197, 199.

## 2. A Growing Institutional Diversity – Technical Education during the Second Half of the Nineteenth Century

In the middle of the nineteenth century when the first world exhibitions took place education applied to industrial and commercial purposes was in most countries little developed, despite a small number of agenda setting institutions.

As shown above, French institutions, such as the *Ecole polytechnique* with its application schools and the *Ecole centrale*, had a model character for the development of technical education in a global perspective. The *Conservatoire national des arts et métiers*, founded in 1794, was still another institution in the French capital.<sup>185</sup> Besides these *grandes écoles*, the *université* was an administrative, centralised national body founded by Napoleon in 1808. It had authority over specialised *facultés* in the entire country. Faculties, although geographically concentrated in cities as *académies*, were legally not connected to one another. Only the reform movement of the 1890s tried to re-establish universities by connecting the loose faculties to universities. Provincial faculties of sciences developed excellence in specialised fields, as for example electrotechnics.<sup>186</sup>

The first *Ecoles d'arts et métiers* were established at the beginning of the nineteenth century. The schools' graduates held middle-level supervisory positions in large-scale industry and railways or became heads of smaller enterprises.<sup>187</sup>

The general education system offered different options which included technical elements. On the one hand, the Guizot Law of 1833 introduced higher primary

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<sup>185</sup> FOX, Robert, « Education for a New Age: The Conservatoire des Arts et Métiers, 1815-1830 », in: CARDWELL, D. S. L., *Artisan to graduate: essays to commemorate the foundation in 1824 of the Manchester Mechanics' Institution, now in 1974 the University of Manchester Institute of Science and Technology*, Manchester, Manchester University Press, 1974, p. 23-38.

<sup>186</sup> BIRK, Françoise, GRELON, André (eds), *Un siècle de formation des ingénieurs électriciens: ancrage local et dynamique européenne. L'exemple de Nancy*, Paris, Editions de la Maison des sciences de l'homme, 2006.

<sup>187</sup> This type of school was founded in Châlons-sur-Marne (1806), Angers (1811), Aix-en-Provence (1843), Lille (1900) and Paris (1912). See DAY, C. R., « The Making of Mechanical Engineers in France: The Ecoles d'Arts et Métiers », in: *French Historical Studies*, 10, 3, 1978, p. 439-460.

education.<sup>188</sup> After the end of the July Monarchy this school type was practically discontinued, reviving under the Third Republic when the country soon possessed more than four hundred higher primary schools, half of them offering shop training and professional programmes. Some of the higher primary schools were passed to the Ministry of Commerce as *écoles pratiques de commerce et d'industrie* in 1892. On the other hand, the Minister of Public Instruction Victor Duruy established the *enseignement secondaire spécial* in 1865. It was directed to the sons of the petty bourgeoisie and offered a secondary education without ancient languages. Final diplomas did not give access to higher education, exceptions being made for some specialised technical schools.<sup>189</sup> In 1891 the *enseignement secondaire spécial* was discontinued and integrated into secondary instruction as the modern track leading to the *baccalauréat*, the French state diploma granting access to higher education. The Ribot Commission of 1898 prepared the reform of secondary education of 1902 which gave a larger place to technical elements.<sup>190</sup>

Private and municipal technical schools also played a role. Besides the Catholic institutions, local businessmen founded schools, such as the *Ecole de la Martinière* in Lyon which opened in 1831.

In the German states higher education was under government authority as well. The coexistence of several German states engendered a university market. The polytechnic schools established during the first half of the century were transformed into *Technische Hochschulen* (technical universities) during the second half of the

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<sup>188</sup> BRIAND, Jean-Pierre, CHAPOULIE, Jean-Michel, *Les collèges du peuple. L'enseignement primaire supérieur et le développement de la scolarisation prolongée sous la Troisième République*, Paris, INRP, 1992.

<sup>189</sup> MAYEUR, *Histoire de l'enseignement*, p. 572-578.

<sup>190</sup> RIBOT, Alexandre, *La Réforme de l'enseignement secondaire*, Paris, A. Colin, 1900. See PROST, Antoine, « De l'enquête à la réforme. L'enseignement secondaire des garçons de 1898 à 1902 », in: *Histoire de l'éducation*, 119, 2008, p. 29-81; RINGER, Fritz, *Fields of Knowledge: French Academic Culture in Comparative Perspective, 1890-1920*, Cambridge/Paris, Cambridge University Press/Maison des Sciences de l'Homme, 1992.

century.<sup>191</sup> In 1879 the *Bauakademie* and the *Gewerbeakademie* of Berlin merged into the *Technische Hochschule Charlottenburg*, for example.<sup>192</sup> Around 1900 the German Empire possessed nine technical universities. The *Verein Deutscher Ingenieure* was founded as the most influential association of engineers in Germany in 1856. The status of the technical universities was legally and in reputation inferior to that of the traditional universities until the late nineteenth century.

The early nineteenth century was a period of reform. Prussia made the *Abitur*, the German final diploma of secondary studies at a *gymnasium*, a prerequisite for entering a university in 1834. The curricula of gymnasia stressed the ancient languages and excluded practical elements. At the same time the philological faculties of universities saw an unprecedented boost, as they trained teachers for the *gymnasia*. The German *gymnasium* and the philological faculty symbolised the neohumanistic model *par excellence*. The *Realgymnasium* and the *Oberrealschule* provided more practically oriented forms of secondary education. These changes were discussed at the school conferences of 1890 and 1900.<sup>193</sup>

On the lower level existed, in Prussia, the so-called *Provinzialgewerbeschulen* and other specialised schools (*Gewerbeschulen*, *Fachschulen*).<sup>194</sup> Over the decades, towards the turn of the century, German science and technical education reached a high level. However, manual training did not find its way into the curricula of most primary schools.

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<sup>191</sup> KÖNIG, Wolfgang, « Zwischen Verwaltungsstaat und Industriegesellschaft. Die Gründung höherer technischer Bildungsstätten in Deutschland in den ersten Jahrzehnten des 19. Jahrhunderts », in: *Berichte zur Wissenschaftsgeschichte*, 21, 2/3, 1998, p. 115-122.

<sup>192</sup> LUNDGREEN, Peter, « Fachschulen », in: JEISMANN, Karl-Ernst, LUNDGREEN, Peter (eds), *Handbuch der deutschen Bildungsgeschichte. Band 3. 1800-1870: Von der Neuordnung Deutschlands bis zur Gründung des Deutschen Reiches*, München, Beck, 1987, p. 293-305, here p. 297.

<sup>193</sup> ALBISETTI, James C., *Secondary school reform in imperial Germany*, Princeton, Princeton University Press, 1983, p. 172-203; JEISMANN, Karl-Ernst, *Höhere Bildung zwischen Reform und Reaktion, 1817-1859*, Stuttgart, Klett, 1996; KÖNIG, Wolfgang, *Wilhelm II. und die Moderne. Der Kaiser und die technisch-industrielle Welt*, Paderborn et al., Schöningh, 2007, p. 110-136.

<sup>194</sup> GRÜNER, Gustav, « Fachschulen », in: BERG, Christa (ed.), *Handbuch der deutschen Bildungsgeschichte. Band 4. 1870-1918: von der Reichsgründung bis zum Ende des Ersten Weltkriegs*, München, Beck, 1991, p. 389-398.

In Japan as well, technical education saw a boom in the last decades of the nineteenth century. The tradition of Western learning was fundamentally technical. The Tokugawa regime established the Institute for the Study of Barbarian Books (蕃書調所, *Bansho shirabesho*) where scholars had to extract and translate useful information from foreign books. It survived the restoration period and became the *Kaisei gakkō* (開成学校). The Tokugawa also ran a European-style medical school (医学校, *Igakkō*). Right after the restoration initiatives that gave a central place to national learning were soon abolished.<sup>195</sup> Both institutions were merged into the new Tokyo University in 1877.<sup>196</sup>

The Meiji government set up a Ministry of Public Works (工部省, *kōbushō*) in 1870. The ministry's goal was to gain access to foreign technology and prepare the industrial development of Japan. Belonging to the Ministry of Public Works, the College of Engineering (工部大学校, *Kōbu daigakkō*) in Tokyo existed from 1871, though it obtained its actual name only by 1877. In 1885, when the Ministry of Public Works was discontinued, the College of Engineering was merged with Tokyo University. It was henceforth the University's Department of Engineering. This was the first time a university comprised of an engineering department. Other ministries as well opened their own specialised schools for the training of future officials.

Tokyo University soon acquired a dominant position in Japanese higher education. In some fields of research it was at the forefront of scientific progress at

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<sup>195</sup> MARSHALL, Byron K., *Learning to be modern: Japanese political discourse on education*, Boulder, Westview Press, 1994, p. 27-29.

<sup>196</sup> Founded in 1877 as Tokyo University (東京大学, *Tōkyō Daigaku*), renamed in 1886 into Imperial University (帝国大学, *Teikoku Daigaku*), renamed again in 1897 into Tokyo Imperial University (東京帝国大学, *Tōkyō Teikoku Daigaku*). On the foundation of this university see MARSHALL, Byron K., *Academic freedom and the Japanese imperial university, 1868-1939*, Berkeley, University of California Press, 1992, p. 28-32.

the turn of the century.<sup>197</sup> Private schools also played a considerable role in Japan. Fukuzawa Yukichi (福澤諭吉, 1835-1901), the most eminent representative of Japanese enlightenment, founded *Keio gijuku* (慶應義塾) which developed into one of the foremost private universities of Japan.<sup>198</sup>

On the lower level, one of the first technical schools that opened in Japan in 1867 was the French naval school in Yokosuka.<sup>199</sup> The German Gottfried Wagener unsuccessfully tried to introduce workshop training at *kaisei gakkō* in the early 1870s.<sup>200</sup> A first school for the training of workers was founded in Tokyo in 1881. From 1894 onwards, apprentice schools were established nationwide. The number of these schools reached 136 in 1918.<sup>201</sup>

Although the system of primary education started to work effectively in most states of the American Union, the nation still lacked efficient institutions of technical learning. At mid-century, industrial and commercial elements were neither part of the curriculum of public schools nor of colleges. The history of American higher education began in the colonial era when the English influence was dominant. Harvard College, founded in 1636, was the most prestigious institution. The so-called Yale Report of 1828 reaffirmed the traditional orientation of college education.<sup>202</sup> It prescribed a bachelor of arts curriculum that emphasised the study of classical languages, science and mathematics with the aim of building character and

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<sup>197</sup> BARTHOLOMEW, James R., *The formation of science in Japan*, New Haven, Yale University Press, 1989.

<sup>198</sup> BLACKER, Carmen, *The Japanese Enlightenment: A Study of the Writings of Fukuzawa Yukichi*, Cambridge, Cambridge University Press, 1964.

<sup>199</sup> FUKASAKU, Yukiko, « Foreign influence in the development of shipbuilding technology and the education of engineers in Japan, 1855-1940 », in: *History and Technology*, 12, 2, 1994, p. 119-127, here p. 121-122; TOUCHET, Elisabeth de, *Quand les Français armaient le Japon: la création de l'arsenal de Yokosuka: 1865-1882*, Rennes, Presses universitaires de Rennes, 2003.

<sup>200</sup> KREINER, Josef, *Deutsche Spaziergänge in Tokyo*, Iudicium-Verlag, 1996, p. 160.

<sup>201</sup> *Japan's modern educational system: a history of the first hundred years*, Tokyo, Research and Statistics Division, Minister's Secretariat, Ministry of Education, Science and Culture, Government of Japan, 1980, p. 140.

<sup>202</sup> *Reports on the course of instruction in Yale college. By a committee of the corporation and the academical faculty*, New Haven, H. Howe, 1828.

promoting distinctive habits of thought.<sup>203</sup> It fostered piety and impeded a development towards more technical learning. Although the number of degree-granting colleges in the United States rose from twenty-five in 1800 to 241 in 1860, they were not at the forefront of intellectual progress and did not respond to societal needs.<sup>204</sup> Many of them had become diploma mills, as the historian John R. Thelin has called them.<sup>205</sup>

Nevertheless, some schools providing higher technical instruction were founded during the first half of the nineteenth century. Besides the aforementioned United States Naval Academy at West Point, the Rensselaer Polytechnic Institute which opened in Troy, New York, in 1824 and the Lawrence Scientific School of Harvard College, established in 1847, have to be mentioned.

Higher education in the United States was mostly privately organised. However, in the 1860s federal incentives led to massive investments in technical (and agricultural) higher education. In the United States the Morrill Act stands out “as path-breaking legislation that signalled the entrance of the federal government into public policy dealing with the creation of the land-grant colleges”.<sup>206</sup>

Even in the United States where engineering was soon integrated in the new research universities at the end of the century, the relationship between humanistic and practical elements in secondary and higher education was conflictual. This was a major topic in the discussions of the Committee of Ten on Secondary Studies of 1893.<sup>207</sup>

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<sup>203</sup> THELIN, John R., *A History of American Higher Education*, Baltimore/London, Johns Hopkins University Press, 2004, p. 64.

<sup>204</sup> VEYSEY, Laurence R., *The Emergence of the American University*, Chicago, University of Chicago Press, 1965, p. 10.

<sup>205</sup> THELIN, *A History of American Higher Education*, p. 54.

<sup>206</sup> *Ibid.*, p. 74. On the Morrill Act see also the special issue of *History of Higher Education Annual*, 18, 1998.

<sup>207</sup> *Report of the Committee of Ten on Secondary Studies*, Washington, Government Printing Office, 1893.

Technical instruction did practically not exist in American primary education before the 1870s. Students tended to leave school early in order to work and gain money. It will be shown below how educators of the United States adapted features of school culture through the world exhibitions of this period.

### ***III. Actors and Media for the Transnational Circulation of Educational Knowledge***

As shown above, the education systems of France, Germany, Japan and the United States differed in some important points, but also possessed common characteristics. In all these countries a group of education experts emerged who institutionalised, reformed and administered education. These experts used different means to communicate with their colleagues of other countries.

#### **1. Experts and Their Institutions – The Rise of a Group of Education Administrators**

Education experts are the historical actors that this thesis sets out to analyse. They prepared the ground, oversaw and reflected on the rise of modern education systems throughout the nineteenth century. Being actively engaged in educational reform, education experts arranged, visited and wrote about the educational sections of world exhibitions. They frequently had several functional roles which were not mutually exclusive. They were officials of ministries of education and school boards, school directors, university presidents, prominent teachers, politicians and sometimes clergymen. University professors in general had a foremost influence on the elaboration and implementation of higher education policies. Professors of pedagogy and educational sciences in particular had a further theoretical interest in education. In the field of technical education, engineers and professors of engineering were also experts of pedagogical aspects in their field. Specialists of school hygiene, medical

doctors, manufacturers of school equipment and architects also belonged to this group and mostly dealt with material questions of schooling.

Research has shown that teachers also played a considerable role in transnational contacts.<sup>208</sup> Teachers frequently visited world exhibitions. However, having subordinate positions in ministerial and professional hierarchies, their agency and influence on decision-making – a crucial characteristic of an expert – was often limited. Their visits were usually arranged by ministries and restricted their freedom of action. This is why teachers are not included in the group of education experts for the purposes of this thesis unless they possessed additional credentials.

Recent research literature on experts in various fields of specialisation permits a better understanding of the changing role and increasing importance of expertise in the nineteenth century. Being an expert involved two essential characteristics. On the one hand, experts had specific knowledge. They possessed specialised skills that they had acquired through their training, experience and function. On the other hand, they received social recognition as experts from the part of the public, other experts and the state. The expert status was thus a category of social labelling supposing specialised competences, involving a performative aspect. The category of the expert was a relational one. Being an expert was the result of societal interaction.<sup>209</sup> In sum,

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<sup>208</sup> Instructors of the German language in France had a role as cultural brokers between the two nations: ESPAGNE, Michel, LAGIER, Françoise, WERNER, Michael, *Le maître de langues. Les premiers enseignants d'allemand en France: 1830-1850*, Paris, Editions de la maison des sciences de l'homme, 1991. German female teachers made study trips to England: GIPPERT, Wolfgang, « Das Ausland als Chance und Modell: Frauenbildung im viktorianischen England im Spiegel von Erfahrungsberichten deutscher Lehrerinnen », in: GIPPERT, Wolfgang, GÖTTE, Petra, KLEINAU, Elke (eds), *Transkulturalität. Gender- und bildungshistorische Perspektiven*, Bielefeld, Transcript, 2008, p. 181-199. Female instructors also crossed the Channel between England and France, even though, as Cristina de Bellaigue argued, “if anything, half a century of educational travel by English pupils and teachers only reinforced prejudices against French pedagogy”: BELLAIGUE, Christina de, *Educating women: schooling and identity in England and France, 1800-1867*, Oxford/New York, Oxford University Press, 2007, p. 200-230.

<sup>209</sup> ENGSTROM, Eric J., HESS, Volker, THOMS, Ulrike, « Figurationen des Experten: Ambivalenzen der wissenschaftlichen Expertise im ausgehenden 18. und frühen 19. Jahrhundert », in: ENGSTROM, Eric J., HESS, Volker, THOMS, Ulrike (eds), *Figurationen des Experten: Ambivalenzen der wissenschaftlichen Expertise im ausgehenden 18. und frühen 19. Jahrhundert*, Frankfurt am Main et al., Lang, 2005, p. 7-17.

an education expert can be broadly defined as an individual who had a specialised knowledge in the field of education, made this knowledge accessible to the public and was recognised as an expert by the public and his peers.<sup>210</sup>

Professionalization affected the careers of experts during the latter half of the nineteenth century. Professionalisation can be defined as a process through which occupations became transformed into professions. This included the transformation of pre-existing occupations and the creation of new ones.<sup>211</sup> Career paths became standardised. Achieving expert status required a specific training, recognised through certificates. Moreover, educational expertise became institutionalised at universities when the creation of chairs and research seminars proliferated during the last decades of the nineteenth century.<sup>212</sup> The institutionalisation of educational sciences as an academic discipline reformed the training of future experts and decisively influenced the professionalisation of educational administrations or – as Marc Depaepe argued – legitimised the existing practices.<sup>213</sup>

Nineteenth century education experts belonged to an intellectual and administrative elite. Socially they were part of the bourgeois or middle-class section

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<sup>210</sup> This definition is based on Sylvia Kesper-Biermann's definition of juridical experts in KESPER-BIERMANN, Sylvia, *Einheit und Recht: Strafgesetzgebung und Kriminalrechtsexperten in Deutschland vom Beginn des 19. Jahrhunderts bis zum Reichsstrafgesetzbuch von 1871*, Frankfurt am Main, Klostermann, 2009, p. 56. See also KESPER-BIERMANN, Sylvia, « Kommunikation, Austausch, Transfer. Bildungsräume im 19. Jahrhundert », in: KESPER-BIERMANN, Sylvia, WISCHMEYER, Johannes, *Transnationale Bildungsräume im 19. Jahrhundert. Wissenstransfers im Schul- und Hochschulsektor – Pädagogik, Theologie, Jurisprudenz*, Mainz, Institut für europäische Geschichte, 2010 (forthcoming).

<sup>211</sup> CONZE, Werner, KOCKA, Jürgen, « Einleitung », in: CONZE, Werner, KOCKA, Jürgen (eds), *Bildungsbürgertum im 19. Jahrhundert*, Stuttgart, Klett-Cotta, 1988, p. 9-26, here p. 19. See also SIEGRIST, Hannes (ed.), *Bürgerliche Berufe: zur Sozialgeschichte der freien und akademischen Berufe im internationalen Vergleich*, Göttingen, Vandenhoeck & Ruprecht, 1988.

<sup>212</sup> GAUTHERIN, Jacqueline, *Une discipline pour la république. La science de l'éducation en France (1882-1914)*, Berne, Peter Lang, 2002; HOFSTETTER, Rita, SCHNEUWLY, Bernard (eds), *Science(s) de l'éducation 19e-20e siècles. Entre champs professionnels et champs disciplinaires – Erziehungswissenschaft(en) 19.-20. Jahrhundert. Zwischen Profession und Disziplin*, Bern et al., Peter Lang, 2002.

<sup>213</sup> DEPAEPE, Marc, « The Practical and Professional Relevance of Educational Research and Pedagogical Knowledge from the Perspective of History: Reflections on the Belgian Case in Its International Background », in: *European Educational Research Journal*, 1, 2, 2002, p. 360-379, here p. 361-362.

of society. Education experts were not rich, but their living standard was above average. They lived and promoted bourgeois values, family models and forms of sociability.<sup>214</sup>

The relationship between political decision making and expertise is a complex one. Sociological approaches focused on contemporary society, such as Nico Stehr's concept of knowledge society, stress the lack of political interest and engagement of experts.<sup>215</sup> Historians propose similar models. For Kesper-Biermann, juridical experts are usually solicited by decision-makers.<sup>216</sup> For Szöllösi-Janze experts are characterised by their roles as mediators, organisers and innovators and offer their service to those in power.<sup>217</sup> For other researchers, experts are those scientists consulted by people in politics and administration<sup>218</sup>, unpolitical administrators<sup>219</sup> or those at the intersection of knowledge production and politics<sup>220</sup>.

As Jakob Vogel has underlined, the model of objective expertise emerged only slowly. The depoliticised or disinterested expert knowledge is a historical category.<sup>221</sup> Lutz Raphael suggested a phase model for expertise in social policies.<sup>222</sup>

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<sup>214</sup> KESPER-BIERMANN, *Einheit und Recht*, p. 69.

<sup>215</sup> Nico Stehr's sociological concept of the knowledge society is a permanent reference in research on experts: STEHR, Nico, *Arbeit, Eigentum und Wissen: zur Theorie von Wissensgesellschaften*, Frankfurt am Main, Suhrkamp, 1994.

<sup>216</sup> KESPER-BIERMANN, *Einheit und Recht*, p. 55.

<sup>217</sup> SZÖLLÖSI-JANZE, Margit, « Der Wissenschaftler als Experte. Kooperationsverhältnisse von Staat, Militär, Wirtschaft und Wissenschaft, 1914-1933 », in: KAUFMANN, Doris (ed.), *Geschichte der Kaiser-Wilhelm-Gesellschaft im Nationalsozialismus: Bestandsaufnahme und Perspektiven der Forschung*, Göttingen, Wallstein, 2000, p. 46-64, here p. 48-49.

<sup>218</sup> HASCHER, Michael, *Politikberatung durch Experten: das Beispiel der deutschen Verkehrspolitik im 19. und 20. Jahrhundert*, Frankfurt am Main, Campus-Verlag, 2006.

<sup>219</sup> RUDLOFF, Wilfried, « Einleitung: Politikberatung als Gegenstand historischer Betrachtung. Forschungsstand, neue Befunde, übergreifende Fragestellungen », in: FISCH, Stefan, RUDLOFF, Wilfried (eds), *Experten und Politik: wissenschaftliche Politikberatung in geschichtlicher Perspektive*, Berlin, Duncker & Humblot, 2004, p. 13-57, especially p. 19.

<sup>220</sup> SCHUMACHER, Beatrice, BUSSET, Thomas, « 'Der Experte': Aufstieg einer Figur der Wahrheit und des Wissens = 'L'expert': l'ascension d'une figure de la vérité et du savoir », in: *Traverse*, 2, 2001, p. 15-20, here p. 15-16.

<sup>221</sup> VOGEL, Jakob, « Felder des Bergbaus. Entstehung und Grenzen einer wissenschaftlichen Expertise im späten 18. und 19. Jahrhundert », in: ENGSTROM, Eric J., HESS, Volker, THOMS, Ulrike (eds), *Figurationen des Experten: Ambivalenzen der wissenschaftlichen Expertise im ausgehenden 18. und frühen 19. Jahrhundert*, Frankfurt am Main et al., Lang, 2005, p. 79-100, here p. 80.

Raphael sees the 1880s as a turning point towards more scientific expertise. Raphael's has argued in his concept of the scientification of the social (*Verwissenschaftlichung des Sozialen*) that the permanent presence of experts, who were trained in the human sciences as well as their expertise and arguments, had a decisive influence on administration, political interest groups, parliaments and the imagination of society at large.<sup>223</sup> This model also seems to reflect institutionalisation processes in the field of education.<sup>224</sup>

This shift from a politicised and philanthropic to an unpoliticised professional expertise was crucial. Experts saw the establishment or the reform of the education system in their sense not only as a solution to educational issues, but as a remedy to larger social problems. During the first two thirds of the nineteenth century the fields of politics and expertise were not yet separated, though a separation was progressively taking place. Nineteenth century education experts were deeply engaged in political agendas. In times when public instruction was inexistent or still deficient, educational supervision was not yet professionalised. This left the way open for politically or morally motivated individuals. For Ferdinand Buisson, for example, at the beginning of the 1870s it was not yet clear if he would become a politician, an intellectual or an education expert. He was all at once. Education was a highly ideological issue in political debates. Expertise was used for political mobilisation. Later, school administration and expertise became less politicised and more professionalised. It was linked to bureaucratisation, expanding state influence

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<sup>222</sup> RAPHAEL, Lutz, « Die Verwissenschaftlichung des Sozialen als methodische und konzeptionelle Herausforderung für eine Sozialgeschichte des 20. Jahrhunderts », in: *Geschichte und Gesellschaft*, 22, 1996, p. 165-193, here p. 171-179.

<sup>223</sup> Ibid., especially p. 166.

<sup>224</sup> The same transition has been observed in the case of welfare policies and welfare statistics in Switzerland. Interestingly the 1870s were a turning point here as well. Whereas until then the social position of an individual made up his authority, later it was his training. Welfare experts turned from philanthropes to specialists. A moral approach was transformed into an administrative approach. Conception of civil service based on neutrality emerged. See BUSSET, Thomas, LE DINH, Diana, « Les enquêtes sociales et l'émergence de l'expertise statistique au 19<sup>e</sup> siècle en Suisse », in: *Traverse*, 2, 2001, p. 57-70.

and professionalization. However, a spirit of public service prevailed. Experts understood themselves as being in the service of mankind, not in the service of political power.<sup>225</sup> In this respect Sylvia Kesper-Biermann is right when she remarks that there was no stable and well articulated group of experts.<sup>226</sup> Being an education expert meant different things at different times and in different contexts.

A global social history of education experts and administrators has not yet been written. Despite the similarities of education experts from France, Germany, Japan and the United States, each national context had its own specificities. In each country different groups of individuals engaged in the promotion and administration of education. The concept of fields, as originally developed by Pierre Bourdieu is a useful tool for describing the national and international formation and repartition of educational expertise compared to the model of professionalisation.<sup>227</sup> In the following lines the social groups of education experts in the four analysed countries will succinctly be outlined.

In France, education experts belonged to the Ministry of Public Instruction, being primary inspectors<sup>228</sup>, *recteurs d'académies*<sup>229</sup>, general inspectors<sup>230</sup> or belonging to

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<sup>225</sup> HITZLER, Ronald, « Wissen und Wesen des Experten. Ein Annäherungsversuch – zur Einleitung », in: HITZLER, Ronald (ed.), *Expertenwissen: die institutionalisierte Kompetenz zur Konstruktion von Wirklichkeit*, Opladen, Westdeutscher Verlag, 1994, p. 13-30, here p. 17.

<sup>226</sup> KESPER-BIERMANN, Sylvia, « Bildungsräume und Bildungsexperten im 19. Jahrhundert », unpublished contribution to the workshop *Transnationale Bildungsräume im 19. Jahrhundert: Maßstäbe, Konstellationen, Institutionen des Wissenstransfers im Schul- und Hochschulbildungssektor*, IEG Mainz, June 2009.

<sup>227</sup> BOURDIEU, Pierre, « Quelques propriétés des champs », in: BOURDIEU, Pierre, *Questions de sociologie*, Paris, Minuit, 1980, p. 113-120. Jakob Vogel analysed different fields of mining experts in VOGEL, Jakob, « Felder des Bergbaus. Entstehung und Grenzen einer wissenschaftlichen Expertise im späten 18. und 19. Jahrhundert », in: ENGSTROM, Eric J., HESS, Volker, THOMS, Ulrike (eds), *Figurationen des Experten: Ambivalenzen der wissenschaftlichen Expertise im ausgehenden 18. und frühen 19. Jahrhundert*, Frankfurt am Main et al., Lang, 2005, p. 79-100. See also CHARLE, Christophe, « Intellectuels, Bildungsbürgertum et professions au XIXème siècle », in: *Actes de la recherche en sciences sociales*, 106-107, 1995, p. 85-95; CONZE, Werner, KOCKA, Jürgen, « Einleitung », in: CONZE, Werner, KOCKA, Jürgen (eds), *Bildungsbürgertum im 19. Jahrhundert*, Stuttgart, Klett-Cotta, 1988, p. 9-26, here p. 20-21.

<sup>228</sup> ROUX, Christian, *L'inspection primaire au XIXe siècle*, Marseille, CRDP d'Aix-Marseille, 1997.

<sup>229</sup> CONDETTE, Jean-François, *Les recteurs d'académie en France de 1808 à 1940*, Lyon, INRP, 2006-2009.

the *université*<sup>231</sup>. They had received a generalist university training. It was still common to make double careers in politics and academia. A group of Republican educators dominated school administration in the last third of the nineteenth century. The support of state control of education against the influence of the Catholic Church was one of the key characteristics of this group.

In Germany, education experts belonged to the educated middle class (*Bildungsbürgertum*).<sup>232</sup> This implies that they had received secondary education in a *Gymnasium* and had pursued higher studies at a university. They were affiliated to state administrations, although they were in many cases mobile within the entire German speaking area.

Japanese officials including education experts came from the former samurai class that made up the new elite after the Meiji restoration. Especially in the 1870s these individuals were very young. In early Meiji Japan, the participation in missions to foreign countries provided access to knowledge and could create legitimacy as an expert which in other countries only long study could provide. Later on, education experts received a more formal training, both abroad and in Japan. Almost all of them worked for the Ministry of Education or its affiliated institutions.

In the United States the common school crusaders and administrative progressives were the two groups of public school administrators dominant in the nineteenth century.<sup>233</sup> The common school crusaders, who built up the American city and state school systems from the 1830s to the 1870s, were imbued with Republican Protestant values. The administrative progressives represented a more

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<sup>230</sup> CAPLAT, Guy, LEBEDEFF-CHOPPIN, Bernadette, *L'inspection générale de l'enseignement supérieur au XIXe siècle*, Paris, INRP, 2002.

<sup>231</sup> CHARLE, Christophe, *La République des universitaires: 1870-1940*, Paris, Seuil, 1994.

<sup>232</sup> CONZE, Werner, KOCKA, Jürgen, « Einleitung », in: CONZE, Werner, KOCKA, Jürgen (eds), *Bildungsbürgertum im 19. Jahrhundert*, Stuttgart, Klett-Cotta, 1988, p. 9-26.

<sup>233</sup> TYACK, David, HANSOT, Elisabeth, *Managers of virtue: public school leadership in America, 1820-1980*, New York, Basic Books, 1982.

professionalised approach to school administration. They had usually received their training in the new departments of educational sciences at universities. The specific national fields briefly outlined above will be discussed in more detail in the empirical sections of the thesis.

For the moment, however, the striking diversity of educational expertise and its sociocultural ramifications are clear enough. In France and the United States education experts actively struggled in often extremely polemical ways for their social position and recognition. They remembered their success in having won over political opponents. In Germany, by contrast, education experts were often obedient officials who had been appointed by the authorities in place. The relatively open regimes in France and the United States led to a different expert type than in the more authoritarian Germany systems.

Different ways of institutionalisation and professionalization created sympathy or alienated experts from one country and another. Institutionalisation processes and the structure of dominant education experts on the national level decisively influenced the transnational contacts. Networks emerged if connections between individuals or groups of experts became more regular. According to Eckhardt Fuchs “networks are communicative and mostly horizontal links between independent agents – individual, corporate or collective actors – that are relatively equal, trust each other and share similar interests or values.”<sup>234</sup> Fuchs also argues that “networks are condensed and intended relations between actors confined to specific spaces”.<sup>235</sup> Networks brought individuals of different spaces together. In this way networking was one of the strategies to go transnational. It is now necessary to analyse which other means of communication experts used when getting in contact with foreign developments.

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<sup>234</sup> FUCHS, Eckhardt, « Networks and the History of Education », in: *Paedagogica Historica*, 43, 2, 2007, p. 185-197, here p. 187.

<sup>235</sup> Ibidem.

## 2. Books, Missions, Studies – Media for Transfer and Representation

As shown above, learning from other institutional contexts was one of the driving forces for the creation of new educational institutions and the adaptation of existing ones to new needs. There were various ways in which experts from one country could get informed about educational developments abroad. New technological inventions significantly facilitated communication over large distances in the nineteenth century. Railways and steamships allowed much faster travel.<sup>236</sup> The role of print media became more important. New printing techniques made the diffusion of books as cheap as never before. These general conditions eventually had an impact on the circulation of educational knowledge.

Several means of communication existed simultaneously. Ministries of education, state boards and other authorities dispatched missions in order to investigate aspects of education in foreign countries. These missions served the preparation of institutional reforms, most often carried out in national frameworks. The results of such missions were usually published in reports.<sup>237</sup> The most impressive foreign mission of the nineteenth century was probably the Iwakura mission that left Japan in 1871.<sup>238</sup> In the French case the French pedagogical missions were a major transfer vehicle. Between 1833 and 1914 the *service des missions de l'Instruction publique* of the French ministry organised 121 missions abroad in order to investigate primary, secondary or technical education.<sup>239</sup>

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<sup>236</sup> OSTERHAMMEL, Jürgen, PETERSSON, Niels P., *Geschichte der Globalisierung. Dimensionen, Prozesse, Epochen*, München, Beck, 2003, p. 50-55.

<sup>237</sup> GONON, Philipp, « Travel and Reform: impulses towards internationalisation in the nineteenth-century discourse on education », in: PHILLIPS, David, OCHS, Kimberley (eds), *Educational policy borrowing: historical perspectives*, Oxford, Symposium Books, 2004, p. 125-143.

<sup>238</sup> See more in detail below in the second part, chapter two.

<sup>239</sup> MATASCI, Damiano, « Le système scolaire français et ses miroirs. Les missions pédagogiques entre comparaison internationale et circulation des savoirs (1842-1914) », in: *Histoire de l'éducation*, 125, 2010, p. 5-26; MATASCI, Damiano, « Les missions pédagogiques françaises en Allemagne: un exemple de circulation transfrontière des modèles scolaires (1860-1914) », in: *Trajectoires*, 3, 2009.

Print media had an important role in diffusing information. The circulation of books was a major vehicle for the transnational circulation of knowledge in the nineteenth century. Reports and legal texts of ministries and individual institutions circulated transnationally. Works originally published in one country were brought to other countries. It is astonishing, for example, that one can find numerous European and American books on education published in the nineteenth century in Japanese libraries until today. In a similar way, print media had an important function in holding together fragmented national spaces. Annual reports of American state boards were a foremost means of communication to spread the experiences of the more developed states throughout the Union. To a certain degree this de facto also entailed uniformity despite institutional fragmentation and the absence of a national authority upon educational affairs. This mass of publications finally led to vast bibliographic projects around the turn of the century.<sup>240</sup> The translation of pedagogical books and articles was a further transfer vehicle. Reports originally published in one country became useful to other contexts through translation. Victor Cousin's report on education in Germany of 1832, written in French, was translated into German and English. Ferdinand Buisson's report on education in the United States of 1878 was partly translated into English and Portuguese. Numerous American and European publications were translated into Japanese.<sup>241</sup> Encyclopaedias as the *Dictionnaire de pédagogie* of Ferdinand Buisson and the

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<sup>240</sup> FUCHS, Eckhardt, « The International Catalogue of Scientific Literature as a Mode of Intellectual Transfer: Promise and Pitfalls of International Scientific Co-operation before 1914 », in: CHARLE, Christophe, SCHRIEWER, Jürgen, WAGNER, Peter (eds.), *Transnational intellectual networks: forms of Academic knowledge and the search for cultural identities*, Frankfurt am Main et al., Campus-Verlag, 2004, p. 165-193.

<sup>241</sup> LINCICOME, *Principle, praxis, and the politics* provides many examples.

*Encyklopädisches Handbuch der Pädagogik* of Wilhelm Rein stored the contemporary pedagogical knowledge in the national languages.<sup>242</sup>

Not only monographical publications contributed to the transnational circulation of knowledge. Nearly all important educational journals wrote about developments taking place abroad. Well investigated articles investigated the educational situation of foreign countries. Book reviews discussed publications from foreign countries. Thus, educational journals made a sustained contribution to the transnational circulation of educational knowledge, although most journals' names were not as unconditionally international as in the case of the *Deutsche Zeitschrift für ausländisches Unterrichtswesen*.<sup>243</sup> Henry Barnard's *Journal of Education* intensively reported on European education for an American audience, for example.

Moreover, educational museums were created during the second half of the nineteenth century at different places throughout the world, at national or local levels.<sup>244</sup> Many have been discontinued after only a few years of existence, but some of them developed into prestigious think-tanks for educational affairs. They were mediators between national and foreign developments. Educational museums usually comprised libraries which collected foreign pedagogical literature. The *Musée pédagogique* in Paris was the most famous institution of its time. Educational museums and libraries of different countries regularly exchanged their publications.

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<sup>242</sup> BUISSON, Ferdinand (ed.), *Dictionnaire de pédagogie et d'instruction primaire*, Paris, Hachette, 1800-1887; REIN, Wilhelm (ed.), *Encyklopädisches Handbuch der Pädagogik*, Langensalza, Hermann Beyer & Söhne, 1895-1897.

<sup>243</sup> ZYMEK, Bernd, *Das Ausland als Argument in der pädagogischen Reformdiskussion: schulpolitische Selbstrechtfertigung, Auslandspropaganda, internationale Verständigung und Ansätze zu einer vergleichenden Erziehungswissenschaft in der internationalen Berichterstattung deutscher pädagogischer Zeitschriften, 1871-1952*, Ratingen/Kastellaun, Henn, 1975.

<sup>244</sup> FUCHS, Eckhardt, « All the World into the School: World's Fairs and the Emergence of the School Museum in the Nineteenth Century », in: LAWN, Martin (ed.), *Modelling the Future. Exhibitions and the Materiality of Education*, Oxford, Symposium Books, 2009, p. 51-72; HÜBNER, Max, *Die deutschen Schulumuseen*, Breslau, Hirt, 1904; HÜBNER, Max, *Die ausländischen Schulumuseen*, Breslau, Hirt, 1906. For an American perspective see ANDREWS, Benjamin R., *Museums of Education. Their History and Use*, New York, Macmillan, 1908.

Ministries of education, universities or schools hired experts and professors from outside their own institutional context. In the German states institutions regularly engaged experts from other German states. In Japan foreign experts were hired on a much larger scale. The Meiji government brought about 3,000 foreign experts (お雇い外国人, *oyatoi gaikokujin*) to Japan in the 1870s.<sup>245</sup> They contributed to the building up of institutions similar to European and American ones and trained a first generation of Japanese experts in the related fields. A large part of these “live machines”<sup>246</sup> were engaged in educational work. Marion McCarrel Scott (1843-1922) was a professor at the Tokyo Normal School from 1872 to 1874 and introduced the simultaneous teaching method to Japan.<sup>247</sup> The German Emil Hausknecht was in charge of introducing a refined system of secondary education to Japan.<sup>248</sup> In the United States as well, Europeans were engaged in sectors in which the American education system was still deficient. One example was the English expert of industrial art education Walter Smith who was hired as state advisor for industrial drawing and later director of the Normal School of Art in Boston. Trained skilled labourers and experts replaced imported experts after a certain time.

Studies at universities abroad were another major strategy to adopt foreign knowledge. In many cases governments financially supported foreign studies in subjects regarded as crucial for the development of the country. Most students, however, studied at foreign universities out of private initiative. Nevertheless their role was crucial in implementing foreign standards upon their return. On the one

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<sup>245</sup> BEAUCHAMP, Edward R., IRIYE, Akira (eds), *Foreign Employees in Nineteenth-Century Japan*, Boulder, Westview Press, 1990; FAURE, Guy, « La maîtrise des savoirs à travers les échanges de personnel à l'époque Meiji: experts occidentaux au Japon et étudiants japonais à l'étranger », in: *Daruma. Revue d'études japonaises*, 10-11, 2001-2002, p. 87-99.

<sup>246</sup> JONES, H. J., *Live machines: hired foreigners and Meiji Japan*, Vancouver, University of British Columbia Press, 1980.

<sup>247</sup> GALAN, Christian, *L'enseignement de la lecture au Japon: politique et éducation*, Toulouse, Presses universitaires du Mirail, 2001, p. 51.

<sup>248</sup> MÖLLER, Jörg, *Damit 'in keinem Haus ein Unwissender zu finden sei.' Zum Wirken von Emil Hausknecht und der Herbart-Rezeption in Japan*, München, Iudicium, 1995.

hand students became always acquainted with the education system of their host country. On the other hand the relevance of foreign study for educational reform could be much more pronounced when the student's research was directly related to education and pedagogy. French students were sent to Germany in order to investigate the German university model.<sup>249</sup> Americans who went to Germany for study were a prominent group during the nineteenth century.<sup>250</sup> Another important group were Japanese students who studied in the United States and Europe.<sup>251</sup> A group of young samurai of the Satsuma domain in southern Japan left the archipelago in order to receive a higher education at London in the early 1860s.<sup>252</sup> The new Meiji regime introduced more extensive schemes to finance the studies of future societal leaders at foreign universities.<sup>253</sup> Japanese students of education also perfected their training at American normal schools. The most famous cases were Isawa Shūji<sup>254</sup> (伊沢修二, 1851-1917) who studied at Bridgewater Normal School from 1875 to 1877 and Takamine Hideo<sup>255</sup> (高嶺秀夫, 1854-1910) who spent three years at Oswego Normal School in upstate New York during the same period.

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<sup>249</sup> CHARLE, Christophe, *La République des universitaires: 1870-1940*, Paris, Seuil, 1994.

<sup>250</sup> HINSDALE, B. A., « Notes on the History of Foreign Influence upon Education in the United States », in: *Report of the Commissioner of Education for the Year 1897-98*, Washington, Government Printing Office, 1899, p. 591-629.

<sup>251</sup> ISHIZUKI, Minoru, *Kindai Nihon no Kaigai Ryūgakushi*, Tōkyō, Mineruva Shobō, 1972. In English ISHIZUKI, Minoru, « Overseas Study by Japanese in the Early Meiji Period », in: BURKS, Ardath W., *The Modernizers: overseas students, foreign employees, and Meiji Japan*, Boulder/London, Westview, 1985, p. 161-186.

<sup>252</sup> COBBING, Andrew, *The Satsuma students in Britain: Japan's early search for the "essence of the West"*, Richmond, Japan Library, 2000.

<sup>253</sup> CONTE, James Thomas, *Overseas study in the Meiji period: Japanese students in America, 1867-1902*, PhD dissertation, Princeton University, 1977; KASHIOKA, Tomihide, *Meiji Japan's Study Abroad Program*, PhD dissertation, Duke University, 1982.

<sup>254</sup> Isawa brought modern music instruction to Japan. See EPPSTEIN, Ury, « Musical Instruction in Meiji Education. A Study of Adaptation and Assimilation », in: *Monumenta Nipponica*, 40, 1, 1985, p. 1-37.

<sup>255</sup> Takamine became principal of Tokyo Normal School after his return to Japan in 1881. See LINCICOME, Mark Elwood, *Principle, praxis, and the politics of educational reform in Meiji Japan*, Honolulu, University of Hawaii Press, 1995, p. 56-57, 80.

International congresses and conferences brought together education experts from different countries.<sup>256</sup> From 1876 onwards they facilitated direct contact between educators from different countries. Delegates acted as official representatives of their nation-states. Later on, at the beginning of the twentieth century, international organisations dealing with educational matters were formed. They often developed out of international congresses and provided a more permanent organisational structure.

Whilst these vehicles for transnational communication primarily served the purpose of appropriating certain features of foreign education systems, they could also be used to promote one's own institutional models. They became vehicles of cultural diplomacy. Thus, a large body of foreign students at universities was regarded as an expression of high standing of a system of higher education. This explains why efforts were made to attract foreign students. Towards the turn of the century, some European universities established special international offices which had to coordinate international activities and provide guidance for foreign students. The University of Berlin established the *Amtliche akademische Auskunftsstelle der Universität Berlin* in 1904, dealing with international and other affairs alike. One year later the Prussian ministry of education founded the *Auskunftsstelle für Immatrikulations-Angelegenheiten von Ausländern*, devoted to the administration of foreign students at Prussian universities.<sup>257</sup> The *Bureau de renseignements scientifiques* at the Sorbonne in Paris had been established shortly before.<sup>258</sup> Furthermore, the introduction of degree programmes adapted to the needs of foreign students was designed to raise the international standing of universities. The best

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<sup>256</sup> FUCHS, Eckhardt, « Educational Sciences, Morality and Politics: International Educational Congresses in the Early Twentieth Century », in: *Paedagogica Historica*, 40, 5, 2004, p. 757-784.

<sup>257</sup> DREWEK, Peter, « Limits of Educational Internationalism: Foreign Students at German Universities between 1890 and 1930 », in: *German Historical Institute Bulletin*, 27, 2000, p. 39-63.

<sup>258</sup> HOFFMANN, Joachim, « Äquivalenzen und ‚Nostrifikationen‘ – zwei Kapitel akademischen Austausches », in: *Zeitschrift für Kulturaustausch*, 31, 1981, p. 219-228, here p. 222.

example was the French *doctorat d'université* introduced in 1897. This doctorate did not deliver any official qualifications. It did, for example, not allow to become a lawyer or medical doctor in France, as did the standard national doctorate, restricting access to the professions in order to protect the French academic labour market. This permitted to attract foreigners as students, simultaneously impeding them from staying in the country once they had finished their studies.<sup>259</sup> The aim was primarily to attract American students. Attracting foreign students was also a means of cultural diplomacy for Japan. In this way the Japanese state tried to gain influence on the Korean peninsula.<sup>260</sup>

Some of the missions of the French Ministry of Public Instruction also served ends of national influence and prestige.<sup>261</sup> One of their objectives was to underline territorial claims. This was the case of the mission to Mexico which should underline the determination of the French government to exercise political influence in this country. The results of this mission figured at the 1867 exhibition in Paris.<sup>262</sup> Related to this, the foundation of research institutes abroad should demonstrate national scientific excellence. This was the case of French institutions as the *Ecole française de Rome* and corresponding German institutions as the Zoological Station in Naples.<sup>263</sup> The German Empire founded schools of general or technical education in foreign countries. These schools had the goal of diffusing German standards and of

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<sup>259</sup> MANITAKIS, N., « Etudiants étrangers, universités françaises et marché du travail intellectuel (fin du XIXe-années 1930). Certifier sans gratifier, des titres universitaires pour l'exportation », in: GUICHARD, E., NOIRIEL, Gérard, *Construction des nationalités et immigration dans la France contemporaine*, Presses de l'ENS, 1997, p. 123-154.

<sup>260</sup> BEASLEY, William Gerald, *Japanese Imperialism, 1894-1945*, Oxford, Oxford University Press, 1987, p. 44.

<sup>261</sup> BOURQUIN, Jean-Christophe, « National Influence on International Scientific Activity: The Case of the French Missions Littéraires in Europe, 1842-1914 », in: CHARLE, Christophe, SCHRIEWER, Jürgen, WAGNER, Peter (eds.), *Transnational intellectual networks: forms of Academic knowledge and the search for cultural identities*, Frankfurt am Main et al., Campus-Verlag, 2004, p. 451-471

<sup>262</sup> BARTH, Volker, *Mensch versus Welt: Die Pariser Weltausstellung von 1867*, Darmstadt, Wissenschaftliche Buchgesellschaft, 2007, p. 198.

<sup>263</sup> CHARLE, Christophe, *La Crise des sociétés impériales: Allemagne, France, Grande-Bretagne, 1900-1940. Essai d'histoire sociale comparée*, Paris, Seuil, 2001.

creating networks that bound together local researchers, German emigrants and academics of the German universities.<sup>264</sup> The *Alliance française* founded in 1883 served to propagate the French language in the colonies and the world.<sup>265</sup> The exchange of professors, such as it became institutionalised between German and American as well as French and American universities, had the goal of strengthening links between countries.<sup>266</sup>

#### **IV. The Educational Sections of World Exhibitions**

World exhibitions brought together some of these transfer vehicles. For example, some of the *missions pédagogiques françaises* were actually sent to world exhibitions. The first international conferences on education also took place in the framework of exhibitions. At the same time, international exhibitions offered a new dimension of transnational communication.

##### **1. Professional Discourse and Entertainment – Nineteenth Century World Exhibitions**

Historical accounts of world exhibitions trace the phenomenon of exhibitions back to English and French origins. In England, the Society of Arts, and later also the Mechanics Institutes, organised exhibitions from 1756 onwards.<sup>267</sup> These British

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<sup>264</sup> DÜWELL, Kurt, « Der Einfluss des deutschen technischen Schul- und Hochschulwesens auf das Ausland (1870-1930) », in: *Zeitschrift für Kulturaustausch*, 31, 1, 1981, p. 80-95; PYENSON, Lewis, *Cultural imperialism and exact sciences: German expansion overseas 1900-1930*, New York et al., Lang, 1985. For French technical education abroad see PYENSON, Lewis, *Civilizing mission: exact sciences and French overseas expansion (1830-1940)*, Baltimore, Johns Hopkins University Press, 1993.

<sup>265</sup> BRUEZIERE, Maurice, *L'Alliance française. Histoire d'une institution*, Paris, Hachette, 1983.

<sup>266</sup> BROCKE, Bernhard von, « Der deutsch-amerikanische Professoren-austausch. Preußische Wissenschaftspolitik, Internationale Wirtschaftsbeziehungen und die Anfänge einer deutschen auswärtigen Kulturpolitik vor dem Ersten Weltkrieg », in: *Zeitschrift für Kulturaustausch*, 31, 1981, p. 128-182; FIEBIG von HASE, Ragnhild, « Die politische Funktionalisierung der Kultur: Der sogenannte 'deutsch-amerikanische' Professoren-austausch von 1904-1914 », in: FIEBIG von HASE, Ragnhild (ed.), *Zwei Wege in die Moderne: Aspekte der deutsch-amerikanischen Beziehungen 1900-1918*, Trier, Wissenschaftsverlag, 1998, p. 45-88.

<sup>267</sup> GREENHALGH, Paul, *Ephemeral vistas: the Expositions universelles, great exhibitions and world's fairs, 1851-1939*, Manchester, Manchester University Press, 1988. Contemporary literature on the exhibitions often provide similar historical accounts.

exhibitions did not primarily serve economic purposes. Instead, they catered to the curiosity of an interested lay public. The French exhibitionary tradition started in the aftermath of the French Revolution and was intimately related to the needs of the national economy. The Minister of the Interior François de Neufchâteau organised a first exhibition of national importance on the Champ de Mars in Paris in 1798. During the following decades national exhibitions became a recognised and regular feature in France. Ten exhibitions took place until 1849. The number of exhibitors and visitors increased steadily. In the German states, too, exhibitions were major events in the beginning industrialisation process. The greatest industrial exhibitions resembled exhibitors from all German states organised in the *Zollverein*.<sup>268</sup> After the foundation of the Empire in 1870, business circles of the German capital desperately lobbied for a world exhibition in Berlin. They lacked support from key decision makers, including the emperor.

The Japanese also adopted the exhibition medium. The intellectual Fukuzawa Yukichi visited the London exhibition of 1862 as part of a larger mission and reported about it in his best-seller *Things Western*. Fukuzawa created the Japanese term for exhibition, *hakurankai*, which is still in use today. The British envoy to Japan, Rutherford Alcock (1809-1897), assembled a display of Japanese artefacts at the same exhibition.<sup>269</sup> Five years later in Paris, Japanese exhibitors represented the archipelago at an international exhibition for the first time. There were two independent commissions – one from the central Tokugawa government and another one from the strong Southern domains of Satsuma and Saga that increasingly

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<sup>268</sup> GROSSBÖLTING, Thomas, *"Im Reich der Arbeit". Die Repräsentation gesellschaftlicher Ordnung in den deutschen Industrie- und Gewerbeausstellungen 1790-1914*, München, Oldenbourg Wissenschaftsverlag, 2008.

<sup>269</sup> ALCOCK, Rutherford, *Catalogue of Works of Industry and Art sent from Japan*, London, 1862.

contested the central power – which caused diplomatic troubles.<sup>270</sup> Among others, the future leading industrialist of Meiji Japan, Shibusawa Eiichi (渋沢栄一, 1840-1931), was among those who came to the French capital.<sup>271</sup> After the Meiji Restoration the new regime regularly participated in international exhibitions. In Japan, local actors frequently organised minor exhibitions. The Japanese government staged national industrial exhibitions regularly from 1877 onwards.<sup>272</sup>

In the United States exhibitions took place as well. Americans tried to repeat the success of the first London exhibition in 1852, when a reproduction of the Crystal Palace was erected in New York City. However, one had to wait for the Centennial Exhibition of 1876, a decade after the Civil War, to see the first exhibition of international standing on American soil.

The impact of industrialisation and free trade, which had become the official policy in Britain and was promoted by saint-simonian thought in France, fostered the holding of international exhibitions. World exhibitions aimed at representing all kinds of human activity from all over the world. The official name of the Parisian expositions testifies to this ambition. They were called *Expositions internationales et universelles*. The international dimension meant that, at least potentially, all countries of the world were invited to take part. The universal dimension meant that the exhibitions comprised all kinds of human activity. In consequence, there were also *expositions internationales spéciales*, for example *coloniales* or *électriques*. The great international exhibitions which started in 1851 were only the tip of the iceberg of a major phenomenon of the nineteenth century. All over the industrialising world,

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<sup>270</sup> LOCKYER, Angus, *Japan at the Exhibitions, 1867-1970*, PhD dissertation, Stanford University, 2000.

<sup>271</sup> HAMON, Claude, *Shibusawa Eiichi (1840-1931): bâtisseur du capitalisme japonais*, Paris, Maisonneuve & Larose, 2007, p. 45-48.

<sup>272</sup> HEDINGER, Daniel, « Showcases of Revolutionary Transformation: Exhibitions in the Early Meiji Period », in: *Comparativ*, 19, 2/3, 2009, p. 78-102; KORNICKI, P. F., « Public Display and Changing Values: Early Meiji Exhibitions and Their Precursors », in: *Monumenta Nipponica*, 49, 2, 1994, p. 167-196.

organisers continuously prepared smaller industrial exhibitions of regional and national standing.<sup>273</sup>

World exhibitions of the nineteenth century were encyclopaedic endeavours. They aimed at logically classifying and representing the entire contemporary knowledge. This translated into sophisticated classifications of the exhibited materials in groups, classes and sections. Raw materials including mining and agriculture, machinery as well as manufactured products from the beginning on constituted the main categories. The part of a country's participation in the machinery section could reveal its position in the industrialisation process.<sup>274</sup> Many technological inventions were presented to large audiences for the first time at world exhibitions. From the second world exhibition onwards, that of Paris in 1855, art belonged to the classification.

Close observers were prolific in inventing further designations for world exhibitions. On the one hand, terms were used that stressed the idea of joyful international exchange. Using a pedagogical term, contemporaries often claimed that world exhibitions were "object lessons in all the world's industry".<sup>275</sup> Exhibitions were "festivals of labour", "fêtes communes de toutes les industries" and "Friedensfeste". Ferdinand Buisson spoke of the 1889 exhibition as a "grand enquête internationale"<sup>276</sup>, stressing its function for the international circulation of ideas. German expressions as "Weltgericht" and "Weltprüfung" which highlighted the idea

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<sup>273</sup> See recently JANATKOVÁ, Alena, *Modernisierung und Metropole. Architektur und Repräsentation auf den Landesausstellungen in Prag 1891 und Brünn 1928*, Stuttgart, Franz Steiner Verlag, 2008.

<sup>274</sup> AHLSTRÖM, Göran, *Technological development and industrial exhibitions, 1850-1914: Sweden in an international perspective*, Lund/Bromley, Lund University Press/Chartwell-Bratt, 1996, p. 21.

<sup>275</sup> MORGAN, Horace H., *The Historical World's Columbian Exposition and Chicago Guide*, St. Louis, James H. Mason & Co., 1892, p. 270. Similarly HARRIS, William T., « Our Educational Exhibit at the International Exposition in Paris in 1900 », in: *Addresses and Proceedings of the National Educational Association*, Chicago, NEA, 1898, p. 122-131, here p. 131.

<sup>276</sup> BUISSON, Ferdinand, « Introduction », in: *Ministère de l'instruction publique et des beaux-arts. Recueil des monographies pédagogiques publiées à l'occasion de l'Exposition universelle de 1889*, Paris, Imprimerie nationale, 1889, vol. 1, p. II-XI, here p. III.

of competition and judgement sounded already more sinister.<sup>277</sup> On the other hand, the metaphor of the “battlefield” made think that world exhibitions were a continuation of war by other means. One German educator combined the harmonious and competitive visions and spoke of a “Kampfplatz des friedlichen Wettbewerbs der Völker”.<sup>278</sup>

Organisers and visitors alike usually argued that international expositions displayed the progress made, the current situation and what still needed to be done.<sup>279</sup> This was the optimistic worldview of the nineteenth century which made people’s believe in progress almost unlimited and unconditional.

However, some people were excluded from the optimistic vision of progress and relegated to subordinate positions. World exhibitions brought together people from all over the world, but in different roles. One can observe an important difference in the agency of principal actors on the exhibition grounds. Those who actively represented something have to be distinguished from those who were represented passively. According to the dominant vision of the time only the organisers from the nations sending national commissions saw themselves as civilised. Those peoples who were not politically and socially organised in a way to send commissions to the exhibitions were seen as savages who in the best case could find their way to civilisation through education. These peoples were represented as human exhibits. This colonial aspect of the exhibitions became increasingly important towards the turn of the century. The Paris exhibition of 1889 saw the first ethnographic exhibit.

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<sup>277</sup> WICKENHAGEN, « Körperliche Erziehung und Schulgesundheitspflege in der deutschen Abteilung der Weltausstellung von St. Louis », in: *Der Tag*, 27 October 1904.

<sup>278</sup> In English “battlefield for the peaceful competition between peoples”: LUDEWIG, H., « Das technische Unterrichtswesen auf der Weltausstellung in Wien 1873, mit besonderer Berücksichtigung des maschinentechnischen Unterrichts », in: *Zeitschrift des Vereins Deutscher Ingenieure*, 18, 1874, columns 1-8, 155-168, 265-278, 481-494, 533-556, here column 6.

<sup>279</sup> See for example *Proceedings of the International Congress of Education of the World’s Columbian Exposition, Chicago, July 25-28, 1893, under the charge of the National Educational Association of the United States*, New York, Little, 1894, p. iv.

This kind of displays developed further at the American exhibitions and saw their climax at the Louisiana Purchase Exposition in St. Louis.<sup>280</sup>

World exhibitions featured special architectural achievements. In 1867 Frédéric Le Play constructed the exhibition palace on the Champ de Mars. It was the most ingenious exhibition palace ever built, as it revealed the underlying project of a scientific classification of human activity. In the United States monumental classicist pavilions dominated the exhibitions. Increasingly participating nations erected special pavillions in traditional national styles from the 1880s onwards. This reflected the nationalisation of the exhibitions. Each exhibition featured a *clou*, a material or architectural artefact that impressed visitors by its newness or bigness. This was the case, for example, of the huge Corliss Steam Engine at Philadelphia or the Eiffel Tower that was built for the *Exposition universelle* of 1889. World exhibitions were usually held on the occasion of special events, such as the centennial of American independence in 1876 or the centennial of the French Revolution in 1889. Throughout the nineteenth century all attempts failed to better coordinate world exhibitions on the international level. Only in 1928 an international convention was passed regarding the establishment of the *Bureau international des exposition* in Paris.

Contemporary writings and historical studies alike have noted a turn towards entertainment from the 1880s onwards. This became most clear in Chicago where an entertainment section called the “Pike” was located next to the White City which comprised the more traditional and serious parts of the exhibition. More and more features should entertain visitors, such as the *trottoirs roulants*, the moving walkways installed for the Paris exhibition of 1900. The rise of the entertainment

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<sup>280</sup> RYDELL, Robert W., *All the world's a fair: visions of empire at American international expositions, 1876-1916*, London/Chicago, University of Chicago Press, 1987, p. 160-168.

aspect on the expense of the professional interchange of industrial and intellectual ideas contributed to the phenomenon of *Ausstellungsmüdigkeit* (exhibition fatigue) among potential organisers and exhibitors. But the Paris exposition of 1900 still saw an unprecedented success, as it attracted an unprecedented number of exhibitors and over fifty million visitors.<sup>281</sup> World exhibitions were also related to the advance of consumerism.<sup>282</sup> As Alexander C.T. Geppert has shown, exhibitions made a sustained contribution to the development of tourism.<sup>283</sup> World exhibitions already attracted the attention of contemporary scholars and intellectuals. Henry Adams wrote about his experiences at the Columbian Exposition.<sup>284</sup> The German writer Walter Benjamin used the background of the 1900 exhibition in Paris for reflections on modernity.<sup>285</sup>

## **2. A Prominent Place in the Classifications – The Place of Education at the Exhibitions**

Education had its regular place in the classification schemes of international exhibitions in the nineteenth century. But educational sections developed slowly at the beginning. There were no specific educational exhibits in the Crystal Palace of 1851. Education was nevertheless at stake indirectly, notably its application to industrial affairs. Thus, British commentators observed the poor standing of British industrial design when compared to the design of French products.<sup>286</sup> The exposition

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<sup>281</sup> Numbers of visitors can be found in GUDEHUS, Brigitte, RASMUSSEN, Anne, *Les fastes du progrès: le guide des expositions universelles, 1851-1992*, Paris, Flammarion, 1992, p. 132.

<sup>282</sup> CAPUZZO, Paolo, *Culture del consumo*, Bologna, Il Mulino, 2006; KÖNIG, Gudrun M., *Konsumkultur – inszenierte Warenwelt um 1900*, Wien et al., Böhlau, 2009.

<sup>283</sup> GEPPERT, Alexander C. T., « True Copies: Time and Space Travels at British Imperial Exhibitions, 1880-1930 », in: BERGHOFF, Hartmut et al. (eds.), *The Making of Modern Tourism: The Cultural History of the British Experience, 1600-2000*, Basingstoke/New York, Palgrave, 2002, p. 223-248, especially p. 229-242.

<sup>284</sup> ADAMS, Henry, *The education of Henry Adams. An autobiography*, Boston, Mifflin, 1918.

<sup>285</sup> BENJAMIN, Walter, « Paris, die Hauptstadt des XIX. Jahrhunderts », in: BENJAMIN, Walter, *Illuminationen. Ausgewählte Schriften 1. Ausgewählt von Siegfried Unseld*, Frankfurt, Suhrkamp, 1995.

<sup>286</sup> This episode was widely diffused in contemporary debates. Organisers of educational exhibits frequently used this example when searching funding for upcoming exhibitions. It found its way even to Japanese reports: KUME, Kumitake, *The Iwakura Embassy, 1871-73: A True Account of the*

revealed an inferiority that educators and industrialists immediately laboured to remedy.<sup>287</sup> Thus, the Crystal Palace exhibition had a major impact on the improvement of industrial education in Britain. That is probably why the following exposition in the English capital, in 1862, introduced a class especially dedicated to education for the first time. This educational class met only a limited success, as many countries refrained from sending adequate objects. However, five years later, organisers of the *Exposition universelle* of 1867 came back to the idea of displaying education. The classification of this exhibition comprised a group that featured “objects especially exhibited for the physical and moral improvement of the people.” Two classes of this group were educational ones. One class assembled exhibits on children education, another class concentrated on the instruction of adults. Charles Robert (1827-1899), the future author of an essay entitled *L’instruction obligatoire*<sup>288</sup>, was the president of group ten. Thus, Robert was the first who managed to organise a comprehensive educational exhibit.<sup>289</sup> Pierre Philibert Pompée (1809-1872), an eminent specialist of technical education, and Oscar de Watteville (1824-1901), another education expert who was to play an important role at future expositions, held important positions in the preparatory commission, too. Frédéric Monnier (1834-?), the author of a report on education in the German states<sup>290</sup> and member of the commission, had visited an educational exhibition in the German city

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*Ambassador Extraordinary & Plenipotentiary's Journey of Observation throughout the United States of America and Europe*, Chiba, The Japan Documents, 2002, vol. 5, p. 12-13. For a historiographic analysis see HALTERN, Utz, *Die Londoner Weltausstellung von 1851: Ein Beitrag zur Geschichte der bürgerlich-industriellen Gesellschaft im 19. Jahrhundert*, Münster, Aschendorff, 1971, p. 318-326.

<sup>287</sup> PLAYFAIR, Lyon, *Industrial instruction on the continent (being the introductory lecture of the session 1852-1853)*, London, Eyre and Spottiswoode, 1852.

<sup>288</sup> ROBERT, Charles, *L’instruction obligatoire*, Paris, Hachette, 1871.

<sup>289</sup> Oscar de Watteville referred to Robert Charles as the first organiser of a comprehensive educational exhibit: WATTEVILLE, Oscar de, *Rapport administratif sur l'exposition spéciale du Ministère de l'Instruction publique à l'exposition universelle de 1878*, Paris, Imprimerie de la Société de Typographie, 1886, p. 10-11.

<sup>290</sup> MONNIER, Frédéric, *L’instruction populaire en Allemagne, en Suisse et dans les pays scandinaves*, Paris, Librairie française et étrangère, 1866.

of Stuttgart and suggested to adapt some of its features at the upcoming world exhibition.<sup>291</sup> The exhibits of this group did not convince all the visitors. The newspaper *La Presse* wrote that all the books in group ten were looking miserable, especially when compared to the splendour of other sections. This part of the exposition, the article continued, was without soul, not pleasant to the eye and not entertaining.<sup>292</sup> Nevertheless, many spoke of a success, bearing in mind the high number of French and foreign exhibitors. One French jury member stated: “Dès lors, la représentation des idées pédagogiques au grand concours universel devint un fait accompli.”<sup>293</sup>

The Vienna exhibition of 1873 introduced a more successful and long lasting arrangement. Primary, secondary, and higher education had their own classes. The opening to higher learning meant a considerable amplification of represented themes.

For the Centennial exhibition three years later organisers had originally planned a department X with “objects illustrating efforts for the improvement of the physical, intellectual, and moral condition of man”, consciously building upon the scheme of the 1867 exposition.<sup>294</sup> George Brown Goode (1851-1896), assistant secretary of the Smithsonian Institution and responsible for drafting a system of classification for the Columbian Exposition, still considered such a group in an initial phase.<sup>295</sup> In both cases, however, organisers did not pursue this proposal and education eventually became one group in the liberal arts department.

Organisers of the Parisian exhibitions referred to the scheme developed in Vienna. In 1878 and 1889 education had its own group and each of the educational orders

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<sup>291</sup> The records of the preparatory committees are in ANF, F17, 2757 and 2758.

<sup>292</sup> *La Presse*, 12 September 1867, p. 3, cited in BARTH, *Mensch versus Welt*, p. 115.

<sup>293</sup> BARBIER, Ch., « Ecoles primaires, plans, mobiliers et matériel des maisons d'école », in: CHEVALIER, Michel (ed.), *Rapports du jury international*, Paris, Dupont, 1868, vol. 13, p. 105-127, here p. 106.

<sup>294</sup> *United States Centennial Commission. System of Classification*, Philadelphia, 1874, p. 13-14.

<sup>295</sup> GOODE, James Brown, « First draft of a system of classification for the World's Columbian Exposition », in: *Report of the United States National Museum*, 1891, p. 649-735, here p. 654.

had its separate class, even though the scheme was slightly diversified in 1900. At these exhibitions the educational classes were even more diversified, including classes on technical, agricultural and art education.

The place of the educational groups within the classification schemes advanced more and more to the top of the agenda. Whereas group ten of 1867 was the last one, education was the first group in Paris in 1900 and in St. Louis in 1904.

London 1862	CLASS XXIX: EDUCATIONAL WORKS AND APPLICANCES
Paris 1867	GROUP X: ARTICLES EXHIBITED WITH SPECIAL OBJECT OF IMPROVING THE PHYSICAL AND MORAL CONDITION OF THE PEOPLE Class 89: Materials for and methods of teaching children Class 90: Libraries and apparatus used in the instruction of adults at home, in the workshop or in schools and colleges
Vienna 1873	GROUP XXVI: EDUCATION, TEACHING AND INSTRUCTION (Included elementary schools, middle schools, professional and technical colleges, universities)
Philadelphia 1876	DEPARTMENT III: LIBERAL ARTS – GROUP XXVIII: EDUCATION AND SCIENCE Class 300: Elementary instruction Class 301: Higher instruction Class 302: Professional schools Class 303: Institutions for the instruction of blind, deaf and dumb and the feeble-minded Class 304: Education reports and statistics Class 305: Libraries, history, reports, statistics, catalogues Class 306: School and textbooks Class 310: Institutions founded for the increase and the diffusion of knowledge Class 311: Learned and scientific associations Class 312: Museums, collections, art galleries etc. Class 313: Music and the drama
Paris 1878	GROUP II: EDUCATION AND INSTRUCTION. APPARATUS AND PROCESSES USED IN THE LIBERAL ARTS Class 6: Education of young children. Primary instruction. Instruction of adults Class 7: Organisation and appliances for secondary instruction Class 8: Organisation, methods and appliances for superior

	instruction
London 1884	<p>DIVISION II: EDUCATION – GROUP 6: EDUCATIONAL WORKS AND APPLIANCES</p> <p>Class 47: Crèches and infant schools</p> <p>Class 48: Primary schools</p> <p>Class 49: Domestic economy and other forms of technical and industrial education for girls</p> <p>Class 50: Handicraft teaching in schools for boys</p> <p>Class 51: Science teaching</p> <p>Class 52: Art teaching</p> <p>Class 53: Technical and apprenticeship schools</p> <p>Class 54: Schools for the blind and for the deaf and dumb</p> <p>Class 55: Literature (Statistics, etc.)</p> <p>Class 56: Collective displays of schools and appliances</p> <p>Class 57: Machinery and appliances</p>
New Orleans 1885	<p>GROUP VIII: EDUCATION AND INSTRUCTION, APPARATUS AND PROCESSES OF LIBERAL ARTS</p> <p>Class 801: Education of children, primary instruction of adults</p> <p>Class 802: Organization, methods and appliances for secondary instruction</p> <p>Class 803: Organization, methods and appliances for superior instruction</p>
Paris 1889	<p>GROUP II: EDUCATION AND INSTRUCTION. APPARATUS AND PROCESSES USED IN THE LIBERAL ARTS</p> <p>Class 6: Education of young children. Primary instruction. Instruction of adults</p> <p>Class 7: Organisation and appliances for secondary instruction</p> <p>Class 8: Organisation, methods and appliances for higher instruction</p>
Chicago 1893	<p>DEPARTMENT L: EDUCATION, LITERATURE, ENGINEERING, PUBLIC WORKS, MUSIC AND THE DRAMA – GROUP 149: PRIMARY, SECONDARY AND SUPERIOR EDUCATION</p> <p>Class 841: Infant schools and kindergartsn</p> <p>Class 842: Primary schools, city and country</p> <p>Class 843: Domestic and industrial training for girls</p> <p>Class 844: Handicraft teaching in schools for boys</p> <p>Class 845: Science teaching</p> <p>Class 846: Art teaching</p> <p>Class 847: Technical and apprenticeship schools</p> <p>Class 848: Special schools for the elementary instruction of Indians</p>

	Class 849: Education of defective classes Class 850: Public schools Class 851: Higher education Class 852: Professional schools Class 853: Government aid to education
Paris 1900	GROUP I: EDUCATION AND INSTRUCTION Class 1: Education of young children. Primary instruction. Instruction of adults Class 2: Secondary education Class 3: Higher Education. Scientific societies Class 4: Special education in fine arts Class 5: Special education in agriculture Class 6: Special industrial and commercial education
St. Louis 1904	DEPARTMENT A: EDUCATION Group 1: Elementary Education Group 2: Secondary Education Group 3: Higher Education Group 4: Special Education in Fine Arts Group 5: Special Education in Agriculture Group 6: Special Education in Commerce and Industry Group 7: Education of Defectives Group 8: Special Forms of Education, Textbooks, School Furniture and School Appliances

**Table 2: Classifications of the educational sections of world exhibitions. The more extensive classifications of the American exhibitions do not indicate a greater diversity of exhibits but a more detailed precision of those who elaborated the classifications.**

Primary education was by far the most important element of the educational sections of world exhibitions. This included the kindergarten. Preschool education was poorly institutionalised in the German countries where Friedrich Fröbel (1782-1852) had laid its foundations. French, Japanese and American authorities, however, eagerly adopted this institution and displayed it at the exhibitions.<sup>296</sup> Primary schooling expanded significantly during the studied period and was the object of

<sup>296</sup> In the French context see for example PAPE-CARPANTIER, Marie, *Introduction de la méthode des salles d'asile dans l'enseignement primaire: conférences faites aux instituteurs réunis à la Sorbonne à l'occasion de l'Exposition universelle de 1867*, Paris, Delagrave, 1879.

fervent debates. Furthermore, the introduction of compulsion laws required the construction of new school houses and their interior equipment, for example school desks. The interest in the material aspects of primary education was also linked to growing preoccupations on school hygiene and pupils' health. All reporters mentioned this theme in their reports. In the German context, Hermann Cohn (1838-1906), an ophthalmologist and expert on school hygiene from Breslau, reported regularly from the exhibitions.<sup>297</sup> Producers of school desks presented their latest products. Publishing houses competed to offer the best manuals. Wall charts reflected the emergence of the object method. This method had its origin in the thought of Johann Heinrich Pestalozzi (1746-1827). Instead of teaching with the help of abstract texts educators suggested to provide pupils with visual impressions. These wall charts became a major bargain for their producers. From this perspective, the participation in world exhibitions had an important economic function for producers of school equipment. Object teaching saw a boom in the United States where Edward A. Sheldon (1823-1897) as principal of the Oswego Normal School introduced the ideas of Pestalozzi.<sup>298</sup>

Technical education on the primary, secondary and higher levels was one of the foremost themes at the exhibitions. Manual training played a role in boy's education. The female counterpart was home economics. Students' works in the manual arts were convenient to represent at exhibitions and easily attracted the attention of visitors. Higher technical schools demonstrated their excellence in training and research.

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<sup>297</sup> COHN, Hermann, «Die Schulhäuser auf der Pariser Weltausstellung, vom hygienischen Standpunkte beurtheilt», in: *Berliner klinische Wochenschrift*, 4, 41, 1867, p. 424-428; COHN, Hermann, *Die Schulhäuser und Schultische auf der Wiener Weltausstellung: eine augenärztliche Kritik*, Breslau, Morgenstern, 1873; COHN, Hermann, *Die Schulhygiene auf der Pariser Weltausstellung, 1878*, Breslau, Morgenstern, 1879.

<sup>298</sup> DEARBORN, Ned Harland, *The Oswego movement in American education*, New York, Teachers college, Columbia University, 1925; GUTEK, Gerald Lee, *Pestalozzi and Education*, New York, Random House, 1968.

Moreover, classical secondary and higher education were part of the classifications. During the early exhibitions organisers complained about the difficulty to stage an abstract theme as higher education, whereas it was comparatively easy to illustrate elementary schooling with desks or wall charts.<sup>299</sup> Only towards the end of the century sophisticated technical equipment gave a new air to the higher education exhibits. The German educational exhibits perfected the staging of higher education.<sup>300</sup> A visitor to the German educational exhibit in St. Louis was overwhelmed by the specimens of injuries and remarked that the “German medical exhibit was really a chamber of horrors.”<sup>301</sup>

Agricultural education was also present at the exhibitions. Fine art education, the education of the blind and deaf as well as education in colonial contexts were regular themes, although they occupied relatively little space.

One could also find displays related to education in other sections of the expositions. Collective exhibits of publishing houses generally included pedagogical works. Paper, pencils and other appliances for the liberal arts evoked the interest of educators. Globes, atlases and other objects could be partly found in the educational sections, partly in others.<sup>302</sup> Scientific displays, for example in geology, were at least indirectly linked to higher education. The educational group 29 of the 1862

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<sup>299</sup> “A un premier examen, l’idée de faire figurer l’enseignement supérieur à une exposition paraît assez étrange.” In DETHOMAS, « Enseignement supérieur », in: *Exposition universelle de Vienne en 1873. Rapports*, Paris, Imprimerie nationale, 1875, vol. IV, p. 585-653, here p. 586.

<sup>300</sup> See the reports in *Amtlicher Bericht über die Weltausstellung in Saint Louis 1904. Erstattet vom Reichskommissar*, Berlin, Reichsdruckerei, 1906, vol. 2.

<sup>301</sup> CLEVINGER, Martha R., “Indescribably Grand”: *Diaries and Letters from the 1904 World’s Fair*, St. Louis, Missouri Historical Society Press, 1996, p. 64.

<sup>302</sup> PIERAGGI, Endymion, « Les cartes et les globes à l’Exposition », in: LACROIX, Eugène, *Etudes sur l’Exposition de 1867*, Paris, Lacroix, 1868, 1ere serie, p. 110-112, 335-341.

exhibition also comprised toys.<sup>303</sup> Women's pavilions, as for example in Chicago, also comprised educational exhibits.<sup>304</sup>

In the main, the layout of the educational sections appeared similar over decades, independently from the geographical context. This isomorphism of the exhibitions, as Alexander C.T. Geppert has called it, was striking.<sup>305</sup> Its main reason was that organisers were in contact and learned from the previous events. When preparing the Centennial and Columbian Exhibitions, for example, American commissions studied the previous exhibitions held in Europe.<sup>306</sup> Their reports provided practical information on how to organise an international exhibition. Whilst these reports dealt with the exhibitions as a whole, similar efforts were made by organisers of educational sections. Those who organised the educational section of the Philadelphia exhibition, for example, invited the baron Wilhelm von Schwarz-Senborn (1816-1903) to their first meeting in order to learn from his experience.<sup>307</sup> Schwarz-Senborn was a trained diplomat and had been involved in the preparation of the Austrian representation at all previous world exhibitions, finally being the commissioner general of the Vienna exhibition. Afterwards he became the Austro-Hungarian ambassador in the United States. Thus, Schwarz-Senborn was – as he described himself – “an old exposition man”.<sup>308</sup> Isomorphism was obviously even

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<sup>303</sup> WAGNER, Rudolph, « Unterrichts- und Erziehungsgegenstände », in: *Amtlicher Bericht über die Industrie- und Kunstausstellung zu London im Jahre 1862 erstattet nach Beschluss der Kommissarien der Deutschen Zollvereins-Regierungen*, Berlin, Decker, vol. 1, p. 347-420, here p. 401-411.

<sup>304</sup> *Official Catalogue of Exhibits. Woman's Building*, Chicago, W. B. Conkey Co., 1893, p. 50-51, 83, 90-91.

<sup>305</sup> GEPPERT, Alexander C. T., « Città brevi: storia, storiografia e teoria delle pratiche espositive europee, 1851-2000 », in: *Memoria e Ricerca*, 17, 2004, p. 7-18, here p. 13.

<sup>306</sup> BLAKE, William Phipps, *Great International Expositions: Their Objects, Purposes, Organization, and Results. An Address Delivered before the American Centennial Commission*, Philadelphia, E. C. Markley and Son, 1872; JEFFERY, E. T., *Paris universal exposition, 1889*, Chicago, 1889. The famous *rue du Caire* of the 1889 Parisian exhibition which resembled an Egyptian village, for example, inspired organisers from Chicago to stage a large anthropological exhibit as well.

<sup>307</sup> *Education at the centennial: (extracts from the proceedings of the Department of Superintendence of the National Educational Association, at its meeting in Washington, January 27 and 28, 1875): remarks of Hon. J.P. Wickersham*, Washington, Government Printing Office, 1875, p. 9-10.

<sup>308</sup> *Ibid.*, p. 9.

more pronounced in the case of the Paris exhibitions, as there was a great continuity of organisers. Thus, Oscar de Watteville's administrative report on the educational exhibit of 1878 deliberately served for the preparation of the upcoming exhibition of 1889, as its author announced in the preface.<sup>309</sup>

Not all countries participated regularly in the educational sections. France sent exhibits to all educational sections of world exhibitions with the exception of the Centennial Exhibition. The German states participated eagerly in the first educational sections of the 1860s and 1870s. Later, Germany was mostly absent. This changed only with the great American exhibitions of the turn of the century where Germany was outperforming the other foreign nations quantitatively and qualitatively. Japan was one of the most diligent participators in the educational sections from the Centennial Exhibition onwards. American education was present at all great exhibitions, although the participation in the section of 1862 was very limited.

	France	Germany	Japan	United States
London 1862				
Paris 1867				
Vienna 1873				
Philadelphia 1876				
Paris 1878				
London 1884				
New Orleans 1885				
Paris 1889				
Chicago 1893				
Paris 1900				
St. Louis 1904				

*Table 3: National participations in educational sections of world exhibitions. A grey shade indicates participation.*

### **3. The Organisation of Educational Exhibits – Actors and Exhibitionary Practices**

Both, preparing an educational exhibit and a professional visit to a world exhibition were complicated endeavours that required careful planning. As previously shown, the educational sections were relatively small parts of a larger

<sup>309</sup> WATTEVILLE, *Rapport administratif*.

enterprise. In consequence many individuals and commissions were involved in the organisation of such an exhibit.<sup>310</sup> First, each world exhibition was organised by a commission that was the overall authority of the event. The commissioner general and its secretary general had decisive executive powers. This was the case of Frédéric Le Play and Michel Chevalier, for example, who were the two heroes of the early French exhibitions. These commissions were in effect national commission of the host country, nominated by government. In the United States the exhibitions were organised as private companies under government authority. They had to represent state and local interests as well. This sometimes entailed rather complicated arrangements. Two commissions were set up for the Columbian Exposition, for example. It is not surprising that these commissions and their main representatives tried to promote their activities with well-dosed universalism and nationalism which were the discourses of that period. Besides providing a more or less coherent ideology these organisers had to legitimate their own personal engagement. But one should not forget that commissioner generals and jury presidents were not the only organisers involved in the preparation of exhibits. The actual preparatory work took place in numerous thematic commissions and subcommissions which operated in accordance with their own preoccupations.

Second, national commissions played a decisive role. The country organising an exhibition transmitted official invitations to foreign governments via diplomatic channels. When accepting participation, invited countries established national commissions. The position of commissioner general was, once again, an important one that required diplomatic skill. There was a certain continuity of exhibition

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<sup>310</sup> Compare the classification of organisers in GEPPERT, Alexander C. T., « Exponierte Identitäten? Imperiale Ausstellungen, ihre Besucher und das Problem der Wahrnehmung, 1870-1930 », in: HIRSCHHAUSEN, Ulrike von, LEONHARD, Jörn (eds), *Nationalismen in Europa: West- und Osteuropa im Vergleich*, Göttingen, Wallstein, 2001, p. 180-203, here p. 189.

personnel in all countries. Theodor Lewald (1860-1947), councillor in the German Home Ministry, for example, participated in the organisation of the German representation at the Chicago exposition. Seven years later, in Paris, he was the German vice-commissioner. Finally, he directed the German displays in St. Louis as commissioner general. In the French case the semi-official body of the *Commission supérieure des expositions internationales* played a significant role. Actors on this level decided if national displays would be sent to the educational section or not.

Third, the host country set up a commission that supervised the entire educational section of an exhibition. The chiefs of the educational sections were often experienced individuals and had a high reputation in their home context, as for example Selim H. Peabody (1829-1903) in the case of the Columbian Exposition.

Fourth, the national educational exhibits were part of a country's official representation. Special commissions were created for these sections. Ministries of education usually took over this role. In federally organised nation-states which lacked central institutions, such as the German Empire, the regional origin of organisers and exhibitors reflected power structures. In the United States the Bureau of Education took a role in coordinating the American exhibits. Also, one state could take the initiative as was the case of New York at the Paris exposition of 1900. In some cases national ministries formed collective exhibits.

Finally, there were the individual exhibitors and institutions. Exhibitors depended on decisions made by the superior level which they could not influence themselves. If a country's government declined participation in an exhibition, it turned out nearly impossible to stage even a modest exhibit. The individual exhibitors only communicated with their respective national commission, direct contacts between foreign exhibitors and the host commission were not foreseen, as regulations clearly stated.

These organisational levels, which were still more complex in reality, required coordination. Fragmentation of authority and responsibility made coherent, homogeneous educational exhibits impossible. Together with his advisors, a commissioner general could decide that education was a contemporary social issue and therefore should be adequately represented at an exhibition. But a commissioner general had almost no influence on what would actually be displayed in the educational groups. He closely collaborated with the chief of the chief of the educational section. This person had the difficult task to bring together conflicting opinions on current educational issues. Supporters of manual and academic education formed opposing factions in most countries. In France, opposition between Catholic and Republican education was harsh. Additionally, there were organisers from all participating countries. They wanted to stage their own institutions and ideas, often distancing themselves from other nations. Debates with regard to contents interfered with national debates. Thus, many exhibitors laboured towards diverse and often conflicting ends. In consequence, there was no harmonically planned educational exhibit that could have transmitted a clear message to the masses of visitors. All contemporary aspects were well represented, but they competed with one another on the future shape of education.<sup>311</sup>

The national educational sections required careful preparation via contacts between the various authorities involved in their organisation. The American commissioner of the educational section at the Paris 1900 exposition, affirmed in his final report that “a full scholastic year should be at the disposal of any person

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<sup>311</sup> On the diversity of actors also see KAISER, Wolfram, DITTRICH, Klaus, « Political Communication at the World Exhibitions: Transnational Negotiation of Social and Education Policy, 1889-1904 », in: ALBERT, Mathias, BLUHM, Gesa, HELMIG, Jan, LEUTZSCH, Andreas, WALTER, Jochen (eds), *Transnational Political Spaces. Agents – Structures – Encounters*, Frankfurt am Main, Campus-Verlag, 2009, p. 162-184, here p. 167-168.

attempting to secure an exhibit of school work for an international exposition.”<sup>312</sup>

Rogers particularly mentioned three principal problems: limitation of time, space and money.<sup>313</sup> Committees had to be formed at all levels. Organisers needed to procure money for the preparation of the exhibit. They prepared a general outline of the exhibit they wanted to stage. Afterwards they contacted institutions and companies that were susceptible to participate. The usual way was to send circulars to all potential exhibitors. Individual exhibitors sent their materials to a central collection point from where they were collectively shipped to the exhibition grounds.

The placement of the exhibits was crucial. It was the question whether to locate the exhibits in a separate pavilion or in one of the central palaces. Early exhibitions regularly saw smaller educational pavilions, often in the form of model school houses, such as for example the Prussian, Saxon, Swedish and Illinois building on the Champ de Mars in 1867. Later exhibitions rather disposed of special palaces, such as the Palace of Education in St. Louis, which housed the totality of educational exhibits. The placing of the exhibits inside the exhibition halls had to be coordinated with the relevant authorities. National commissioners passionately negotiated over the space that would be attributed to them. The surface measured in square metres of a national exhibit could be an outstanding criterium in the competition with neighbouring nations. In many cases improvisation was necessary to have an acceptable presentation right from the beginning. The last works were normally carried out during the first weeks after the opening of the exhibition. The catalogues and other publication were often late, too.

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<sup>312</sup> ROGERS, Howard J., « Report of the Department of Education and Social Economy », in: *Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900*, Washington, Government Printing Office, 1901, vol. 2, p. 323-485, here p. 338.

<sup>313</sup> See for example *ibid.*, p. 337-339.

The shipping of the exhibits had to be well prepared and coordinated with steamer and railway companies. National commissions usually made a free of charge transportation possible or negotiated significant reductions as compared to standard fares. The transportation of exhibits also implied legal aspects. In a period of growing economic protectionism custom issues regularly provoked vivid debates. The same is true of the fear of counterfeit products. Because of their limited economic value, these debates less concerned the educational exhibits, though.<sup>314</sup>

The world exhibitions of the nineteenth century were international competitions. This competitive character translated into the activities of an international jury. The delivery of prizes was a central part of the world exhibitions. In a general way, about half of the jury members came from the host country of the exhibitions, whereas the other half were foreigners. The composition of juries could easily provoke national and international troubles. An example was the French commissioner general of the Columbian Exposition who declared the French participation *hors concours*.<sup>315</sup> It made a difference if educational exhibits were conceived of as collective or individual exhibits. In the first case, only one certificate could be delivered to a collectivity, such as a ministry of education. In this case individual exhibitors – often to their disillusion – did not receive separate certificates. It is doubtful whether these decorations were exclusively based on excellence. In 1901 an American commissioner to the latest Paris exposition reported that “it was never too late to win a grand prize if persistent and tactful”.<sup>316</sup> He also mentioned that “if an exhibit had received a certain award in the exposition of 1889 or 1878 it was impossible for them

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<sup>314</sup> See for example OZENNE, J., SOMMERARD, E. du (eds), *France. Commission supérieure. Rapport adressé à S.E. le Ministre de l'agriculture et du commerce, président de la Commission supérieure des expositions internationales*, Paris, Imprimerie nationale, 1877, p. X-XI.

<sup>315</sup> See the documents in ANF, F12, 4453.

<sup>316</sup> ROGERS, Howard J., « Report of the Department of Education and Social Economy », in: *Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900*, Washington, Government Printing Office, 1901, vol. 2, p. 323-485, here p. 362.

to secure a lesser award in this Exposition”.<sup>317</sup> Prizes in the form of medals and diplomas played a fundamental role for the self-esteem of exhibitors. The State Board of Education of Massachusetts, for example, sent the medal obtained for its exhibit at the Columbian Exposition as a catalogued item to the Paris exposition of 1900.<sup>318</sup> Awards proudly figured at the head of official letters of private companies.

Educational sections were probably of little interest for ordinary visitors.<sup>319</sup> But they attracted specialists from all over the world. The professional visits of education experts to world exhibitions and their reporting had to be organised. In most cases the same commissions which had prepared the educational exhibits were also in charge of writing up a report and investigating the exhibits of the other participating nations. But ministries of education also used to send additional commissioners especially to investigate the educational section of a world exhibition. Commissioned visitors were in most cases high-ranking officials, school inspectors and directors.

Writing up a report was the final stage of participation in a world exhibition. As the author of the final report of the 1889 exhibition Alfred Picard (1844-1913) noted, the pavilions would disappear like the décor of a theatre, but the report would subsist as a ‘monument’.<sup>320</sup> The official report of the Paris exposition of 1900 was entitled *Bilan d’un siècle* and expressed the encyclopaedic claim of the exposition.

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<sup>317</sup> ROGERS, Howard J., « Report of the Department of Education and Social Economy », in: *Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900*, Washington, Government Printing Office, 1901, vol. 2, p. 323-485, here p. 361.

<sup>318</sup> *Catalogue of exhibitors in the United States sections of the International Universal Exposition, Paris, 1900*, Paris, Lemercier, 1900, p. 28.

<sup>319</sup> “La foule des visiteurs l’aperçoit à peine [l’exposition de l’enseignement]; mais elle fixe l’attention des connaisseurs.” LEVASSEUR, E., « Instruction primaire et secondaire », in: *Exposition universelle de Vienne en 1873. Rapports*, Paris, Imprimerie nationale, 1875, vol. IV, p. 351-529, here p. 351.

<sup>320</sup> RYCKELYNCK, Xavier, « Les Hommes de l’Exposition universelle de 1889: le cas Alfred Picard », in: *Le Mouvement social*, 149, octobre-décembre 1989, p. 25-42, here p. 37.

#### 4. Literature, Sociability and Objects – The Character of Educational Exhibits

Alexander C.T. Geppert has observed that world exhibitions were meta-media.<sup>321</sup>

They reunited several of the above mentioned means of communication for the transnational circulation of educational knowledge. In the framework of the educational sections communication took place on three levels.

First, world exhibitions were catalysts for the publication and circulation of educational literature. Educational sections of world exhibitions usually comprised libraries where interested visitors could consult pedagogical treatises, ministerial reports, programmes of study, and other materials. After the closure of the exhibitions literature and other exhibited objects were exchanged between the participating commissioners. Local libraries, schools, universities and museums also profited from the exhibitions.

Second, world exhibitions were an occasion for reinforced social contacts between educators from different contexts. They were a form of sociability for an intellectual and administrative elite.<sup>322</sup> Educators who knew each other only through print media before, could meet personally. International conferences were the most formalised option of social interaction. International conferences on education took place in the framework of the exhibitions from the 1870s onwards.<sup>323</sup> In 1876 the first international congress of education was held in the framework of the Centennial Exhibition. In the French case the international congresses developed out of the conferences which had been organised for primary instructors who had come to the capital in order to study the exhibition. In 1889, international congresses of primary,

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<sup>321</sup> GEPPERT, Alexander C. T., « Città brevi: storia, storiografia e teoria delle pratiche espositive europee, 1851-2000 », in: *Memoria e Ricerca*, 17, 2004, p. 7-18, here p. 13.

<sup>322</sup> On the concept of sociability see AGULHON, Maurice, *La république au village: les populations du Var, de la Révolution à la Seconde République*, Paris, Plon, 1970.

<sup>323</sup> FUCHS, Eckhardt, « Räume und Mechanismen der internationalen Wissenschaftskommunikation und Ideenzirkulation vor dem Ersten Weltkrieg », in: *Internationales Archiv für Sozialgeschichte der deutschen Literatur*, 27, 1, 2002, p. 122-140.

secondary and higher, as well as technical education brought together educators from all civilised countries. Eleven years, in 1900, later the number of congresses increased one more time significantly. From the International Health and Education Exhibition of London in 1884 onwards, all the great international exhibitions were successful in attracting the educational congresses into their framework. The National Education Association of the United States (NEA) turned its annual meetings into international congresses in the years of the world expositions in Chicago and St. Louis. The Congress of Arts and Sciences 1904 in St. Louis attempted to represent the whole contemporary scientific knowledge. The exhibitions were often only occasions for foreign travels. Besides their visit to the exhibitions educators took part in various other activities, such as visits to educational institutions and industrial sites of the host country.<sup>324</sup> In a time when long distance travel was still a time and cost intensive endeavour, commissioners used their trip for a more general cultural and geographical acquaintance with the host country. Often and particularly during the later years exhibitions were merely occasions – one might even say pretexts – for crossing the Atlantic ocean. Consequently, reports often mentioned the exhibitions in the preface only. The German historian Karl Lamprecht's (1856-1915) diary, for example, which covers his entire journey throughout the United States on a quasi daily basis, did not show entries for the period he spent on the exhibition grounds in St. Louis.<sup>325</sup> Henri Cordier (1849-1925), a French commissioner, disdainfully spoke of the "tohu-bohu" of the exhibition

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<sup>324</sup> Compare for actors of the industrial sector KROKER, Evelyn, *Die Weltausstellungen im 19. Jahrhundert: industrieller Leistungsnachweis, Konkurrenzverhalten und Kommunikationsfunktion unter Berücksichtigung der Montanindustrie des Ruhrgebietes zwischen 1851 und 1880*, Göttingen, Vandenhoeck & Ruprecht, 1975, p. 121.

<sup>325</sup> LAMPRECHT, Karl, *Americana: Reiseeindrücke, Betrachtungen, geschichtliche Gesamtansicht*, Freiburg im Breisgau, Heyfelder, 1906, p. 48. There are no entries between 15 and 25 September 1904 when Lamprecht stayed in St. Louis.

which would not merit any remarks.<sup>326</sup> This relates to the phenomenon of *Ausstellungsmüdigkeit* expressed by some contemporary observers. Georges Berger, the son of the homonymous key organiser of French exhibitions, argued that expositions were not necessary anymore for the international circulation of ideas.<sup>327</sup>

Third, the actual exhibits were a foremost sub-medium. The representational strategies did not change significantly over time. Organisers intensively staged school houses. They constructed full size or miniature models, prepared photographs and detailed ground plans. The staging of representative school buildings should symbolise the high standing of an education system. At the same time they served for professional debates on the material and hygienic conditions of schooling. All other educational tools, including school furniture, globes, calculating machines and so on, were present as well. Pupils' works should prove the success of the applied methods. Numerous volumes of writing and calculating samples and essays bound in large volumes aimed at providing a more or less authentic view on the work done in classes. Pupils' works in manual training were an illustrious part of the exhibits as well that attracted visitors due to their neatness.

The German American educator Louis Richard Klemm (1845-1925), for example, made in a detailed way proposals for how to visually arrange exhibits at the Columbian Exposition.<sup>328</sup> Klemm urged each state of the American Union to present statistical data. He made various propositions how to represent school statistics graphically and proposed wing frames for their material installation. Those were, as Klemm argued, space saving and pleasant to the eye. Klemm made also suggestions

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<sup>326</sup> CORDIER, H., *Le VIIIe congrès international de géographie*, Paris, Imprimerie nationale, 1905, p. 5.

<sup>327</sup> BERGER, H. Georges, *Les Expositions universelles internationales (leur passé, leur rôle actuel, leur avenir)*, Paris, Arthur Rousseau, 1901.

<sup>328</sup> *The Educational Exhibit. No. 2. Statistics by Graphic Methods. Wing Frames; State Maps. Liberal Arts Department Circular No. 2.*, World's Columbian Exposition, [no date].

concerning the disposition of the exhibited objects, mentioning hanging objects, vitrines, shelves and so on.

At the turn of the century new media, such as light projections and audio recording, gave the exhibits a decisively modern dimension. Decorational features, such as flags and ornamentation, statues of great scholars, educators and political leaders completed the educational exhibits and gave them a specific national aura.

Another idea was to hold school classes with real instructors and pupils life on the exhibition grounds. Organisers thought about this idea as early as in 1867. At the Centennial Exhibition, organisers of the Pennsylvania educational exhibit foresaw to install a classroom in where they wanted to “exhibit the *life*” of the education system. Lack of time made this project impossible.<sup>329</sup> In 1900, the *Alliance française* held language classes on the exhibition grounds. Four years later Philippine children were taught in model schools on the St. Louis exhibition grounds. The model kindergarten of Maria Montessori in San Francisco was another famous example.<sup>330</sup>

The educational exhibits at world exhibitions had a high potential to contribute to the transnational circulation of knowledge. Looking closely, representing education at world exhibitions was more complex and had multiple functions. First, exhibitions were addressed to a general audience consisting of masses. The representation of public schooling highlighted the benevolent and paternalistic role of the state. Educational exhibits called for the acceptance of educational institutions as normalising agencies.<sup>331</sup> It was also a way to popularise science. Second, exhibitions

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<sup>329</sup> *Catalogue of the education exhibit of the state of Pennsylvania, with an appendix, containing an outline of the system of public instruction in the state*, Lancaster, Press of the Inquirer P. & P. Company, 1876, p. 6.

<sup>330</sup> SOBE, Noah, « Challenging the Gaze: The Subject of Attention and a 1915 Montessori Demonstration Classroom », in: *Educational Theory*, 54, 3, 2004, p. 281-297.

<sup>331</sup> BARTH, Volker, *Mensch versus Welt*, p. 226-228. LAWN, Martin, « Introduction », in: LAWN, Martin (ed.), *Modelling the Future. Exhibitions and the Materiality of Education*, Oxford, Symposium Books, 2009, p. 7-14; SCHRIEWER, Jürgen, « ‘Ceremonial Pedagogy’ in Revolutionary Societies:

diffused the most up-to-date educational know-how in a national framework. This was especially the case in France, where the Ministry of Public Instruction sponsored travel to Paris for primary instructors from the entire nation. This was also the case in the United States where new states and the South were encouraged to adopt the experienced proceedings of the Northeast. Whereas these functions were felt most powerful in a national framework, other functions were distinctively transnational. In this light, the educational sections of world exhibitions, third, contributed to the formation of a global community of education experts. Education officials tackled issues that could not be resolved in a national framework. For example, they tried to regulate the mutual recognition of diplomas of secondary and higher education at the congresses of the Paris exhibition of 1889. Fascinating monographs can still be written on these functions of educational exhibits. This thesis, as outlined in the introduction, concentrates on two other transnational functions. Thus, world exhibitions were, fourth, major vehicles for appropriations and cultural transfers in the field of education. Fifth, educational sections permitted to showcase one's own institutions on an international scene in a period of international competition. The following three parts of this thesis bring together studies on education experts from France, Germany, Japan and the United States. These experts used the educational sections of world exhibitions both to develop their own institutions by appropriating foreign features and to stage these institutions for an international audience.

## SECOND PART: THE TRANSFER OF COMPULSORY PRIMARY EDUCATION TO JAPAN AND FRANCE

The most important educational theme at the world exhibitions of the 1860s and 1870s was primary education. Education experts from Japan and France, though operating in different institutional settings, used world exhibitions to appropriate certain features of foreign models in order to reform and construct systems of primary education in their own countries. They took the common school system of the United States as a central reference. American educators used world exhibitions for proudly presenting their institutional achievements to an international audience.

### ***1. The Coming of Age of American Primary Education***

By the 1860s, the common-school crusade, which had started in the 1830s, showed its first results. Public education progressively became a fundamental dimension of the dominant Whig ideology. Many Americans began to take for granted that the provision of elementary schooling was a public obligation and that its institutions should be run by the community. Schooling was mainly administered at the local level of the school district. In 1873, the president of the St. Louis Board of Public Schools, Felix Coste, declared:

“The idea that all the children of all the people shall be educated at the expense of the property of the community, the funds necessary for the support of schools being provided by taxation, is the American idea.”<sup>332</sup>

This American idea filled educators with pride and was the major theme of their representations at world exhibitions.

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<sup>332</sup> COSTE, Felix, « Report of the President », in: *Eigteenth Annual Report of the Board of Directors of the St. Louis Public Schools, for the Year Ending August 1, 1872*, St. Louis, Democrat Lithographic and Printing Co., 1873, p. 5-12, here p. 9.

## 1. The Late Common School Crusaders in Action – American Education at the Exhibitions of the 1870s

At the time of the 1862 London exhibition, the American Civil War – or the “slave holder’s rebellion”, as the American catalogue termed it<sup>333</sup> – absorbed most financial as well as other resources. Nevertheless, the federal government in Washington set up a commission that prepared a limited American exhibit in London. The commissioners sent only one object to the educational section, class 29. This was a map of the United States which sought to symbolise the determination with which the Unionists were engaged in the Civil War.<sup>334</sup> The United States also participated in the 1867 exhibition in Paris. Apart from a rural common school of the state of Illinois in original size, the educational exhibit comprised a limited number of pedagogical publications and apparatuses.<sup>335</sup> Thus, the United States’ educational exhibits at the expositions of the 1860s were limited and still relatively unorganised. During and shortly after the Civil War this was not surprising. In fact, new actors subsequently took over the organisation of educational sections at world exhibitions and prepared them in a much more professional way.

After the Civil War it came to the foundation of national institutions dealing with education. The National Teachers’ Association, which had been created in 1857, changed its name to National Educational Association in 1870 and began to have growing influence on American education.<sup>336</sup> The federal government also made effective, though limited, efforts to advance and centralise American education. In

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<sup>333</sup> *The United States Official Catalogue*, London, Bell, 1862, p. iii.

<sup>334</sup> *Ibid.*, p. 67.

<sup>335</sup> *Official Catalogue of the Products of the United States Exhibited at Paris, 1867, with Statistical Notes*, Paris, Chaix, 1867, p. 158.

<sup>336</sup> WESLEY, Edgar Bruce, *NEA: the first hundred years; the building of the teaching profession*, New York, Harper, 1957. For the Association’s participation in expositions see pages 130-134.

1867 it created the United States Bureau of Education in Washington DC.<sup>337</sup> Henry Barnard became its chief, and thus the first United States Commissioner of Education. Both of these institutions had a considerable role in the United States' participation in international exhibitions. They were the connecting agencies to state and city administrations, as well as to individual entities which wanted to place their exhibits in the educational sections.

Some education experts filled these institutions with life. David Tyack and Elisabeth Hansot analysed those who constructed the first state education systems in the 1830s as common school crusaders. Adopting Tyack's and Hansot's terminology, one can characterise the education experts of the 1860s and 1870s as the 'late common school crusaders'. As their predecessors, they were still of Anglo-Saxon descent, received a college education and started their careers as pastors and teachers. With their Protestant millenarism they constituted an "aristocracy of character".<sup>338</sup> This was the last generation of American educators which believed in the ideals formulated by Horace Mann and Henry Barnard and actively participated in their implementation. One of these late common school crusaders was James P. Wickersham (1825-1891) who, as state superintendent of public instruction from 1866 to 1881, had played a key role in building up a system of public common schools in Pennsylvania.<sup>339</sup> He was the author of influential educational publications, such as *School Economy*<sup>340</sup>, *Methods of Instruction*<sup>341</sup>, and also the *History of*

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<sup>337</sup> For a survey of the early history of the Bureau see *The United States Bureau of Education. Created as a Department March 2, 1867. Made an Office of the Interior Department July 1, 1869*, Washington, Government Printing Office, 1889.

<sup>338</sup> TYACK, David, HANSOT, Elisabeth, *Managers of virtue: public school leadership in America, 1820-1980*, New York, Basic Books, 1982, p. 3-5, 15-104.

<sup>339</sup> ADAMS, Paul Kinder, *James Pyle Wickersham and educational reform in Pennsylvania, 1866-1881*, PhD thesis, Kent State University, 1978.

<sup>340</sup> WICKERSHAM, James Pyle, *School economy: a treatise on the preparation, organization, employments, government, and authorities of schools*, Philadelphia, J.B. Lippincott & Co., 1864.

<sup>341</sup> WICKERSHAM, James Pyle, *Methods of Instruction*, Philadelphia, J.B. Lippincott & Co., 1865.

*Education in Pennsylvania*<sup>342</sup>. Another was John D. Philbrick (1818-1887) who supervised the Boston schools as city superintendent from 1856 to 1878 with only a short interruption. During his tenure, the Boston school system made considerable progress, becoming, according to John W. Hoyt, the “cynosure of the Western world in matters of education”.<sup>343</sup> Birdsey G. Northrop (1817-1898) was secretary of the Connecticut Board of Education. The General John Eaton (1829-1906) became United States Commissioner of Education following Barnard in 1870. William T. Harris (1835-1909) was probably the most influential educator of the United States during the latter half of the nineteenth century. Harris was the key figure of a philosophical current known as the St. Louis school of philosophy, based particularly on Hegelian thought. From 1868 to 1880 Harris was superintendent of public schools of St. Louis.<sup>344</sup> During his tenure the public school system of this city became one of the most innovative of the United States.<sup>345</sup> Harris was United States Commissioner of Education from 1889 to 1906. All these educators played a considerable role in the organisation of the exhibitions of the 1870s and partly beyond.

The United States participated in the Vienna exhibition of 1873. Their educational exhibit was located in a school house especially erected on the exhibition grounds. According to the official United States report, John D. Philbrick was the “moving

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<sup>342</sup> WICKERSHAM, James Pyle, *A history of education in Pennsylvania, private and public, elementary and higher. From the time the Swedes settled on the Delaware to the present day*, Lancaster, Inquirer Publishing Company, 1886.

<sup>343</sup> HOYT, John W., « Educational Systems, Methods, and Libraries », in: *United States Centennial Commission. International Exhibition, 1876. Reports and Awards. Volume 8. Groups XXVIII-XXXVI, and Collective Exhibits*, Washington, Government Printing Office, 1880, p. 2-205, here p. 4.

<sup>344</sup> There is a large literature on Harris: McCLUSKEY, Neil, *Public Schools and Moral Education: the Influence of Horace Mann, William Torrey Harris, and John Dewey*, New York, Columbia University Press, 1958, p. 99-176; ROBERTS, John S., *William T. Harris. A Critical Study of His Educational and Related Philosophical Views*, Washington, NEA, 1924.

<sup>345</sup> REESE, William J., « Public Education in Nineteenth-Century St. Louis », in: SANDWEISS, Eric, *St. Louis in the century of Henry Shaw: a view beyond the garden wall*, Columbia, University of Missouri Press, 2003, p. 167-187; TROEN, Selwyn K., *The public and the schools: shaping the St. Louis system, 1838-1920*, Columbia, Mo., University of Missouri Press, 1975.

spirit and executive hand” there.<sup>346</sup> The building offered two fully equipped school rooms. Besides, there were four independent alcoves which presented showings from Massachusetts, New York City and other city systems.

Three years later, the Centennial Exhibition, organised in Philadelphia in 1876, celebrated one hundred years of independence of the United States. The preparation of the United States educational exhibit at the Centennial involved once again the NEA, the Bureau of Education and the leading state and city superintendents of public schools. At the end of January 1875 the Department of Superintendence of the National Educational Association met in Washington DC to deliberate on the character and organisation of the educational exhibit.<sup>347</sup> The meeting created an executive committee charged with the organisation of the exhibit and dealing with the Centennial commission. The committee’s members were, among others, Eaton, Wickersham and Philbrick. Because of the institutional fragmentation of educational responsibilities, Wickersham emphasised that the exhibit had to demonstrate unity and the common character of American public schools. He saw the not unjustified danger that the exhibit could turn out to be “a mass of ill-assorted fragments, without order or relation”.<sup>348</sup> One of the major arguments for a distinctively national exhibit was the presence of foreigners at the Centennial. Therefore the exhibition was to offer a “wonder to the older nations that may come across the water”, Wickersham announced.<sup>349</sup>

The committee recommended that state superintendents should supervise the preparation. Each state, but also each independent educational institution, should

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<sup>346</sup> HOYT, John W., « Report on Education », in: THURSTON, Robert (ed.), *Reports of the Commissioners of the United States to the International Exhibition held at Vienna, 1873*, Washington, Government Printing Office, 1876, p. 13.

<sup>347</sup> *Education at the centennial: (extracts from the proceedings of the Department of Superintendence of the National Educational Association, at its meeting in Washington, January 27 and 28, 1875): remarks of Hon. J.P. Wickersham*, Washington, Government Printing Office, 1875.

<sup>348</sup> *Ibid.*, p. 7.

<sup>349</sup> *Ibidem*.

prepare a presentation of its condition. It was also suggested that “prominent educators of the world” should be invited to cooperate, particularly through the organisation of an educational congress. The outcome of the executive committee’s deliberations were published as guidelines that potential city, state, and private exhibitors had to respect.<sup>350</sup> Later, at the annual meeting of the NEA in August 1875 it was also decided that public schools of towns and cities were encouraged to exhibit various kinds of pupils’ works.<sup>351</sup>

As the exhibition was taking place in Philadelphia, it is not surprising that the educational exhibit of Pennsylvania was one of the most complete. Wickersham directed its preparation. The Pennsylvania exhibit was placed in a pavilion on the exhibition grounds. A catalogue listed the displayed objects.<sup>352</sup> The exhibit comprised all levels of the education system, from the kindergarten to colleges. The largest part of the exhibit came from district and city elementary schools. Most of them typically showed maps, pictures, and written pupils’ works. The Department of Education located in the state capital Harrisburg was represented by its official publications. Other alcoves highlighted specialist institutions, such as normal schools and schools for the instruction of blind. The inner court hosted a comprehensive exhibit of school furniture, apparatuses and textbooks. In the very centre of the pavilion organisers placed a model of a country school house, expressing in this way the unbroken ideal of the rural school district. The catalogue stated that “a school house in all respects like the model [...] can be built for fifteen hundred dollars.” The Pennsylvania Education Hall represented the pinnacle of the late common school

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<sup>350</sup> *Suggestions Respecting the Educational Exhibit at the International Centennial Exhibition, 1876*, Washington, Government Printing Office, 1875.

<sup>351</sup> *Schedule for the preparation of students’ work for the Centennial exhibition, as reported by the Committee of the Department of Superintendence of the National Education Association, appointed at Minneapolis in 1875*, Washington, Government Printing Office, 1875.

<sup>352</sup> *Catalogue of the education exhibit of the state of Pennsylvania, with an appendix, containing an outline of the system of public instruction in the state*, Lancaster, Press of the Inquirer P. & P. Company, 1876.

crusade. The pavilion also included office, reception room and sitting room where educators could meet in a pleasant atmosphere.

The appendix of the catalogue of the Pennsylvania educational exhibit presented an outline of the current situation of the education system of Pennsylvania. The school districts “are an *exact measure of the people’s interest in education, and their ability to manage for themselves a system of public instruction.*”<sup>353</sup> The county also had some limited responsibilities in educational affairs. The State Department of Public Instruction at Harrisburg was still a small institution with limited powers. Besides the superintendent only ten officers worked there. The description not only praised the achievements, but also discussed the persisting weak points of the system, and tried to explain them. The length of school terms was too short, especially in the countryside where it was only six months. Salaries for teachers were insufficient. Working as a teacher was still regarded as a temporary engagement before marriage or moving to another job. Finally, truancy remained a major problem. Wickersham remarked that the key authorities in educational affairs were the local school districts and that he could influence them only marginally from his office. The account pointed out that Pennsylvania was mainly an agricultural region. This explained that the children of peasants frequented school for six months and helped their family with farm work during the remaining sixth months. Besides the pride he took in the rural common schools, Wickersham clearly outlined the deficiencies of the existing educational policies.

Other federal states also participated eagerly in the educational section of the Centennial. One observer noted that the fragmented responsibilities shared among city, state, and national institutions prevented a really successful American exhibit

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<sup>353</sup> *Catalogue of the education exhibit*, p. 76. Italics in original.

and created uncertainty concerning the national character of the exhibit.<sup>354</sup> Because of this, John W. Hoyt even spoke of a “failure” of the school exhibit.<sup>355</sup> But this diagnosis seems by far too pessimistic when assessing the state of American education in the Centennial year. In fact, a large number of educational publications testified to the high standard of American education and symbolised the pride its citizens took in it.

## **2. Historical and Contemporary Perspectives – A Large Number of Educational Publications**

In one particularly pertinent example, Daniel Coit Gilman (1831-1908), the president of Johns Hopkins University, wrote a programmatic article on education and its history in the United States in the centennial year, published in the *Whig North American Review*.<sup>356</sup> Despite of the diverse authorities in charge of education throughout the country, Gilman emphasised national homogeneity. Notwithstanding state differences, the system was basically the same from the Atlantic to the Pacific, Gilman argued. At the same time he stressed the American origins and negated European influence:

“Unquestionably the most distinctive characteristic of American education is the prevalence of popular primary schools throughout the vast territory of the United States. The system upon which they are organized is a growth and not a creation. It was not imported from any European country. Its germ was planted by the earliest colonists, – but the tree which has sprung from the germ would amaze the original planters. [...] Theoretically it has many defects; practically it is adapted to the circumstances of the land. [...] It is the pride of the people; the satisfaction of the poor man, and the protection of the rich man. Its influence in the Northern

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<sup>354</sup> GREGORY, John M., «Leading Features of the Educational Exhibit», in: *United States Centennial Commission. International Exhibition, 1876. Reports and Awards. Volume 8. Groups XXVIII-XXXVI, and Collective Exhibits*, Washington, Government Printing Office, 1880, p. 267-275, here p. 267.

<sup>355</sup> HOYT, John W., «Educational Systems, Methods, and Libraries», in: *United States Centennial Commission. International Exhibition, 1876. Reports and Awards. Volume 8. Groups XXVIII-XXXVI, and Collective Exhibits*, Washington, Government Printing Office, 1880, p. 2-205, here p. 6.

<sup>356</sup> GILMAN, Daniel Coit, «Education in America, 1776-1876», in: *North American Review*, 122, January 1876, p. 191-228.

and Eastern States has been rated so high that every new State adopts it without question.”<sup>357</sup>

Gilman traced the origin of American public education back to an order adopted in Massachusetts in 1647. This order laid the foundation for laws still in force in the 1870s: “Here is a plan involving local responsibility; state oversight; moderate charges or gratuitous instruction; provision for all and not for the poor alone; and a recognition of three harmonious grades.”<sup>358</sup> Gilman discussed how these characteristics had developed into what he called a “continental system”.<sup>359</sup> Local responsibility, state supervision, and a limited authority of the national government were still the main characteristics. Gilman also emphasised that primary schools were now free of charge in nearly every state. Another characteristic was the absence of class distinction: “The schools are avowedly open to all.”<sup>360</sup> Pupils from the humblest families sat next to those of the most refined families in public schools. Gilman stated that the “public school, in theory, recognizes no class distinction.”<sup>361</sup>

Beyond Gilman’s essay the history of American education was approached in a much more systematic manner, as the NEA and the Bureau of Education encouraged the publication of historical sketches of state systems and institutions. The so-called Centennial histories should show the progress accomplished in educational affairs since the foundation of the republic. In January 1875 the Bureau of Education published a “Synopsis of the proposed centennial history of American education.”<sup>362</sup> Respecting this scheme the Bureau urged states and private institutions to publish histories to be presented at the Centennial. The histories would allow the situations in 1776 and 1876 to be compared. As the exhibition would be international, this also

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<sup>357</sup> Ibid., p. 196.

<sup>358</sup> Ibid., p. 197.

<sup>359</sup> Ibidem.

<sup>360</sup> Ibid., p. 205.

<sup>361</sup> Ibidem.

<sup>362</sup> The synopsis was reprinted in the *Report of the Commissioner of Education for the Year 1875*, Washington, Government Printing Office, 1876, between pages cxliv and cxlv.

implied an international comparison of performance of educational systems. It once again reflected the decentralised character of American education that decision-makers in the Bureau did not envisage a unique monograph on American education, letting state administrations write their own histories.<sup>363</sup> The endeavour was also rooted in a positivist vision of historiography. The volumes should be so detailed “that no revision would be required in the future, either near or remote.”<sup>364</sup>

The Bureau itself prepared works of more general interest, including works on college education, the history of textbooks, medical education and public libraries.<sup>365</sup> Many local memorial centennial reports and histories of academies and other institutions of secondary education formed the most important bulk of centennial educational literature. The St. Louis Board of Public Schools under the direction of William T. Harris, for example, printed its history in its *Twenty First Annual Report*.<sup>366</sup> Numerous colleges and academies used the chance to gain attention on the educational market. This is also why many publications not only comprised historical sketches, but also practical information on the institutions’ current situation.<sup>367</sup>

However, not all institutions were able to publish historical sketches by the time of the Centennial. Histories of state and city systems, as well as colleges were

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<sup>363</sup> *Suggestions Respecting the Educational Exhibit at the International Centennial Exhibition, 1876*, Washington, Government Printing Office, 1875, p. 9.

<sup>364</sup> *Report of the Commissioner of Education for the Year 1875*, Washington, Government Printing Office, 1876, p. xii-xiii.

<sup>365</sup> TONER, Joseph Meredith, *Contributions to the Annals of Medical Progress and Medical Education in the United States before and during the War of Independence*, Franklin, New York, 1874; DAVIS, N. S., *Contributions to the History of Medical Education and Medical Institutions in the United States of America, 1776-1876*, Washington, Government Printing Office, 1877; WARREN, S. R., CLARK, S. M., *Public Libraries in the United States of America, Their History, Condition, and Management*, Washington, Government Printing Office, 1876, 2 vol.

<sup>366</sup> *Twenty First Annual Report of the Board of Directors of the St. Louis Public Schools, for the Year Ending August 1, 1875*, St. Louis, Slawson, 1876, p. 161-179.

<sup>367</sup> See for example *Historical sketch of Mount Holyoke seminary. Founded at South Hadley, Mass., in 1837. Prepared in compliance with an invitation from the commissioner of education, representing the Department of the interior in matters relating to the national Centennial of 1876*, Springfield, C. W. Bryan & Company, 1876; HOUGH, F. B., *Historical Sketch of Union College*, Washington, Government Printing Office, 1876; SOLEY, James Russell, *Historical sketch of the United States Naval academy. prepared by direction of Rear-Admiral C. R. P. Rodgers, U.S.N., superintendent U. S. Naval academy, for the Department of education at the International exhibition, 1876*.

published consecutively throughout the following decades. The *Historical Sketch of the University of Missouri*, for example, was only finished in 1883. The introduction explained that only a small portion of the text could be finished by the time the Centennial was held.<sup>368</sup> The directive by the Bureau of Education to publish centennial histories was the first large-scale effort to systemise knowledge about the American history of education. It engendered efforts that lasted for a long time after the Centennial.<sup>369</sup>

While the *Centennial Histories* were intended to show the historical development of education in the United States, another type of publications adopted a more contemporary perspective. The *Statement of a Theory of education in the United States of America* was a manifesto of the late common-school crusaders. The decision for its publication had been taken as early as in 1872. It was originally intended to be ready for the Vienna exhibition of the following year. It was supposed to provide a general outline of American education to foreign education experts, but its preparation was significantly delayed. The Bureau of Education published the *Statement* only in late 1874.<sup>370</sup> As commissioner to the Paris exhibition of 1878, John D. Philbrick inserted the statement in full length into the catalogue of the United States educational exhibit.<sup>371</sup> The text was originally drafted by Duane Doty, superintendent of schools of Detroit, and William T. Harris. Numerous leading educators approved and signed it. In thirty points it mentions the principles for the organisation of education in the United States.

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<sup>368</sup> *Historical Sketch of the University of Missouri*, Washington, Government Printing Office, 1883.

<sup>369</sup> CREMIN, Lawrence Arthur, *The Wonderful world of Ellwood Patterson Cubberley: an essay on the historiography of American education*, New-York, Teachers College – Columbia university, 1965, p. 12.

<sup>370</sup> *A Statement of the Theory of Education in the United States of America, as Approved by Leading Educators*, Washington, Government Printing Office, 1874.

<sup>371</sup> PHILBRICK, John D., *The Catalogue of the United States Collective Exhibition of Education*, London, Chiswick Press, 1878, p. 11-30.

The *Statement* began by mentioning that “the American school system is an organic or historic growth, having its origin in attempts made to supply social and political needs.”<sup>372</sup> In the following paragraphs its authors stressed the close relationship between the political and educational systems of the United States. The national government had but limited responsibilities in educational affairs. States were by far more important for the regulation of education. In turn, states passed a large range of responsibilities to the municipalities which were, finally, responsible for most practical administrative affairs. The relation between political system and education played out on another level as well. Self-government at the local level made it necessary that everyone was well educated. Hence, democracy automatically entailed the general instruction of citizens. Education was furthermore a necessity for the country’s industrial progress. The *Statement* claimed that the United States was still a nation in motion engaged in spreading over the continent. Consequently, the educational system had not yet developed in a uniform way in all states. In new states education was still backward and unorganised.

The *Statement* went on to discuss more pedagogical issues. “In America, the peculiarities of civil society, and the political organization draw the child out of the influence of the family nurture earlier than is common in other countries. [...] The consequence of this is the increased importance of the school in an ethical point of view.” In order to compensate for the lack of family support schools were obliged to stress discipline and the moral function of education. Prompt obedience to the teacher and self-control were the key practices in American schools. Punishment, mostly corporal punishment, the statement went on to argue, was used to develop a sense of honour in the child. In some big cities, however, it had been decided to do without corporal punishment. Furthermore, new large schools in cities with several

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<sup>372</sup> *A Statement*, p. 9.

hundreds of pupils attending, as opposed to small ungraded village schools, required military precision. Therefore punctuality, regularity, attention and silence were foremost values in these schools.

The course of studies was discussed next. The curriculum was designed to teach “the readiest and most thorough practical command of those conventionalities of intelligence, those arts and acquirements which are the means of directive power and of further self-education.” These principles entailed two consequences. Firstly, mastery over the material world was a central goal in education. Instruction in arithmetic, geography, and natural history related to this goal. Secondly, “association with one’s fellow-men, the world of humanity” was another central objective of education. Subjects as reading, writing, English grammar and the history of the United States supported this goal. In some cases subjects like drawing and vocal music completed the curriculum.

The *Statement* also briefly evoked institutions of secondary and higher instruction. Furthermore, coeducation was a characteristic of American education. At least in the lower grades, often also beyond, boys and girls learned together. The course of study was the same for both sexes. There were also private schools, most of them not being coeducational.<sup>373</sup> The American system of instruction put special emphasis on the use of textbooks. Instruction was non-sectarian. Up to ninety per cent of teachers were women. The text claimed that the salary was respectable. “Teachers mingle freely in the best social circles and enjoy the respect of the community.” This assertion contradicted Wickersham’s statement in the Centennial catalogue that teacher’s pays were insufficient. Finally, the *Statement* stressed that educational

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<sup>373</sup> Compare to TYACK, David, HANSOT, Elisabeth, *Learning together: a history of coeducation in American public schools*, New Haven/New York, Yale University Press/Russell Sage Foundation, 1992.

journals, reports, and other publications are of foremost importance for the circulation of educational information in the United States.

The *Statement* was the quintessence of contemporary American pedagogy. The main preoccupation of the *Statement's* authors was the political and social function of education. The individual child scarcely appeared in the text. Other books, as the *Cyclopaedia of Education* of Henry Kiddle's (1824-1891), superintendent of public schools of New York City, symbolised the coming of age of American public schools in a similar way.<sup>374</sup>

The large number of educational publications in connection with the Centennial showed that, although the link between local democracy and autonomy was highlighted, Americans started to think about their educational system in national terms.

### **3. "America is no Longer a Borrower on the European Market" – American Self-Confidence in Educational Affairs**

American school exhibits at world exhibitions of the 1870s and the related publications represented the climax of the American common school movement. Two other developments underline the coming of age of American public schools. First, after the closure of exhibitions, American educators often reported in a negative manner about certain features of European education, at the same time highlighting their own competence. Second, a set of other educational publications of the 1870s, not directly linked to the world exhibitions, also demonstrated growing American self-confidence.

The late common school crusaders still referred to Europe in a positive way.<sup>375</sup> But they acquired more and more confidence. After the expositions of 1867 and

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<sup>374</sup> KIDDLE, Henry, SCHEM, Alexander Jacob, *The cyclopædia of education: A dictionary of information for the use of teachers, school officers, parents, and others*, New York, E. Steiger, 1876.

<sup>375</sup> See for example ADAMS, *James Pyle Wickersham*, p. 154.

1873, reports stressed the negative sides of European education and American superiority. They regarded various aspects of European education systems as backward. In this vein, Jacob R. Freese, a commissioner to the 1867 exhibition from Trenton, New Jersey, examined the school houses erected on the Champ de Mars, and came to the conclusion that the American model was superior to all others:

“In considering the question [...] as to what, if anything, can be learned from other nations in the way of constructing buildings, or rooms, for educational purposes, I am forced to the conclusion that we can learn nothing to advantage, but, on the contrary, that other nations, if they choose, may learn from us.”<sup>376</sup>

The same was true for school furniture which Freese also analysed:

“[...] The American [school-room furniture] is altogether the best, both as to convenience, comfort, and neatness, so that here, as in the case of the school-rooms, we can profit nothing from the exhibits of other nations.”<sup>377</sup>

Statements of American self-confidence in educational affairs can also be found in the final report on the Vienna exhibition of 1873. The educator and politician John W. Hoyt proudly claimed that the American showing made an “unduly favourable, impression upon the European mind as to what has really been accomplished [...]”.<sup>378</sup>

Hoyt was convinced that the United States educational exhibit had illustrated to foreigners the intelligent zeal of the American people in matters of education, the readiness with which they voluntarily tax themselves, the blessings of an intellectual culture free for all, the great liberality of the United States government in giving public domain to support schools, the unparalleled munificence of private gifts and bequests for education; the superiority of public school buildings in cities and villages and of American furniture, the great superiority of American textbooks, the

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<sup>376</sup> FREESE, Jacob R., *School-houses, and the means of promoting popular education*, Washington, Government Printing Office, 1869, p. 6.

<sup>377</sup> *Ibid.*, p. 8.

<sup>378</sup> HOYT, John W., « Report on Education », in: THURSTON, Robert (ed.), *Reports of the Commissioners of the United States to the International Exhibition held at Vienna, 1873*, Washington, Government Printing Office, 1876, p. 10.

extraordinary extent of newspapers and journals which supplement the work of the schools and permit the general diffusion of knowledge among all classes. Hoyt continued in a spirit of superiority:

“On these points there seemed to be no diversity of opinion. The statistics of education were noted and copied by hundreds of foreign reporters and educators; drawings of American building-plans and school-furniture were made in great number, for use in many lands; and our text-books, outline maps, music charts, and other aids to instruction were studied with utmost care and apparent satisfaction by numerous school-officers, teachers, and authors from all parts of the world.”<sup>379</sup>

Hoyt also displayed a self-confident attitude when describing the French and German educational exhibits in Vienna. Commenting on the French representation Hoyt wrote that it was “not so much a brilliant display”:

“An examination of the statistical documents there found revealed to the careful student [...] what anyone who has travelled much in France must have observed, namely, that the zeal in education, so noticeable among the more intelligent and liberal of the people, has so far accomplished but little more than to secure the founding and maintenance of a large number of the higher institutions for instruction in the sciences, letters, and the useful and fine arts, and the establishment of schools of excellent quality for elementary and secondary education in Paris and the other cities; that education in the villages and country neighborhoods is far from universal, and is still sadly neglected by general and communal authorities.”<sup>380</sup>

Hoyt was also critical of the German exhibit. Traditionally, German education enjoyed high esteem in the United States. Hoyt, however, did not hide his disappointment when he wrote that the exhibit fell short of what he had expected from the German Empire. Hoyt especially commented on the poor quality of German textbooks which could hardly be compared to American ones:

“Indeed, as to the character of textbooks, it is a matter of surprise that the nation most advanced in the work of education – the nation in which there is really more of education and culture than in any other – should be so slow to adopt the better methods of instruction furnished by the authors of other countries, and to improve its schoolbooks in various mechanical respects. Badly designed, miserably printed on cheap, coarse paper, and miserably illustrated, the schoolbooks of the German

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<sup>379</sup> HOYT, John W., « Report on Education », in: THURSTON, Robert (ed.), *Reports of the Commissioners of the United States to the International Exhibition held at Vienna, 1873*, Washington, Government Printing Office, 1876, p. 15.

<sup>380</sup> *Ibid.*, p. 19.

states generally compare very unfavourably with those of our own and still other countries.”<sup>381</sup>

In Vienna, Hoyt was president of the educational group of the international jury. This was the first time that an American headed a jury at an international exposition which testified to the coming of age of the United States in general and American education in particular.<sup>382</sup>

Three years later, France and Germany did not participate in the educational sections of the Centennial Exhibition. This fact contributed enormously to the growing North-American self-confidence. J. George Hodgins (1821-1912), deputy minister for education in the Canadian province of Ontario and commissioner to the Centennial exhibition, spoke of the lack of German and French educational exhibits as a surprise, a disappointment, and an error. Hodgins was extremely well integrated in United States networks and regularly visited educational conventions in this country. For this reason Hodgins’ views were representative of North American educators in general. Hodgins gave three possible reasons for a lack of a more pronounced European presence at the Centennial. Firstly, it could be regarded as “a tacit admission that European systems of popular education were inferior in practical utility and result to those of the American states”. Secondly, some believed it to be “an implied admission that the development of educational systems in monarchical Europe was not sufficiently marked to warrant a comparison with those of Republican America.” Thirdly, “it was felt by many as an official intimation that education [in Europe], as a national interest, was still considered of less importance than that of trade and industry.”<sup>383</sup>

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<sup>381</sup> Ibid., p. 20.

<sup>382</sup> Ibid., p. 10.

<sup>383</sup> HODGINS, J. George, *Special Report to the Honourable the Minister of Education, on the Ontario Educational Exhibit, and the Educational Features of the International Exhibition, at Philadelphia, 1876*, Toronto, Hunter, Rose and Co., 1877, p. 164-165.

American educators proudly translated and reprinted those European reports that referred to the schools of the United States in a positive way. The report from the Vienna exhibition, for example, reproduced extracts of various European reports.<sup>384</sup>

Alongside these comments on European exhibits on education, a set of publications of the 1870s which were partially related to the Centennial, also demonstrated growing American self-confidence in educational affairs.

In 1873, Birdsey G. Northrop published a programmatic collection of essays outlining his views on foreign education.<sup>385</sup> Northrop was a tutor of Chinese students brought to New England schools in order to receive an American education. Works of these students were presented at the Centennial. They were intended to show how Chinese students were brought up to civilisation in an American, not European, way. Northrop was also in regular contact with the Japanese educators visiting the United States. During some time in 1873 he even considered to serve as an advisor for the Japanese Ministry of Education. This experience must have had a considerable impact on Northrop. He was well aware of the model character the American education system started to have for experts from different parts of the world, something that contributed to a growing self-confidence in educational affairs. Northrop's edited book evolved from a short speech he gave at the opening of the Jefferson School in Washington DC in 1873. All the contributors were eminent American educators and underlined American self-sufficiency in educational affairs. A certain J. P. Thompson stated very clearly in a letter sent from Berlin: "It should be understood that, in matters of education, America is no longer a borrower on the European market."<sup>386</sup>

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<sup>384</sup> THURSTON, Robert (ed.), *Reports of the Commissioners of the United States to the International Exhibition held at Vienna, 1873*, Washington, Government Printing Office, 1876, vol. 1, p. 348-485.

<sup>385</sup> NORTHROP, B. G., *Education abroad, and other papers*, New York, A.S. Barnes, 1873.

<sup>386</sup> *Ibid.*, p. 176.

The revisionist historiography of education in the United States taught to distrust the optimistic accounts and self-appraisals of nineteenth century education experts.<sup>387</sup> The Republican rhetorics hid power relations that discriminated against certain immigrant groups and former slaves. Much of what school administrators wrote was rather ideology and wishful thinking than reality, as the example of teacher pay showed. Nevertheless, the late common school crusaders used the international exhibitions of the 1870s in order to showcase American achievements in school affairs. The coming of age of the American free school system is largely due to the model status it slowly acquired in other parts of the world. In the United States, education was henceforth a public affair, even though it was controlled at the local and state levels. The exhibitions of the 1870s urged American educators to present American education to the outside world and thus to reflect about the national character of the education system. After their success in the Civil War the Unionist late common school crusaders proudly transcended national borders. The world exhibitions provided a possibility to confront American achievements with European institutionalisations. But they also brought foreign educational missions to the United States. Delegations from Japan and France were amongst the most attentive visitors seeking inspiration for institutional reforms in their own contexts.

## ***II. The Establishment of a National System of Education in Early Meiji Japan***

The Meiji Restoration of 1868 profoundly changed the political landscape of Japan. The Charter Oath (五箇条の御誓文, *gokajō no seimon*), which the Emperor passed after the Restoration in 1868, officially sanctioned the search for information

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<sup>387</sup> NOVOA, António, « La nouvelle Histoire américaine de l'éducation », in: *Histoire de l'éducation*, 73, 1997, p. 3-48.

abroad. The last of its five points read that “knowledge shall be sought throughout the world so as to strengthen the foundations of imperial rule.”<sup>388</sup> Reform-oriented samurai from the south eastern part of Japan became the new leaders. They considered education to be a fundamental precondition for the modernisation of the country. The Ministry of Education was established in 1871. For the implementation of actual policies for a nationwide system of elementary education they did not refer to Japanese traditions.

### **1. In Search of the Best Model – Foreign Missions of the Early Meiji Period and the Vienna Exhibition**

While the appropriation of foreign models occurred mainly in the framework of the foreign missions of the early Meiji period, some initiatives were unconnected to these official missions. Thus, Mori Arinori (森有礼, 1847-1889) belonged to the group of young samurai who studied in London during the early 1860s.<sup>389</sup> After returning to Meiji Japan in 1868 he was sent to Washington where he became the first Japanese ambassador to the United States. Mori was highly interested in educational questions. He developed far-reaching ideas such as the introduction of English as the official language in Japan. Mori addressed several American educators asking for their opinion regarding education in Japan and published the answers in a volume.<sup>390</sup> There is a correlation between the respondents to Mori’s query and the contributors to Birdsey Grant Northrop’s volume *Education Abroad*. Six of the fourteen educators addressed by Mori also appear in the work of the superintendent

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<sup>388</sup> Cited in BREEN, John, « The Imperial Oath of April 1868. Ritual, Politics, and Power in the Restoration », in: *Monumenta Nipponica*, 51, 4, 1996, p. 407-429, here p. 410.

<sup>389</sup> There are two English language biographies of Mori Arinori: HALL, Ivan Parker, *Mori Arinori*, Cambridge, Harvard University Press, 1973; SWALE, Alistair, *The Political Thought of Mori Arinori: A Study in Meiji Conservatism*, Richmond, Japan Library, 2000.

<sup>390</sup> MORI, Arinori (ed.), *Education in Japan*, New York, Appleton, 1873.

of public instruction of Connecticut.<sup>391</sup> Northrop himself wrote a letter to Mori in which he shortly outlined the education system of the United States. Mori never played a decisive role in the organisation of world exhibitions. Nevertheless he had a foremost role in the establishment of the Japanese education system. Mori's activities testify to the strong American connection of Japanese education in the early Meiji period.

The Iwakura mission was one of the most important endeavours of the early Meiji period. It continued a tradition that had started in the late Tokugawa period with the first embassy to the United States in 1860 and to Europe in 1862.<sup>392</sup> The mission, composed of high rank officials under the guidance of Iwakura Tomomi (岩倉具視, 1825-1883), left Japan in November 1871.<sup>393</sup> The mission had two objectives. First, its task was to renegotiate the unequal treaties. Second, it should inquire into the organisation of modern life in North America and Europe.

The educational commissioner of the mission was Tanaka Fujimaro. Tanaka was a young samurai who had joined the Ministry of Education in the early 1870s. A translator always accompanied the commissioner, as Tanaka did not speak English or any other foreign language. Tanaka spent at least two weeks in Washington DC at the end of March 1872, coming each day to the Bureau of Education.<sup>394</sup> Its director John Eaton showed the Japanese visitors the local schools and colleges. Eaton gave Tanaka a set of publications, including writings of Horace Mann, introducing him in this way to the history of the common school movement in the United States. Eaton brought Tanaka into contact with James Pyle Wickersham, the superintendent of

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<sup>391</sup> These were William G. Eliot, Mark Hopkins, James McCosh, William A. Stearns and W. D. Whitney.

<sup>392</sup> ZOBEL, Günter, *"Die Japanesen in Berlin". Der Besuch der ersten japanischen Expedition von 1862 im Spiegel der Presse*, München, Iudicium, 2002.

<sup>393</sup> NISH, Ian (ed.), *The Iwakura mission in America and Europe: a new assessment*, Richmond, Japan Library, 1998.

<sup>394</sup> *Report of the Commissioner of Education for the Year 1872*, Washington, Government Printing Office, 1873, p. lxx.

public instruction of Pennsylvania. As the historian Benjamin C. Duke has shown, the encounter between Tanaka and Wickersham in Harrisburg in early April 1872 was one of the most decisive for Japanese education. The two educators became good friends. Only in the capital of Pennsylvania did the Japanese commissioner realise that the federal government had almost no influence on the educational policies of the states. Tanaka became an admirer not only of the educational system of Pennsylvania, which he henceforth regarded the best in the world, but also of decentralised structures in general.<sup>395</sup> The Japanese mission proceeded northwards, visiting educational institutions and meeting with local education experts, until they reached the “hub of the universe” – as Tanaka’s guide Niijima Jō (新島襄, 1843-1890)<sup>396</sup>, a Japanese student in the United States who had converted to Christianity – designated Boston.<sup>397</sup> Tanaka’s visit to the north eastern American states served to strengthen the special relationship between the late common school crusaders and Japanese pedagogy.

When leaving the United States and sailing to Europe, Tanaka had already developed a distinctive opinion on education. It was an American opinion. During his stay in the Netherlands, he stated that “the American system is far superior to the Hollanders.”<sup>398</sup> The Prussian system was excellent in his view, but too sophisticated for Japanese purposes. Tanaka spent only short time in France where education, as he judged, was still under religious control and characterised by many deficiencies. It appears that Tanaka did not accompany the Iwakura mission until its end and arrived

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<sup>395</sup> DUKE, Benjamin C., *The History of Modern Japanese Education: Constructing the National School System, 1872-1890*, New Brunswick, Rutgers University Press, 2009, p. 88-90.

<sup>396</sup> The Christian Niijima Jō graduated from Amherst College in 1871. He founded the private university *Dōshisha eigakkō* in Kyoto in 1875.

<sup>397</sup> DUKE, *The History of Modern Japanese Education*, p. 88.

<sup>398</sup> DUKE, *The History of Modern Japanese Education*, p. 96.

back in Japan as early as in March 1873.<sup>399</sup> The itinerary of the remaining mission, however, also included the Vienna exhibition of 1873. The Japanese commissioners stayed in the Austrian capital in early summer 1873.<sup>400</sup> They arrived back in Japan in September of that year.

The Iwakura mission produced extraordinarily vast and detailed documentation.<sup>401</sup> Kume Kunitake (久米邦武, 1839-1931), the scribe of the mission, published a five volume general account.<sup>402</sup> Kume saw a close relationship between education and high civilisational standards. Kume understood elementary education as a means to provide children with general knowledge and moral training. But he also realised the practical dimensions of education related to industry. Kume's appraisal of national education systems resembled Tanaka's.<sup>403</sup>

An imperial commission was sent to the Vienna exhibition. One of its tasks was to represent Japan.<sup>404</sup> The recently created Ministry of Education was apparently not yet ready for a proper exhibit. However, commissioners of the Ministry were eager to get more acquainted with European education. This included the purchase of pedagogical literature and appliances. In October 1873 a French exhibitor even spoke of a "Japanese affair" generated by an excessive demand from the Japanese

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<sup>399</sup> *A short history of the Department of Education, translated and published by the Department of Education*, Tōkyō, Monbushō, 1891, p. 8.

<sup>400</sup> KUME, Kunitake, *The Iwakura Embassy, 1871-73: A True Account of the Ambassador Extraordinary & Plenipotentiary's Journey of Observation throughout the United States of America and Europe*, Chiba, The Japan Documents, 2002, vol. 5, p. 9-41. There is no observation on education at the Vienna exhibition in this report.

<sup>401</sup> SOVIAK, Eugene, « On the Nature of Western Progress: The Journal of the Iwakura Embassy », in: SHIVELY, Donald H. (ed.), *Tradition and Modernization in Japanese Culture*, Princeton, Princeton University Press, 1971, p. 7-34.

<sup>402</sup> KUME, Kunitake, *Tokumei Zenken Taishi Bei-Ō Kairan Jikki*, 1878, 5 vol. This report has been translated into English: KUME, Kunitake, *The Iwakura Embassy, 1871-73: A True Account of the Ambassador Extraordinary and Plenipotentiary's Journey of Observation throughout the United States of America and Europe*, Chiba, The Japan Documents, 2002, 5 vol. On Kume see MAYO, Marlene, « The Western Education of Kume Kunitake, 1871-6 », *Monumenta Nipponica*, 28, 1, 1973, p. 3-67.

<sup>403</sup> See MAYO, « The Western Education », p. 43-44.

<sup>404</sup> *Notice sur l'Empire du Japon et sur sa participation à l'Exposition universelle de Vienne, publiée par la commission impériale japonaise*, Yokohama, C. Lévy, 1873.

commission.<sup>405</sup> The commission also purchased a large part of the exhibit of the *Polytechnisches Arbeitsinstitut von J. Schröder in Darmstadt*, a German manufacturer of school appliances for technical instruction.<sup>406</sup> A certain P. Rive, manufacturer of wooden instruments for measurement, drawing and office applications from Paris presented models of geometric and mechanical apparatuses at the Vienna exhibition. These models were worth about 560 francs. To acquire them and ship them to Japan, the commissioner Shioda Shin wanted to pay a maximum sum of 300 francs. Rive refused this offer. He claimed that the presented objects were really unique and likely to be sold under better conditions.<sup>407</sup> On the other hand, some exhibitors responded positively to the Japanese demands. A certain G. Masson, librarian of the *Académie de médecine* stated that the Japanese only had to address him in order to receive a complete collection of his publications.<sup>408</sup> Two volumes of the official report on the Vienna exhibition drawn by the Imperial commission were dedicated to education.<sup>409</sup>

Back home from the mission, Tanaka was soon promoted Vice-Minister of Education. The position of minister not being filled, he was the highest ranking officer in the *monbushō*.<sup>410</sup> Tanaka wanted to put his acquired knowledge into practice. Before the departure of the Iwakura mission it had been decided that no major action been taken in Japan whilst the mission was on its way. However, he had learned that a comprehensive education system had already been implemented during his absence. Those political leaders who had stayed in Japan had proceeded without

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<sup>405</sup> “Affaire japonaise (avorté pour l’instant)”. ANF, F17, 9386, Letter Ch. Larochette to Schaeffer, 25 October 1873.

<sup>406</sup> LUDEWIG, H., « Das technische Unterrichtswesen auf der Weltausstellung in Wien 1873, mit besonderer Berücksichtigung des maschinentechnischen Unterrichts », in: *Zeitschrift des Vereins Deutscher Ingenieure*, 18, 1874, columns 1-8, 155-168, 265-278, 481-494, 533-556, here column 164.

<sup>407</sup> ANF, F17, 9386, Letter P. Rives to Schaeffer, 27 October 1873.

<sup>408</sup> ANF, F17, 9386, Letter G. Masson to Ferdinand Buisson, 27 October 1873.

<sup>409</sup> *Okoku hakurankai hōkokusho: kyōiku*, Tōkyō, Hakurankai jimukyoku, 1875.

<sup>410</sup> *A short history of the Department of Education*, p. 8.

waiting for the return of their colleagues. They set up a commission in order to prepare a comprehensive law on education.<sup>411</sup> They based their project on various foreign, mostly French, models. The Ministry of Education promulgated the first Code of Education (学制, *Gakusei*) in August 1872. Its preamble emphasised that “learning is the key to success in life, and no man can afford to neglect it.”<sup>412</sup> The new system was similar to French administrative structures. This also related to the dissolution of the domain system and establishment of a prefectural system (廃藩置県, *haihan chiken*, imperial order of 29 August 1871), fostering the political centralisation of Japan.<sup>413</sup> Education was now a national issue. This was new in Japanese history, as the local lords had overseen the education of samurai and commoners alike during the Tokugawa period. The preamble also indicated that there was henceforth no more official class distinction in education.

Thus, instead of creating his own law based on his experiences abroad, Tanaka had to improve the existing *gakusei*. Tanaka published a report of fifteen volumes on what he had observed during the mission.<sup>414</sup> The report also included translations of documents Tanaka had received from his partners. The implementation of *gakusei* was far from complete at the beginning. At the local level implementation of the new regulations often proved difficult. Peasants did not want to pay fees for schooling and did not want to do without the workforce of the youth.<sup>415</sup> The report from the mission as well as an additional edition of translated American school laws served

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<sup>411</sup> On the relatively chaotic implementation of *gakusei* see SCHWEBER, Abigail, *Imposing Education: the Establishment of Japan's First National Education System, 1872-1879*, PhD thesis, University of Michigan, 2003.

<sup>412</sup> Cited in TANAKA, Masahiro, *The Cross-cultural Transfer of Educational Concepts and Practices. A Comparative Study*, Oxford, Symposium Books, 2005, p. 19.

<sup>413</sup> ZÖLLNER, Reinhard, *Geschichte Japans. Von 1800 bis zur Gegenwart*, Paderborn et al., Schöningh, 2006, p. 196-197.

<sup>414</sup> TANAKA, Fujimaro, *Mombushō Riji Kōtei*, Tōkyō, Monbushō, 1873, 15 vol.

<sup>415</sup> PLATT, Brian, *Burning and Building: Schooling and State Formation in Japan, 1750-1890*, Cambridge, Harvard University Asia Center, 2004.

the goal of implementing and revising *gakusei*. The individualist Tanaka developed into what his critics in Japan called an “American worshiper”.<sup>416</sup>

For Japanese officials, missions to foreign countries including the visit to world exhibitions were one strategy among others in order to get informed about education in foreign countries and to build up a system of modern education in Japan. Accounts on foreign education systems played a major role in Japanese institution building. The Vienna exhibition was part of these efforts. The exhibition helped the Japanese to have access to European and American knowledge. By far more important, however, was the American reference which had materialised some months before the event. When the next world exhibition took place three years later on American soil, Tanaka and his colleagues had the opportunity to underline the transpacific dimension of Japanese educational reform.

## **2. Tanaka, Tejima and Murray – The Mission to Philadelphia in 1876**

The United States embassy in Japan sent the official invitation to the Centennial Exhibition to Foreign Minister Terashima Munenori (寺島宗則, 1832-1893) in April 1874.<sup>417</sup> In Philadelphia the Japanese Ministry of Education presented its first exhibit at an international exhibition.<sup>418</sup> However, learning from the United States was still more important. The commission of the *monbushō* comprised notably four eminent representatives. Tanaka Fujimaro was still Vice-Minister of Education. Besides him, David Murray (1830-1905) was appointed a member of the Imperial Commission. Murray had been amongst those who had responded to Mori’s inquiry of 1873.<sup>419</sup> Tanaka had met Murray while in the United States in 1872 and appointed him

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<sup>416</sup> DUKE, *The History of Modern Japanese Education*, p. 90.

<sup>417</sup> DRO, 3-mon, 15-rui, 5-kō, 1-gō, Letter Ringhans to Terashima, Tokyo, 20 April 1874.

<sup>418</sup> *Official catalogue of the Japanese section, and descriptive notes on the industry and agriculture of Japan*, Philadelphia, Japanese Commission, 1876.

<sup>419</sup> MORI, *Education in Japan*, p. 87-108. In his letter Murray suggested to implement in Japan an education system modelled on the United States and Prussia.

foreign superintendent of education in April 1873. The trip to the Centennial was the first time Murray left Japan since he had started his duties. Tejima Seiichi (手島精一, 1850-1918) was another member of the commission. Tejima had studied at a university in Pennsylvania and later in Britain during the early 1870s. He also served as a translator for the Iwakura mission in the United States. After his return to Japan Tejima had become an official in the Ministry of Education.<sup>420</sup>

The Centennial Exhibition and other events provided occasions for intense contacts with American education experts. The Japanese commissioners participated in the annual meeting of the National Educational Association held in Baltimore, Maryland. Tanaka made a presentation on the development of the press in Japan. At first sight this topic appears to be misplaced at an educational convention. However, contemporaries regarded newspapers and periodicals as pedagogical tools beyond the school age.<sup>421</sup> Thus, Tanaka's presentation aimed at depicting the educational and general modernity of Japan and its belonging to what at that time was commonly called the 'civilized world'.

For Tanaka, the Centennial was an opportunity to meet his friend Wickersham, one of the main organisers of the educational section. Wickersham tried to warn Tanaka about the disadvantages of the existing American system of education. As shown above, the persisting disadvantages could be read in the appendix to the catalogue of the Philadelphia exhibit. The Pennsylvania educator pointed out that decentralisation caused inequality, as localities could neglect education if they wished to do so. He urged Tanaka to consider common national standards for

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<sup>420</sup> On Tejima see MIYOSHI, Nobuhiro, *Henry Dyer: Pioneer of Engineering Education in Japan. Translated by Takuji and Aiko Sarada*, Folkstone, Global Oriental, 2004, p. 155-157.

<sup>421</sup> William T. Harris argued that periodicals provided "by far the most potent educational energy in the civilized world." HARRIS, William T., « The Centennial Exposition », in: *Twenty Second Annual Report of the Board of Directors of the St. Louis Public Schools, for the Year Ending August 1, 1876*, St. Louis, Slawson, 1877, p. 161-208, here p. 181.

Japan.<sup>422</sup> The commissioners travelled to Canada, following an invitation of George J. Hodgins, the Ontario commissioner to the Centennial.<sup>423</sup> After the closure of the exhibition Tanaka together with fellow commissioners made an inspection tour of the south eastern part of the United States.

In mid-January 1877 the commissioners returned to Japan.<sup>424</sup> The foundation of the Tokyo Educational Museum (教育博物館, *kyōiku hakubutsukan*) was a direct outcome of the *monbushō*'s mission to Philadelphia.<sup>425</sup> The commission used the trip to acquire materials. David Murray wrote a "Report upon collections made at the Philadelphia Centennial Exhibition for the Educational and Scientific Museum at Tokyo" which he had to transmit to Tanaka. Murray particularly collected educational appliances, specimens illustrating natural history, art and manufacture of Western countries as well as educational literature. Murray acquired these objects through purchase, donation, and exchange. For this endeavour David Murray negotiated with eminent American educators and scientists, spending in total 4,658.33 dollars.<sup>426</sup>

The opening of the Educational Museum coincided with the first national industrial exhibition to take place in Japan. At the opening of the Educational Museum, David Murray gave a speech explaining the goals of the museum. Murray also met the Emperor when he visited the Educational Museum later in the autumn of 1877.<sup>427</sup> This visit showed the importance education had for early Meiji Japan. One

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<sup>422</sup> DUKE, *The History of Modern Japanese Education*, p. 228. See also the short notice in the *Pennsylvania School Journal*, 27, 1878, p. 385.

<sup>423</sup> DUKE, *The History of Modern Japanese Education*, p. 226; MIZUE, Chieko, « Building the Educational Museum – Japan's Encounter with Canada at the 1876 Expo », *JSAC 2006 Annual Conference*, Kamloops, British Columbia, 2006, [http://www.tru.ca/jsac2006/pdf/jsac2006\\_proceedings\\_mizoue\\_chieko\\_manuscript.Pdf](http://www.tru.ca/jsac2006/pdf/jsac2006_proceedings_mizoue_chieko_manuscript.Pdf).

<sup>424</sup> LoC, David Murray papers, Letter David Murray to his cousin, 20 January 1877.

<sup>425</sup> The main reference on the Educational Museum is ISHIZUKI, Minoru, *Kyōiku Hakubutsukan to Meiji no Kodomo*, Tōkyō, Fukumura Shuppan, 1986.

<sup>426</sup> LoC, David Murray papers, Report upon collections made at the Philadelphia Centennial Exhibition for the Educational and Scientific Museum at Tokyo, January 1877.

<sup>427</sup> LoC, David Murray papers, Letter David Murray to his cousin, 01 November 1877.

goal was to improve the school equipment in Japan. The collected specimens of Japanese and foreign books, school furniture, school apparatus, as well as models of natural history and physical sciences had been assembled for emulation. The collection also provided artisans with models they could manufacture for Japanese schools. Murray suggested that the museum might serve as an “emporium” for the collection and supply of all material needed for equipping the schools of Japan.<sup>428</sup> Indeed, one of the characteristics of the Educational Museum of Tokyo was its role in furnishing apparatus and models for object lessons for primary schools.<sup>429</sup> One of the foremost features transferred from the United States to Japan were key elements of Pestalozzi’s ideas. In particular, object lessons required wall charts and models in order to make pupils learn by observation.

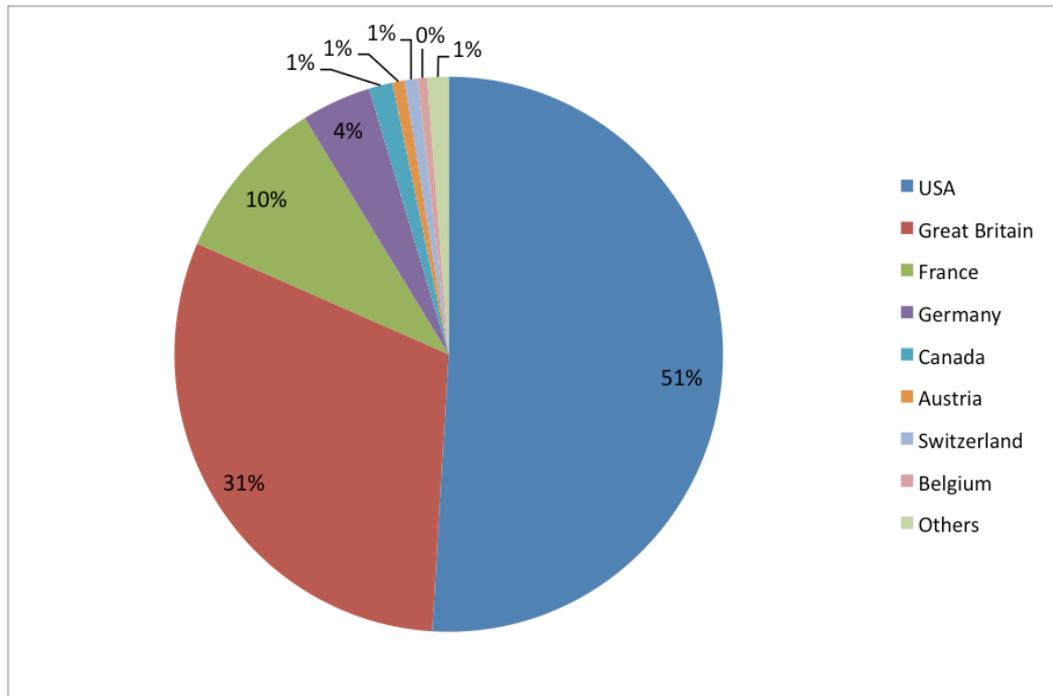
The Educational Museum contained a library. In 1881 the library published a catalogue of its holdings in foreign languages. We can assume that a large part of these books had been purchased after the closure of international expositions. There were 2,875 volumes in European languages. A closer look at the origins of these books provides insight into the reference models for Japan. Half of the books were published in the United States, whereas another third of them came from Britain. Accordingly, about eighty per cent of the foreign collection of the library of the Tokyo Educational Museum was in English. Only ten per cent of the documents came from France, four per cent from Germany and still smaller quantities from

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<sup>428</sup> LoC, David Murray papers, Address at the Opening in Tokyo of the New Educational and Scientific Museum, probably 18 August 1877.

<sup>429</sup> KOMATSU, Kayoko, « Formation and Transformation of Education in Japan through Exhibitions: Focused on the Educational Museum Founded in 1877 », in: LAWN, Martin (ed.), *Modelling the Future. Exhibitions and the Materiality of Education*, Oxford, Symposium Books, 2009, p. 73-86, here p. 80-81.

other countries.<sup>430</sup> This shows the preeminence of transpacific connections for the development of Japanese education during the 1870s.



**Figure 2: Origin of books in the Western Books Collection of the library of Tōkyō Kyōiku Hakubutsukan, 1881 (Based on an analysis of Classified catalogue of the books of the Library of Kiyōiku Hakubutsukwan (Educational Museum) with an alphabetical index, Tōkyō, Library of Kiyōiku Hakubutsukwan, 1881).**

The Centennial’s impact on Japanese education also materialised in speeches and reports. After his return to Japan, David Murray delivered a speech about the Philadelphia exhibition at the *Kaisei gakkō*, a precursor to the University of Tokyo.<sup>431</sup> At the beginning Murray outlined some general facts about the event, mentioning that the exhibition itself “seemed a great educator”. Murray flattered his audience when claiming that Japan was among the exhibition’s greatest surprises and successes. Murray spoke of the difficulties to represent an abstract issue such as education. Therefore meetings with educators and conferences had been of central importance for him. Murray divided his lecture in two parts featuring primary and

<sup>430</sup> See also HASHIMOTO, Miho, *Meiji shoki ni okeru Amerika kyōiku jōhō juyō no kenkyū*, Tōkyō, Kazama Shobō, 1998.

<sup>431</sup> LoC, David Murray papers, Philadelphia International Exhibition. Lecture in Tokyo, Kaisei gakkō, ca. 1877.

technical education respectively. When speaking on popular education, Murray's key point was government authority over education:

“In all the conferences on education, I never once heard the principle questioned, that it was the duty of every government to provide for the education of its people.”<sup>432</sup>

More importantly, Murray had the task of writing a report for Tanaka. He submitted the *Report on the Educational Exhibit at the Philadelphia Exhibition of 1876, Containing Statements of Education Systems of England, Germany, France, and the USA* in 1877.<sup>433</sup> Murray discussed several issues of school organisation and made recommendations for Japan. First, he argued that school houses should be built in healthy locations, according to the latest hygienic requirements. Second, Murray commented on school apparatuses and furniture where American solutions seemed the best to him. According to Murray, Japanese manufacturers should be encouraged to construct desks similar to the American models. Schools should build up collections of items for the instruction in natural history. A model school room in the projected educational museum, equipped with the latest furniture and apparatuses could serve as a model for teachers and school officers from all parts of Japan, he argued. Third, Murray's focus was on schoolbooks. He noticed a significant difference in quality in their appearance. In his view, American textbooks were of excellent quality, but relatively expensive. French and German textbooks were characterised by a poor quality of paper and binding, but had the advantage of being cheap. Fourth, Murray stated once again that it was the duty of government to provide education for all classes of society. Nevertheless, government should encourage private initiatives in the fields of higher and specialised education. Subsequently Murray reviewed the most important characteristics of education in

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<sup>432</sup> Ibidem. Emphasised in the original text.

<sup>433</sup> LoC, David Murray papers, *Report on the Educational Exhibit at the Philadelphia Exhibition of 1876, Containing Statements of Education Systems of England, Germany, France, and the USA*, 1877.

Germany, France, and England. When describing the United States system, Murray stressed the central role of state superintendents. The local administration of schools as part of the founding myth of American common-schools had only illustrative character for him. For Japan he recommended strict government authority. Finally, Murray encouraged the establishment of institutions for technical instruction.

Tanaka wrote up a four volume report which was partly based on Murray's observations.<sup>434</sup> As Benjamin C. Duke rightly pointed out, Tanaka had become Japan's foremost specialist on American education.<sup>435</sup> Tanaka's second visit to the United States, and to the Centennial Exhibition in particular, provided the basis for the preparation of the revised education law (教育令, *kyōiku rei*) of 1879.

### **3. Institution-Building in Progress – Japanese Educators in Paris in 1878**

Japan subsequently participated in the *Exposition universelle* taking place in Paris in 1878. The French embassy in Tokyo sent the official invitation to the 1878 *Exposition universelle* to Foreign Minister Terashima in June 1876.<sup>436</sup> Kuki Ryūichi (九鬼隆一, 1852-1931) organised the exhibit of the *monbushō*. As a disciple of Fukuzawa Yukichi, Kuki was a representative of the Japanese enlightenment.<sup>437</sup> Prior to his appointment as a commissioner to the Paris exhibition, he was the first senior secretary in the Ministry. When the Vice-Minister of Education Tanaka Fujimaro travelled to Philadelphia in 1876, Kuki had been its acting chief in Tokyo. Kuki published a catalogue of the objects sent to Paris by the *monbushō*.<sup>438</sup> The exhibit consisted of four divisions. The first division was of general character. Kuki

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<sup>434</sup> TANAKA, Fujimaro, *Beikoku hyakunenki hakurankai kyōiku hōkoku*, Tōkyō, Monbushō, 1877.

<sup>435</sup> DUKE, *The History of Modern Japanese Education*, p. 236.

<sup>436</sup> DRO, 3-mon, 15-ru, 2-kō, 7-gō, vol. 1, Letter Quentin to Terashima, 15 June 1876.

<sup>437</sup> HUIISH, David J., « The Meirokusha: Some Grounds for Reassessment », in: *Harvard Journal of Asiatic Studies*, 32, 1972, p. 208-229, here p. 215.

<sup>438</sup> *Catalogue des objets envoyés à l'Exposition universelles de Paris (mai 1878) par le Ministère de l'Instruction Publique du Japon*, Paris, Imprimerie H. Lurier, 1878.

described Japanese education prior to the foundation of the *monbushō* in an extremely negative light; disorder, confusion and indifference prevailed:

“Sous le régime féodal et jusqu’à la Révolution de 1868, l’instruction publique, constituée dans chaque province suivant les idées particulières de chaque prince féodal, était dans le désordre et la confusion. L’unité dans l’enseignement n’étant pas établie, les princes se dégagèrent ou se soucièrent peu de leur responsabilité dans cette question, et d’un autre côté, le peuple considéra avec indifférence ses propres devoirs en une matière aussi grave.”<sup>439</sup>

The intended goal of this section was to depict the activities of the new Ministry in a positive light and to legitimise them. The quotation exemplifies the passage of power from regionally organised feudal powers to the new ministry. The ministry was a deliberately national one. It also expressed the claim with which the new authorities wanted to form the masses. In this way, the exhibit aimed at strengthening public instruction under the authority of the Ministry of Education.

In order to explain the general organisation of public instruction in Japan the *monbushō* sent the educational code in force, a complete set of laws and regulations, circulars and instructions addressed to municipal and departmental schools, a map of Japan divided into academies, and a table informing about school attendance from 1873 to 1875. The catalogue also presented the main characteristics of Japanese education in a concise way in the French language. Photographs of educational institutions as well as wooden models of recent and older primary schools provided a visual sense of education in Japan. Several school desks from the best institutions of Tokyo aimed at showing Japanese excellence.

The exhibit expressed the contemporary preoccupations of the *monbushō* in various other ways, too. The second division was a library of educational publications, mostly from the Ministry. Among the books and publications on display was the *Outline History of Japanese Education* originally prepared for the

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<sup>439</sup> Ibid., p. 7.

Philadelphia exhibition. It testified to the beginning of the history of education in Japan. More significantly, one category featured “books for the use of persons engaged in functions of public instruction.” There was the fifteen-volume report on education in America and Europe Tanaka wrote after his return from the Iwakura mission and his four-volume report on education at the Centennial. Additionally, the Ministry presented the last four issues of its annual reports. One volume of a report by David Murray figured in the catalogue as “*Murray*”-*rinpō*. A work in ten volumes on the French education system, one volume of school regulations in Prussia as well as two volumes on Dutch education were also included. To be sure, nearly all non-Japanese visitors would not have been able to read these reports or to otherwise grasp their significance, due to lacking knowledge of the Japanese language. However, a Japanese commissioner with an excellent command of the French language explained important features of the exhibit to those who were interested in it.<sup>440</sup> In fact, the Ministry of Education showed how it was implementing an education system based on American and European models. Several pedagogical journals edited by the Ministry (*Monbushō zasshi* and *Kyōiku zasshi*) and the cities of Kyōto and Osaka, as well as some scientific journals completed the Japanese educational library.

The third division showed school apparatuses. The Tokyo Educational Museum presented some of its first self produced specimens in natural history. This revealed again the Japanese enthusiasm for object lessons. The exhibit also comprised numerous written pupils’ works as a fourth division.<sup>441</sup> Most were in Japanese, but

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<sup>440</sup> COHN, Hermann, *Die Schulhygiene auf der Pariser Weltausstellung, 1878*, Breslau, Morgenstern, 1879, p. 16.

<sup>441</sup> For an analysis of these works from a perspective of writing instruction see GALAN, Christian, « Le nouveau paradigme éducatif du début de Meiji. Analyse d’une liasse de compositions écrites par des écoliers japonais durant les années 1870 », in: HORIUCHI, Annick (ed.), *Education au Japon et en Chine. Eléments d’histoire*, Paris, Les Indes savantes, 2006, p. 21-48.

foreign language schools also contributed exercises in English, German, Russian, Chinese and French.

After the closure of the exhibition, once again the Japanese commissioners could secure a large part of exhibited literature and objects for the Educational Museum in Tokyo. John D. Philbrick, the American commissioner of the educational section, for example, left a part of the exhibit to Kuki.<sup>442</sup> Tejima Seiichi was also part of the commission. Tejima used his engagement for the Imperial Commission for more intensive travel in Europe and to visit educational institutions. Tejima sent a letter to Kuki on his departure from Paris to London indicating that he would collect two kinds of things for the Educational Museum. Firstly, he was interested in objects that could be presented to the public. Secondly, his aim was to acquire objects that could be emulated in Japan for educational practice.<sup>443</sup> As Tejima stayed in Paris, it is not surprising that he was the author of the entry on Japan in the *Dictionnaire de pédagogie* edited by Ferdinand Buisson.<sup>444</sup>

During his stay in France, Kuki also travelled to Lyon where he attended a congress of orientalist.<sup>445</sup> Kuki received the honorific decoration of officer of public instruction, awarded by the French government.<sup>446</sup> Kuki became Japanese ambassador in Washington DC in 1884. It was in this function that he wrote a letter to a committee of Boston educators expressing his sympathy for John D. Philbrick

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<sup>442</sup> PHILBRICK, John D., « Report of John D. Philbrick, LL.D. Superintendent of the Educational Section », *Reports of the United States Commissioners to the Paris Universal Exposition, 1878. Published under Direction of the Secretary of State by Authority of Congress*, Washington, Government Printing Office, 1880, vol. 1, p. 87-108, here p. 105.

<sup>443</sup> Quoted in KOMATSU, « Formation and Transformation of Education in Japan », p. 78.

<sup>444</sup> INRP 10469, Tegima, Notice sur le Musée pédagogique de Tokio (Japon), manuscript note, no date.

<sup>445</sup> CONANT, Ellen P., « Refractions of the Rising Sun: Japan's Participation in International Exhibitions, 1862-1910 », in: SATO, Tomoko, WATANABE, Toshio (eds), *Japan and Britain: an Aesthetic Dialogue 1850-1930*, London, Lund Humphries in association with the Barbican Art Gallery and Setagaya Art Museum, 1991, p. 79-92, here p. 84.

<sup>446</sup> ANF, F17, 2597, Decrees on *palms académiques*, 1878-1880.

who had passed away, demonstrating once more the close social links between Japanese, French and American education experts.<sup>447</sup>

The exhibition still served to appropriate features of European and American education systems. It was symptomatic that, even though the exhibition took place in France, Tanaka considered the United States to have the best representation and the most advanced model of public instruction.<sup>448</sup> But which America was Tanaka referring to? It is doubtful whether Tanaka and Murray shared the same ideas on government authority over educational affairs. This dispute between Tanaka and Murray was on the legacy of the Centennial Exhibition in Japan.<sup>449</sup> Tanaka still referred to an older generation of American educators who believed in the authority of the democratically organised local school district. Murray was already a representative of a younger generation that saw centralisation of educational competence as a way forward to strengthen elementary schooling.<sup>450</sup>

Murray left Japan in January 1879. The *kyōiku rei* promulgated against Murray's advice in September 1879 effectively entailed decentralisation and disempowered the prefectures. In turn, the local level, where school boards were established, received additional powers.<sup>451</sup> Japan passed from a French to an American model. Tanaka believed in the principle of local control of education.<sup>452</sup> Many Japanese observers,

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<sup>447</sup> See Kuki's letter published in DUNTON, Larkin, *A Memorial of the Life and Services of John D. Philbrick*, Boston, New England Publishing Co., 1887, p. 215.

<sup>448</sup> NARA, Microfilm M-635, Roll 10, Letter John Eaton to John D. Philbrick (in Paris), Washington DC, 30 September 1878. "Under the date of September 2nd the Hon. Tanaka Fujimaro [...] writes, among other things, expressing his satisfaction at having through one of the Japanese commissioners sent from his office that the educational exhibit of the United States is of great influence and is much admired by European educators and he is not only desirous but [...] that it may be of benefit for his nation."

<sup>449</sup> YOSHIE, Sadao, *David Murray, superintendent of educational affairs in Japan: his views on education and his influences in Japan and in the United States*, PhD thesis, State University of New York at Buffalo, 1992, p. 228-243.

<sup>450</sup> Centralisation is also stressed in the late work of the common school crusader Philbrick: PHILBRICK, John D., *City School Systems in the United States*, Washington, Government Printing Office, 1885, p. 19.

<sup>451</sup> KERLINGER, Fred N., « Educational Affairs Boards: Precursors of Modern Japanese Boards of Education », in: *History of Education Journal*, 5, 3, 1954, p. 91-96.

<sup>452</sup> DUKE, *The History of Modern Japanese Education*, p. 285.

however, criticised that localities neglected education. Indeed, the number of children frequenting public schools decreased after the promulgation of the code.

In his thesis, Yoshiie Sadao has criticised Murray's role in Japan as the one who laid the foundation of future nationalistic excesses in the twentieth century.<sup>453</sup> Yoshiie's remark is correct in so far as Murray carried out centralising policies. But Japan's educational policy was not unique. The country took part in a transnational wave. Centralisation and government control over education were features to be observed in many contexts. Murray's remarks on government authority and centralisation, though officially directed at Japan, also reflected his reform agenda for American public education.<sup>454</sup> Disciples of Murray in the *monbushō* continued the centralising policies.

The nomination of Terashima Munenori as Minister of Education in September 1879 disempowered Tanaka who had been vice-minister since 1873 without a minister being appointed for a long time. Tanaka eventually had to leave the *monbushō*, becoming Minister of Justice for a short period. Afterwards he served as Japanese ambassador to Italy and France.<sup>455</sup> In December 1880 the Code of Education was once more revised (改正教育令, *kaisei kyōiku rei*).<sup>456</sup> Educational authority was re-centralised. This was a late victory of Murray's conception.

Despite the temporary decentralisation policies favoured by Tanaka, education was now a state affair. Primary education was compulsory, but authorities still charged a modest tuition fee. Transpacific contacts, mediated through world

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<sup>453</sup> YOSHIIE, *David Murray*, p. 308-329

<sup>454</sup> After his return to America Murray continued his educational career in the state of New York. At the Panama-Pacific International Exposition of 1915 the state of New York insisted on the central authority of its educational system as a distinctive feature for representation at the exposition. See SOBE, Noah, « Attention and Spectatorship: Educational Exhibits at the Panama-Pacific International Exposition, San Francisco 1915 », in: BARTH, Volker (ed.), *Innovation and Education in Expos/Innovation et Education dans les Expos. 75th anniversary of the BIE/75ème anniversaire du BIE*, Paris, BIE, 2007, p. 97-115, here p. 105.

<sup>455</sup> DUKE, *The History of Modern Japanese Education*, p. 279.

<sup>456</sup> For an English translation see *Japanese Code of Education*, Tokyo, Department of Education, 1881.

exhibitions, decisively contributed to this institutionalisation. In fact, education experts from France, a Western country according to Japanese mental maps, were in a similar situation as their Japanese colleagues when they prepared the free of charge, compulsory and secular primary education system during the 1870s.

### **III. Preparing Free, Compulsory and Secular Primary Education in France**

In France, the Guizot Law of 1831 created a legal framework for primary education. Nevertheless, primary education remained relatively disorganised in France, as instruction had not become compulsory. This *laissez-faire* policy left much freedom to the educational activities of the Catholic Church. During the 1860s and early 1870s foreign observers of French primary education, for example from the United States, regularly reported about its negligence by public authorities, especially in the rural parts of the country.<sup>457</sup> Moreover, education became a major political issue opposing traditional and progressive forces. Research has uncovered Protestant and free masonry networks which fostered the expansion of public instruction.<sup>458</sup> However, the construction of the Republican primary school was also the result of cultural transfers.

#### **1. “Appliquons ici la vapeur” – Primary Education and the Exhibitions of the Late Second Empire**

The London exhibition of 1862 was the first participation of the Ministry of Public Instruction in an international exhibition. The Ministry staged a complete

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<sup>457</sup> See above. For a similar German perspective see BAUPEL, von, « Die Schule auf der Wiener Weltausstellung », in: *Allgemeine deutsche Lehrerzeitung*, 25, 35, 1873, p. 271-273.

<sup>458</sup> CABANEL, Patrick, « Les intellectuels protestants: des intellectuels organiques de la Troisième République? », in: *Bulletin de la Société d'histoire du protestantisme français*, 149, 3, 2003, p. 401-418; MAYEUR, Françoise, « Les protestants dans l'instruction publique au début de la Troisième République », in: ENCREVE, André, RICHARD, Michel (eds), *Les protestants dans les débuts de la Troisième République: 1871-1885*, Paris, Société de l'histoire du protestantisme français, 1979, p. 37-48. On the impact of free masonry see DELAHAYE, Jean-Paul, « Les francs-maçons et la laïcisation de l'école. Mythe et réalités », in: *Histoire de l'éducation*, 109, 2006, p. 33-73.

exhibit of French education, centred on the *grandes institutions* of Paris.<sup>459</sup> The French exhibit was second in the number of displayed objects only to the English one. The principal organisers were high ranking officials of the Ministry who also served as members of the French section of the international jury and published several reports.<sup>460</sup> The dominant perspective of the reports was an Anglo-French comparison. Jury members saw in some aspects France, and in other aspects England, as the superior nation. The reports put emphasis on technical education. Concerning primary instruction, it seemed that French educators were not yet aware of or preoccupied about deficiencies in their country. Officials did not judge France's overall performance in public instruction as backward. Consequently they were not looking for potential models of emulation. The exposition with its related commissions was prepared before the time of the modernising Victor Duruy who served as Minister of Public Instruction from 1863 to 1869.<sup>461</sup>

The Paris *Exposition universelle* of 1867 saw the next educational exhibit. Shortly before its opening, Duruy had failed to make public primary schools free of charge. However, he had reached a compromise and a law of April 1867 gave municipalities the possibility to decide on their own terms to charge a tuition fee or not.<sup>462</sup> The exhibits of the French Ministry were located in the central exhibition palace, as well as in a special hall of the Ministry. The entrance portal had the inscription: "Dans le pays du suffrage universel tout citoyen doit savoir lire et écrire."<sup>463</sup> This slogan

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<sup>459</sup> *Section française. Catalogue officiel*, Paris, Imprimerie impériale, 1862.

<sup>460</sup> CHEVALIER, Michel (ed.), *Rapports des membres de la section française du jury international sur l'ensemble de l'exposition universelle de 1862*, Paris, Chaix, 1862-1864, 6 vol. The reporters were Flandin, Rapet, Dufau, Jules Cloquet, Daubret, Leblanc, Léon Say, Charles Robert, Arthur Morin, and Henri Edouard Tresca.

<sup>461</sup> GESLOT, Jean-Charles, *Victor Duruy, historien et ministre (1811-1894)*, Villeneuve d'Ascq, Presses universitaires du Septentrion, 2009.

<sup>462</sup> PROST, Antoine, *Histoire de l'enseignement en France, 1800-1967*, Paris, Armand Colin, 1968, p. 94.

<sup>463</sup> SAUVESTRE, Ch., « Instruction publique en France. Les classes 89 et 90 », in: *L'Exposition universelles de 1867 illustrée*, Paris, Administration de la commission impériale, 1867, p. 114-115, here p. 114.

addressed the individual. The state did not appear as an authority in educational question. However, the slogan clearly indicated the direction of progress.

Two statues decorated the entrance to the exhibit. The first showed Pestalozzi, the second Jean Baptiste de la Salle. Both, the inscription and the statues, symbolised the contradictions of French education in the last years of the Second Empire. Pestalozzi stood for modern pedagogy, particularly object lessons and the intuitive method, but he was not French. De la Salle represented the beginning of modern technical education, but he had been the founder of the *Institut des Frères des Ecoles chrétiennes* in 1684; in other words he was closely linked to the Catholic church. The staging of de la Salle thus reflected the continued power of Catholic opinions in the Ministry of Public Instruction during the Second Empire.<sup>464</sup>

Civil society organisations wanted to take an active part in the exposition which testified to the central role of education in the political discourse. Jean Macé planned a congress of the *Ligue de l'enseignement* to be held within the framework of the exhibition. However, the public authorities did not grant the *Ligue* permission to hold this congress.<sup>465</sup>

All in all, the exhibition of the Ministry of Public Instruction showed the increasing relevance of education in an industrialising society. But at the same time it revealed persisting deficiencies, such as the lack of compulsion. The representations of the German states inspired French educators, as they provided them with potential models. The most visible educational features of the exhibition were the model

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<sup>464</sup> On the Second Empire in a general perspective see YON, Jean-Claude, *Le Second Empire: politique, société, culture*, Paris, A. Colin, 2004.

<sup>465</sup> AUSPITZ, Katherine, *The Radical Bourgeoisie, la Ligue de l'enseignement and the Origins of the Third Republic, 1866-1885*, London, Cambridge University Press, 1982, p. 80. On censorship see also BARTH, Volker, *Mensch versus Welt: Die Pariser Weltausstellung von 1867*, Darmstadt, Wissenschaftliche Buchgesellschaft, 2007, p. 198-199.

schools erected on the exhibition grounds by Sweden, Illinois and Prussia<sup>466</sup>, as well as a temple in Greek style dedicated to public instruction in Saxony<sup>467</sup>.

The *Exposition universelle* of 1867 saw the publication of various reports in the field of education. The official reports are collected in the thirteenth volume of the reports of the international jury.<sup>468</sup> The authors unanimously promoted the expansion of public instruction and the introduction of compulsory primary education. They strongly disapproved of the reactionary laws of the 1850s promulgated by the Minister Fortoul. The reporters fostered the imperial ideology of “l’harmonie sociale”.<sup>469</sup> For the organisers and reporters it was clear that compulsion had to be introduced as soon as possible and that tuition fees had to be abolished. Using a metaphor, Charles Robert passionately urged the country’s leaders: “Appliquons ici la vapeur.”<sup>470</sup> Concerning struggles between church and state over authority on school affairs, they claimed full legal authority over education for the state. For this, Robert referred to countries such as the Netherlands and the United States. Morally he held the church in high esteem,

“[...] mais [cela] n’implique en aucune manière une subordination légale quelconque de l’instituteur laïque au ministre de culte, ni la confusion, toujours fâcheuse, du spirituel et du temporel.”<sup>471</sup>

Philibert Pompée used a religious vocabulary when speaking of a “sainte mission” and a “guerre pacifique” of secular primary instructors. The final conclusion of the

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<sup>466</sup> *L’école primaire prussienne d’une seule classe à l’Exposition de Paris*, Berlin, Decker, 1867.

<sup>467</sup> *Catalogue des livres exposés à Paris par le ministère des cultes et de l’instruction publique de la Saxe royale*, Leipzig, Giesecke et Devrient, 1867.

<sup>468</sup> CHEVALIER, Michel (ed.), *Rapports du jury international*, Paris, Dupont, 1868, 13 vol. The reporters on education were Charles Robert, Philibert Pompée, Ch. Barrier, Charles Sauvestre, Oscar de Watteville, Laurent de Rillé, E. Brongniart, count Serurier, de Mofras, and Dufau.

<sup>469</sup> This expression was repeatedly used throughout the report. See for example ROBERT, Charles, « Considerations générales sur le groupe X », in: CHEVALIER, Michel (ed.), *Rapports du jury international*, Paris, Dupont, 1868, vol. 13, p. 6-27, here p. 6.

<sup>470</sup> Cited in POMPEE, Philibert, « Ecoles d’adultes », in: CHEVALIER, Michel (ed.), *Rapports du jury international*, Paris, Dupont, 1868, vol. 13, p. 168-286, here p. 225.

<sup>471</sup> ROBERT, Charles, « Considerations générales sur le groupe X », in: CHEVALIER, Michel (ed.), *Rapports du jury international*, Paris, Dupont, 1868, vol. 13, p. 6-27, here p. 13.

official report on education once again called for the introduction of compulsory education in France:

“L’unique et brève conclusion que nous ayons à coeur de placer à la fin de tant de pages, [...] c’est que, en définitive, la France n’a pas encore trop à rougir de son infériorité en matière d’instruction publique. Si, pour plusieurs points, les nations étrangères ont pris les devants, quelle est celle qui offrirait un ensemble aussi bien combiné, aussi complet? Que la question de l’enseignement obligatoire soit résolue, et nous n’aurons rien à envier à personne.”<sup>472</sup>

The representations of Prussia and Saxony were by far the most impressive foreign participations on the Champ de Mars. Whereas the Prussian land school and the Saxon pavilion obtained a relatively cold reception in the official report<sup>473</sup>, other publications enthusiastically turned to Germany. Léon Château, a disciple of Philibert Pompée working at the *Ecole professionnelle d’Ivry*, was the author of a volume on the educational classes of the exhibition.<sup>474</sup> Château was strongly in favour of free and compulsory primary education. He praised the fact that in Prussia and Saxony the masses agreed with the necessity of instruction and compulsion.

Charles Defodon (1832-1891) published his *Promenade à l’Exposition scolaire de 1867* with a similar perspective.<sup>475</sup> Defodon was chief editor of the pedagogical journal *Manuel général de l’Instruction primaire*. He was secretary of the administrative council of the *Société pour l’instruction élémentaire*. This society, founded in 1815, took a decisive part in the exhibition, for example organising teachers’ visits.<sup>476</sup>

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<sup>472</sup> POMPEE, Philibert, « Collections diverses », in: CHEVALIER, Michel (ed.), *Rapports du jury international*, Paris, Dupont, 1868, vol. 13, p. 748-772, here p. 772.

<sup>473</sup> BARBIER, Ch., « Ecoles primaires, plans, mobiliers et matériel des maisons d’école », in: CHEVALIER, Michel (ed.), *Rapports du jury international*, Paris, Dupont, 1868, vol. 13, p. 105-127, here p. 115, 123-124.

<sup>474</sup> CHATEAU, Léon, *Enseignement public d’après les documents contenus dans la classe 90 de l’Exposition universelle de 1867. Enseignement primaire et enseignement professionnel*, Paris, Lacroix, 1868.

<sup>475</sup> DEFODON, Charles, *Promenade à l’Exposition scolaire de 1867. Souvenir de la visite des instituteurs*, Paris, Hachette, 1868.

<sup>476</sup> On the role of the *Société pour l’instruction élémentaire* see also ANF, F17, 9379.

Exhibition authorities published the journal *L'Exposition universelle de 1867 illustrée* before and during the event took place. It was addressed to a large general audience. In this journal, Prosper Poitevin described the Saxon pavilion of public instruction. He praised the general pedagogical spirit in the German countries:

“On peut dire, sans compliment ni épigramme, que tout Allemand recèle en lui le germe d’un pédagogue. L’école est, au delà du Rhin, en plus grand honneur qu’en aucun autre pays du monde.”<sup>477</sup>

Poitevin also praised the well administered school districts where “nul ne peut se soustraire ou échapper à la loi”.<sup>478</sup> He was overwhelmed by the information that all Saxons were capable of signing their marriage certificate. The author took the German countries in general, and Saxony in particular, as a reference for the introduction of compulsory instruction in France. Thus, Poitevin promoted a statist understanding of education against a liberal *laissez-faire* model, even though the statist approach interfered with the prerogatives of the head of the family.

In the same paper Victor Cosse presented the Prussian model school. His comments were similar to Poitevin’s. He was impressed by the information he found in the school house, especially when comparing the German situation to the French one:

“Il faut bien reconnaître que, de ce côté, l’Allemagne nous a devancé. [...] On ne trouvera pas un paysan ne sachant lire, ni écrire. – Voyez nos campagnes!”<sup>479</sup>

Such as Poitevin, Cosse urged France to adopt compulsory education. He saw the necessity to reconcile statist and liberal policy models. He searched for a compromise between a presumed French animosity against everything imposed from above and the French love for universal suffrage. Cosse remarked that one could

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<sup>477</sup> POITEVIN, Prosper, « Saxe royale – Instruction publique », in: *L'Exposition universelles de 1867 illustrée*, Paris, Administration de la commission impériale, 1867, p. 139-141, here p. 139.

<sup>478</sup> Ibidem.

<sup>479</sup> COSSE, Victor, « Prusse. Ecole primaire de village », in: *L'Exposition universelles de 1867 illustrée*, Paris, Administration de la commission impériale, 1867, p. 59-62, here p. 60.

oppose the Prussian cannons with bigger cannons. But, he concluded desperately, “à son ‘Ecole primaire de village’, qu’opposerons-nous?”<sup>480</sup>

Charles Sauvestre, a member of the *Ligue de l’enseignement*, published a short article about the educational exhibit and the situation of primary instruction in France. He argued that school equipment, apparatus and methods had not changed in France for the last forty years. At the same time progress had been made in Germany. Sauvestre urged his countrymen not to get lost in interminable debates about whether the head of the family or the state has the highest authority in education. Instead, they should work together on the amelioration of education in France.<sup>481</sup>

Hence, the German countries were the main reference for French educators at the 1867 exposition. Despite the failure of Duruy’s efforts to introduce free and compulsory education in France, an imperial elite of education experts used the world exhibition of 1867 in order to foster public instruction. Whereas French educators only evoked the German states as examples and references in 1867, they used exhibitions more systematically to study foreign education systems in the following decade. Michel Chevalier’s prophecy of 1867 that the highest authority in many things was passing from Europe to the New World was to come true.<sup>482</sup>

## **2. Republican Educators Begin to Perform – The Mission to Vienna in 1873**

The Second Empire of Napoléon III collapsed during the Franco-Prussian war in the summer of 1870. This event made positive references to the German states more difficult. Whereas the efficiency of the Prussian system of education was seen as a decisive factor for the outcome of the war, the authoritarian character of the nascent

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<sup>480</sup> Ibid., p. 62.

<sup>481</sup> SAUVESTRE, Ch., « Instruction publique en France. Les classes 89 et 90 », in: *L’Exposition universelles de 1867 illustrée*, Paris, Administration de la commission impériale, 1867, p. 114-115.

<sup>482</sup> CHEVALIER, Michel (ed.), *Rapports du jury international*, Paris, Dupont, 1868, p. 514.

German Empire restrained some of the education experts from taking it as an explicit model for emulation. The year 1870 saw the proclamation of the Republic. The first decade of the new regime was a period of fervent conservatism. A monarchical reaction was still possible.<sup>483</sup> The Commune experience in Paris and other cities additionally complicated the political situation of France. In education policy, a power struggle opposed progressive politicians who favoured compulsory instruction and started to organise it at the municipal level to a conservative national administration which adopted a *laissez-faire* approach that benefited the Catholic Church.<sup>484</sup> Jules Simon (1814-1896), a moderate republican without anticlerical convictions, was the first Minister of Public Instruction of the nascent republic. The regime change opened up career options for new ambitious individuals who favoured public instruction. Primary education was a central issue in debates over the character of the new republic. Though cautiously at the beginning, the path towards compulsory and free primary schooling started to open up.

One of the most eminent individuals with regard to the educational sections of world exhibitions in the French context was to become Ferdinand Buisson.<sup>485</sup> The Protestant Buisson was born in Paris in 1841. He studied at the Faculty of Letters in Paris from where he graduated in 1863. Having refused the oath of allegiance to the Emperor, Buisson could not start a professional or academic career in the Second Empire. That is why he moved to Neuchâtel in Switzerland where he became a

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<sup>483</sup> MAYEUR, Jean-Marie, *La vie politique sous la Troisième République. 1870-1940*, Paris, Seuil, 1984.

<sup>484</sup> The educational policies of the communards can not be treated here. During the uprising, Edouard Vaillant, the delegate of public instruction of the Paris Commune, proclaimed gratuitous and secular elementary instruction. AUSPITZ, Katherine, *The Radical Bourgeoisie, la Ligue de l'enseignement and the Origins of the Third Republic, 1866-1885*, London, Cambridge University Press, 1982.

<sup>485</sup> On Buisson see CHASE, George W., *Ferdinand Buisson: a study in laïcité in the third republic: 1870-1914*, PhD dissertation, University of Toronto, 1977; DUBOIS, Patrick, *Le dictionnaire de Ferdinand Buisson: aux fondations de l'école républicaine (1878-1911)*, Bern/Berlin/Bruxelles et al., Peter Lang, 2002; TOMEI, Samuel, *Ferdinand Buisson (1841-1932): protestantisme libéral, foi laïque et radical-socialisme*, sous la direction de Serge Berstein, thèse de doctorat, Institut d'études politiques, Paris, 2004.

professor of philosophy and compared literature. Buisson used the intellectual climate of the Swiss city in order to develop his liberal Protestant positions. It was in Neuchâtel that Buisson started to address the public on educational issues. For him, primary education played a decisive role in establishing a secular society. After the proclamation of the republic Buisson returned to the French capital.

The Minister of Education Simon nominated Buisson inspector of primary instruction (*inspecteur de l'enseignement primaire*) in Paris in January 1872. Because of his progressive ideas, the nomination of Buisson as primary school inspector in Paris encountered considerable resistance. The issue was even discussed in the *Assemblée générale* where the Catholic agitators Martial Delpit (1813-1887) and Félix Dupanloup (1802-1878) led an attack against Buisson.<sup>486</sup> Simon had to put Buisson on leave in order to save his own position as Minister. At the same moment, however, he offered him another job. On 20 December 1872 a decree charged Buisson to organise the exhibition of the Ministry of Public Instruction at the *Weltausstellung* to be held in Vienna in the following year.<sup>487</sup> Again, the conservative press criticised the nomination of Buisson as commissioner to Vienna.<sup>488</sup> Despite these attacks Buisson started to prepare his mission.<sup>489</sup> He did not content himself with a mere representation of French education at the exhibition. In February 1873 Buisson addressed a letter to the Ministry:

“Si j'ai compris votre pensée, telle que M. Gréard a bien voulu me faire la connaître, vous m'envoyez à Vienne non seulement pour installer matériellement notre exposition scolaire française, mais pour étudier les expositions scolaires des autres pays et pour vous présenter sur ce sujet un rapport d'ensemble. S'il en est

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<sup>486</sup> The philosopher Edgar Quinet whom Buisson had got to know in Neuchâtel spoke in the defence of Buisson. *Journal officiel de la République française*, 10 décembre 1872, p. 7661-7664. Newspaper clipping in the “Press-book” in the library of the INRP, call number BUISSON RF 118.

<sup>487</sup> ANF, F17, 2343C, Decree nominating Buisson as organiser of the educational exhibit at the Vienna exhibition, 20 December 1872.

<sup>488</sup> See for example *Le Français*, 25 January 1873. Newspaper clipping in the “Press-book” in the library of the INRP, call number BUISSON RF 118.

<sup>489</sup> On the preparation of the exhibit see ANF, F17, 2343C and ANF, F17, 9386.

ainsi, je viens vous demander [...] de vouloir bien m'investir d'une mission qui me donne qualité pour faire ce travail et qui m'en fournisse les moyens.<sup>490</sup>

Supported by Octave Gréard (1828-1904), at that time director of primary education of the Seine department, Buisson wanted to use his sojourn in Vienna in order to collect information on the educational systems of the other participating countries. The ministry supported this proposition. In an additional decree of February 1873 Buisson was charged to study the educational exhibits of participating countries and to present a report after his return. From a purely organisational task consisting in the arrangement of the Ministry's exhibit the mission turned into an effort to advance public instruction in France. Given the political situation with a prevailing conservative fraction in the Ministry, the mission became an intellectually ambitious and slightly subversive endeavour.

The French educational exhibit in Vienna prepared by Buisson represented all aspects of French education.<sup>491</sup> During the summer, when the exhibition actually took place, the conservative press restarted its attacks. On the one hand the attacks were centred on the personality of Buisson and its ideological positions, as could be read in *L'Ordre*:

“[...] Savez-vous quel est à l'Exposition universelle de Vienne le représentant officiel de notre ministère de l'instruction publique, le mandataire de MM. J. Simon et A. Thiers, l'envoyé d'une nation religieuse et catholique?

C'est M. Buisson, l'athée Buisson, le nihiliste Buisson [...]. C'est Buisson, le Barodet ou le Naquet de l'enseignement laïque, matérialiste et athée. [...] Ici, on plein pays catholique, où chaque nation est représentée par des adeptes de sa foi religieuse, notre gouvernement sénile n'a rien trouvé de mieux que de s'incorporer dans un nihiliste... un communard théorique. C'est joliment trouvé.

Le pis est qu'on rit du Buisson et de ceux qui l'ont chargé, à Vienne d'une mission officielle, pour insulter sans doute à l'enseignement religieux et catholique qui a, tout à côté, une exposition magnifique.

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<sup>490</sup> ANF, F17, 2343C, Letter Ferdinand Buisson to the minister of public instruction, 18 February 1873.

<sup>491</sup> On the preparation of the exhibit see the records in ANF, F17, 9386.

Je me trompe, M. Buisson a été choisi pour faire repoussoir.»<sup>492</sup>

On the other hand, conservative newspapers advanced a specific criticism. They accused the French commissioners of having prevented the award of a diploma of honour of the international jury to the *Frères des écoles chrétiennes*.<sup>493</sup> Emile Levasseur (1828-1911) rejected these criticism in a letter to the *Paris-Journal*.<sup>494</sup> The aggressive reporting of the conservative press showed that the participation of French education in Vienna was far from providing a clear and comprehensive picture to a foreign audience. Instead it was deeply rooted in ideological and political struggles. On the one side there were conservatives, on the other there were modernisers. These modernisers comprised, among others, Emile Levasseur, Octave Gréard who also came to Vienna for a certain period during the summer and served as members of the international jury for the educational group. Levasseur in particular had numerous transnational correspondents.

These modernisers presented several reports in order to support their standing. Levasseur wrote on primary and secondary instruction.<sup>495</sup> As did the reports of the 1860s, he highly praised the Saxon schools. But he also dedicated a large part to the United States because, as he stated, the development of education in that country had made considerable advances and acquired an original character.

Buisson, who had travelled through Germany contacting education experts after the closure of the exhibition, wrote the most complete report.<sup>496</sup> Buisson used the

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<sup>492</sup> « Exposition de Vienne. Dixième lettre. Vienne, 11 mai », in: *L'Ordre*, 1873. Newspaper clipping in the “Press-book” in the library of the INRP, call number BUISSON RF 118. The mentioned Désiré Barodet (1823-1906) and Alfred Naquet (1834-1916) were politicians of the radical left.

<sup>493</sup> *L'Ordre*, 31 August 1873. Newspaper clipping in the “Press-book” in the library of the INRP, call number BUISSON RF 118.

<sup>494</sup> « Lettre de E. Levasseur (membre de l'Institut), Fontainebleau, 19 septembre 1873 », in: *Paris-Journal*, 1873. Newspaper clipping in the “Press-book” in the library of the INRP, call number BUISSON RF 118.

<sup>495</sup> LEVASSEUR, E., « Instruction primaire et secondaire », in: *Exposition universelle de Vienne en 1873. Rapports*, Paris, Imprimerie nationale, 1875, vol. IV, p. 351-529.

<sup>496</sup> BUISSON, Ferdinand, *Rapport sur l'instruction primaire à l'exposition universelle de Vienne en 1873*, Paris, Imprimerie nationale, 1875.

exposition in order to expand his expertise in various educational questions. Buisson's aim was to promote educational reform in France, as he stated clearly in the preface. This was a critique of the prevailing opinion in the Ministry:

“Le but de ce travail n'était pas d'instituer entre notre pays et les autres; c'était de signaler aux hommes qui chez nous s'occupent spécialement de l'instruction du peuple un certain nombre de faits remarquables qui, s'étant produit récemment, loin de nous et dans l'humble domaine de l'école primaire, ont pu échapper à leur attention. C'est l'utilité des expositions scolaires de tirer de l'obscurité tous ces efforts méritoires [...]”<sup>497</sup>

The report testified to its author's perfect acquaintance with the contemporary educational literature. One chapter, for example, dealt with the intuitive method, another treated the “school desk question”. Octave Gréard praised Buisson's report in the *Journal officiel*.<sup>498</sup>

Not only officials of the Ministry of Public Instruction reported from the educational section of the Vienna exposition. In their report on the exposition a French labour delegation also addressed education.<sup>499</sup> A certain F. Jeanmaire from Western France also visited the exposition and reported on primary education.<sup>500</sup> All these reports took a bottom-up perspective on education and promoted secular primary schooling. There was a competition on who was to introduce modern education to France, the leftist municipalities or the national Ministry. This testifies to the central place of educational issues at the beginning of the Third Republic.

The report of Buisson was sent to several foreign educators through courtesy of the French Ministry of Foreign Affairs.<sup>501</sup> According to this list, six copies were sent to Germany, one to England, twelve to Austria-Hungary, two to Bavaria, five to

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<sup>497</sup> Ibid., preface without paging.

<sup>498</sup> *Journal officiel*, 26 April 1876. Cited in TOMEI, *Ferdinand Buisson*, p. 401.

<sup>499</sup> *Délégation ouvrière française à l'Exposition universelle de Vienne. Rapport d'ensemble*, Paris, Morel, 1876.

<sup>500</sup> JEANMAIRE, F., *L'instruction primaire en différents pays: Aperçu général d'après une visite faite à l'exposition scolaire universelle de Vienne de 1873*, Angoulême, F. Lugeol, 1875.

<sup>501</sup> ANF, F17, 9386, Letter of the *Deuxième bureau de la direction de l'enseignement primaire* of the Ministry of Public Instruction to the Ministry of Foreign Affairs, 14 March 1876.

Belgium, one to Denmark, two to Spain, one to the United States, one to Greece, two to the Netherlands, three to Italy, one to Portugal, three to Russia, one to the Vatican, one to Saxony, one to Sweden, and six to Switzerland. Among the recipients was, for example, Emil Gustav Börnemann (1824-1908), *Schulrat* for questions relating to primary instruction in the Saxon Ministry of Education in Dresden.<sup>502</sup> The list testified to how effectively Buisson used the exhibition in order to build up a transnational network of contacts.

The *Weltausstellung* not only helped Buisson and his colleagues to get in contact with the latest pedagogical innovations, but also to build up his standing as an education expert. In turn, this also helped to advance the prestige of public instruction in France. The establishment of transnational networks was a conscious strategy, an exigency of the time, as put Levasseur:

“Si nous voulons rester dans les premiers rangs des peuples civilisés, il faut que nous nous plions à toutes les exigences de la civilisation moderne; une des premières est de posséder et d’améliorer sans cesse [...] une instruction primaire universelle.”<sup>503</sup>

### **3. Enthusiasm for the American Free School System – The Mission to Philadelphia in 1876**

Despite French participation in the Centennial Exhibition of 1876, the Ministry of Public Instruction refrained from preparing a proper exhibit. However, as shown above, education was a central issue at Philadelphia. Already before the Centennial, American education had attracted the attention of French experts. The education expert Célestin Hippeau (1803-1883) had travelled to the United States and many other countries publishing detailed accounts of their education systems, amongst

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<sup>502</sup> Börnemann represented Saxon education at the Vienna exhibition. He was also a member of the international jury. He later wrote the entry on Saxony in Buisson’s *Dictionnaire de pédagogie*. See DUBOIS, Patrick, *Le ‘dictionnaire de pédagogie et d’instruction primaire’ de Ferdinand Buisson: répertoire biographique des auteurs*, Paris, INRP, 2002, p. 42; MODEROW, Hans-Martin, *Volksschule zwischen Staat und Kirche: das Beispiel Sachsen im 18. und 19. Jahrhundert*, Köln et al., Böhlau, 2007, p. 341-342.

<sup>503</sup> LEVASSEUR, « Instruction primaire et secondaire », p. 464.

them *L'instruction publique aux Etats-Unis*.<sup>504</sup> Hippeau underlined the importance of the upcoming exhibition in a contribution to the journal *La République française*.<sup>505</sup>

The Ministry of Public Instruction formed a commission to investigate the educational section of the Centennial and education in the United States more generally. Ferdinand Buisson once again served as head of the commission. A team of five experts of public instruction joined Buisson. These were Bonaventure Berger, primary inspector of the Seine department, a certain Laporte, primary inspector in Rochechouart, a certain Olagner, public instructor in Boulogne-sur-Mer, a certain Valens, instructor in Paris, and a certain Rauber, instructor in Paris who had been designated by the *Société des instituteurs et institutrices libres de la Seine*. The commission reached American soil in New York City on 19 July 1876 and proceeded to Philadelphia.<sup>506</sup> The French commission installed their headquarters in one of the offices of the educational pavilion of Pennsylvania.<sup>507</sup>

The French educators got to know some of the most eminent American colleagues. These were inter alia John Eaton, John D. Philbrick, Henry Kiddle and William T. Harris to whom the report's preface attributed special recognition. The French commissioners travelled intensively throughout the United States. They visited, amongst others, Washington DC, Boston, Cleveland, Cincinnati, St. Louis, Chicago, Milwaukee, but also the Canadian provinces of Ontario and Québec.<sup>508</sup>

Surprisingly, there was no French representative at the International Conference on Education organised in the framework of the Centennial. It can be presumed that

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<sup>504</sup> HIPPEAU, Célestin, *L'instruction publique aux Etats-Unis*, Paris, Didier, 1870. For a discussion of this work see BASTOS, Maria Helena Camara, « Leituras da Ilustração Brasileira: Célestin Hippeau (1803-1883) », in: *Revista brasileira de história da educação*, 3, 1, 2002, p. 67-112.

<sup>505</sup> Hippeau's article is partly translated and cited in the *Report of the Commissioner of Education for the Year 1875*, Washington, Government Printing Office, 1876, p. cl-cll.

<sup>506</sup> « Passengers Arrived », in: *New York Times*, 20 juillet 1876, p. 8.

<sup>507</sup> WICKERSHAM, James Pyle, *A history of education in Pennsylvania, private and public, elementary and higher. From the time the Swedes settled on the Delaware to the present day*, Lancaster, Inquirer Publishing Company, 1886, p. 583.

<sup>508</sup> BUISSON, Ferdinand, *Rapport sur l'instruction primaire à l'Exposition universelle de Philadelphie en 1876*, Paris, Imprimerie nationale, 1878, p. VIII.

Buisson did not want to defend the conservative measures of his Minister, at the same time refraining from openly criticising them in public abroad. However, Buisson participated in the annual meeting of the National Educational Association, held that year in Baltimore. Buisson did not give a paper, but became an annual member of the society.<sup>509</sup> The French commissioners also participated in the congress of the State Teachers' Association of Pennsylvania.<sup>510</sup>

In a conversation with J. George Hodgins, the commissioner from Ontario who invited the French commissioners to Toronto, Buisson stated that there was the necessity for greater activity for the promotion of popular education in France.<sup>511</sup> From there evolved the need to learn from the American experience. Buisson and his fellow commissioners published a monumental report on education in the United States. The report was above all an expression of the republican enthusiasm that inspired the commissioners and which they thought to find in the United States. The first chapter entitled "Le Free School System" was the most interesting in this sense. Buisson seemed overwhelmed by the financial efforts made to support the school system:

“C'est dans le gouvernement républicain que l'on a besoin de toute la puissance de l'éducation.’ Ce jugement de Montesquieu n'a jamais trouvé peut-être d'application plus éclatante que dans le sujet dont nous commençons l'étude. S'il est un peuple en effet, qui ait tout attendu de cette 'puissance de l'éducation', qui ait intimement uni ses destinées nationales au développement de ses écoles, qui ait fait de l'instruction publique la garantie suprême de ses libertés, la condition de sa prospérité, la sauvegarde de ses institutions, c'est assurément le peuple des Etats-Unis.

[...]

Ce n'est pas l'oeuvre de quelques philanthropes, de quelques sociétés religieuses, c'est un service public pour lequel les Etats, les communes, les villes inscrivent

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<sup>509</sup> *The Addresses and Journal of Proceedings of the National Educational Association. Session of the year 1876 in Baltimore, Maryland*, Salem, Vatem, 1876, p. 298.

<sup>510</sup> WICKERSHAM, *A history of education*, p. 583.

<sup>511</sup> HODGINS, J. George, *Special Report to the Honourable the Minister of Education, on the Ontario Educational Exhibit, and the Educational Features of the International Exhibition, at Philadelphia, 1876*, Toronto, Hunter, Rose and Co., 1877, p. 102.

dans leurs budgets ordinaires des sommes qu'aucun pays au monde n'avait imaginé jusque-là de consacrer à l'éducation."<sup>512</sup>

Buisson saw political, economic and moral reasons for the high standing of American public schools. In a democracy with a large proportion of newly arriving immigrants it was a necessity to educate the future citizens. Universal education also contributed to a more intelligent and diligent workforce.

Buisson also praised that history was part of the curriculum of American primary schools. History was closely linked to civil instruction. It did not focus on dynasties, battles and aristocrats, but on the people. History, Buisson observed, was a subject that treated the past and present of the everyday life of American citizens.<sup>513</sup>

In his chapter on the religious dimension of American public schools, Buisson remarked the coexistence of the religious foundations of the school system and the unconditional respect of divergent opinions. The different Protestant denominations respected each other. They did not use the school for proselytism of what Buisson indirectly accused the Catholic church. American public schools did not interfere with the religious concerns of the families, leaving them complete liberty. Buisson did not find this kind of respect in the French context. He made a distinction between the French conception of the "Etat athée" and the American "liberté des consciences". In France, Republican reformers wanted to purge the school from all religious influences.<sup>514</sup>

Buisson was impressed by the high schools which received graduates of primary schools free of charge. In France, the education of the bourgeois elites in the preparatory classes of the *lycée* was strictly separated from that of the masses in the primary schools. Buisson wrote on another occasion:

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<sup>512</sup> BUISSON, *Rapport sur l'instruction primaire à l'Exposition universelle de Philadelphie*, p. 1.

<sup>513</sup> *Ibid.*, p. 309-322.

<sup>514</sup> *Ibid.*, p. 451-476. On *laïcité* see BAUBEROT, Jean, *Histoire de la laïcité française*, Paris, Presses universitaires de France, 2000.

“J’ai vu à Boston des écoles gratuites dans les quartiers les plus pauvres. [...] Et quand j’y suis allé, les filles des fabricants et des commerçants les plus riches y étaient mêlées avec des enfants d’ouvriers. Il avait fallu ce temps-là pour vaincre chez les uns la négligence, la malpropreté, le désordre; chez les autres, le dégoût et les répugnances.”<sup>515</sup>

Thus, Buisson stressed what he called the national function of education. National in this sense indicated the ability of the school system to bring together children from all classes of society and, in this way, to make a contribution to social integration. This was one of the major lessons Buisson learned in the United States, as the American system differed from the European tradition in this respect.

Buisson did not react enthusiastically to the joint teaching of boys and girls at all levels in the United States school system. He supported coeducation at the primary level, as it allowed a better graduation, that is the creation of classes according to the pupils’ age, and saved money. Above the primary level Buisson rejected coeducation completely.<sup>516</sup> Buisson also opposed corporal punishment which he interpreted as a Germanic and Anglo-Saxon peculiarity.<sup>517</sup>

Overall, the report discussed all aspects of American education in a coherent way, also including specialised topics such as penmanship and school houses. For this reason even American education experts were eager to obtain and translate it.<sup>518</sup> Apart from the report, Buisson also published a volume of American pupils’

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<sup>515</sup> Cited in TOMEI, *Ferdinand Buisson*, p. 323-324. This quote also reflects contemporary class stereotypes.

<sup>516</sup> It has been argued that Buisson’s report introduced the notion of coeducation to Europe: KARNAOUCHE, Denise, « Féminisme et coéducation en Europe avant 1914 », in: *CLIO, Histoire, Femmes et Sociétés*, 18, 2003, p. 21-41.

<sup>517</sup> BUISSON, Ferdinand, *Rapport sur l’instruction primaire à l’Exposition universelle de Philadelphie*, p. 486. Buisson already criticised corporal punishment in his report on the Vienna exhibition, referring to the brutality depicted in German materials: BUISSON, *Rapport sur l’instruction primaire à l’exposition universelle de Vienne*, p. 141.

<sup>518</sup> See the correspondence of the Bureau of Education in NARA, Microfilm M-635, Roll 10. The Bureau of Education published a significantly shortened version: BUISSON, Ferdinand, *American Education as described by the French commission to the International exhibition of 1876*, Washington, Government Printing Office, 1879.

works.<sup>519</sup> Buisson praised the advantages of an education system administered by public authorities, as opposed to a *laissez-faire* system as he knew it from France. Buisson absorbed the rhetoric of the late common school crusaders which they presented in such multiple ways.

The journal *Le Temps* published a very positive review of Buisson's report. It cited some characteristics of the American education system and especially suggested their emulation in France. The article concluded:

“La commission scolaire de Philadelphie a rempli son mandat de la façon la plus honorable pour notre pays et la plus utile à la cause de notre instruction populaire.”<sup>520</sup>

Buisson's report was a major contribution to Franco-American relations.<sup>521</sup> It stood in the tradition of Alexis de Tocqueville's work *De la démocratie en Amérique*, first published in 1835, which Buisson referred to.<sup>522</sup> It expressed the aspirations of a reform oriented left.<sup>523</sup>

Buisson accurately described the decentralised character of education in the United States. However, he did not propose the decentralisation of educational decision-making in France. He could have done so easily, basing his argument on the municipalities controlled by the left which opposed the conservative policies of the Ministry during all the 1870s.<sup>524</sup> However, Buisson, as a representative of a national ministry did not consider decentralisation in France anywhere throughout his report.

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<sup>519</sup> This volume is of interest because it comprises in French translation texts written in English by Chinese pupils brought to New England by the educator Yung Wing and supervised by Birdsey G. Northrop.

<sup>520</sup> *Le Temps*, 23 May 1878. Newspaper clipping in the “Press-book” in the library of the INRP, call number BUISSON RF 119.

<sup>521</sup> Buisson's report has been analysed by PORTES, Jacques, *Une fascination réticente: les Etats-Unis dans l'opinion française*, Nancy, Presses universitaires de Nancy, 1990, p. 205-226 and TOMEI, Samuel, *Ferdinand Buisson*, p. 286-293.

<sup>522</sup> TOCQUEVILLE, Alexis de, *De la démocratie en Amérique*, Paris, Gosselin, 1835-1840.

<sup>523</sup> Philippe Roger's statement that the United States relatively fast lost their model character which they previously had for the liberal opposition to the Second Empire, has to be nuanced for the field of education: ROGER, Philippe, *L'ennemi américain: généalogie de l'antiaméricanisme français*, Paris, Editions du Seuil, 2002, p. 140-144.

<sup>524</sup> See AUSPITZ, *The Radical Bourgeoisie*.

The mission to Philadelphia was an important step for the advancement of free, compulsory and secular education in France. Buisson's report is the most complete and intellectually refined educational document ever published after a world exhibition. Buisson developed his idea of modern primary education to a large extent during his stay in the United States.

#### **4. American Educators in the French Capital – Education at the Exhibition of 1878**

Republican efforts to promote public education in France continued two years later in Paris. The American participation in the educational sections of the *Exposition universelle* of 1878 had an important impact on the French context. The social contacts between French and American educators were manifold. The exposition offered a pedagogical sociability which favoured relations between them. Some of those American education experts, with whom the French commission had been in touch with two years previously, now came to the French capital. John D. Philbrick, still superintendent of Boston schools, was the head of the educational exhibit of the United States. Philbrick left the United States for Paris on 20 March 1878. For the following months he was to live in the private residence of Ferdinand Buisson, situated at number 166 of the Boulevard Montparnasse in Paris.<sup>525</sup> This example illustrates very well the close contacts between educators from both sides of the Atlantic; social relations were not limited to professional issues, but affected the private life as well. In this perspective it was not surprising that Philbrick also wrote the article on the United States in Buisson's *Dictionnaire de pédagogie*.

The awards of honorific decorations further demonstrated the close ties between educators from both sides of the Atlantic. The superintendents William T. Harris,

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<sup>525</sup> DUNTON, Larkin, *A Memorial of the Life and Services of John D. Philbrick*, Boston, New England Publishing Co., 1887, p. 180. There are several letters addressed to Philbrick under this address amongst the correspondence of the Bureau of Education in NARA, Microfilm M-635, Film 10.

Henry Kiddle and J. Ormond Wilson received silver palmes of the University of France with the title *officier de l'académie*. Kiddle's decoration was notably due to his *Cyclopaedia of Education* which he presented in Paris. Eaton and Philbrick received gold palms with the title *officier de l'instruction publique*. Additionally, Philbrick became a *chevalier* of the Legion of Honour. But also the members of the French commission to Philadelphia were decorated during the 1878 exposition. The former commissioners Laporte, Olagnier and Valens became *officier d'académie* on 1 August 1878 for their service at the Centennial Exhibition. Valens served as an interpreter at the Paris exposition of 1878.<sup>526</sup>

The American educational exhibit was adapted to French debates. "Its primary object was to afford educational students [...] the means of studying the organization, working, and results" of the American system of education.<sup>527</sup> At the entrance one could read:

"C'est dans le gouvernement républicain que l'on a besoin de toute la puissance de l'éducation. (Montesquieu)

Promote as an object of primary importance institutions for the general diffusion of knowledge. (Washington)

L'instruction publique est GRATUITE dans tous les Etats de l'Union."<sup>528</sup>

The catalogue of the American educational section contained numerous items that were of interest for the French reformers.<sup>529</sup> The American presentation received a warm welcome amongst those French education experts who favoured the introduction of compulsory education. Emile Levasseur published an article on the

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<sup>526</sup> ANF, F17, 2597, Arrêté palmes académiques, 01 August 1878.

<sup>527</sup> PHILBRICK, John D., « Report of John D. Philbrick, LL.D. Superintendent of the Educational Section », *Reports of the United States Commissioners to the Paris Universal Exposition, 1878. Published under direction of the secretary of state by authority of congress*, Washington, Government Printing Office, 1880, vol. 1, p. 87-108, here p. 91.

<sup>528</sup> Ibidem.

<sup>529</sup> PHILBRICK, *The Catalogue*.

American educational exhibit in the *Revue pédagogique*.<sup>530</sup> After the Centennial Exhibition, this was the next confident presentation of the late American common school crusaders.

The establishment of the *Musée pédagogique* in Paris was a direct consequence of the 1878 exposition.<sup>531</sup> The driving force for the foundation of this institution was once again Buisson. He did not hide the foreign inspiration for the museum. Earlier projects to establish such an educational think-tank in France had failed.<sup>532</sup> At the Vienna exhibition Buisson had been in contact with some colleagues who solicited materials for their museums. In October 1878 a decree officially charged Buisson with the organisation of the new museum. The American commission donated most of their exhibits to the new museum.<sup>533</sup> The museum eventually opened in 1879 and became an internationally recognised institution.

The official report on primary education, for which Buisson had been foreseen as author, has never been published. As had been the case for the Centennial Exhibition, a group of experts, Bonaventure Berger, Ferdinand Buisson and Charles Defodon, published edited volumes of pupils' and teachers' works.<sup>534</sup> The world exhibitions

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<sup>530</sup> LEVASSEUR, Emile, « L'Exposition scolaire des Etats-Unis », in: *Revue pédagogique*, II, 1878, p. 219.

<sup>531</sup> MAJALUT, Joseph, *Les origines de l'I.P.N.: Le Musée pédagogique (1872-1879)*, Paris, Editions de l'I.P.N., 1959.

<sup>532</sup> ANF, AJ71, *Inventaire descriptif des pièces manuscrites constituant un fonds d'archives relatives à la création du Musée pédagogique*; ANF, AJ71, 1, Brochures and documents.

<sup>533</sup> John D. Philbrick, « Report of John D. Philbrick, LL.D. Superintendent of the Educational Section », *Reports of the United States Commissioners to the Paris Universal Exposition, 1878. Published under direction of the secretary of state by authority of congress*, Washington, Government Printing Office, 1880, vol. 1, p. 87-108, here p. 105.

<sup>534</sup> *Devoirs d'écoliers étrangers, recueillis à l'Exposition universelle de Paris (1878) et mis en ordre par MM. de Bagnaux, Berger, Brouard, Buisson et Defodon*, Paris, Hachette, 1879; *Devoirs d'écoliers français, recueillis à l'Exposition universelle de Paris (1878) et mis en ordre par MM. de Bagnaux, Berger, Brouard, Buisson et Defodon*, Paris, Hachette, 1879; *Travaux d'instituteurs français, recueillis à l'exposition universelle de Paris (1878) et mis en ordre par MM. de Bagnaux, Berger, Brouard, Buisson et Defodon*, Paris, Hachette, 1879.

had a fundamental influence on the introduction of innovative teaching methods like object teaching and the intuitive method in France.<sup>535</sup>

The exhibition of 1878 already testified to the upcoming victory of republicanism in France and the empowerment of republican education experts. On 31 August 1878 Buisson was promoted to *inspecteur général de l'instruction publique*. This was the same day that Buisson served as a speaker at the *Conférences pédagogiques*. This was a series of conferences organised for primary instructors who were brought to Paris from the French provinces.<sup>536</sup> The struggles for the establishment of a free, compulsory and secular public school system were closely linked to debates over the character of the Third Republic. Buisson was promoted Director of Primary Instruction on 10 February 1879. This was one of the most important positions in the Ministry. This allowed Buisson to prepare and coordinate the implementation of the school laws of the early 1880s which were passed by Jules Ferry as Minister of Public Instruction.

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In the history of education the nineteenth century was characterised by the implementation of compulsory primary education controlled by public authorities. World exhibitions decisively helped in the institutionalisation wave of the 1870s when Japanese and French educators were engaged in constructing such systems of education.

The study of the educational sections of world exhibitions of the 1870s revealed the structure of a network of education experts engaged in elementary education. The centre of the network were the late common school crusaders in New England. On

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<sup>535</sup> KAHN, Pierre, *La leçon de choses: naissance de l'enseignement des sciences à l'école primaire*, Villeneuve d'Ascq, Presses universitaires du Septentrion, 2002, p. 84-90.

<sup>536</sup> *Conférences pédagogiques faites aux instituteurs primaires venues à Paris pour l'Exposition universelle de 1878*, Paris, Hachette, 1878.

the other side of the Pacific Ocean were the young former samurai officials. Transatlantic, young republican educators were active in the French capital. German experts were largely absent from this discourse. The fact that German education experts did not participate in these networks is probably due to the high standing of primary education in the German states at this time. German experts did not see the need to appropriate new features for their own contexts. Chauvinism possibly also prevented a faction of German experts from transnational intercourse.

Specific national preoccupations in the United States, Japan and France were the driving force of this trilateral network and made those experts go transnational. The Americans, affiliated to city and state boards, were proud of their achievements and saw primary education as an issue that well depicted the coming of age of the United States as a unified nation on the international scene. The Japanese were searching for a way to establish a well working system of education. The French as well wanted to install gratuity and compulsion which were still not part of their primary education. In both cases, France and Japan, actors were officials of the national ministries of education. In the French case, republican educators were in a subordinate position during the 1870s. They used the expositions in order to build up their competence and reputation. Representing republican education abroad allowed Buisson to considerably strengthen the reputation of republican education in France, as foreigners started to automatically relate France with the efforts of the republicans. This had also a crucial impact on the career of Buisson himself. At the turn of the decade these educators acquired positions of power in the Ministry and proceeded to implement their objectives. In the Japanese case, experts travelling to the expositions already were in positions of power in the 1870s. They used the expositions as a means to perfect the Japanese education system and prepare a revision of the first educational code. Tanaka was reluctant to introduce central state control of

education. Murray and his disciples, however, implemented effective state control. Referring to education in the United States, they were no passive receivers of American propaganda, but acted according to their own needs. Protestantism was a major uniting force of this network. Research has well documented the Protestant impetus of school reform in the United States. Buisson and some of his collaborators were Protestants which surely helped transatlantic socialising.<sup>537</sup> Protestantism symbolised progress for the Japanese reformers as well, even if most of them were not Christians.

This trilateral network also comprised an important generational factor. Japanese and French experts were considerably younger than the old common school crusaders. The principal American educators involved in the organisation of school exhibits in the 1870s, like James P. Wickersham, John D. Philbrick and Birdsey G. Northrop were already in their fifties. By contrast, the Japanese commissioners, as Tanaka Fujimaro, Tejima Seiichi, but also Kuki Ryūichi, were still in their twenties or early thirties. The same was true for Buisson who was in his mid-thirties, even though his key collaborators were significantly older. Thus, the young samurai officials and the ambitious primary inspector from Paris solicited the old bearded yankee educators. Their life-long experience gave them an aura of confidence.

<b>United States</b>	<b>Japan</b>	<b>France</b>
Northrop – 59 years	Mori – 29 years	Buisson – 35 years
Philbrick – 58 years	Tanaka – 31 years	Gréard – 48 years
Wickersham – 51 years	Tejima – 26 years	Levasseur – 65 years

**Table 4: Age of the principal education experts from the United States, Japan and France in the year of the Centennial Exhibition (1876).**

<sup>537</sup> CABANEL, Patrick, *Le Dieu de la République. Aux origines protestantes de la laïcité (1860-1900)*, Rennes, Presses universitaires de Rennes, 2003; MAYEUR, Françoise, « Les protestants dans l'instruction publique au début de la Troisième République », in: ENCREVE, André, RICHARD, Michel (eds), *Les protestants dans les débuts de la Troisième République: 1871-1885*, Paris, Société de l'histoire du protestantisme français, 1979, p. 37-48.

Thus, it becomes clear that the reforms of elementary education in the 1870s were facilitated by networks of experts which in turn were strengthened very much by the function of the world exhibitions as educational sociabilities. The 1870s saw a wave of reforms. The “American idea” formulated by Coste and others was one expression of a global trend. A statist model replaced a liberal or *laissez-faire* model, despite Tanaka’s nostalgia for *laissez-faire* policies and decentralisation. The state and public authorities began to administer a field previously left to the church, civil society actors and municipalities. These actors were now partially deligitimised.<sup>538</sup> The national dimension acquired increasing importance. State actors imposed themselves and contacted colleagues from foreign countries at the exhibitions. Even in the United States, where primary education was organised on the state and municipal levels, education experts started to see the nation as a unit. Reformers also wanted education to become administratively independent from religious control. The trend went in the direction of free of charge schooling, although Japanese primary schools charged tuition fees until the turn of the century.

Features such as object teaching, graded schools, the simultaneous teaching method, as well as knowledge on school desks and other material aspects of schooling circulated between the United States, Japan and France. But one can not deny that the transnational contacts served to a large extent the legitimisation of a new generation of experts to which testifies the emphatic Republican discourses in the Franco-American relationship.

Nevertheless, the Japanese and French cases present an excellent example of cultural transfers. Aware of the insufficiency of their existing institutions, experts from both countries started to search for remedies at the exhibitions of the late 1860s

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<sup>538</sup> A similar perspective has recently been proposed for the education of deaf and blind children: BUTON, François, *L’administration des faveurs. L’Etat, les sourds et les aveugles (1789-1885)*, Rennes, Presses universitaires de Rennes, 2009.

and early 1870s. Afterwards, in a second phase, Japanese and French experts drew their attention more and more to the United States, finding thus a reference context for appropriations. In the following third phase the contacts acquired a more stable network character and more carefully planned missions permitted the acquisition of detailed knowledge on American education in the latter half of the 1870s. Finally, the American reference had an impact on the new educational legislation in both countries at the end of the 1870s and beginning of the 1880s.

Although Japanese and French educators both referred to American models and contacted with the same experts in the United States, in the medium term the institutionalisations of primary education in both countries took different forms. In Japan, it served the purposes of an authoritarian empire. The education system was introduced by former samurai referring to Japanese enlightenment thought. Through the subsequent political changes right wing leaders gained power and changed the characteristics of the school system. In France, modern primary education with effective state authority was institutionalised from the left in opposition to conservatives and the Catholic Church by republicans and became the pride of the Third Republic. This difference became apparent at the exhibitions from 1889 onwards, as will be shown below. Japanese exhibits stressed moral education which taught values such as obedience and deference to the sovereign. French displays highlighted the role of primary education for individual achievement. A further difference was that French primary education continued to receive exclusively children of the lower social classes whereas middle class families sent their children to the paying preparatory classes of secondary schools. Japanese elementary schools made no such distinction. In short, modern primary education took different institutional and ideological forms.

Not everything was perfect in the United States, though. Reforms were not sufficiently implemented in the southern states in particular. But even in the north-eastern and mid-western states the school systems were far from perfect. In particular, the United States lacked educational institutions that would prepare the youth for careers in industry. But American educators had grasped the problem and were already searching for a remedy. At the same time that some American educators proudly staged the free school system, others were intensively contemplating the matter of technical instruction which should ultimately reshape the entire American education system. They referred to Europe in order to promote their cause.

## THIRD PART: TRANSNATIONAL TRAJECTORIES OF TECHNICAL EDUCATION

The second industrial revolution reshaped the world during the last decades of the nineteenth century. Throughout the world education experts used the argument that more and better technical education was needed. The rise of technical instruction in other countries was usually seen as a factor that affected international economic competitiveness. This debate affected the primary, secondary and higher education levels. The outcome of these institutionalisations was the implementation of school culture in the industrialised countries discussed in this thesis which meant that training for specialised industrial careers took place in schools rather than in situ.<sup>539</sup> They also led to an increased emphasis on technical skills in general education. World exhibitions were one of the most important vehicles for cultural transfers in this sector in the late nineteenth century. Initially, American experts referred to European institutions as models. Later, European experts, especially those from Germany, took the new American institutions as examples to be followed, as did experts from Japan.

### ***1. European Technical Instruction as a Model for the United States***

In the second half of the nineteenth century, the United States developed from a rural agricultural society into an urban industrialised society. By the turn of the century the number of people living in cities outnumbered those living in the countryside. This transformation also saw a transition from a community-based to a

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<sup>539</sup> LUNDGREEN, Peter, « Engineering Education in Europe and the USA, 1750-1930: The Rise to Dominance of School Culture and the Engineering Professions », in: *Annals of Science*, 47, 1, 1990, p. 33-75.

more bureaucratic society.<sup>540</sup> During this period a new professionalised middle-class emerged.<sup>541</sup> Changes in education developed in response to these social developments and also partly engendered them. They necessitated a different approach to education than before with a greater emphasis on practical elements. The traditional apprentice system went through a crisis. Against this background American educators visited European exhibitions in order to find inspiration for the introduction of technical education in their country.

By the mid-nineteenth century the American college had lost much of its attraction. Universities – in the European sense – did not yet exist in the United States. Similarly, as the catalogue of the Pennsylvania educational exhibit at the Centennial Exhibition argued, the state “in the European sense [...] has no great technical school.”<sup>542</sup> The Michigan report on the educational section similarly stated that “the United States takes a prominent position before the world in all save polytechnic schools; in this she is sadly deficient.”<sup>543</sup> For Americans technical education was synonymous with European institutions. At the time, however, debates on how to improve technical education had already started and some initiatives were taken to change this situation. It was important to adapt technical instruction to the social conditions of the United States. Thus, in his report on the *Exposition universelle* of 1867, John W. Hoyt described in great detail the state of education in Europe over several hundred pages. The final part of his account on “Leading Tendencies of University Education” amounted to a manifesto for the

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<sup>540</sup> TRACHTENBERG, Alan, *The incorporation of America: Culture and society in the Gilded Age*, New York, Hill and Wang, 1982.

<sup>541</sup> WIEBE, Robert H., *The search for order, 1877-1920*, New York, Hill and Wang, 1967.

<sup>542</sup> *Catalogue of the Education Exhibit of the State of Pennsylvania, with an Appendix, Containing an Outline of the System of Public Instruction in the State*, Lancaster, Press of the Inquirer P. & P. Company, 1876, p. 84.

<sup>543</sup> *Report of the State Board of Centennial Managers for the International Exhibition of 1876*, Lansing, W. S. George, 1877, p. 23.

future American university that would combine the sciences and humanities.<sup>544</sup> Although Hoyt was involved in the campaign for a national university at the turn of the century, he does not appear to have been directly involved in the establishment of specific institutions. By contrast, other education experts used international exhibitions in a much more focused way to appropriate European features in technical education. At the same time, American education experts made strong efforts to improve the quality of education at the lower levels. In fact, the introduction of practical elements into the curriculum of primary and secondary schools profoundly changed the character of schooling in the United States.

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<sup>544</sup> HOYT, John W., *Report on education*, Washington, Government Printing Office, 1870, p. 389-398. The final paragraph is worth being reproduced for its programmatic character: "It thus appears that university education, notwithstanding its present low condition in most countries, and its serious imperfections in all, is characterized by tendencies that promise great things for the time to come. So much is already beyond question, namely, that the university of the future is to be not the mere college of America nor even the college supplemented by one or more poorly organized and more poorly equipped professional schools; not that loose aggregation of grammar schools, supplemented by a few poorly attended courses of university lectures, that wear the title, by courtesy, in England; not the French grouping of academical faculties, limited – especially in the departments of letters and science – to a quite too narrow field of study; not the university of Spain, or Portugal, or Italy, from whose faculties for the higher general culture the powers of attraction and inspiration have long since departed; not the Scandinavian or Slavonian university, cast in the mold of mediaeval times, or at the best a mixture of the old and more modern types; nor yet the Germanic university, found, with but minor modifications, in all the States of Germany, in Austria, Switzerland, Holland, and Denmark, and which, though wherever found it resents the highest existing type, is nevertheless everywhere too limited in scope and generally too lax in its regulations – not any of these, but rather an institution more ample in its endowment, broader in its scope, more complete in its organization, more philosophical and practical in its internal regulations, and certainly not less high than the highest in all its educational standards; an institution above and beyond the best of the gymnasia, Latin schools, high schools, academies, and colleges, and, on its own higher plane, existing for the extension and diffusion of all branches of knowledge; a broad and noble institution, where the love of all knowledge, and of knowledge as knowledge, shall be fostered and developed; where all departments of learning shall be equally honored, and the relations of each to every other shall be understood and taught; where the students devoted to each and all branches of learning, whether science, language, literature, or philosophy, or to any combinations of these constituting the numerous professional courses of instruction, shall intermingle and enjoy friendly intercourse as peers of the same realm; where the professors, chosen, as in France and Germany, after trial, from among the ablest and best scholars of the world, possessed of absolute freedom of conscience and of speech, and honored and rewarded more nearly in proportion to merit, shall be, not teachers of the known merely, but also earnest searchers after the unknown, and capable, by their own genius, enthusiasm, and moral power, of infusing their own lofty ambition into the minds of all who may wait upon their instruction; a university not barely complying with the demands of the age, but one that shall create, develop, and satisfy new and unheard-of demands and aspirations; that shall have power to fashion the nation and mold the age into its own grander ideal; and which, through every change and every real advance of the world, shall still be at the front, driving back from their fastnesses the powers of darkness, opening up new continents of truth to the grand army of progress, and so leading the nation forward, and helping to elevate the whole human race. Such an institution would be to the world its first realization of the true idea of a university."

## 1. The Land Grant Movement – John Milton Gregory and the First Years of Illinois Industrial University

In the middle of the nineteenth century technical instruction in the United States was far less developed than in Europe. Few institutions had been created to that date. The Morrill Act, passed by Congress in July 1862, tried to change this situation. According to this act, each state received public land from the federal government. The revenues from these lands had to be spent on colleges of agriculture, mechanical arts and military sciences. As a result of this so-called land-grant movement, colleges were established throughout the Union.<sup>545</sup> One of the most famous of these new institutions was Cornell University, the land grant college of the state of New York. Its dynamic development was due to its founders, Andrew D. White (1832-1918) and Ezra Cornell (1807-1874). Their pedagogical and scientific vision, as well as their financial skills, made Cornell University one of the most successful land grant colleges. It was founded in 1865 and opened to students three years later. Previous research has focused on Cornell University and its president, also in a transnational perspective.<sup>546</sup> In the following lines the focus is on another land-grant institution, Illinois Industrial University, today's University of Illinois at Urbana-Champaign, and its first president, John Milton Gregory (1822-1898) who actively participated in world exhibitions.

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<sup>545</sup> NIENKAMP, Paul, *A culture of Technical Knowledge: Professionalizing Science and Engineering Education in Late-Nineteenth Century America*, PhD dissertation, Iowa State University, 2008; WILLIAMS, Roger, *The Origins of Federal Support for Higher Education: George W. Atherton and the Beginnings of Federal Support for Higher Education*, University Park, Pennsylvania State University Press, 1991.

<sup>546</sup> STRUPP, Christoph, « Auf der Suche nach der neuen Form: Andrew Dickinson White, Gründungspräsident der Cornell-University », in: LÖSER, Philipp, STRUPP, Christoph (eds), *Universität der Gelehrten - Universität der Experten: Adaptionen deutscher Wissenschaft in den USA des neunzehnten Jahrhunderts*, Stuttgart, Steiner, 2005, p. 53-70. But see Andrew D. White's report from the Paris 1878 exposition in which he praised the new *Ecole libre des sciences politiques*: WHITE, Andrew D., « The Provision for Higher Instruction in Subjects Bearing Directly upon Public Affairs », *Reports of the United States Commissioners to the Paris Universal Exposition, 1878. Published under direction of the secretary of state by authority of congress*, Washington D.C., Government Printing Office, 1880, vol. 2, p. 349-381.

Gregory was born in upstate New York and received a classical college education at Union College in Schenectady. After graduation in 1846 he became a Baptist clergyman, but soon decided to make a career in the field of education. Gregory went to Michigan where he worked his way up to the superintendence of public instruction in 1858. He held this position for five years before becoming the president of Kalamazoo College from 1863 to 1867. Subsequently, Gregory became the first regent<sup>547</sup> of Illinois Industrial University, founded as one of the land grant colleges.<sup>548</sup> Gregory held this position until 1880. The shift from a classical college instruction in his youth to new educational ideals during his later career was typical for a range of educators of this period.

Gregory considered himself a cosmopolitan and spoke fluent French and German. He was concerned about winning public acceptance and support for his university. In the late 1860s opposition to the new tax-funded university was harsh. Opposition notably came from the agriculturalist farmer fraction. As Gregory's biographer noted, these critics "disposed of the range of experience of the practical prairie farmer" and thought that only practical experience could train a farmer.<sup>549</sup> The historian Harry A. Kersey has identified "a strong resurgence of anti-intellectualism, provincialism, and narrow economic interest as represented by the farmers' movement" as having retarded the development of Illinois Industrial University during its first years.<sup>550</sup> However, Gregory aimed at theoretically founded experimentation and research, supplemented by components of a liberal arts college.

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<sup>547</sup> In the first years of the existence of Illinois Industrial University the president was called regent.

<sup>548</sup> KERSEY, Harry A., *John Milton Gregory and the University of Illinois*, Urbana, University of Illinois Press, 1968. During the first years of the university's existence the president was called regent in order to stress the non-hierarchical character of the institution.

<sup>549</sup> GREGORY, Allene, *John Milton Gregory. A Biography*, Chicago, Covici-McGee, 1923, p. 163-164.

<sup>550</sup> KERSEY, *John Milton Gregory*, p. 131.

Thus, pedagogical questions became closely linked to social issues and this type of confrontation was not unique to Illinois Industrial University.

Gregory travelled to Europe several times in order to learn about the organisation of technical education because he considered its agricultural and industrial education the most developed. Two years after accepting the position of president at Illinois Industrial University, in May 1869, Gregory sailed to Europe where he spent four months. Gregory visited educational institutions in England, France, Germany, Switzerland, Russia and Belgium. He regarded Germany as the leader in industrial education where he appears to have had “prolonged interviews with Baron [Justus von] Liebig” during his stay in Munich.<sup>551</sup> Gregory met the German chemist several times in his library. The two men discussed issues of higher education policy. Liebig seems to have advised him that high standards of industrial education were necessary to improve the general standing of this kind of institutions and to produce good results in research and teaching. He convinced Gregory that the training of agricultural experts and civil engineers had its place at universities. Liebig also insisted on the socio-economic relevance of agricultural and industrial research in supporting the economy.<sup>552</sup> Just as Gregory’s encounter with Liebig was crucial for the evolution of his ideas about technical education, Liebig’s disciple Eben Norton Horsford (1818-1893), who became a professor at the Lawrence Scientific School of Harvard College, played an important role in introducing modern chemistry to the United States.<sup>553</sup>

As a consequence of his German encounters, wood and iron work was introduced to the course of study for engineers at Illinois Industrial University in 1870. The

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<sup>551</sup> Ibid., p. 163.

<sup>552</sup> On Liebig’s fertiliser see VOGEL, Jakob, *Ein schillerndes Kristall: eine Wissensgeschichte des Salzes zwischen Früher Neuzeit und Moderne*, Köln, Böhlau, 2008, p. 330-356.

<sup>553</sup> REZNECK, Samuel, « The European Education of an American Chemist and Its Influence in the 19th-Century America: Eben Norton Horsford », in: *Technology and Culture*, 11, 3, 1970, p. 360-388. Horsford was also a commissioner to the Vienna exhibition where he prepared a report on bread.

university also established a new chemistry laboratory. Furthermore, Gregory's experience in Germany turned him into a strong supporter of an elective course of study. Both in numerous articles in local newspapers and in speeches did the Illinois educator try to disseminate his experience to a larger public and to promote scientific agriculture. Gregory deliberately used references to foreign models to strengthen his position both institutionally, as regent of Illinois Industrial University, and academically, as a promoter of a state of the art industrial and agricultural higher education.

In March 1873 Gregory once again left the American continent for Europe. At this time, Gregory was an American commissioner to the world exhibition in Vienna marking another important occasion for meeting educational experts and visiting educational institutions. The exposition impressed the commissioner:

“The exhibitions of Belgium, France, Switzerland and England [...] point in the same direction. They show conclusively the large public interest in the work of the education of the people, especially in the practical and scientific departments. Indeed, this entire World's Fair is as much an exhibition of world's education as of the world's industries; and we shall see with what scientific thoroughness these European governments will cause it to be analyzed and described by their scientific commissioners. It is by no means a simple display of national vanity, of competition for a few prizes. It is a school of the world's arts, and its lessons are being read by sharp eyes and recorded by sharp pens [...].”<sup>554</sup>

John Eaton, the United States Commissioner of Education, sent letters of introduction for Gregory's use from Washington DC to Vienna. The letters were written to give him access to the *Eidgenössische Technische Hochschule* in Zurich, as well as to the ministries of education in Berlin, Munich, Dresden, Brussels, Den Haag, Rome, Paris and London.<sup>555</sup> After his return to Illinois, Gregory published articles in which he discussed the educational exhibits of the *Weltausstellung* and

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<sup>554</sup> GREGORY, *John Milton Gregory*, p. 263-264.

<sup>555</sup> NARA, Microfilm M-635, Film 3.

European industrial education combined with more general observations on politics and society in Europe.

Subsequently, Gregory was a jury member at the Centennial Exhibition in Philadelphia in 1876. In this role he wrote an official report.<sup>556</sup> He had been actively engaged in preparing an exhibit of Illinois Industrial University for the Centennial. The regent also participated in the International Congress on Education which took place on the exhibition grounds. He regretted not being able to meet Franz Reuleaux, the director of the *Gewerbeakademie Berlin* who, contrary to prior notice, did not attend the congress. Instead of Reuleaux, Gregory himself ended up speaking about technical schools in Europe.<sup>557</sup>

In 1878 Gregory was appointed Illinois commissioner to the Paris exhibition. In this role he prepared a volume on the state of Illinois to be presented to a European audience. It included a chapter on the schools of the state. Gregory being one of the authors, it was obvious that Illinois Industrial University had a prominent place in this volume. The regent stressed the polytechnic character of this only “official” (state-sponsored) institution of higher learning in Illinois with its faculties ranging from agriculture and mechanical arts to the humanities. He proudly reported that the university had won medals at the Centennial Exhibition and was now sending students’ works to Paris. The buildings of the university were also a source of pride, especially the new chemistry laboratory which, as described in the brochure, was one of the biggest of the United States.<sup>558</sup> The exhibit of Illinois Industrial University won a gold medal in Paris and, in the view of John D. Philbrick, the United States

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<sup>556</sup> GREGORY, John M., «Leading Features of the Educational Exhibit», in: *United States Centennial Commission. International Exhibition, 1876. Reports and Awards. Volume 8. Groups XXVIII-XXXVI, and Collective Exhibits*, Washington, Government Printing Office, 1880, p. 267-275.

<sup>557</sup> *International Conference on Education: Held at Philadelphia, July 17 and 18: in Connection with the International Exhibition of 1876*, Washington, Government Printing Office, 1877, p. 78-79.

<sup>558</sup> GREGORY, J. M., KEITH, O. R., *L'Illinois. Sa position géographique, son étendue, son histoire, ses écoles, ses ressources, son agriculture, et sa grande ville de Chicago*, Chicago, Knight et Leonard, 1878, p. 40-41 on Illinois Industrial University.

commissioner of the educational section, it was the most complete of all American institutions of higher learning.<sup>559</sup>

The commissioner also wrote a report on education at this exhibition. For him as an American nothing was more striking than the abundance of schools of scientific and practical instruction in France: “Among the features of the French system worthy of imitation we notice [...] the constant practical character of French instruction.”<sup>560</sup>

Thus, Gregory wanted to supplement the existing features of American education with the practical and industrial elements he found in Europe:

“In our own land, the need for these schools has scarcely as yet been felt, and their importance is not yet recognized. Immigration has brought us skilled labor from Europe, and our own common schools have made their pupils quick to master mere manual processes. But the time is at hand if not already upon us, when both for the sake of the workers and of the work we shall need to bring all the forces of education in its most practical forms to the aid of our struggling industries. It is worth while, therefore, to notice with some particularity the system of practical instruction in France.”<sup>561</sup>

A detailed description of the practical schools of France followed. Gregory was a disseminator and populariser in the American Midwest of ideas developed elsewhere.<sup>562</sup> Naturally, he was interested in strengthening his own institution, Illinois Industrial University, and in advancing education in Illinois and the American Midwest. Gregory used his trips to world exhibitions systematically for getting in contact with experts who were susceptible of offering relevant knowledge. Transfers from Europe allowed him to provide his university with a scientific foundation. Gregory’s appropriation efforts thus went as far as the third and fourth phases of cultural transfers outlined in the introduction. At the same time Gregory

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<sup>559</sup> *Reports to the General Assembly of Illinois at Its Thirty-First Regular Session Convened January 8, 1879*, Springfield, Weber & Co., 1879, vol. 4, part H, p. 15.

<sup>560</sup> GREGORY, John M., KEITH, Osborn R., *Report on the Paris International Exposition of 1878*, Springfield, Weber & Co., 1879. The report is reprinted in *Reports to the General Assembly of Illinois at Its Thirty-First Regular Session Convened January 8, 1879*, Springfield, Weber & Co., 1879, vol. 4, part H, p. 38-39.

<sup>561</sup> *Ibid.*, p. 44-45.

<sup>562</sup> KERSEY, *John Milton Gregory*, p. 217.

took part in the debate on the American university. Although he used reference to Europe to combat his anti-intellectual opponents, Gregory promoted a practical vision of higher education serving the people of the state, as opposed to humanistic tradition or pure theoretical research.

## **2. “American Education Was Never the Same Thereafter” – John D. Runkle and Manual Training in College Education**

Two other American educators, John D. Runkle (1822-1902) and Calvin M. Woodward (1837-1915), have been the object of extensive research. Numerous contemporary and historiographic accounts describe their encounter with the so-called Russian system of industrial instruction at the Centennial exhibition. In Vienna, American educators had already observed the exhibit of the Russian polytechnic schools. However, this first encounter did not create the same enthusiasm as the one three years later in Philadelphia. Thus, in 1961 the historian Lawrence Arthur Cremin wrote:

“It is said that John D. Runkle of the Massachusetts Institute of Technology was strolling through Machinery Hall one day when he happened upon the Russian display cases. American education was never the same thereafter.”<sup>563</sup>

Runkle had graduated from the Lawrence Scientific School at Harvard College, later becoming a professor of mathematics at the Massachusetts Institute of Technology. The Institute was granted in 1861 and opened for students four years later. Runkle served as its president from 1868 to 1878.

One of Runkle’s tasks was to train young engineers. However, he lacked a method to teach students the manual skills necessary to carry out complex projects. Runkle recalled the experiences in the Institute’s chemistry department. His colleagues there had found that text-book based instruction was almost worthless unless accompanied

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<sup>563</sup> CREMIN, Lawrence Arthur, *The transformation of the school: progressivism in American education, 1876-1957*, New York, Knopf, 1961, p. 25.

by laboratory work. But a small professional laboratory was ill-adapted to accommodate relatively inexperienced students. Laboratories were expensive and could accommodate only few students. The solution in the chemistry department had been to arrange new and bigger laboratories in which one instructor could teach large classes. Runkle had not yet found a solution for mechanical engineering, his own field of specialisation, however: “We went to Philadelphia, therefore, earnestly seeking for light.”<sup>564</sup> For Runkle, the question of overriding importance was: “Can a system of shop-work instruction be devised of sufficient range and quality, which will not consume more time than ought to be spared from the indispensable studies?”<sup>565</sup> The world exhibition inspired the president of the Institute: “This question has been answered triumphantly in the affirmative, and the answer comes from Russia.”<sup>566</sup>

It might seem surprising that one of the best polytechnic schools of that time was based in Russia, which was still predominantly an agricultural society. The Russian state had invested in higher technical education since the beginning of the nineteenth century, largely following the French model. This was part of a strategy to catch up with industrialising countries.<sup>567</sup> Victor Karlovich della Voss (1829-1890), director of the Moscow Imperial Technical School established in 1868, invented the so-called

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<sup>564</sup> RUNKLE, John Daniel, *The Russian system of shop-work instruction for engineers and machinists*, Boston, Kingman, 1876, p. 5.

<sup>565</sup> Ibidem.

<sup>566</sup> Ibidem.

<sup>567</sup> BRADLEY, Margaret, « Franco-Russian Engineering Links: Career of Lamé and Clapeyron, 1820-1830 », in: *Annals of Science*, 38, 1981, p. 291-312; GOUZEVITCH, Irina, « Technical higher education in nineteenth-century Russia and France: Some thoughts on a historical choice », in: *History and Technology*, 12, 2, 1995, 109-117; GOUZEVITCH, Irina, *Le transfert du savoir technique et scientifique et la construction de l'Etat russe (fin du XVe-début du XIXe siècle)*, sous la direction d'André Guillerme, thèse de doctorat, histoire des techniques, Paris 8, 2001; PANNABECKER, John R., « Industrial Education and the Russian System: A Study in Economic, Social and Technical Change », in: *Journal of Industrial Teacher Education*, 24, 1986, p. 19-31; PLOGHAUS, Günter, *Die Lehrgangsmethode in der berufspraktischen Ausbildung: Genese, internationale Verbreitung und Weiterentwicklung*, Bielefeld, Bertelsmann, 2003; SCHURTER, W. J., *The development of the Russian system of tool instruction (1763-1893) and its introduction into U.S. industrial education programs (1876-1893)*, PhD dissertation, University of Maryland, 1982.

Russian system of tool instruction.<sup>568</sup> This pedagogical method was an important innovation in technical instruction. It provided a method whereby mechanical processes might be abstracted, systematised and efficiently taught. The Russian government presented these schools with great pride at international exhibitions.<sup>569</sup>

Runkle got to know della Voss and henceforth spoke of the ‘Russian system of tool instruction’. Runkle fully recognised its potential and believed that he had found a solution to his own concerns in the exhibit of the Imperial Technical School of Moscow. Instruction followed a logic of graduation. Students learned to handle projects step by step, from easy to difficult tasks. Instruction was completely separated from construction. In the Moscow school shop work was done for educational purposes only. The products of the work were not commercialised. For Runkle, the Russian system was a revolution in the methodology of technical instruction. He saw in it the true and philosophical key to industrial education. It showed how to teach the mechanical arts in a systematic way. It appealed to Runkle for the following reasons:

“The ideas involved in the system are, first, to entirely separate the *art* from the *trade*, – the *instruction*-shops form the *construction*-shops; second, to teach each art in its own shop; third, to equip each shop with as many places and sets of tools and thus accommodate as many pupils as the teacher can instruct at the same time; fourth, to design and graduate the series of samples to be worked out in each shop on educational grounds; and, fifth, to adopt the proper tests for proficiency and progress.”<sup>570</sup>

Besides della Voss, Runkle met the professors Aeschlimann and Petroff who were in charge of the exhibit at the Centennial. The brochure prepared by the Russian

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<sup>568</sup> The most concise description of Runkle’s and Woodward’s transfers from the Centennial and their implication for American education is KNOLL, M., « Calvin M. Woodward und die Anfänge der Projektmethode. Ein Kapitel aus der amerikanischen Erziehungsgeschichte, 1876-1900 », in: *Zeitschrift für Pädagogik*, 32, 1988, p. 501-517.

<sup>569</sup> On the participation of Russia at the Centennial Exhibition generally see FISHER, David C., « Westliche Hegemonie und russische Ambivalenz: Das Zarenreich auf der Centennial Exposition in Philadelphia 1876 », in: *Comparativ*, 9, 5/6, 1999, p. 44-60. Fisher saw Russia as a peripheral participant that merely reacted to Western modernity (p. 47).

<sup>570</sup> RUNKLE, John Daniel, *The Russian system of shop-work instruction*, p. 6.

polytechnic schools was also instructive for the American educator.<sup>571</sup> Runkle cited this material extensively in his speeches and publications. He even became a honorary member of the pedagogical council of the Moscow Polytechnic School.<sup>572</sup> Runkle secured for the Massachusetts Institute of Technology important parts of the Russian exhibit. Based on these materials, he planned to establish workshops in his new school.

Immediately after he returned from the Centennial, Runkle founded a school of mechanical arts which was officially established on 17 August 1876. He first needed to create the material conditions to prepare his workshops. Runkle asked the following questions that guided his work of appropriation: which tools were to be used during the course? How many students could be taught in one section? How should the workshop be arranged to give each student sufficient space and facilities? As it turned out, the majority of workshops were suitable for sixteen students. Runkle also needed to develop a course of study. He called upon the specialised instructors who were to find appropriate teaching methods through experimentation. Runkle also had to establish modes of evaluation. In the spring of 1877 the school finally admitted its first students.

Runkle's School of Mechanical Arts comprised several workshops for woodwork (carpentry, joinery, wood-turning and pattern-making) and ironwork (vice-work, forging, foundry work, machine-tool work). The school was aimed at training students who wished to pursue an industrial career, rather than those wanting to become academic engineers. Nine hours per week were dedicated to shopwork while a further nine hours were devoted to subjects such as freehand drawing.

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<sup>571</sup> VOSS, Victor della, *Description of the Collections of Scientific Appliances Instituted for the Study of Mechanical Art in the Workshops of the Imperial Technical School of Moscow*, Moscow, 1876.

<sup>572</sup> RUNKLE, John Daniel, *The Manual Element in Education*, Boston, Rand, Avery, & Co., Printers to the Commonwealth, 1882, p. 10.

According to Runkle the Imperial Polytechnic School of Moscow had the “leading place in any list of schools giving mechanic art education”.<sup>573</sup> Besides his own Institute in Boston, Runkle discussed in a report of 1883 the following schools which had also introduced the Russian method: the Royal Mechanic Art School in Komotau, Bohemia, mechanic art instruction at the State College in Orono, Maine, and the Department of Mechanic Arts of Purdue University, both in the United States. Additionally, during his trip to the Paris exposition of 1878 Runkle had visited three French schools which applied a similar method: the *Ecole communale rue Tournefort* and the *Ecole municipale d’apprentis, boulevard de la Villette*, both in Paris, as well as the *Ecole d’apprentis* at Chalons-sur-Marne. Runkle also referred to the Royal Agricultural and Forestry Academy at Hohenheim and the Pomological and Horticultural School in Reutlingen, both in Württemberg, which he believed had adopted a similar model. However, during his travels to Europe in the early 1880s Runkle increasingly criticized what he regarded as the excessively theoretical orientation of German institutions of technical instruction. He was further critical about too many elective elements in the curriculum.

Runkle arranged for an exhibit of the Russian system of tool instruction at the NEA annual meeting of 1877 aiming at spreading his knowledge in the United States.<sup>574</sup> Runkle published various books and articles on the Russian and other European technical colleges. His encounter at the Centennial had a decisive impact on many institutions founded in the United States in the subsequent years which built on Runkle’s experience.

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<sup>573</sup> *Industrial Education in the United States. A Special Report Prepared by the United States Bureau of Education*, Washington, Government Printing Office, 1883, p. 7.

<sup>574</sup> KLIEBARD, Herbert M., *Schooled to work: vocationalism and the American curriculum, 1876-1946*, New York: Teachers College Press, 1999, p. 5.

Runkle, aware of the need to expand higher technical education, searched ways to instruct his students. He received a decisive impulse at the Centennial exhibition. Afterwards Runkle engaged in extensive contacts with his Russian colleagues. He implemented new laboratories as a direct consequence of his contact with the Russian school officials in Philadelphia. Runkle's efforts materialised in new institutions and new pedagogical practices and thus advanced until the fourth phase of cultural transfers. Runkle was a key education expert for the introduction of school culture to the United States. He stressed the practical dimension of higher education. It is due to him that the training of engineers in higher education was standardised and made useful to higher numbers of students.

### **3. Towards a Wholesome Education of Youths – Calvin M. Woodward and Manual Training in High School Education**

Alongside Runkle, Calvin M. Woodward was another visitor to the Centennial who was inspired by the Russian displays. Whereas Runkle acted at the college level, Woodward introduced manual elements into high school education. Born in Massachusetts, Woodward attended Harvard College. After graduation he held positions in various high schools and colleges. His career led him to St. Louis where he became professor of descriptive geometry and later dean of the Polytechnic School at Washington University. There he made first experiments with manual training.<sup>575</sup> Woodward turned into a critic of the public school system with its ideal of gentlemanliness.<sup>576</sup>

Woodward visited the Centennial Exhibition and saw the exhibit of the Imperial Polytechnic School of Moscow. As in Runkle's case, the exhibit made a strong impression on the educator from St. Louis:

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<sup>575</sup> DYE, Charles M., « Calvin Woodward and the Development of Polytechnic Education at Washington University », in: *Missouri Historical Society Bulletin*, 34, 1, 1977, p. 17-31.

<sup>576</sup> On the American high school see REESE, William J., *The origins of the American high school*, New Haven/London, Yale University Press, 1995.

“[The Russian exhibit at Philadelphia] showed with remarkable fullness and logical arrangement the true educational method of tool-instruction. It presented, clear-cut and definite, what before had been ill-defined or unthought of.”<sup>577</sup>

Woodward used the knowledge acquired at the Centennial Exhibition in order to build up his own school within the institutional framework of Washington University. The St. Louis Manual Training High School was established in June 1879 and started its classes in September 1880.<sup>578</sup> In a monograph published in 1887, Woodward described his school and outlined his educational philosophy. Woodward argued that this type of school was completely new, as earlier experiments were either higher schools of technical instruction (as Runkle’s Institute) or trade schools that trained workers. Instead he saw his school as “a large school for general education on a new and clearly defined plan”.<sup>579</sup> This scope also distinguished it from the European examples cited by Runkle. Woodward insisted that students in the St. Louis Manual Training School should not manufacture products for sale. Neither did the school prepare youth for a particular profession or job.<sup>580</sup>

In an address to the National Teachers Association in Saratoga Springs in July 1883 Woodward outlined his educational philosophy. He underlined that manual training did not mean a narrow concentration on a particular trade: “That, or very nearly that, is what is done in the great majority of European trade-schools. They have no place in our American system of education.”<sup>581</sup> Instead, “manual” – for Woodward – was synonymous with liberal education. In his estimation, liberal education comprised at once manual, literary and intellectual elements. He announced that “when the manual elements which are essential to a liberal education

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<sup>577</sup> WOODWARD, C. M., *The manual training school, comprising a full statement of its aims, methods, and results, with figured drawings of shop exercises in woods and metals*, Boston, D. C. Heath & Co., 1887, p. 3-4.

<sup>578</sup> *Ibid.*, p. 5, 9. See also COATES, Charles Penney, *History of the Manual Training School of Washington University*, Washington, Government Printing Office, 1923.

<sup>579</sup> WOODWARD, C. M., *The manual training school*, p. 7-8.

<sup>580</sup> *Ibid.*, p. 194.

<sup>581</sup> *Ibid.*, p. 202.

are universally accepted and incorporated into American schools, the word ‘manual’ may very properly be dropped”.<sup>582</sup> Woodward argued that education without manual training was like a two-legged stool and lacked stability. The new education comprising manual, literary and intellectual elements, by contrast, was “steady on the roughest ground”.<sup>583</sup>

Woodward was convinced that manual training would lead boys to stay at school longer, at a time when most students of high schools were girls. Manual training would allow them to better develop intellectually and to receive a more complete moral education. Woodward went on to argue that manual training would also lead youth to adopt a sounder judgement of men and objects. Furthermore, it facilitated a more conscious and appropriate choice of occupations. Manual training guaranteed, in the eyes of Woodward, material success for the individual and the community. Finally, through manual training, manual occupations and their status in society could be elevated from the realm of mere physical labor to a position requiring and rewarding cultivation and skill, providing a solution to labour problems.

Woodward was not interested in preparing students for jobs. He saw manual training as part of general education. In the same way that textbook instruction formed the intellect, manual training was to form the hands and contribute to a more complete development of the child. His aim was to integrate manual training into the high school curriculum. Woodward often referred to the Russian and other European schools. In his writings, however, he took a critical view of European institutions which he described as influenced by aristocratic – but in fact rather middle class – traditions. Woodward was keen to adopt European methods, but not the underlying political ideologies. Manual training should lead to a more democratic society, he

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<sup>582</sup> Ibidem.

<sup>583</sup> Ibid., p. 203.

argued. He was particularly opposed to the segregation of students according to social class, as in Europe. In his view, in an industrialised society, the curriculum should provide distinctively modern features and provide elements that would interest every child.

In 1884, Calvin M. Woodward travelled to the International Health Exhibition in London where he presented his institution to a European audience. At a conference in Manchester in 1885, he gave a speech on “Manual Training in General Education.”<sup>584</sup> In total, he spent several months in Europe on an observation and inspection tour visiting schools of higher and lower grades. Woodward remarked that in England little had been done in the direction of manual training. In France, by contrast, manual training was firmly established. Woodward visited the lower and higher institutions in Paris and other parts of France. He also travelled in Germany. He visited both, polytechnic schools of higher grades, that in his experience often possessed deficient laboratories, and the trade schools for the training of workers. “But manual training of a broad character is not to be found in Germany to any extent”, he argued.<sup>585</sup>

Generally, Woodward was disillusioned with what he saw in Europe and which seemed to confirm his prior assessment. This reconfirmed his own approach which he henceforth called the American method of manual training:

“Unless I am greatly in the wrong, our American idea of manual training has a feature of general education, not for a trade or a profession, but for the healthy growth and vigor of all faculties, for general robustness of life and character, is far in advance of any model in a foreign land. I am not of those who think it indicative of fine breeding to decry American institutions, and laud extravagantly those of distant countries which will not bear transplanting.

The manifest inferiority of schools when actually visited, and compared with their world-wide reputations, is almost painful. The only school of a manual character I

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<sup>584</sup> Ibid., p. 179.

<sup>585</sup> Ibid., p. 331.

visited in Europe which surpassed my expectations was the French government school at Chalons; with all others I was disappointed.<sup>586</sup>

The Manual Training School attached to Washington University was a model school and made Woodward a pioneer in the manual training movement. Other educators subsequently referred to it. Thus, Charles H. Ham wrote about the Manual Training School of Chicago which opened in 1884. Ham's conceptualization of manual training was similar to Woodward's. In his book *Manual Training. The Solution of Social and Industrial Problems* Ham referred frequently to international expositions, Runkle and Woodward.<sup>587</sup> For example, Ham cited from Runkle's report in which the president of the Massachusetts Institute of Technology discussed the relevance of the Russian exhibit. Ham even reproduced portraits of della Voss and Runkle in his book. In 1885 the city of Baltimore also created a manual training high school. James MacAlister (1840-1913) was the director of a similar school in Philadelphia. This demonstrates that Woodward's school in St. Louis, as well as his reporting on it, was constantly referred to by fellow American educators and influenced the evolution of manual training in the United States.

As in Runkle's case, Woodward's appropriation and institutionalisation efforts advanced until the fourth phase of Middell's model and resulted in a new institution, although the direct impact of the Centennial Exhibition is more difficult to trace in this particular case. Woodward adopted the Russian method of workshop instruction as a feature of the pedagogical organization in secondary education. But Woodward transplanted it to a completely different social setting and pursued different ends. Contrary to the Russian and French schools, manual training for Woodward did not

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<sup>586</sup> Ibid., p. 334.

<sup>587</sup> HAM, Charles H., *Manual Training. The Solution of Social and Industrial Problems*, New York, Harper, 1886.

serve specialised purposes, such as the training of engineers and workers, but was an essential part of the general education of youth.

#### **4. Adapting to an Industrialised Society – Industrial Drawing as a Part of Primary Education**

European education experts judged industrial design and drawing in the United States as insufficient during the 1870s.<sup>588</sup> Americans themselves were well aware of this situation. At the Centennial, almost all the writers who proudly depicted the performances of the common school system were aware of American backwardness regarding more specialised education.<sup>589</sup> The most important feature of technical education relevant for primary schools was industrial drawing.

Discussing the introduction of technical education in the United States, an article in the 1870 annual report of the St. Louis public schools made numerous allusions to Europe. It referred mostly to Hoyt's report from the 1867 exposition which cited at length the description of European technical schools. In its concluding paragraph the article stressed the extent to which the upcoming American technical education would differ from its European model. American public schools provided "education of the people as people":

"In making out our course of instruction with reference to the scientific wants of this community we must not lose sight of the fact that the laborer here is a member of civil society and of the body politic, in a sense different from the laborer in Europe. We can never afford to sink the man in the laborer."<sup>590</sup>

The Vienna exhibition provided an opportunity to get to know how to adapt education to these scientific needs, but not to the underlying class divisions.

Americans translated the exhibition report of Joseph Langl (1843-1916) who was an

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<sup>588</sup> See for example WEDDING, Hermann, *Mitteilungen über die technische Erziehung in Nord-Amerika*, Berlin, Nicolai, 1877.

<sup>589</sup> GILMAN, Daniel Coit, « Education in America, 1776-1876 », in: *North American Review*, 122, January 1876, p. 191-228, here p. 227.

<sup>590</sup> *Sixteenth Annual Report of the Board of Directors of the St. Louis Public Schools, for the Year Ending August 1, 1870*, St. Louis, Plate, Olshausen and Co., 1871, p. 112.

Austrian commissioner in charge of an official report on art and drawing education.<sup>591</sup> Charles B. Stetson (1831-1878) wrote an “American preface” to the volume. Stetson outlined a vision that would eventually be implemented. Concerning popular art education for industrial purposes in primary schools he started his introduction as follows: “Some believe it is a mere educational spasm which will soon pass away; others that it is only the beginning of what we are to see, – of a new era in education.”<sup>592</sup> The latter option would turn out correct. Stetson argued that American common schools, as they had been created half a century earlier, had been teaching exclusively general culture. Now it seemed necessary to introduce industrial subjects. The schools of Europe, according to Stetson, were the example to follow: “How munificent the expenditures for this purpose by European governments!”<sup>593</sup>

Stetson was concerned with the position of the United States in the global economy. A better trained workforce should make the nation more independent from immigration and importation, to “become a vastly greater manufacturing people”.<sup>594</sup> This would only be possible through decisive efforts in education for industrial purposes, Stetson argued with reference to Hoyt’s report on the 1867 exposition. Stetson systematised his thoughts on technical education in a monograph.<sup>595</sup> Later, Stetson also visited the Centennial Exhibition and the Paris exposition of 1878 from where he reported on drawing instruction.<sup>596</sup>

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<sup>591</sup> LANGL, Joseph, *Der Zeichen- und Kunstunterricht*, Wien, 1873.

<sup>592</sup> LANGL, Joseph, *Modern Art Education: Its Practical and Aesthetic Character Educationally Considered. Being Part of the Austrian Official Report on the Vienna World’s Fair of 1873. Translated with note by S. R. Koehler. With an Introduction by Charles B. Stetson*, Boston, L. Prang, 1875, p. iii.

<sup>593</sup> *Ibid.*, p. iv.

<sup>594</sup> *Ibid.*, p. xviii.

<sup>595</sup> STETSON, Charles B., *Technical Education, What It Is: and What American Public Schools Should Teach: an Essay Based on an Examination of the Methods and Results of Technical Education in Europe, as Shown by Official Reports*, Boston, Prang, 1874.

<sup>596</sup> STETSON, C. B., « Popular Instruction in Elementary Drawing », in: *United States Centennial Commission. International Exhibition, 1876. Reports and Awards. Volume 8. Groups XXVIII-XXXVI, and Collective Exhibits*, Washington, Government Printing Office, 1880, p. 275-307. See also the report on manual training JEWETT, Eliot C., « Manual Training Schools Represented at the

Many other American reports referred to European technical education similarly, mostly taking the French schools as examples, but warning that education should not restrict the future prospects of youths to manual professions.<sup>597</sup> Even the late common school crusaders visited institutions of technical education in several European countries in order to draw conclusions for their own states, as did James P. Wickersham during his trip to the 1878 exposition.<sup>598</sup>

Within the United States, Massachusetts was a forerunner for the instruction of industrial drawing.<sup>599</sup> The city of Boston engaged the Englishman Walter Smith to advance this kind of instruction in the city.<sup>600</sup> John D. Philbrick, the man who inspired French education experts so much, also recognised the importance of industrial drawing, referring to the French example.<sup>601</sup> Philbrick had essentially persuaded Smith to come to Boston. The fact that Boston officials employed a European expert already reveals the contemporary geography of excellence in this field of instruction, although Smith was not French but English. Smith had visited world exhibitions before, building up his own competence in this field.<sup>602</sup> He had been professor at the Leeds School of Art and Science. Drawing was made a

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Exposition », *Reports of the United States Commissioners to the Paris Universal Exposition, 1878. Published Under Direction of the Secretary of State by Authority of Congress*, Washington D.C., Government Printing Office, 1880, vol. 2, p. 383-415.

<sup>597</sup> See for example BRADLEY, John E., *Report to the Legislature of the State of New York on the educational exhibits at the Paris exposition of 1878, and the application of art to industry*, Albany, C. Van Benthuysen & Sons, 1879.

<sup>598</sup> WICKERSHAM, James Pyle, *A history of education in Pennsylvania, private and public, elementary and higher. From the time the Swedes settled on the Delaware to the present day*, Lancaster, Inquirer Publishing Company, 1886, p. 581.

<sup>599</sup> O'CONNELL, Kathryn D., *Industrial education in Boston, 1870-1890: a case study in curricular change*, PhD dissertation, University of Wisconsin, 1975.

<sup>600</sup> John D. Philbrick played a crucial role in the hiring of Walter Smith. See DUNTON, Larkin, *A Memorial of the Life and Services of John D. Philbrick*, Boston, New England Publishing Co., 1887, p. 44.

<sup>601</sup> PHILBRICK, John D., *City School Systems in the United States*, Washington, Government Printing Office, 1885, p. 69-89.

<sup>602</sup> SMITH, Walter, *Prize Report on the Art Educational Section of the Paris Exhibition of 1867: with Notes on the Various Systems of Art Education Illustrated Therein; and Suggestions for the Advancement of Technical Instruction in England, by the Establishment in Provincial Towns of National Institutions of Science and Art, Picture Galleries, and Industrial Museums, as Branches of the South Kensington Museum, or as Independent Provincial National Museums*, London/Leeds, Simpkin, Marshall & Co./Cross, 1869.

compulsory part of the course of study of the public schools of Massachusetts in 1870. Each city of more than 2,000 inhabitants was required to offer evening classes in industrial drawing. In addition to the introduction of drawing in schools, a fine arts museum was established in Boston. In Boston, Smith became director of the new Massachusetts Normal Art School that was charged with training teachers for these classes. In 1872, prior to outlining his thoughts on curricular matters, he formulated his strategy:

“Whilst we may [...] profit by the experience of other nations, having greater experience than our own, there will be many features of this country and of society so superior to theirs, and so much more favourable to the development and advancement of education, that I look forward to a future in which our field of art education shall in no prominent part be a reflex of others, but be a combination of excellence that will offer a model for their imitation.”<sup>603</sup>

Smith visited the expositions of the 1870s. He translated and published a fragment of Buisson’s report with a positive judgement on industrial education in the United States in order to support his own position.<sup>604</sup> When even the French, who were regarded as a model in industrial training, reported positively on the American efforts, this could but enhance the reputation of industrial drawing in the United States, and Smith’s reputation in particular. Smith closely collaborated with the publishing house Prang in the development of textbooks for drawing. One of these books was even sent to the 1878 exposition.<sup>605</sup> On his return from this exposition, Smith declared that America had nothing to fear if it continued to adopt the most advanced pedagogical innovations. At the same time he now argued that in some

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<sup>603</sup> SMITH, Walter, *Art Education, Scholastic and Industrial*, Boston, J. R. Osgood and Company, 1872, p. 41.

<sup>604</sup> SMITH, Walter, *Industrial Drawing: the Opinions of the French Educational Commission in Regard to the Walter Smith and other American Courses of Instruction in Drawing, as Expressed in Their Report to the French Government on the Educational Exhibit of the United States at the Philadelphia Exhibit of 1876, Translated from the Official Report*, Boston, L. Prang & Co., 1879

<sup>605</sup> SMITH, Walter, *The American Text-books for Art Education*, Boston, L. Prang, 1873.

Massachusetts public schools industrial drawing was already much more systematically taught than in Europe, including England and France.<sup>606</sup>

Emerson Elbridge White (1829-1902), former superintendent of public schools of Ohio and now president of Purdue University, also promoted the introduction of technical elements into public schools. In a speech, he emphasised that Americans “are awakening to the importance of technical education, so universally recognised in the older countries of Europe”.<sup>607</sup> In his opinion, this was due to progress in industrialisation and the crisis of the apprentice system. White cited the school committee of a city of the East coast which stated at the beginning of the 1880s:

“If New England would maintain her position as the great industrial centre of the country, she must become to the United States what France is to the rest of Europe, the first in taste, the first in design, the first in skilled workmanship.”<sup>608</sup>

Finally, referring to the Centennial Exhibition and drawing an analogy with a famous American engine exhibited there, White declared that “the public school is the Corliss engine of American industry.”<sup>609</sup> White’s view in fact illustrates in which way many Americans increasingly thought about schooling.

Naturally, not all American educators supported the trend towards more technical education. Thus, William T. Harris regarded the new developments with much skepticism.<sup>610</sup> As Commissioner of Education from 1889 to 1906 he was one of the few traditionalists who remained in a leading position. On the occasion of the

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<sup>606</sup> SMITH, Walter, *Industrial Education and Drawing as Its Basis. Address Delivered at the Annual Meeting of the Massachusetts Teachers’ Association at Worcester, December 28, 1878*, Printed by Request, [1879], p. 27.

<sup>607</sup> Cited in *The Relation of Education to Industry and Technical Training in American Schools*, Washington, Government Printing Office, 1881, p. 11

<sup>608</sup> *Ibid.*, p. 11.

<sup>609</sup> *Ibid.*, p. 23. Because of its immense size the Corliss engine was the clou of the Centennial Exhibition.

<sup>610</sup> See for example Harris’ account on the Centennial Exhibition: HARRIS, William T., « The Centennial Exposition », in: *Twenty Second Annual Report of the Board of Directors of the St. Louis Public Schools, for the Year Ending August 1, 1876*, St. Louis, Slawson, 1877, p. 161-208.

Committee of Ten which discussed the question of secondary education in 1893, he opposed going too far with concessions to manual curricular elements.<sup>611</sup>

This section thus presented a number of American education experts who perceived the need to expand technical elements in the primary education sector. The promotion of industry was their major concern. Experts referred to European models. In most cases, this reference was purely rhetorical and did not directly result in institutional reforms. Applying the transfer model outlined in the introduction, most appropriation efforts came to a stop in the second phase.

To conclude this chapter, Americans built up their institutions of technical education with constant, at least rhetorical, reference to European models. Manual training and industrial drawing played a role at all levels of the education system. As the examples of John M. Gregory, Calvin M. Woodward and John D. Runkle demonstrate, world exhibitions were one of the most important vehicles for the procurement of such knowledge. Laurence R. Veysey remarked that the turn of American higher education towards practical service which manifested itself in the emphasis on applied science “has sometimes been acclaimed as the genuinely American contribution to educational theory” and was in this sense opposed to European experiences.<sup>612</sup> In retrospect this may appear true. However, as the reports from world exhibitions showed, contemporary American educators regarded technical education as typically European, at least until the beginning of the 1880s. Using Lundgreen’s terminology, Americans used the world exhibitions of the 1860s and 1870s in order to appropriate school culture (as opposed to job culture) in the United States. The turn towards more practical ways of instruction affected the entire

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<sup>611</sup> *Report of the Committee of Ten on Secondary Studies*, Washington, Government Printing Office, 1893.

<sup>612</sup> VEYSEY, Laurence R., *The Emergence of the American University*, Chicago, University of Chicago Press, 1965, p. 12.

education system. Reference to European institutions played a key role in this process. Later, a stress on practical skills became a specifically American approach. Besides applied science, as Veysey argued, American higher education also engaged in an increasing amount of research and also developed a notion of general culture. In this respect, channels other than exhibitions were important, for example the many thousands of American students at German universities, among which were future scholars of psychology and pedagogy.<sup>613</sup>

On the lower grades of the education system, these developments had a decisive impact on the progressive education movement which left its imprint on the United States at the turn of the century.<sup>614</sup> American public schools started to shift from what was depicted in the Pennsylvania pavilion at the Centennial and in the *Statement*. Values such as discipline and obedience ceased to be central guiding principles in American public schools. John Dewey (1859-1952), the best-known representative of progressive education, fostered a child-centred as opposed to a society-centred education.<sup>615</sup> In putting great emphasis on practical skills, progressive education was also an expression of anti-intellectualism.<sup>616</sup>

During the first period, in the 1870s, education experts introduced manual skills in a creative way to the curricula. But the experiences of Gregory, Runkle, Woodward, Smith and many other education experts at the exhibitions of the 1870s were the start of a long process. Ultimately, Woodward's project to make manual training useful to every child as a part of general education failed. Towards the turn of the century

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<sup>613</sup> HINSDALE, B. A., « Notes on the History of Foreign Influence upon Education in the United States », in: *Report of the Commissioner of Education for the Year 1897-98*, Washington, Government Printing Office, 1899, p. 591-629; WALZ, John Albrecht, *German influence in American education and culture*, Philadelphia, Carl Schurz Memorial Foundation, 1936.

<sup>614</sup> CREMIN, *The Transformation of the School*.

<sup>615</sup> WISHY, Bernard W., *The child and the Republic. The dawn of modern American child nurture*, Philadelphia, University of Pennsylvania Press, 1967.

<sup>616</sup> See also a critique of progressive education in HOFSTADTER, Richard, *Anti-Intellectualism in American life*, New York, Knopf, 1963, p. 340: "There is an element of moral overstrain and a curious lack of humour among American educationists which will perhaps always remain a mystery to those more worldly minds that are locked out of their mental universe."

efficiency-oriented experts saw manual training as a means to prepare youths for future unskilled jobs.<sup>617</sup> Programmes of vocational guidance gave scientifically legitimated power over future careers to psychologists and educators. This eventually led to the Smith-Hughes Act of 1917 when the federal government started to fund vocational training.

## ***II. American Technical Instruction as a Model for Japan and France***

Once the American efforts showed the first positive results in the form of innovative reform projects and successful institutions, they attracted the interest of foreign education experts. International exhibitions remained the major transfer vehicle. In the first instance, experts from Japan and France used the exhibitions to learn about the state of the art in technical education.

### **1. Teijima Seiichi – Father of Technical Education in Japan**

Meiji Japan saw the beginning of industrialisation. Japanese officials were not only interested in establishing a system of primary instruction. The creation of institutions of technical education was at least as important. As discussed in part one, the Japanese approach to science and education was amongst the most “modern” in the second half of the nineteenth century and was to help foster the economic and technological development of the country.

The Vienna exhibition of 1873 had a role in agriculture and sericulture education, a specialised field of technical education. Sasaki Chōjun became a commissioner to this exhibition after having studied in France. He engaged in research for improved

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<sup>617</sup> KANTOR, Harvey, TYACK, David B. (eds), *Work, youth, and schooling: historical perspectives on vocationalism in American education*, Stanford, Stanford University Press, 1982; KLIEBARD, Herbert M., *Schooled to Work: Vocationalism and the American Curriculum, 1876-1946*, New York, Teachers College Press, 1999, p. 1-54; KNOLL, Michael, « Dewey versus Kerschensteiner », in: *Pädagogische Rundschau*, 47, 1993, p. 131-145.

methods of silk production. Supported by the influential Ōkubo Toshimichi, head of the Home Ministry (*Naimushō*, 内務省), he established a sericulture school and research centre in Japan as a direct outcome of this exhibition.<sup>618</sup>

These efforts concerned the training of a technical elite. Until then, no effort had been made to train lower level specialists in appropriate schools. Crucial for the development of technical education in Japan on the middle and lower educational grades were the activities of Tejima Seiichi. The second part of this thesis introduced Tejima as a commissioner to the Centennial Exhibition in Philadelphia in 1876 and the director of the Educational Museum of Tokyo. In this chapter the focus is on his role in the propagation of technical instruction in Japan.<sup>619</sup>

His visit to the Centennial Exhibition convinced Tejima of the importance of industrial education. After the London exhibition of 1884 to which he was the Japanese commissioner general, Tejima stayed for several months in England and France where he became acquainted with the latest developments in technical education. In Paris, officials of the Ministry of Public Instruction accompanied him through the institutions of the capital for several days.<sup>620</sup> From Britain, Tejima brought the *Reports of the Royal Commission on Technical Education of Britain*. After using the volumes himself he donated them to the Educational Museum.<sup>621</sup> The influential educational periodical *Kyōiku Zasshi* translated this work in its entirety. One year after his return, Tejima published an influential essay on technical

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<sup>618</sup> BROWN, Sidney Devere, « Okubo Toshimichi: His Political and Economic Policies in Early Meiji Japan », in: *The Journal of Asian Studies*, 21, 2, 1962, p. 183-197, here p. 195; TOMODA, Kiyohiko, « Wien bankoku hakurankai to Nihon ni okeru yōsan gijutsu kyōiku: Sasaki Chōjun no 'kaiko koto gakkō' kōsō wo chūshin ni », in: *Gijutsu to Bunmei. Journal of the Japan Society for the History of Industrial Technology*, 13, 1, 2002, p. 1-16, English summary p. 16.

<sup>619</sup> MIYOSHI, Nobuhiro, *Tejima Seiichi to nihon kōgyō kyōiku hattatsushi*, Tōkyō, Fūgen shōbo, 1999.

<sup>620</sup> ANF, F17, 9389, Letter Tejima Seiichi to Benjamin Buisson (in New Orleans), New York, 18 April 1885.

<sup>621</sup> MIYOSHI, Nobuhiro, *Henry Dyer: Pioneer of Engineering Education in Japan. Translated by Takuji and Aiko Sarada*, Folkstone, Global Oriental, 2004, p. 155.

education *Jitsugyō kyōiku ron*.<sup>622</sup> Tejima argued that “the wealth and the power of the West derived from extensive industrial technology” and that “industry flourished due to the facilitation of vocational education”.<sup>623</sup> In *Kyōiku Jiron*, another pedagogical journal, Tejima explained in 1886:

“The fact that there is a great difference in national income between England and Japan, despite the fact that both are insular and therefore similar geographically, derives from a well-established vocational education system in England while worker training in Japan is not pursued rationally due to the old custom of the apprentice system.”<sup>624</sup>

His experience abroad was a decisive factor in Tejima’s appointment as director of the new Tokyo Worker Training School (*Tōkyō shokkō gakkō*, 東京職工学校) in 1884. Tejima remained as its director when the institution was upgraded and became the Tokyo Technical School (東京工業学校, *Tōkyō kōgyō gakkō*) in 1890. This school trained middle-level technicians. A lower grade Worker Apprentice School (附属職工徒弟学校, *Fuzoku shokkō totei gakkō*) was attached to it. Later, in 1901, the school was once more upgraded to a higher education institution becoming the Tokyo Higher Technical School (東京高等工業学校, *Tōkyō kōtō kōgyō gakkō*). It was a model school that was referred to throughout the nation. This constant improvement in the school’s status can be attributed to Tejima’s skills. The Tokyo Higher Technical School prepared comprehensive exhibits at world exhibitions.<sup>625</sup>

The school’s director stayed in contact with the colleagues he had got to know at the exhibitions and showed a continued interest in American and European developments. In 1889, he travelled to that year’s Paris exhibition. En-route to the

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<sup>622</sup> Ibid., p. 158.

<sup>623</sup> Cited in TOYODA, Toshio, « Development and Education », in: TOYODA, Toshio (ed.), *Vocational Education in the Industrialization of Japan*, Tokyo, United Nations University Press, 1987, p. 3-26, here p. 12.

<sup>624</sup> SATŌ, Mamoru, « Vocational Education in the Takeoff Period », in: TOYODA, Toshio (ed.), *Vocational Education in the Industrialization of Japan*, Tokyo, United Nations University Press, 1987, p. 27-45, here p. 31-32.

<sup>625</sup> *The Exhibition of the Empire of Japan. Official Catalogue*, St. Louis, Woodward and Tiernan Printing Co., 1904, p. 41.

French capital he stopped in Washington, probably visiting the Bureau of Education.<sup>626</sup> In June 1900, the United States Commissioner of Education, William T. Harris, sent the volumes of *Fine and Industrial Art in American Education* at Tejima's request.<sup>627</sup>

In Japan, industrial education was an important theme at the Third Industrial National Exhibition which took place in Tokyo in 1890. After the closure of the exhibition the *monbushō* published a report on this topic which had an important impact on Japanese debates.<sup>628</sup>

A wave of institutionalisation of technical instruction followed in the mid-1890s under the Minister of Education Inoue Kowashi (井上毅, 1843-1895). Regulations for apprentice schools were established in 1893. In 1894 a law for subsidizing vocational education expenses from the national treasury boosted the development of technical schools. At the same time regulations for agriculture schools and technical teacher training were passed. The Worker Apprentice School of Tokyo became a model for similar institutions established throughout the country. Four more schools were established that same year, and their number grew regularly to 136 by 1918. The financial resources for these schools came largely from the war indemnity that the Chinese government had to pay after the Chinese-Japanese war of 1894.

The central government encouraged municipalities to support local economies through the creation of industrial schools. In the 1890s, technical schools were opened to modernise traditional arts, such as ceramics and bamboo binding, and to introduce new techniques to Japan. In the following decade, emphasis was increasingly put on new industrial procedures. Schools of lower grades were

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<sup>626</sup> *Washington Post*, 25 June 1889, p. 4.

<sup>627</sup> NARA, Microfilm M-635, Roll 45, Letter William T. Harris to Tejima Seiichi, Washington, 1 June 1900.

<sup>628</sup> *Eighteenth Annual Report of the Minister of Education for the Twenty-Third Year of Meiji (1890)*, Tokyo, Department of Education, 1891, p. 80-82.

transformed into schools of higher grades. During the first years of the new century regulations changed and adapted to the new economic and industrial situation.

Of course, world exhibitions were only one of the vehicles Japanese experts used to develop technical education. In Japanese pedagogical circles, a fervent debate on technical education was going on. Kikuchi Dairoku, also returning from England, brought John Scott Russell's book *The Theory of Vocational Education* to Japan and translated it into Japanese. This knowledge was introduced into Japanese institutions and laws. It seems astonishing that the English system provided the main reference for the Japanese educators, as English experts themselves were working hard to reform their education system.

Hamao Arata (濱尾新, 1849-1925) was another key Japanese expert in this field. In 1885, he was sent to Europe in order to deepen his knowledge on technical education. Hamao spent the majority of his time in Berlin and became a supporter of the Prussian continuation schools (*Fortbildungsschule*) which he tried to implement in Japan.<sup>629</sup> Another educator was Sakata Teiichi (阪田貞一, 1857-1920) who was sent to Germany, France, Belgium, England, and the United States in July 1890 to study mechanical technology for a term of two years.<sup>630</sup> Sakata became Tejima's successor as president of the College of Technology. Similarly, Mano Bunji (真野文二, 1861-1946) spent three years in England from 1886 to 1889 in order to study mechanical and marine engineering. On his return he became professor at Tokyo Imperial University. Ten years later he was sent to France to study the latest developments in science and industry. Mano was subsequently promoted director of

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<sup>629</sup> SATŌ, Mamoru, « The Development of Vocational Continuation Schools », in: TOYODA, Toshio (ed.), *Vocational Education in the Industrialization of Japan*, Tokyo, United Nations University Press, 1987, p. 46-69, here p. 47.

<sup>630</sup> *Eighteenth Annual Report of the Minister of Education for the Twenty-Third Year of Meiji (1890)*, Tokyo, Department of Education, 1891, p. 13.

the Bureau of Industrial Education in the *monbushō* from 1901 to 1913.<sup>631</sup> In 1910, Mano participated as a Japanese commissioner in the British-Japanese Exhibition in London.

During a certain time, many industrialists continued to oppose the apprentice schools, as a meeting between education officials and representatives of business circles in 1894 demonstrated.<sup>632</sup> But eventually – to use Peter Lundgreen’s terminology –, school culture succeeded over job culture in Japan.

Tejima Seiichi’s role was fundamental and historians call him therefore the “father of industrial education in Japan”.<sup>633</sup> He used the international exhibitions of the 1880s to contact European and American experts of technical education and appropriate the most suitable methods to Japan. Further empirical research with Japanese source materials is necessary to measure the exact impact on foreign models on institution building. The training of skilled workers took place in specialised educational institutions instead of in situ in factories. Numerous efforts were made at the municipal level to support local industries which developed under the general guidelines of the ministry of education.<sup>634</sup> In this way technical education contributed to the technological transformation of Japan, as Tessa Morris-Suzuki has stressed.<sup>635</sup>

## **2. Continued Contacts at Changing Intensity with the United States – French Missions to American Exhibitions**

Industrialisation had started much earlier in France than in Japan. Technical elements had been introduced into the curricula of specialised institutions at an early

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<sup>631</sup> MIYOSHI, *Henry Dyer*, p. 144.

<sup>632</sup> *Ibid.*, p. 34.

<sup>633</sup> TOYODA, « Development and Education », p. 10.

<sup>634</sup> See the numerous case studies in TOYODA, *Vocational Education*.

<sup>635</sup> MORRIS-SUZUKI, Tessa, *The Technological Transformation of Japan: from the Seventeenth to the Twenty-First Century*, Cambridge/New York, Cambridge University Press, 1994, p. 5.

stage. Nevertheless French actors recognised the need for continuous reform and the expansion of the technical education sector.

Besides primary education, technical education was one of the central features that French educators retained from the educational sections of the world exhibitions in the 1860s and 1870s. In 1862 Arthur Morin (1795-1180) and Henri Edouard Tresca (1814-1885), director and vice-director of the *Conservatoire des arts et métiers*, promoted extensive state funding for technical education in order to preserve France's economic position.<sup>636</sup> The same applied to the exhibition of 1867 where industrial drawing and other aspects of technical instruction were intensively reported on.<sup>637</sup> Seven years later, Gustave Salicis (1818-1889) retained from his visit to the Vienna exhibition the idea to make manual training an integral part of the primary curriculum.<sup>638</sup> The exhibition of 1878 had a major impact on technical education in France. A. Ottin, inspector of drawing education in Paris, presented a report on industrial drawing at this exhibition, in which he frequently cited the relevant sections of Buisson's reports from Vienna and Philadelphia who had also raised this topic.<sup>639</sup>

Alongside the exhibitions, further missions to foreign countries were also organised. Their destinations were European countries, as in the case of Jean Magloire Baudouin's mission that prepared the creation of the *enseignement*

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<sup>636</sup> MORIN, TRESCA, « Enseignement industriel », in: CHEVALIER, Michel (ed.), *Rapports des membres de la section française du jury international sur l'ensemble de l'exposition universelle de 1862. Tome 6*, Paris, Chaix, 1862, p. 186-246.

<sup>637</sup> BRONGNIART, Edouard, « De l'enseignement du dessin en 1867 », in: CHEVALIER, Michel (ed.), *Rapports du jury international*, Paris, Dupont, 1868, vol. 13, p. 402-410; POMPEE, Philibert, « Enseignement technique – Agriculture – Industrie – Marine et commerce », in: CHEVALIER, Michel (ed.), *Rapports du jury international*, Paris, Dupont, 1868, vol. 13, p. 411-734.

<sup>638</sup> GONON, Philipp, « Weltausstellung im 19. Jahrhundert als Ansporn für Schulreformen », in: HOFSTETTER, Rita (ed.), *Eine Schule für die Demokratie: zur Entwicklung der Volksschule in der Schweiz im 19. Jahrhundert*, Bern, Lang, 1999, p. 377-401, here p. 391.

<sup>639</sup> OTTIN, A., *Rapport sur l'enseignement du dessin à l'Exposition universelle de Paris en 1878*, Paris, Imprimerie de Chaix, 1879.

*secondaire spécial* in the 1860s.<sup>640</sup> The same was true of the school inspectors Gustave Salicis and Guillaume Jost (1831-1907) who travelled through Germany and Sweden to investigate manual training at the beginning of the 1880s.<sup>641</sup> As a result, in 1882 manual training became an integral part of the French primary curriculum.<sup>642</sup> Together with the institutions of higher technical education, France henceforth had a relatively well established system of technical education. Americans, as shown above, frequently referred to France when developing their own institutions.

Observation of these new American institutions provided input to French debates. The world exhibitions in New Orleans, Chicago and St. Louis offered an occasion for French experts to study the American institutionalisations. These exhibitions saw the participation of Benjamin Paul Buisson (1846-1924), the brother of Ferdinand Buisson, as official representative of the Ministry of Public Instruction. In 1872 the French government made him a French language instructor at the University of London. During this time he was able to familiarise himself with the English education system. In 1878 he was commissioned to write a report on the South Kensington Museum in London which should assist in the preparation for the opening of the *Musée pédagogique* in Paris.<sup>643</sup> With his excellent language skills he appeared to be the ideal person to represent French education at international exhibitions. Later, Benjamin Paul Buisson pursued a colonial career, becoming

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<sup>640</sup> BAUDOUIN, Jean-Magloire, *Rapport sur l'état actuel de l'enseignement spécial et de l'enseignement primaire en Belgique, en Allemagne et en Suisse*, Paris, Imprimerie nationale, 1865. See MATASCI, Damiano, « Le système scolaire français et ses miroirs. Les missions pédagogiques entre comparaison internationale et circulation des savoirs (1842-1914) », in: *Histoire de l'éducation*, 125, 2010, p. 5-26.

<sup>641</sup> SALICIS, Gustave Adolphe, JOST, Guillaume, *De l'Enseignement manuel et professionnel en Allemagne et dans les pays du Nord*, Paris, Delagrave/Hachette, 1887.

<sup>642</sup> ENFERT, Renaud d', « L'introduction du travail manuel dans les écoles primaires de garçons, 1880-1900 », in: *Histoire de l'Education*, 113, 2007, p. 31-67.

<sup>643</sup> BUISSON, Benjamin Paul, *Le Musée Pédagogique de Paris et celui de South-Kensington à Londres*, Paris, Dupont, 1879.

director of the *Collège Allaoui*, a normal school for boys, in Tunis around 1890 and director of primary instruction in Tunisia in 1905.<sup>644</sup>

Another education expert with close ties to the United States was Gabriel Compayré (1843-1913). After studying philosophy, Compayré made a career in several secondary and higher education institutions in south-western France. In 1880 he became professor of pedagogy at the Ecole normale supérieure de Fontenay. In 1889 he became rector of the Academy of Poitiers and six years later rector of the Academy of Lyon.<sup>645</sup>

Thus, French experts stayed in touch with educational developments of the United States. However, their enthusiasm never again reached the heights of the 1870s. They saw less need now to learn from the United States. The Ministry of Public Instruction sent a mission with high ranking officials to the Columbian Exposition of 1893.<sup>646</sup> They met the leading American educators, such as William T. Harris and Calvin M. Woodward. Most commissioners published reports after their return to France.

Marie Dugard (1862-?), one of two female commissioners, wrote a journal on her extensive travels throughout the United States with a special focus on higher education for girls.<sup>647</sup> Benjamin Paul Buisson's report concentrated on the state of primary education in the United States.<sup>648</sup> Already in his report from New Orleans

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<sup>644</sup> On Benjamin Paul Buisson see DUBOIS, Patrick, *Le 'dictionnaire de pédagogie et d'instruction primaire' de Ferdinand Buisson: répertoire biographique des auteurs*, Paris, INRP, 2002, p. 46-47. Benjamin Paul Buisson is the author of an article, amongst others, on England in the first edition of the *Dictionnaire de pédagogie* and an article on Tunisia in the second edition.

<sup>645</sup> CHARBONNEL, Nanine, « La pensée pédagogique de Gabriel Compayré: ou la longue marche (de l'éducation) vers le moderne », in: OELKERS, Jürgen, OSTERWALDER, Fritz (eds), *Die Neue Erziehung. Beiträge zur Internationalität der Reformpädagogik*, Bern et al., Peter Lang, 1999, p. 249-264, here p. 259-260; CONDETTE, Jean-François, *Les recteurs d'académie en France de 1808 à 1940. Tome II, Dictionnaire biographique*, Lyon, INRP, 2006, p. 118.

<sup>646</sup> ANF, F12, 4453, List of the French Commission, 11 May 1893.

<sup>647</sup> DUGARD, Marie, *La Société américaine, moeurs et caractères, la famille, rôle de la femme, écoles et universités*, Paris, Hachette, 1896.

<sup>648</sup> BUISSON, Benjamin Paul, *L'enseignement primaire aux Congrès d'éducation et à l'Exposition scolaire de Chicago*, Paris, Hachette, 1896.

Buisson had observed how manual training was being included into American education. He had explicitly used the English term “new education” in order to describe American developments.<sup>649</sup> In the same volume one can find an additional chapter on manual training by Eugène Martin, a primary inspector from Montargis and former director of the higher primary school of Hirson, who was also a commissioner to the Columbian Exposition.<sup>650</sup> Martin visited several American institutions. After his arrival in New York the first school which inspired him was the Workingman’s School originally founded by Felix Adler (1851-1933). The next day Martin proceeded to the Pratt’s Institute where he had a conversation with the headmaster of the English High School Department. In the Drexel Institute of Philadelphia he talked with its director, James MacAlister. As the Columbian Exposition was being held in Chicago, Martin stayed there for some time and became acquainted with the local school situation. Martin visited, amongst others, the Chicago Manual Training School that Charles Ham had described in his monograph. Martin also had several conversations with Woodward. The French commissioner readily noticed that the general and educational value of manual training was predominant in Woodward’s school. However, as he observed, parents usually chose manual training schools in order to have their children acquire a quasi-apprenticeship. Martin reflected on the role of realistic and non-academic subjects in secondary education. He cited extensively Woodward’s writings, but also gave space to those who opposed a more general introduction of manual training. All in all, Martin did not hide his sympathy for the manual training movement.

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<sup>649</sup> BUISSON, Benjamin Paul, *Rapport sur l’instruction publique à l’exposition universelle de la Nouvelle-Orléans: 1884-1885*, Paris, Chaix, 1886.

<sup>650</sup> MARTIN, Eugène, « L’enseignement du travail manuel aux Etats-Unis », in: BUISSON, Benjamin Paul, *L’enseignement primaire aux Congrès d’éducation et à l’Exposition scolaire de Chicago*, Paris, Hachette et Cie, 1896, p. 235-257.

Gabriel Compayré wrote one report on secondary and another one on higher education in the United States and consequently dealt exclusively with more classical forms of instruction.<sup>651</sup> Compayré was among others interested in the works and outcomes of the Committee of Ten that inquired into the future of the American high schools. Thus, the reports of Martin and Compayré contributed to debates on the significance of humanistic and technical elements in secondary education, which, in France, led to the Ribot commission of 1899.<sup>652</sup> This commission made recommendations for the reform of boys' secondary instruction which became effective in 1902.

The French education system was still characterised by a strong class-bias, even after the school laws of the Third Republic. Referring to the fact that, in the United States, secondary education in high schools was open for every graduate of primary schools, Jules Steeg (1836-1898) declared rather critically:

“Cette simplicité, qui semble plus conforme à l'esprit démocratique, est séduisante au premier abord; il ne semble pas, à l'usage, qu'elle soit réellement favorable à la force et à l'étendu des études.”<sup>653</sup>

However, providing the same primary education for both rich and poor children was one of the most important lessons Buisson had learned during his mission to Philadelphia. He had not been able to implement such a system, but continuously worked towards this goal, referring to the United States as a model. Buisson

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<sup>651</sup> COMPAYRE, Gabriel, *Rapports de la délégation envoyée à l'exposition colombienne de Chicago par le ministère de l'instruction publique. 1893. Enseignement secondaire*, Paris, Hachette et Cie, 1896; COMPAYRE, Gabriel, *Rapports de la délégation envoyée à l'exposition colombienne de Chicago par le Ministère de l'instruction publique. 1893. Enseignement supérieur*, Paris, Hachette et Cie, 1896.

<sup>652</sup> RIBOT, Alexandre, *La Réforme de l'enseignement secondaire*, Paris, A. Colin, 1900.

<sup>653</sup> STEEG, Jules, « Enseignement », in: FAVETTE, L. G., STEEG, Jules, *Exposition internationale de Chicago en 1893. Ministère du commerce, de l'industrie des postes et des télégraphes. Rapports publiés sous la dir. de M. Camille Krantz. Comité 33. Education et enseignement*, Paris, Imprimerie nationale, 1894, p. 89-131, here p. 114.

remarked in 1887 that the common instruction of children from the upper and lower classes of society was “une idée française par excellence”.<sup>654</sup>

Compayré also discussed the research seminars which some of the bigger universities had started to adapt from Germany. This was an expression of growing interest in the fast developing American universities which had also materialised, for example, in the book of Pierre de Coubertin *Les universités transatlantiques*.<sup>655</sup> French experts partly turned to American examples in order to reduce German references.<sup>656</sup> In his report on the 1885 exhibition, Buisson had praised the dynamism of the young American universities, in a period when their French counterparts, as Buisson argued, lacked this dynamism.<sup>657</sup> These reports contributed to debates on the re-establishment of universities in France which took place primarily in the *Revue internationale de l'enseignement*.<sup>658</sup> André Chevrillon (1864-1957), professor of English at the Faculty of Letters in Lille and commissioned to Chicago, stated when beginning his speech at the international congress on higher education:

“My visit to America is made in order to study what I can of American universities. I have gathered a great deal to remember, and observed much that will excite admiration when reported in France. The present question in France is how to reconstitute those old historical institutions which were the French universities. While the university, strictly speaking, does not exist in France in full formal organization, yet higher education does exist. In re-forming the old groups of scattered faculties so that complete universities may be coordinated, it becomes

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<sup>654</sup> Cited in DUBOIS, Patrick, « Figures de l'école juste et politique scolaire dans les années fondatrices de la Troisième République », in: *Revue française de pédagogie*, 159, 2007, p. 13-21, here p. 18. Compare to Felix Coste's assertion on the “American idea” at the beginning of the second part of this thesis.

<sup>655</sup> COUBERTIN, Pierre de, *Les universités transatlantiques*, Paris, Hachette, 1890.

<sup>656</sup> The biologist Maurice Caullery – who had stayed in Germany in 1888 – argued at the beginning of the twentieth century that the American understanding of science was closer to the French understanding than the German one: CAULLERY, Maurice, *L'Evolution de notre enseignement supérieur scientifique*, Paris, Editions de la Revue du mois, 1907. See also CHARLE, Christophe, *La République des universitaires: 1870-1940*, Paris, Seuil, 1994.

<sup>657</sup> *Ibid.*, p. 253.

<sup>658</sup> WEISZ, George, *The Emergence of modern universities in France: 1863-1914*, Princeton, Princeton University Press, 1983.

desireable to study what other nations have done; and the American universities, among others, contribute something helpful toward carrying out this idea.”<sup>659</sup>

The expositions were a major vehicle for French scientists to become acquainted with American universities.<sup>660</sup> In a letter to the Ministry of Education the chemist Henri Gautier (1862-1928) of the *Ecole supérieure de pharmacie* in Paris expressed his determination to join a mission to the St. Louis exposition in order to have access to the laboratories of American universities. This was also true of Henri Cordier, geographer and sinologist at the *Ecole des langues orientales* of Paris.<sup>661</sup> Georges Blondel, professor at the *Ecole des hautes études commerciales* and specialist in the field of technical education, attended the St. Louis exposition and visited various educational institutions. Blondel was critical of the expansion of technical education in the United States. In his judgement instruction was too much based on economic needs and neglected educational purposes.<sup>662</sup>

French experts continued to review the state of the American primary education system. By now, however, the American system had advanced considerably from the wave of interest of the 1870s. Manual elements had been extensively introduced to curricula; psychology aimed to provide a scientific foundation to child-centred educational practices. French educators seemed far less enthusiastic about the development of education in the United States than in the preceding decades.<sup>663</sup> Moreover, most of the common school crusaders had died. Only the United States

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<sup>659</sup> *Proceedings of the International Congress of Education of the World's Columbian Exposition, Chicago, July 25-28, 1893, under the charge of the National Educational Association of the United States*, New York, Little, 1894, p. 88.

<sup>660</sup> CHARLE, Christophe, « Les références étrangères des universitaires: Essai de comparaison entre la France et l'Allemagne, 1870-1970 », in: *Actes de la recherche en sciences sociales*, 148, 2003, p. 8-19.

<sup>661</sup> ANF, F17, 2760, Minute of the Ministry of Trade, Paris, 29 July 1903.

<sup>662</sup> BLONDEL, Georges, *Deux mois aux Etats-Unis d'Amérique*, Paris, Société d'économie sociale, 1905, especially p. 13. Blondel had also discussed technical instruction in Germany before: BLONDEL, Georges, *L'essor industriel et commercial du Peuple Allemand. 3. édition, refondue, mise au courant et augmentée*, Paris, Larose, 1900.

<sup>663</sup> On the changing interest of French education experts in the United States see CHARBONNEL, « La pensée pédagogique de Gabriel Compayré ».

Commissioner of Education William T. Harris was ideologically close to the French experts.<sup>664</sup> Benjamin Paul Buisson, commissioned to the St. Louis exhibition, reported how all officers of the educational section gathered at a banquet. Buisson was frustrated that neither beer nor wine were served during the event.<sup>665</sup> This disillusionment, which also reflects the impact of the anti-alcoholic movement in the United States, well illustrates the state of Franco-American educational relations.<sup>666</sup>

Japan and France presented striking similarities. After the complete implementation of primary education, the ministries of education of both countries increasingly tackled issues of secondary, higher and technical education. There was a partial continuity of personnel that went to the exhibitions and were engaged in transnational contacts. In the German states the interest in American technical instruction was much more pronounced than in France. A variety of actors with multiple motivations referred to the United States. In Germany as well, these debates concerned both the lower and higher grades of the education system.

### ***III. American Technical Instruction as a Model for Germany***

German education experts used the exhibitions of the late nineteenth and early twentieth century in order to familiarise themselves with foreign education. The cases of the mathematician Felix Klein (1849-1925) of Göttingen at the Columbian Exposition and the historian Karl Lamprecht of Leipzig at the Congress of Arts and Sciences affecting the transposition of organisational patterns of universities to

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<sup>664</sup> COMPAYRE, Gabriel, « La mort de W. T. Harris », in: *Educateur moderne*, 5, 1910, p. 1-2.

<sup>665</sup> BUISSON, Benjamin Paul, *Exposition internationale de Saint-Louis, 1904. Section française. Rapport du groupe I (instruction primaire)*, Paris, Comité français des expositions à l'étranger, 1908.

<sup>666</sup> The anti-alcoholic movement had a strong hold among American education experts. Some of them even refused tea and coffee: BLEDDSTEIN, Burton J., *The culture of professionalism: The middle class and the development of higher education in America*, New York, W. Norton, 1976, p. 153-156.

Germany are well documented.<sup>667</sup> Most experts, however, were concerned with issues of technical instruction. The world exhibitions in the United States and Paris offered opportunities to study American and French institutions. Describing the institutions of these countries, most of them called for reforms in and a stronger emphasis on technical education in Germany where strong cultural prejudices against technical education persisted.<sup>668</sup>

### **1. American Secondary and Higher Technical Instruction as a Model – Reports by Professors of Technical Universities**

By the 1870s, the German states had a network of polytechnic schools. Professors of these schools were education experts and concerned with further improving their institutions. Polytechnic schools gave rise to the profession of engineers who defended their interests in society.

The pedagogical organisation of these polytechnic schools was subject to debate. Similar to their colleagues on the other side of the Atlantic, German experts in technical education were struck by the excellence of the Russian representations at international exhibitions. They did not share, however, the enthusiasm for the so-called Russian method of tool instruction.

H. Ludewig, professor of mechanical engineering at the Royal Polytechnic School of Munich (*Königliche polytechnische Schule München*), published an article on engineering education at the Vienna exhibition.<sup>669</sup> This account appeared in the

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<sup>667</sup> On Klein with further references see FUCHS, Eckhardt, in: «Gouvernementaler Internationalismus und Bildung: Deutschland und die USA am Anfang des 20. Jahrhunderts», in: SCHRIEWER, Jürgen, *Weltkultur und kulturelle Bedeutungswelten: Zur Globalisierung von Bildungsdiskursen*, Frankfurt am Main, Campus, 2007, p. 45-73, here p. 52. On Lamprecht see MIDDELL, Matthias, *Weltgeschichtsschreibung im Zeitalter der Verfachlichung und Professionalisierung: das Leipziger Institut für Kultur- und Universalgeschichte 1890-1990*, Leipzig, Akademische Verlags-Anstalt, 2005.

<sup>668</sup> RINGER, Fritz K., *Education and society in modern Europe*, Bloomington/London, Indiana University Press, 1979.

<sup>669</sup> LUDEWIG, H., «Das technische Unterrichtswesen auf der Weltausstellung in Wien 1873, mit besonderer Berücksichtigung des maschinentechnischen Unterrichts», in: *Zeitschrift des Vereins Deutscher Ingenieure*, 18, 1874, Sp. 1-8, 155-168, 265-278, 481-494, 533-556.

*Zeitschrift des Vereins deutscher Ingenieure*, the journal of the leading association of engineers in Germany, of which Ludewig was a co-editor. Ludewig drew a precise picture of technical education at the exhibition. He repeatedly insisted on the usefulness of such exhibitions for education experts. Ludewig described the various kinds of appliances for technical instruction. The largest part of Ludewig's article was dedicated to the Russian exhibit. The author cited extensively from the publications that the Russian schools had especially prepared for the *Weltausstellung*. He described the material equipment of the school with its integrated workshops and the applied methods. The professor from Munich rightly argued that the workshop method had been developed in Russia and had supporters in France. In contrast, this method had almost no significance in the German context. Ludewig recalled that in Germany only Hugo von Reiche was actively in favour of the workshop method.<sup>670</sup> Ludewig was suspicious of a possible implementation of the Russian model in German schools. He criticised the excessive practical orientation of the Russian schools. This would lead, in his opinion, to a neglect of the indispensable theoretical dimensions of education. Ludewig concluded:

“Bei aller Anerkennung der ausgezeichneten, ihr Ziel durchaus erreichenden, systematischen Unterrichtsmethode in den praktischen Werkstattbereichen der Moskauer Schule kann durchaus nicht eine Nachahmung dieser Einrichtung den deutschen technischen Hochschulen empfohlen werden.”<sup>671</sup>

The same journal printed a lecture by a certain Elsaesser which he had held at a convention of the *Verein deutscher Ingenieure* in Karlsruhe in February 1874.<sup>672</sup>

Elsaesser, too, admired the representation of the Russian polytechnic schools in

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<sup>670</sup> Reiche was also a commissioner to the Vienna exhibition. He was the author of a book on engine construction. Reiche's most important publication on technical instruction was: REICHE, H. von, *Die Maschinenfabrication: Entwurf, Kritik, Herstellung und Veranschlagung der gebräuchlichsten Maschinen-Elemente*, Leipzig, Felix, <sup>2</sup>1876.

<sup>671</sup> LUDEWIG, « Das technische Unterrichtswesen », column 542.

<sup>672</sup> ELSAESSER, « Über die praktische Ausbildung junger Maschinentechniker, insbesondere im Hinblick auf die polytechnische Schule in Moskau », in: *Zeitschrift des Vereins Deutscher Ingenieure*, 18, 1874, Sp. 309-319.

Vienna. He described the exhibit in detail and expressed his appreciation. But Elsaesser was surprised to learn that the exhibit came from Russia, a country he apparently regarded as backward. As Elsaesser recognised, the underlying idea was to provide systematic practical instruction, parallel to the theoretical instruction. He reflected on a possible transfer of this method to German institutions of technical education but he, too, came to the conclusion that this was neither possible nor desirable for several reasons. Most importantly, in his view, this was due to the “German character”. Recalling that the Moscow school received children at the age of ten, Elsaesser remarked that German youths did not decide on their future occupation so early. Rather, they first acquired professional practice in order to judge if a certain job fitted their skills and expectations. Instead of following the Russian model, Elsaesser proposed work experience prior to attending higher technical schools. Elsaesser also favoured more object teaching which meant that he wanted to *show* students engineering processes. This would put students in the role of observers, whereas the Russian model suggested students should actively engage in engineering and so, letting them *do* something. Elsaesser’s main arguments against the method applied in Russia were defensive and nationalist:

“Schämen wir uns nicht des Rufs, ein Volk von Denkern zu sein, ein Ehrentitel, uns vom Auslande mit einer Beimischung von Neid verliehen. [...] Können wir die vollständigen Erfolge, wie wir solche an der polytechnischen Schule in Moskau anerkennen müssen, hier nicht anstreben, so lassen wir uns deshalb nicht abhalten, den Weg, den wir als den richtigen einmal anerkannt, einzuschlagen, und trotz der mannigfachen Schwierigkeiten, muthig weiter zu verfolgen! Deutsche Ausdauer wird, wie so oft, auch hier helfen!”<sup>673</sup>

Nationalistic feelings prevented German educators from opening their minds to the workshop method in technical education, as it had been developed and was applied in Russia. Germany had to wait some decades for a suitable time to adopt the Russian method of workshop instruction.

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<sup>673</sup> Ibid., column 319.

At the same time, however, institutions of technical instruction in the United States started to attract the interest from German specialists during the 1870s. Hermann Wedding, a mining councillor of Berlin, visited the Centennial Exhibition of Philadelphia. His observations were first published in the *Verhandlungen des Vereins zur Beförderung des Gewerbfleisses* and later as a book.<sup>674</sup>

In his report, Wedding concentrated on two institutions. First, he discussed the Stevens Institute of Technology founded in Hoboken, New Jersey, in 1867. According to Wedding this was the leading American institute in this field and it occupied the largest part of his report. In a detailed manner, Wedding described the buildings and their interiors, the classrooms, laboratories, curricula, admission requirements and procedure, diplomas and inscription fees. Second, Wedding described in the same way, though in fewer pages, the School of Mining of Columbia College in New York City which he described as the best equipped of the world after that of St. Petersburg. This school did not focus on mining only, but rather corresponded to a German polytechnic school. Wedding's treatise shows that Europeans saw potential in American technical education even before its proliferation following the Centennial Exhibition.

Two decades later, by the time of the Columbian Exposition, technical education in the United States had expanded significantly. Professor A. Riedler of the *Königliche technische Hochschule* in Berlin wrote two comprehensive articles on technical education in the United States following his trip to the exhibition in Chicago. These were published in the *Verhandlungen des Vereins zur Förderung des Gewerbefleißes* and the *Zeitschrift des Vereins Deutscher Ingenieure* respectively.<sup>675</sup>

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<sup>674</sup> WEDDING, Hermann, *Mitteilungen über die technische Erziehung in Nord-Amerika*, Berlin, Nicolai, 1877.

<sup>675</sup> RIEDLER, A., « Amerikanische technische Lehranstalten », in: *Verhandlungen des Vereins zur Beförderung des Gewerbefleißes*, 1893, p. 381-459; RIEDLER, A., « Amerikanische technische

Given his specialisation as a professor, Riedler put emphasis on higher schools of engineering. He wrote about the difficulty of distinguishing between general and technical schools in the United States. As there was no clear division between them, almost every school taught technical subjects.

Riedler mentioned the Rensselaer Polytechnic Institute and the Stevens Institute in Hoboken as having been amongst the best institutions for a long time. Yet in recent years the latter appeared to decline, which contrasted with Wedding's enthusiastic description of 1876. Riedler's favourites, though, were the Massachusetts Institute of Technology in Boston and Cornell University in Ithaca, New York, both of which he described in great detail. In Riedler's view, the Lawrence Scientific School of Harvard University had an extremely promising approach at its foundation in 1846. However, he went on, university authorities did not recognise the excellence of this strategy and refrained from developing it further. Riedler considered that Yale University in New Haven, Connecticut, was subject to church influence. Its Sheffield Scientific School was of almost no importance for the education of engineers. As he explained, Riedler only mentioned it as an example of a traditional college that was forced to open up to modern trends. Additionally, the author mentioned Columbia College, Washington University in St. Louis, Leland Stanford University, the Case School of Applied Science in Cleveland, Ohio, and the New York Trade School.

Whereas Riedler appeared impartial in the main part of his article, he used his conclusion to compare the American situation to Germany and to suggest changes in his home country. Riedler praised the American high schools, especially manual training high schools. This was linked to strong criticism of the German *gymnasium*

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Lehranstalten », in: *Zeitschrift des Vereins Deutscher Ingenieure*, 38, 1894, p. 405-409, 507-514, 608-615, 629-636.

and its emphasis on humanistic education. Riedler claimed that German secondary schools did not adequately prepare students for higher technical education. Their curriculum was, in his view, too abstract and theoretical. However, they were the only preparatory schools for higher technical education and therefore would have to integrate practical matters:

“Der Hauptfehler unseres Nachwuchses, die praktische Unbeholfenheit, die Hilflosigkeit oder Unüberlegtheit gegenüber gegebenen Verhältnissen, hat ihren Grund auch durchaus nicht in der fehlenden Werkstattübung oder in unrichtiger Verwendung eines ‘Elevenjahres’. Das Übel liegt viel tiefer – in der einseitigen Vorbildung!

[...]

Mag es noch so entsetzlich in den Ohren unserer einseitigen Philologen klingen: an den Vorbereitungsschulen [...] ist der Ort, wo praktische Arbeit und ihre erzieherische Wirkung einsetzen muss. An diesem und im jugendlichen Alter der Schüler ist die Gelegenheit, systematisch durch praktische Arbeit natürliche Auffassung zu fördern; in dem jugendlichen Geist muss von Anfang an der praktische Sinn entwickelt, statt ihn durch Formalismus zu töten.”<sup>676</sup>

What characterised American technical education most, in his view, was the combination of intellectual and practical training which materialised in the new manual training high schools. This became evident in the laboratory courses. Riedler claimed that Americans referred to this combination as “harmonic education”.<sup>677</sup> It trained both imagination and reasoning powers. The moral and practical effects of education played a foremost role in the United States. In opposition to the American way, German “harmonic education”<sup>678</sup> responded to the humanistic ideal. Riedler did not hide his sympathy for the American model. His articles called for a more practical secondary instruction of future engineering students.

Still other German actors were engaged in debates on technical education in the framework of the exhibitions. Franz Reuleaux, director of the *Gewerbeakademie*

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<sup>676</sup> RIEDLER, A., « Amerikanische technische Lehranstalten », in: *Zeitschrift des Vereins Deutscher Ingenieure*, 38, 1894, p. 635.

<sup>677</sup> Ibidem.

<sup>678</sup> Ibidem.

*Berlin*, took part in all world exhibitions from 1867 to 1893 in varying roles. The publication in a major newspaper of his letters from Philadelphia, where he served as German commissioner general, sharply criticised German industrial products as “cheap and nasty” provoking fervent debates in Germany. At least indirectly he called for better industrial education.<sup>679</sup>

Thus, over a period of several decades one can trace a continuing discourse on technical education at world exhibitions.<sup>680</sup> Authors referred to earlier exposition reports which gave their considerations continuity. Authors were professors of higher polytechnic schools. They published in specialised journals which had an industrial rather than pedagogical focus. They kept the German public informed about technical instruction in the United States. The practical versus theoretical dimension of higher technical education was debated controversially, but most authors postulated an *aggiornamento* of German education with the introduction of more practical subject matter. In addressing deficiencies and hinting at possible remedies in the form of United States practices, these appropriation efforts only advanced until the second phase of Middell’s model and did not directly entail reforms.

## **2. Against Obsolete Traditions – The Reports of Maximilian Weigert and Heinrich Back**

Whereas Ludewig, Elsaesser, Wedding and Riedler were concerned with higher technical education, the introduction of practical elements to primary education also created debate. Maximilian Weigert wrote the only German educational report from

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<sup>679</sup> REULEAUX, Franz, *Briefe aus Philadelphia*, Braunschweig, Vieweg, 1877. In 1893, Reuleaux remarked that German measurement machines in the civil engineering department lacked the excellence and accuracy of their American counterparts which once again provoked polemical debates in Germany. See *Zeitschrift des Vereins Deutscher Ingenieure*, 38, 1, 1894, p. 25-26.

<sup>680</sup> Heinrich Leobner, inspector for commercial education in the Austrian ministry of education and head of a commission to the Louisiana Purchase Exposition explicitly made a link between the mentioned reports. See LEOBNER, Heinrich, *Die Grundzüge des Unterrichts- und Erziehungswesens in den Vereinigten Staaten von Nordamerika: Eine pädagogisch-didaktische Studie*, Wien/Leipzig, Deuticke, 1907, p. 34, 67-69.

the 1889 *Exposition universelle* in Paris.<sup>681</sup> The city council of Berlin sent Weigert as a delegate to this exposition. Weigert was a representative of Berlin's middle class. The Jewish entrepreneur owned several textile factories, but was also engaged in municipal affairs. Politically a left-liberal, he was a long-time deputy in the city council and participated in the works of several municipal deputations, among them the schooling deputation. Weigert also had a leading role in local trade organisations such as the *Korporation der Kaufmannschaft zu Berlin*.<sup>682</sup>

In the first part of his book, Weigert concentrated on the French system of primary education in general. In the second part he took a closer look at the educational institutions of the city of Paris. Throughout the text he showed a particular interest in manual training and other forms of technical instruction. Weigert's account was a concise and objective description of the French primary education system. The introductory and concluding remarks are of special interest, because the author made judgements, compares the French and Prussian systems and contemplates on possible transfers. In the introduction Weigert praised the French primary education as a model for emulation:

“Nicht nur von theoretischem Interesse ist die Kenntniß des französischen Volksschulunterrichts, sondern sie bietet zahlreiche Gesichtspunkte, Grundsätze und Einrichtungen, welche auch von uns zum Heile unserer Bevölkerung verwerthet werden können. Bei der Unbekanntschaft, welche diesseits des Rheins mit diesen Verhältnissen herrscht, ist sie auch wohl geeignet, manches Vorurtheil zu zerstreuen, das gerade über die Leistungen der Franzosen auf diesem Gebiete verbreitet ist.

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<sup>681</sup> WEIGERT, Max, *Die Volksschule und der gewerbliche Unterricht in Frankreich: Mit besonderer Berücksichtigung des Schulwesens von Paris. Zweite vermehrte Ausgabe*, Berlin, Simion, 1890. Weigert had also visited the Vienna exhibition of 1873 showing, however, no particular interest in educational issues: WEIGERT, Max, « Die wirthschaftlichen Erfolge der Wiener Weltausstellung », in: *Deutsche Warte*, 5, 1873, p. 674-691, especially p. 687-688 on education; WEIGERT, Max, « Die Teppichindustrie auf der Wiener Weltausstellung », in: *Deutsche Warte*, 5, 1873, p. 705-726

<sup>682</sup> The following information on Maximilian Weigert are drawn from BIGGELEBEN, Christof, *Das "Bollwerk des Bürgertums": die Berliner Kaufmannschaft 1870-1920*, München, Beck, 2006, p. 169-172.

Wir [...] müssen erkennen, daß unsere Volksschule, auf welche wir mit Recht glauben stolz sein zu können, nicht mehr auf der Höhe der modernen Zeit steht, daß wir auf diesem Gebiet nicht mehr Lehrende, sondern Lernende sein müssen. Auch dieses Chauvinismus werden wir uns zu entschlagen haben, und bei Frankreich, vielleicht mit einiger Beschämung, aber sicher zum Segen unserer Bevölkerung, zum Nutzen unserer gewerblichen Thätigkeit in die Schule gehen müssen.<sup>683</sup>

Weigert stated that the French education system marked a substantial progress compared to the Prussian one and was therefore highly worthy of emulation.<sup>684</sup>

Weigert especially insisted on three organisational characteristics of French schools. First, he praised the separation between Church and school. According to Weigert, most of the progress was achieved as a result of this separation. He was inspired to note that moral instruction continued to be taught at French schools, but was detached from religion. Second, Weigert's focus was on the complete gratuity of a greater number of school types in France than in Prussia. Whereas in Prussia all schooling above fourteen years of age was based on fees, the entire system of primary instruction in France, including higher primary education and technical continuation schools, was free of charge. He also saw the impact that extended free instruction could have on economic competitiveness; advanced industrialisation necessitated a higher level of instruction. A better-educated population would guarantee a favourable position in the global economy. Third, Weigert wrote positively about the curriculum of French primary schools. He recalled that the preparation for the pupils' future professional life was an essential and compulsory part of the French primary instruction. These elements not only helped pupils to get used to relevant tools and instruments, but also taught them respect for manual work. The author expected that this system would boost French industry and commerce. Finally, Weigert applied these observations to his municipal context of Berlin,

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<sup>683</sup> WEIGERT, *Die Volksschule*, p. 3-4.

<sup>684</sup> *Ibid.*, p. 69-74.

proposing the emulation of the French, and especially Parisian, system. Because of its specific economic situation, the German capital desperately needed better technical instruction, Weigert argued. This improvement should not be imposed from above, however, but should develop from the bottom-up.

Weigert's visit to the 1889 Paris exposition, the centennial celebration of the French revolution, was a critical effort to promote, on a municipal level, an educational system which differed from the official Prussian ideology, notably in being secular and including manual training elements. His political, religious and social position, as a left-liberal, Jew and entrepreneur, influenced his perspective on French education.

Heinrich Back had a similar position to Weigert. He was director of the Municipal Commercial Continuation School in Frankfurt (*Städtische gewerbliche Fortbildungsschule Frankfurt am Main*) and a German visitor to the Columbian Exposition in Chicago, funded by the Prussian Ministry of Trade.<sup>685</sup> Despite his affiliation to a school in Frankfurt, Back's account was directed less to a municipal context as in Weigert's case, but referred to Germany.

His travel to the Columbian Exposition and his visit to various schools, such as the Cooper Institute and Pratt School, both of New York City, convinced Back that important changes were occurring in the field of education in the United States. Eventually these changes would completely reshape the world of education in America and make it completely different from Europe. What distinguished American from European schools, he argued, was a greater emphasis on manual training. It was accepted as a legitimate part of the curriculum by the entire society. He saw the introduction of manual training to elementary schools as an application

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<sup>685</sup> BACK, H., *Der gewerblich-technische Unterricht in Lehranstalten der Nordamerikanischen Union*, Frankfurt am Main, J. D. Saurländer's Verlag, 1895.

of kindergarten methods developed by Fröbel. Like Riedler, Back praised the manual training high schools. He highlighted the educational value of manual training. Children learned enthusiasm for work, concentration and accuracy. He saw manual training as a decisive factor for the economic position of Germany. In his view, this required the introduction of manual training as soon as possible. According to Back, Germany had already delayed progress in this field. Manual training in the first instance served the purposes of general education. But, like Weigert, Back was convinced that manual training would boost the economy on the other side of the Atlantic. This, in turn would have negative consequences for German exports. As a consequence, Back stipulated, German authorities should spend much more public money for the promotion of industrial and commercial education. The lack of money was the main reason for German backwardness:

“[Es erscheint mir] unerlässlich, dass künftig in Deutschland aus öffentlichen Mitteln zum gleichen Zweck grössere Zuschüsse geleistet werden als seither, wenn das Gewerbeschulwesen den zeitgemäßen Forderungen entsprechend vervollkommnet werden soll.”<sup>686</sup>

Beyond the financial issue, Back proposed a reform of the training of workers. The professional training of workers in American trade schools in systematic multiple steps was, for Back, an alternative to instruction in real workshops as practised in Germany. Such schools, he argued, were needed in Germany. Back underlined that this was the most important result of his trip. According to Back, high quality instruction in workshops was impossible. Young apprentices were in the hands of tyrannical masters who did not possess any pedagogic qualification. American schools, most prominently the Pratt Institute, provided a solution to this problem. States should use public money to establish workshop schools. These schools, in turn, should liaise with local businesses to cover the practical side of

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<sup>686</sup> Ibid., p. 87.

instruction. Back saw further advantages of this system. Instruction would be more systematic than in the current system in the workshop only. Students would always receive clear instruction as to what he should do. Students would not be used for simple repetitive works without pedagogical value. This would significantly accelerate the education process. Additionally, alternation between phases in the school and in the workshop would be favourable to the mental and physical development of the student. In short, if Germany wanted to guard its position in the global economy, it needed to follow the example of other countries and make sustained efforts in this field of education.

Whereas Riedler wanted to introduce manual training to secondary schools in order to better prepare future engineers for higher education, Back called for manual training in vocational continuation schools in order to train specialised workers for industry. Weigert, among others, wanted to introduce manual training to primary schools. They hoped that manual training would promote industrial development. Both went to world exhibitions in order to find foreign institutional patterns that could be adapted to their home contexts. Having only a limited influence on educational decision making, their publications did not lead to direct reforms. Their appropriation efforts went until the second phase of cultural transfers only.

### **3. Introducing Manual Training to Primary Education – The Seminar for Boys’ Industrial Education in Leipzig**

Woldemar Götze (1843-1898) and Alwin Pabst (1854-1918) as directors of the Seminar for Boys’ Industrial Education (*Deutsche Lehrerbildungsanstalt für Knabenhandarbeit*) in Leipzig also search for foreign models abroad. Both educators had an ambitious project of introducing manual training units to the course of study of German primary and secondary education. Their activities demonstrated a remarkable determination and continuity over several decades. They had to struggle

against a strong opposition, as most German teachers and administrators did not see manual training as a legitimate part of the curriculum.

The German Association for Boys' Industrial Training (*Deutscher Verein für Knabenhandarbeit*) was founded in 1886. The association published the *Blätter für Knabenhandarbeit*, a journal devoted to manual training. In 1887 the *Deutscher Verein für Knabenhandarbeit* started to offer normal classes in manual training for primary teachers in Leipzig.<sup>687</sup> Later, these classes became a distinct institution, the *Deutsche Lehrerbildungsanstalt für Knabenhandarbeit*, boys' manual training seminary in the same city. Götze was its founder and first director. He knew about the importance of manual skills from experience, as he had been a locksmith apprentice. Later Götze attended various schools in Dresden which finally opened up his path to the University of Leipzig. After completing his university training, Götze became a schoolmaster at the *Realgymnasium* in Leipzig in 1873. Despite his engagement with the manual training seminary, he kept his position at the *Realgymnasium* until 1891.

As his publications demonstrate, Götze referred to foreign models when developing his institution. In an article on the education of manual and visual skills in France, for example, Götze cited Weigert's report.<sup>688</sup> Götze and his collaborators tried to contact colleagues from beyond their own institutional context who dealt with similar issues. Some German schools had already been teaching manual skills since the first half of the nineteenth century.<sup>689</sup> Götze wanted to profit from their

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<sup>687</sup> PABST, Alwin, « Handarbeitsseminar in Leipzig », in: REIN, Wilhelm (ed.), *Encyklopädisches Handbuch der Pädagogik. Band 3*, Langensalza, Beyer & Mann, 1905, p. 955-958, here p. 957.

<sup>688</sup> GOETZE, W., « Die Erziehung von Hand und Auge in Frankreich », in: *Deutsche Zeitschrift für ausländisches Unterrichtswesen*, 1, 2, 1896, p. 114-124. See also GÖTZE, Woldemar, *Der Arbeitsunterricht im Auslande und in Deutschland, seine wirtschaftliche und nationale Bedeutung: Vortrag gehalten im Berliner Hauptverein für Knabenhandarbeit*, Leipzig, Hinrichs, 1892; GÖTZE, Woldemar, *Der Handfertigkeitsunterricht ausserhalb Deutschlands*, Leipzig, Voigtländer, 1896.

<sup>689</sup> GÖTZE, Woldemar, « Die Leipziger Schülerwerkstatt. Bericht, erstattet dem Leipziger Kongreß für Handfertigkeitsunterricht und Hausfleiß am 3. Juni 1882 », in: GÖTZE, Woldemar, *Werkstücke*

experience and transfer some of their features to Leipzig. Götze also found inspiration for his school in the Scandinavian countries. He was in personal contact with Clauson-Kaas, a teacher of domestic arts in Copenhagen. Clauson-Kaas had staged an exhibit at the Vienna exhibition attracting a certain interest among German experts for his method. In June 1882 Götze organised a congress on manual training in Leipzig. An exhibition was adjacent to the congress. The purpose of this event was to bring some of the leading German and European experts in the field of manual training to the Saxon metropolis. They were to present their methods for the benefit of the Leipzig institution.<sup>690</sup>

Götze and Pabst also found inspiration in the tradition of German pedagogy. The assertion of a German tradition was also a requirement to counterbalance the constant reference to foreign countries. It should legitimise manual training as a part of the national tradition. Götze often referred to Amos Comenius (1592-1656), Johann Heinrich Pestalozzi and Friedrich Fröbel. Moreover, Leipzig had a long tradition of reflecting on the value of instruction in manual skills.<sup>691</sup> Reference to Karl Biedermann's (1812-1901) book *Die Erziehung zur Arbeit, eine Forderung des Lebens an die Schule*, first published in 1852, anchored Götze's activities in the local context of Leipzig.<sup>692</sup>

Götze soon acquired a strong reputation abroad. In 1882, Gustave Salicis visited the Leipzig seminary during his European study trip.<sup>693</sup> Three years later the

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*zum Aufbau des Arbeitsunterrichts. Gesammelte Vorträge und Aufsätze über die Erziehung der Jugend zur praktischen Arbeit*, Leipzig, Heinrich Matthes, 1887, p. 31-46, here p. 33-35.

<sup>690</sup> Alwin Pabst later described the history of manual training as a transfer history from Finland through Sweden and Denmark to Leipzig: PABST, Alwin, *Die Knabenhandarbeit in der heutigen Erziehung*, Leipzig, Teubner, 1907, p. 29-30.

<sup>691</sup> HENKEL, Katrin, « Arbeitsunterricht im Herbartianismus am Beispiel Leipzigs », in: CORIAND, Rotraud, KOERRENZ, Ralf (eds), *Salzmann, Stoy, Petersen und andere Reformen: Traditionen in der Thüringer Bildungslandschaft*, Jena, IKS Garamond, 2004, p. 49-64.

<sup>692</sup> BIEDERMANN, Karl, *Die Erziehung zur Arbeit, eine Forderung des Lebens an die Schule*, Leipzig, Avenarius Mendessohn Verlag, 1852.

<sup>693</sup> FRITZSCH, Theodor, *Woldemar Götze, der Vater der erziehenden Knabenhandarbeit*, Langensalza, Beltz, 1933, p. 29.

government of New Zealand commissioned Götze to write a report on the state of manual training in Germany.<sup>694</sup> In 1893 he sent a modest exhibit of his institution to the Columbian Exposition in Chicago.<sup>695</sup> It was the only manual training exhibit from Germany.

After Götze's death, Alwin Pabst became his successor as director of the manual training seminary in 1899.<sup>696</sup> Pabst was born in Thuringia and received his training as a public school teacher at the seminary in Gotha. After some months of teaching at a rural school he started studies of mathematics, natural sciences and pedagogy at the University of Jena. Upon graduating, he made a career that led him to the position of a senior normal school instructor at the seminary in Cöthen. There, Pabst had already started to integrate manual training elements in the curriculum.

In the first years of Pabst's directorship at the Leipzig seminary, travels to world exhibitions were part of a conscious move to adopt the most innovative strategies in manual training. The *Deutscher Verein für Knabenhandarbeit* took part in the 1900 Paris Universal Exposition. As the German Empire did not officially participate in the educational sections of the exposition, the association's displays belonged to a collective exhibit of the German welfare associations.<sup>697</sup> Alwin Pabst organised this exhibit. The association presented its publications, completed by photographic illustrations of its Leipzig seminary. Despite the exhibit's limited nature, the German

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<sup>694</sup> GÖTZE, Woldemar, « Der gegenwärtige Stand des Handfertigkeitsunterrichts in Deutschland. Bericht, erstattet an das Unterrichtsministerium von Neuseeland, 1885 », in: GÖTZE, Woldemar, *Werkstücke zum Aufbau des Arbeitsunterrichts. Gesammelte Vorträge und Aufsätze über die Erziehung der Jugend zur praktischen Arbeit*, Leipzig, Heinrich Matthes, 1887, p. 61-97.

<sup>695</sup> FRITZSCH, Woldemar *Götze*, p. 38.

<sup>696</sup> Zum Werdegang von Alwin Pabst vgl. « Zeitgenossen. Alwin Pabst », in: *Jahrbuch für den Zeichen- und Kunstunterricht*, 2, 1906, p. 114; « Nachruf: Prof. Dr. Alwin Pabst », in: *Zeitschrift für Kinderforschung*, 23, 6, 1918, p. 316-317.

<sup>697</sup> *Amtlicher Katalog der Ausstellung des Deutschen Reiches*, Berlin, Selbstdruck des Reichskommissariats, 1900, p. 120.

Association for Boys' Industrial Education won a gold medal. The *Blätter für Knabenhandarbeit* proudly reproduced the diploma in the April 1902 edition.<sup>698</sup>

Pabst published a report on his trip to the French capital in the same journal.<sup>699</sup> He was fascinated and overwhelmed by his visit to the pavilion of the City of Paris. It comprised a variety of neatly arranged pupils' works resulting from manual training lessons. Pabst appreciated that there were more than 135 primary schools in Paris which possessed a workshop where pupils learned to handle wood and metal. Pabst was especially interested in the exhibit of the *Ecole normale d'Auteuil*. Pabst refuted what he saw as a wide-spread German prejudice that the introduction of manual training would negatively affect the scientific and pedagogic level of normal schools. His impression from the exhibit let him conclude that the opposite must be the case. French normal schools were in some aspects superior to the German ones. Pabst reported that he could have spent entire days studying the exhibits. Finally Pabst asked rhetorically which standing German manual training would have had in Paris, if organisers had prepared a more comprehensive exhibit. German backwardness in this field seemed obvious to Pabst. He demanded stronger efforts to develop manual training for boys as an autonomous and legitimate part of primary curricula. According to Pabst, France provided an example that could lead the way for more pronounced efforts in Germany.

In 1904 the German Association for Boys' Industrial Education commissioned Pabst to frequent the Louisiana Purchase Exposition in St. Louis. The association justified this measure through recognition of the importance that manual training had acquired in the United States. In the association's view, profiting from the United

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<sup>698</sup> « Auszeichnung des Deutschen Vereins für Knabenhandarbeit », in: *Blätter für Knabenhandarbeit*, 16, 4, 1902, p. 73-75.

<sup>699</sup> The article has also been published separately: PABST, Alwin, *Der Handfertigkeitsunterricht auf der Pariser Weltausstellung*, Leipzig, Frankenstein und Wagner, 1900.

States was crucial for manual training in Germany.<sup>700</sup> Once again the association sent a limited exhibit to the world exhibition, this time as a part of the German educational exhibit.<sup>701</sup>

Alwin Pabst considered the exhibition in St. Louis very comprehensive. But he did not only visit the exhibition grounds. In St. Louis, Pabst met Calvin M. Woodward who showed him his manual training high school. Whilst in Chicago, he examined the model school established by John Dewey. Pabst also visited schools in West Chester, Providence, Philadelphia, Boston and New York City. Usually the local superintendents of public schools and school directors accompanied the visitor and gave explanations. As Pabst wrote repeatedly, he enjoyed the openness with which American educators would greet foreign guests.

After his return to Leipzig, Pabst published a report on his trip.<sup>702</sup> He concluded that manual training had made immense progress in the United States; its graduates henceforth received the same certifications as students of classical high schools. Methods and procedures varied considerably throughout the nation. Teacher training takes place in normal schools for the lower grades; professional training is required for teachers of higher grades. Manual training was valued as an essential part of the curriculum by the whole of society. In consequence, its financial situation was excellent, especially when compared to Germany.

Apart from this monograph, Alwin Pabst wrote more than ten articles on various aspects of his trip to America. These were published in specialised pedagogical journals and outlined his educational approach to manual training. From the

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<sup>700</sup> « Nachrichten », in: *Blätter für Knabenhandarbeit*, 18, 3, 1904, p. 63.

<sup>701</sup> LEWALD, Theodor, *Weltausstellung in St. Louis 1904: Amtlicher Katalog der Ausstellung des Deutschen Reichs*, Berlin, Stilke, 1904, p. 398.

<sup>702</sup> PABST, Alwin, *Beobachtungen über den elementaren praktisch-technischen Unterricht in amerikanischen Schulen und auf der Unterrichtsausstellung in St. Louis*, Leipzig, Franckenstein & Wagner, 1907.

beginning, Woldemar Götze had conceptualised manual training as a component of general education:

“Wir wollen ja durch [praktische Arbeiten] erziehen, wir wollen keine Handwerkslehrlinge aus den Schülern machen.”<sup>703</sup>

The efforts of Woldemar Götze and Alwin Pabst in Leipzig contrasted with the approach of the Prussian expert in manual training and long-time president of the *Deutscher Verein für Knabenhandarbeit*, Emil von Schenckendorff (1837-1915).<sup>704</sup> Schenckendorff saw manual training as a means of social control for the working class. Götze and Pabst, however, agreed with Calvin M. Woodward's conceptualisation that stressed the general educational value of manual training. Pabst's reference to the American experience served therefore to reinforce his own position. In 1907 the Leipzig institution started a new era with the introduction of manual training classes. This was a direct result of Pabst's trip to the United States. Pabst's plans were even more ambitious. He proposed a model school for manual training for primary and secondary instruction with an integrated research division. This was modelled on Woodward's school in St. Louis and the Horace Man School in New York City.<sup>705</sup> Manual training as an element of general education meant to do *Wirklichkeitsunterricht* rather than *Buchunterricht*.<sup>706</sup> Pabst was especially impressed by the introduction of psychology in pedagogical research and practice and, as a

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<sup>703</sup> GÖTZE, Woldemar, « Die Ergänzung des Schulunterrichts durch praktische Beschäftigung », in: GÖTZE, Woldemar, *Werkstücke zum Aufbau des Arbeitsunterrichts. Gesammelte Vorträge und Aufsätze über die Erziehung der Jugend zur praktischen Arbeit*, Leipzig, Heinrich Matthes, 1887, p. 1-30, here p. 15.

<sup>704</sup> For Prussia also see SCHÜTTE, Friedhelm, « Berufspädagogische und sozialpolitische Argumente zur Institutionalisierung des Systems Beruflicher Bildung in Preussen-Deutschland 1870-1919 », in: APEL, Hans-Jürgen, KEMNITZ, Heidemarie, SANDFUCHS, Uwe (eds), *Das öffentliche Bildungswesen. Historische Entwicklung, gesellschaftliche Funktionen, pädagogischer Streit*, Bad Heilbrunn, Klinkhardt, 2001, p. 263-273.

<sup>705</sup> PABST, Alwin, « Die Ausgestaltung des Seminars für Knabenhandarbeit zu Leipzig », in: *Die Arbeitsschule*, 27, 4, 1913, p. 97-101, here p. 99.

<sup>706</sup> PABST, Alwin, « Wirklichkeitsunterricht », in: *Neue Bahnen*, 17, 1, 1905/1906, p. 41-45.

result, he introduced the thought of John Dewey to Germany.<sup>707</sup> The absence of a long tradition fostered the constant search for new methods in the United States, he argued. The concentration of responsibilities at the local level further encouraged experimentation.

Götze and Pabst were primarily loyal to their own institution that operated in the municipal context of Leipzig.<sup>708</sup> In turn they were responsible to the Saxon ministry in Dresden. But they wanted the seminary in Leipzig to have an impact on the entire German nation. Advancing practical instruction in Germany was the ultimate goal of the two educators.<sup>709</sup> Finally, both were well aware that manual training was a trend in all industrialised countries. They saw themselves as part of this movement.<sup>710</sup>

This case is perhaps the best example of cultural transfers of educational policies to Germany through world exhibitions. Götze and Pabst used world exhibitions systematically not only to get an orientation, but to appropriate specific features of American pedagogy. This eventually resulted in reforms in their Leipzig seminary.

Götze and Pabst saw manual training as a contribution to a child's wholesome education. The efforts of the two Leipzig educators have to be compared to the activities and methodological approaches in the German speaking countries, not only Schenckendorff, but also Robert Seidel (1850-1933) in Switzerland and Georg

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<sup>707</sup> Reference to Dewey is most emphasised in PABST, A., « Amerikanische Erziehungsschulen », in: *Die Deutsche Schule*, 9, 1, 1905, p. 33-40.

<sup>708</sup> LAMBERTI, Marjorie, « Radical Schoolteachers and the Origins of the Progressive Education Movement in Germany, 1900-1914 », in: *History of Education Quarterly*, 40, 1, 2000, p. 22-48, here p. 34-38. Lamberti did not mention Götze and Pabst.

<sup>709</sup> The journal *Nordwest* commented Götze's activities in Leipzig in 1883 as follows: "Der in Leipzig errungene Sieg über Trägheit und Vorurteil wird auf alle übrigen Orte, wo für dieselbe gute Sache gearbeitet und gekämpft wird, seine ermutigende Wirkung nicht verfehlen." See GÖTZE, Woldemar, « Der gegenwärtige Stand des Handfertigkeitsunterrichts in Deutschland. Bericht, erstattet an das Unterrichtsministerium von Neuseeland, 1885 », in: GÖTZE, Woldemar, *Werkstücke zum Aufbau des Arbeitsunterrichts. Gesammelte Vorträge und Aufsätze über die Erziehung der Jugend zur praktischen Arbeit*, Leipzig, Heinrich Matthes, 1887, p. 61-97, here p. 90.

<sup>710</sup> This is especially well expressed in GÖTZE, Woldemar, « Der gegenwärtige Stand des Handfertigkeitsunterrichts in Deutschland. Bericht, erstattet an das Unterrichtsministerium von Neuseeland, 1885 », in: GÖTZE, Woldemar, *Werkstücke zum Aufbau des Arbeitsunterrichts. Gesammelte Vorträge und Aufsätze über die Erziehung der Jugend zur praktischen Arbeit*, Leipzig, Heinrich Matthes, 1887, p. 61-97, here p. 67-68.

Kerschensteiner (1854-1932) in Munich.<sup>711</sup> In this sense, Götze and Pabst, in conjunction with others, prepared the German reform pedagogy movement which reached its climax in the interwar period.<sup>712</sup>

#### **4. “A Bright Hope in the Future” – Commissioners at the Louisiana Purchase Exposition**

Besides Alwin Pabst, the Louisiana Purchase Exposition attracted many more German education experts who reported about their experiences. In 1904, the Prussian Ministry of Trade (*Königlich Preussisches Ministerium für Handel und Gewerbe*) sent a commission to the United States. Its aim was to study education for industry and commerce in the country in general and at the exposition in particular. In 1880, the Prussian government had already sent a commission to Scandinavia in order to study the methods of practical instruction used in those countries.<sup>713</sup> In June 1902, Carl Trimborn, a Catholic deputy from Cologne to the Prussian assembly, proposed measures to support the development of small industries. Growing international economic competition, he argued, was one of the motives behind this initiative. As a direct consequence of the proposal, Prussian commissioners went to southern Germany, Austria, Switzerland and England in 1903. Their intention was to analyse which of the applied methods could be adapted for Prussia. The world exhibition in St. Louis was an occasion to expand these activities to the American continent. As the introduction to the mission’s report explained, the authors of the individual reports were searching for ways to improve education in their home

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<sup>711</sup> GONON, Philipp, « Die politische Seite der Arbeitsschulbewegung: Fischer contra Seidel », in: RÜLCKER, Tobias, OELKERS, Jürgen (eds), *Politische Reformpädagogik*, Bern et al., Peter Lang, 1998, p. 219-238; KNOLL, Michael, « Dewey versus Kerschensteiner », in: *Pädagogische Rundschau*, 47, 1993, p. 131-145.

<sup>712</sup> OELKERS, Jürgen, *Reformpädagogik. Eine kritische Dogmengeschichte*, Weinheim/München, Juventa, <sup>4</sup>2005, p. 29-57; RÖHRS, Hermann, *Die Reformpädagogik. Ursprung und Verlauf unter internationalem Aspekt*, Weinheim/Basel, Beltz, <sup>6</sup>2001.

<sup>713</sup> GÖTZE, Woldemar, « Die Ergänzung des Schulunterrichts durch praktische Beschäftigung », in: GÖTZE, Woldemar, *Werkstücke zum Aufbau des Arbeitsunterrichts. Gesammelte Vorträge und Aufsätze über die Erziehung der Jugend zur praktischen Arbeit*, Leipzig, Heinrich Matthes, 1887, p. 1-30, here p. 4.

contexts. However, a transposition of American institutions to Prussia seemed impossible. The introduction argued that education was a central part of every individual national culture. The aim, therefore, was only to embrace new and superior organisational patterns.<sup>714</sup>

Most of the commissioners left Europe at the end of August and returned at the beginning of November 1904. Deducting time for sea and rail travel, the commissioners spent six to seven weeks conducting their research. The fourteen members of the commission came from different parts of Prussia, five from the capital. Their writings, however, suggested that they preferred Germany to Prussia as a spatial reference point. They were either trade councillors or directors of technical schools. For one of them, Heinrich Back, this was the second official journey to the American continent, as he had already visited the Columbian Exposition in 1893. Three of the commissioners also served as members of the international jury in St. Louis: Hermann Muthesius joined the jury of group six on industrial and commercial education. A certain Gürtler and a certain Pukall served for a jury group on industrial products.<sup>715</sup>

Most commissioners admitted that they learned less at the Exposition in St. Louis than they had hoped. Even if it was outdated by that date, the commissioner von Czihak found Back's book of 1895 more useful for orientation than the educational exhibits.<sup>716</sup> All members of the commission visited several educational and industrial institutions in the western and north-eastern states of the United States. After arrival,

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<sup>714</sup> *Reiseberichte über Nord-Amerika. Erstattet von Kommissaren des Königlich Preußischen Ministers für Handel und Gewerbe*, Berlin, Moeser, 1906, p. 5-6. See also the information provided in OELKERS, Jürgen, «Friedrich Nietzsches Basler Vorträge im Kontext der deutschen Gymnasialpädagogik», in: GERHARDT, Volker, *Bildung – Humanitas – Zukunft bei Nietzsche*, Berlin, Akademie-Verlag, 2005, p. 73-95, especially p. 73-75.

<sup>715</sup> LEWALD, Theodor, *Amtlicher Bericht über die Weltausstellung in Saint Louis 1904. Erstattet vom Reichskommissar*, Berlin, Reichsdruckerei, 1906, p. 154.

<sup>716</sup> « Bericht des Regierungs- und Gewerbeschulrats v. Czihak in Berlin », in: *Reiseberichte über Nord-Amerika. Erstattet von Kommissaren des Königlich Preußischen Ministers für Handel und Gewerbe*, Berlin, Moeser, 1906, p. 180-216, p. 181.

some commissioners procured letters of introduction from the Bureau of Education in Washington which facilitated contact with American educators. Their reports commented in a general way on education and industry in the United States. More importantly, however, they included specialised information on relevant educational and industrial issues. Although they did not praise American education unconditionally, their general assessment was enthusiastic. All commissioners described the transitional character of American institutions; the United States, in their eyes, was a country in the making. The commissioners saw great potential for future development. Dunker, for example, finished his account with “A bright Hope in the Future!”<sup>717</sup>

<b>Verzeichnis der besuchten Schulen usw.</b>		
Datum 1904	Ort	Besuchte Schulen usw.
6. September	New York	Tiffany, Geschäftsräume, Union Square.
8. "	"	Hebrew Technical Institute (34 und 36 Stuyvesant Str.).
9. "	"	Zweiter Besuch bei Tiffany.
10. "	"	Abends Besuch der Bibliothek und des Besizers der Cooper-Union.
13. "	Troy	Tiffanys Studio, 4 <sup>th</sup> Av. 23 Str.
15. "	Cincinnati	Rensselaer Polytechnic Institute (abgebrannt).
16. "	"	Museum und Art Academy.
19.—25. Sept.	St. Louis	Wie vor; ferner Hootwood-Pottery.
26. September	"	Studium der Schulabteilung auf der Weltausstellung.
26.—29. Sept.	"	Ingenieur- und Architekturabteilung der Washington-Universität.
30. September	Chicago	Manual Training School derselben Universität (Dr. Woodward).
1. Oktober	"	Mc Kinley High School.
	"	Kunstmuseum und St. Louis School of fine Arts.
	"	Studium der Ausstellung.
	"	Art Institute of Chicago und Normal Art School.
	"	Washington-Universität; Armour Institute of Technology.

<sup>717</sup> English in the original. DUNKER, « Die Mittelschulen in ihren Beziehungen zu Handel und Gewerbe », in: *Reiseberichte über Nord-Amerika. Erstattet von Kommissaren des Königlich Preussischen Ministers für Handel und Gewerbe*, Berlin, Moeser, 1906, p. 7-43, here p. 43. See also Muthesius' statement: “Hier liegen tausend Keime für die Zukunft verborgen.” in « Bericht des Landesgewerberats Dr. Ing. Muthesius in Berlin », in: *Reiseberichte über Nord-Amerika. Erstattet von Kommissaren des Königlich Preussischen Ministers für Handel und Gewerbe*, Berlin, Moeser, 1906, p. 99-143, here p. 143.

3. Oktober	Wilmington	Elementary School, 7. District, Kindergarten; High School des westlichen Stadtteils (Manual training).
4. "	Pittsburg	Carnegie Library; elektrische Werke von Westinghouse in Homestead.
5. "	Philadelphia	School of the Pennsylvania Academy of fine Arts.
5. "	"	Besichtigung der Zeichnungen der Volksschulen beim School Board Rathause.
6. "	"	School of industrial Art of the Pennsylvania Art Club.
		Girard-Kolleg.
		School of design for women.
		Drexel-Institut.
		Kunstgewerbemuseum im Fairmount-Park.
7. "	Baltimore	Maryland-Institut.
8. "	Washington	Corcoran Art Museum und Kunstschule.
9. "	"	Smithsonian Institute, Congressbibliothek.
10. "	Media	Williamson free Trade School.
	Philadelphia	Spring Garden-Institut.
		Central manual training school.
		Public industrial art school (Liberty Ladd).
		Franklin-Institut.
11. "	New York	Columbia-Universität, St. George's evening trade school.
12. "	Brooklyn	Bratt's Institut.
13. "	New York	Columbia-Universität.
		Teacher's College (Professor Dow).
		Horace Man School.
		Cooper-Union, Abendunterricht.
14. "	"	School of applied art for women.
		Artist League.
		New York Art School (Chase School) nebst der kunstgewerblichen Abteilung.
		Baron de Hirsch Jewish Trade School.
		New York Trade School.
17. "	Providence	Rhode Island School of design.
18. "	Boston	Gorham Manufacturing Company.
		Museum Art school.
		Young Men Christian Association School.
19. "	"	Art school; Johann department of design (Mr. Walker).
		Arts and Crafts-Verkaufsraum.
		Massachusetts Charitable Trade Association School.
20. "	"	Architekturabteilung des Massachusetts Institute of Technology (Präsident Chandler).
	Cambridge	Harvard-Universität, Robinson Hall. Architekturabteilung und Atelier des Professors Denman Ross. (Designing).
21. "	Boston	Normal Art school.
		Mechanic Arts High School.
24. "	New York	North-Benett street Industrial school.
		Academy of design.
		Prang Educational Company.
25. "	"	"
	Soboken	Stevens Institute of Technology.

**Figure 3: Itinerary of commissioner von Czihak (« Bericht des Regierungs- und Gewerbeschulrats v. Czihak in Berlin », in: Reiseberichte über Nord-Amerika. Erstattet von Kommissaren des Königlich Preussischen Ministers für Handel und Gewerbe, Berlin, Moeser, 1906, p. 180-216, here p. 215-216).**

Kuypers accurately observed how American primary education became impregnated with the spirit of the new education movement. He did not, however, fully support these developments. Kuypers favoured coeducation of girls and boys, but only until the age of twelve. Beyond this age he called for separation and more male teachers for boys. He also observed that a kindergarten method, as he called it, was used in all school degrees. The teacher stepped back and the pupils found themselves the centre of interest. The school was mainly there to help pupils to learn by themselves, instead of providing prefabricated knowledge. In Kuypers eyes, however, too much autonomy for the pupil often resulted in superficiality of the learning experience. Kuypers saw, in such a system, a danger that children were used

for pedagogical and social experiments. He advised that, even in a democracy, the school should remain a kind of “absolute monarchy”. Such a monarchy should be ruled rationally, but the teacher should command and pupil should obey without questioning the teacher’s instructions. In this way, Kuypers’ view opposed the approach of progressive educators, and particularly that of John Dewey. Ultimately, however, Kuypers presented a very positive image of American education and showed himself optimistic about the further development of American education. In conclusion he enlisted several “obvious advantages”, such as kindergartens, gratuity of public schools, low ratio of pupils per class, preparation for further education, pedagogical research at universities, high standards of normal schools, continuing training for teachers and the annual reports of the Bureau of Education. These clearly outweighed the “obvious deficiencies” among which he included that compulsory education was not yet enforced everywhere, the precarious economic situation of teachers, too large a proportion of female teachers and the low standard of teachers in rural areas.<sup>718</sup> Commenting on these American developments, commissioner Muthesius argued with a curious mixture of deference and paternalistic superiority that:

“Es wäre eine schöne Aufgabe für Deutschland, das im Grundsatz richtige Erziehungssystem der Amerikaner so auszubauen, daß die hier zutage tretenden Unvollkommenheiten ausgeglichen würden.”<sup>719</sup>

Another member of the mission, Heinrich Back, investigated the qualifications of workers for trades. Industrial mass production, machines and the growing division of labour substantially altered the training of workers. The training of apprentices under

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<sup>718</sup> KUYPERS, « Volksschule und Lehrerbildung », in: *Reiseberichte über Nord-Amerika. Erstattet von Kommissaren des Königlich Preußischen Ministers für Handel und Gewerbe*, Berlin, Moeser, 1906, p. 44-64. Franz Kuypers extended his report to a monograph: KUYPERS, Franz, *Volksschule und Lehrerbildung der Vereinigten Staaten in ihren hervortretenden Zügen*, Leipzig, Teubner, 1907.

<sup>719</sup> « Bericht des Landesgewerbeberats Dr. Ing. Muthesius in Berlin », in: *Reiseberichte über Nord-Amerika. Erstattet von Kommissaren des Königlich Preußischen Ministers für Handel und Gewerbe*, Berlin, Moeser, 1906, p. 99-143, here p. 142.

the close supervision and patriarchal guidance of a master was disappearing. Other ways to train new generations of qualified workers had to be practised, in Europe as in the United States. This time Back visited more factories than schools.<sup>720</sup> He was especially interested in the proportion of trainees to employees and the tasks they were conducting. Back, for example, praised the system of the Baldwin Locomotive Works in Philadelphia. This factory had 16,000 employees and trained of 400 apprentices. They were divided into three classes according to prior education and the task and hierarchical level to which they aspired. In his conclusion, the director from Frankfurt again suggested that German schools should put more emphasis on physical, not merely intellectual, skills. The American trade schools should not be replicated in Germany, he argued, but they indicated the right direction for future developments. He called for the more widespread establishment of trade schools with integrated workshops. Germany should place greater emphasis on quality rather than mass production in order to succeed in international competition.<sup>721</sup>

In the various reports of the Prussian commission, the peculiarities of primary and secondary schools, manual training, art education and industrial drawing in the United States were the foremost themes. Technical colleges and trade schools also attracted interest. Alongside this Prussian commission and Alwin Pabst from Leipzig, the Louisiana Purchase Exposition attracted many other German visitors such as Ludwig Pallat (1867-1946), an official from the Prussian Ministry of

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<sup>720</sup> The factories Heinrich Back visited give us an outline of his itinerary in the United States. He visited, among others, Bausch & Lomb Optical Co. in Rochester, New York, a wood-processing factory in Davenport, Iowa, the United States Arsenal Workshops in Rock Island, Illinois, the Baldwin Piano works, Strobridge Litho Co. and Bold Glass Co. in Cincinnati, Ohio. Back also indicated having spoken to directors of smaller businesses in St. Louis, Chicago and Boston.

<sup>721</sup> BACK, « Die Ausbildung des gewerblichen Arbeiters », in: *Reiseberichte über Nord-Amerika. Erstattet von Kommissaren des Königlich Preußischen Ministers für Handel und Gewerbe*, Berlin, Moeser, 1906, p. 65-98.

Education. Like Muthesius, Pallat wanted to further develop art education.<sup>722</sup> Pallat's itinerary was similar to that of the Prussian commission.<sup>723</sup>

The reports from the St. Louis exposition do well represent the contemporary concern to reform German education. They also hint at possible reference contexts in the United States. They promoted a wholesome education which included practical elements, always keeping in mind the role of education in an industrialised society. They belong to the second phase of cultural transfers, as they had no direct consequences on educational decision making.

As discussed, German investigators were mainly interested in technical education. Growing world trade increased international competition.<sup>724</sup> In such a situation it was crucial to stay informed about developments on the other side of the Atlantic. The training of workers was part of this, but so was primary and secondary education. The growing interest in foreign models of education proves that German experts increasingly felt uncomfortable with traditional elementary schools and the *gymnasium* which had been leading in the world until the middle of the nineteenth century.<sup>725</sup> They referred to the United States in order to reform these institutions and adapt them to contemporary needs. Educational missions to the United States introduced the concepts of new or progressive education to German debates. In the

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<sup>722</sup> RÖHRS, Hermann, *Die Reformpädagogik. Ursprung und Verlauf unter internationalem Aspekt*, Weinheim/Basel, Beltz, 2001, p. 106.

<sup>723</sup> PALLAT, Ludwig, *Schule und Kunst in Amerika*, Leipzig/Berlin, Teubner, 1906. The report appeared first in the journal *Der Saemann*.

<sup>724</sup> A Reichstag deputy remarked with reference to German education at the St. Louis exposition: "Ich habe von Sachverständigen gehört, daß wir in Bezug auf das Volksschulwesen in vielen Beziehungen auch bereits von Amerika überflügelt worden sind. Das wäre im höchsten Grade bedauerlich. Das würde auch für unsere wirtschaftlichen Verhältnisse traurige Folgen haben." See GStA PK, I. HA Rep. 76 Kultusministerium, Vc, Sekt. 1, Tit. 11, Teil VI, Nr. 15, Adh. B, clipping of the official Reichstag journal.

<sup>725</sup> One should consider the synchronicity of the reform debates with the Prussian school conferences of 1890 and 1900: FÜHR, Christoph, « Die preußischen Schulkonferenzen von 1890 und 1900. Ihre bildungspolitische Rolle und bildungsgeschichtliche Bewertung », in: BAUMGART, Peter, *Bildungspolitik in Preußen zur Zeit des Kaiserreichs*, Stuttgart, Klett-Cotta, 1980, p. 189-223.

longer term perspective, they prepared the ground for the *Reformpädagogik* that saw its climax in the interwar period.

Nevertheless, not all German experts judged American education positively as the official reports from the American expositions testify.<sup>726</sup> This is why Peter Drewek spoke of an inertia of the German perception of American education.<sup>727</sup> One should not forget that those who referred to American models for their own institutional projects constitute an important dimension of the educational scene. German education experts referred to American educational experiences right at the time when Americans reformulated their approach to education. In this light, Philipp Gonon's judgement that foreign reference did not play a role for German reform debates around 1900 has to be differentiated. On the one hand, it was absolutely the case that the leading German experts refrained from foreign intercourse. On the other hand, however, a subversive faction – whether such subversion be found in being Saxon or technically oriented – consciously exploited reference to the United States and France as a resource.<sup>728</sup> They criticised the neo-humanistic focus of German education. They did so from a relatively marginalised position which testified to the continuity of German cultural norms. As professors of Technische Hochschulen – and not classical universities – or other institutions that had turned towards more practical ways of education they were reformers who subverted these cultural norms.

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<sup>726</sup> WAETZOLD, Stephan, « Ausstellung des höheren Schulwesens und des gesamten Volksschulwesens », in: *Amtlicher Bericht über die Weltausstellung in Chicago 1893*, Berlin, Reichsdruckerei, 1894, vol. 2, p. 951-968.

<sup>727</sup> DREWEK, Peter, « The Inertia of Early German-American Comparison: American Schooling in the German Educational Discourse, 1860-1930 », in: CHARLE, Christophe, SCHRIEWER, Jürgen, WAGNER, Peter (eds), *Transnational intellectual networks: forms of Academic knowledge and the search for cultural identities*, Frankfurt am Main et al., Campus-Verlag, 2004, p. 225-268, here p. 226.

<sup>728</sup> «Für die deutsche Diskussionslage jener Zeit sind [...] kaum Verweise, die über den heimischen Horizont hinausgreifen, auszumachen.» “Die im 19. Jahrhundert aufscheinende Tradition, sich internationaler Diskussionslagen und Reformanliegen zu vergewissern, wird durch die Engführung des pädagogischen Diskurses an das Deutschtum und die Anbindung an die kaiserliche Innen- und Außenpolitik abgeblockt.” GONON, Philipp, « Kaisertreue statt Internationalismus: Reformpädagogische Befindlichkeiten um die Jahrhundertwende », in: BÖHM, Winfried (ed.), *Reformpädagogik kontrovers*, Würzburg, ERGON-Verlag, 1995, p. 175-200, here p. 176, 188.

This relates to descriptions of American society by German travellers in a more general way.<sup>729</sup> Missions to – and reports from – world exhibitions were one of the most important transfer vehicles.

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Technical education was a foremost theme at world exhibitions of the second half of the nineteenth century because they coincided with a period when training for industrial careers passed from shop culture to school culture.<sup>730</sup> Preparation for work took increasingly place in schools and universities instead of workshops and factories.

One detail is of particular interest. As the example of the Russian polytechnic schools shows, institutionalisations in the centres of industrial activity were often based on experimentations and innovations in peripheral areas.<sup>731</sup> In a country such as Britain, industry developed independently of industrial schools in its initial phase. In Russia, however, the creation of polytechnic schools was part of a deliberate strategy to foster industrialisation. That is why the best equipped higher industrial schools of the 1870s existed in Moscow and St. Petersburg. The *Kōbu Daigakkō* of Tokyo is another example. When Tokyo University was merged with the *Kōbu Daigakkō* in 1885, it was one of the first universities world-wide to include a technological department. As in many other fields, the Japanese could profit from

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<sup>729</sup> KAELBLE, Hartmut, *Europäer über Europa: die Entstehung des europäischen Selbstverständnisses im 19. und 20. Jahrhundert*, Frankfurt am Main et al., Campus-Verlag, 2001; KAMPHAUSEN, Georg, *Die Erfindung Amerikas in der Kulturkritik der Generation von 1890*, Weilerswist, Velbrück, 2002; SCHMIDT, Alexander, *Reisen in die Moderne: der Amerika-Diskurs des deutschen Bürgertums vor dem Ersten Weltkrieg im europäischen Vergleich*, Berlin, Akademie-Verlag, 1997.

<sup>730</sup> This empirical research confirms the findings of Peter Lundgreen who saw a major divide in the 1870s and 1880s: LUNDGREEN, Peter, « Engineering Education in Europe and the USA, 1750-1930: The Rise to Dominance of School Culture and the Engineering Professions », in: *Annals of Science*, 47, 1, 1990, p. 35.

<sup>731</sup> For another example of an innovative “peripheral” university see recently DHONT, Pieter, « The Echo of the Quatercentenary of Uppsala University in 1877: Nordic universities as examples in Europe? », in: *Scandinavian Journal of History*, 35, 1, 2010, p. 21-43.

their relative backwardness for establishing up-to-date institutions.<sup>732</sup> To give another example, regular college instruction for architects was institutionalised in Britain two decades later than in Japan.<sup>733</sup> That is why experts from Europe became interested in Japanese developments. Historians speak of the reciprocity of transfers.<sup>734</sup> Nobuhiro Miyoshi termed it a “boomerang effect”.<sup>735</sup> In 1904, the Scott Henry Dyer (1848-1918), the former first president of the *Kōbu Daigakkō* and later president of a Scottish technical college, urged his British countrymen to emulate Japan.<sup>736</sup> When a new wave of industrialisation required more specialised skills and economic competition became more pronounced, the pioneer countries of industrialisation also established technical schools, passing from shop culture to school culture. They adapted the pedagogical institutions and methods which had been perfected in the follower countries. The Russian method in tool instruction made a detour via the United States before being reluctantly accepted in Germany.

Another debate found its repercussion at world exhibitions, namely the aims of manual training. In the United States, Calvin M. Woodward eventually failed in making manual training an established subject of general education against the promoters of vocational guidance. In Germany, a similar opposition existed between the Leipzig educators Woldemar Götze and Alwin Pabst on the one hand and the Prussian Emil von Schenckendorff on the other.

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<sup>732</sup> PYLE, Kenneth B., « Advantages of Followership: German Economics and Japanese Bureaucrats, 1890-1925 », in: *Journal of Japanese Studies*, 1, 1, 1974, p. 127-164. This relates to more general debates on the advantages of economic backwardness: GERSCHENKRON, Alexander, « Economic Backwardness in Historical Perspective », in: GERSCHENKRON, Alexander, *Economic Backwardness in Historical Perspective*, Cambridge, The Belknap Press of Harvard University Press, 1962, p. 5-30.

<sup>733</sup> CLANCEY, Gregory, *Earthquake Nation. The Cultural Politics of Japanese Seismicity, 1868-1930*, Berkeley/Los Angeles/London, University of California Press, 2006, p. 20.

<sup>734</sup> GOODAY, Graeme, LOW, Morris, « Technological Transfer and Cultural Exchange: Western Scientists and Engineers Encounter Late Tokugawa and Meiji Japan », in: *Osiris*, 13, 1998-1999, p. 99-128; SASAKI, Chikara, « L'introduction de la science occidentale dans le Japon du bakumatsu et de Meiji (1840-1912) », in: *Daruma. Revue d'études japonaises*, 10-11, 2001-2002, p. 55-85.

<sup>735</sup> MIYOSHI, Nobuhiro, *Henry Dyer: pionner of engineering education in Japan*, Kent, Global Oriental, 2004.

<sup>736</sup> DYER, Henry, *Dai Nippon. The Britain of the East*, London, Blackie & Son, 1904, p. 425-426.

It is striking that all over the world propagators of industrial education argued that their country would be falling behind in the global economy. Better industrial education, according to them, would remedy this situation. In order to hint at examples and references of well established industrial education, propagators referred to foreign experiences. Educators from all countries referred to colleagues and institutions from all other countries. There was no objective logic behind these discourses. The ubiquity of the falling-behind discourse which saw remedy in more technical instruction suggests that there was a common research for useful models in all contexts. The discourse reflects the reinforced international competition in the age of the second industrial revolution. For education experts it was a means to vindicate their status as experts and to demonstrate societal usefulness through their expertise. That is why the historian Herbert M. Kliebard spoke of vocational education as “symbolic action”. According to Kliebard, the introduction of manual elements had an impact on the imagination of schooling, but it did not affect the actual situation of the workers or the international competitiveness of the United States.<sup>737</sup>

In sum, the world exhibitions in the field of technical education engendered two transatlantic waves. First, Americans intensively referred to European forms of technical instruction when constructing their own institutions. The Centennial Exhibition with its Russian exhibit was the most important event of this period, although the numerous missions to European exhibitions also had a major impact. This occurred at a time when training for industrial careers in the United States passed from job culture to school culture, when preparation for such careers passed from learning in situ to formal schooling. The practical dimension of education changed the entire American education system, culminating in the “new” or

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<sup>737</sup> KLIEBARD, Herbert M., « Vocational Education as Symbolic Action: Connecting Schooling with the Workplace », in: *American Educational Research Journal*, 27, 1, 1990, p. 9-26.

“progressive” education movement. A second wave occurred when European (and Japanese) educators became interested in these American developments and used them as a reference for reform debates in their own contexts. These transfers subverted national models as in the German case, but first and foremost these transfers helped to create specific national systems of education.

## FOURTH PART: REPRESENTATIONS OF NATIONAL EDUCATION SYSTEMS

In his book on the transatlantic circulation of ideas and concepts of public welfare, Daniel T. Rodgers describes how French, German and American perspectives confronted each other in the social economy section of the world exhibition in Paris in 1900.<sup>738</sup> The following part offers a similar analysis of the educational sections. As shown above, reference to foreign countries and cultural transfers had played a considerable role in institutionalising and reforming education. By the turn of the century, specific national systems of education had evolved. Education experts proudly staged their institutional achievements. They invented and projected their own traditions and rationalised them in their respective contexts. The preceding transfer processes were not always especially mentioned. In this perspective international exhibitions became stages for the confrontation of imperial societies in Christophe Charle's sense. Education was a key to specific national modernities that organisers wanted to depict at the exhibitions.

### ***I. France***

As shown in the second part, French republican educators used the expositions of the 1870s in order to advance the idea of public instruction. Their campaign turned out to be highly successful. The political victory of republicanism at the end of the 1870s opened up new possibilities for implementing these ideas. Those education experts who had frequented exhibitions to learn from foreign experience now took office in France. With the institutionalisation of republican primary education – free

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<sup>738</sup> RODGERS, Daniel T., *Atlantic Crossings: Social Politics in a Progressive Age*, Cambridge, Belknap Press of Harvard University Press, 1998, p. 8-32.

of charge, compulsory and secular – at the beginning of the 1880s French education changed dramatically. Public primary schools became free of charge as a result of the law of 16 June 1881. Another law on compulsory education and the secular character of schools was passed on 28 March 1882. These laws are generally known as the Ferry laws, after Jules Ferry who was three times Minister of Public Instruction between 1879 and 1883.<sup>739</sup> These laws reflected the transition from a *laissez-faire* policy to heavy state intervention in the organisation of education.

From then onwards French education experts no longer saw the same need to search for suitable models abroad. When “going transnational” and frequenting international exhibitions, French republican educators now had something to present which they believed they could be proud of. It is therefore important to analyse the changing function of their participation in exhibitions. In this context it is especially interesting to see for how long they valued the American reference.

### **1. The Climax of Republican Enthusiasm – French Education at International Exhibitions after the Ferry Laws**

The first exhibitions after the adoption of the Ferry laws were the International Health Exhibition in London in the summer of 1884 and the World’s International and Cotton Centennial Exposition in New Orleans which took place from December 1884 to June 1885. Benjamin Paul Buisson represented the Ministry of Public Instruction at these two exhibitions. In London, the Ministry presented a comprehensive exhibit. After extensive lobbying by John Eaton, the United States Commissioner of Education, the French exhibit was directly transferred to New Orleans.<sup>740</sup>

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<sup>739</sup> MAYEUR, Françoise, *Histoire générale de l’enseignement et de l’éducation en France. Tome III, De la Révolution à l’Ecole républicaine, 1789-1930*, Paris, Perrin, 2004, p. 582-601.

<sup>740</sup> The records of the French preparation of the New Orleans exhibit are in ANF, F17, 9389.

In New Orleans, an International Congress of Educators took place from 23 to 28 February 1885. At this congress Buisson gave a lecture on “The Recent Reforms in Public Instruction, and Especially in Primary Instruction, in France”<sup>741</sup>. His lecture is of particular interest, as it was the first official address by a French educator in front of an American audience after the Ferry laws had been passed. At the beginning of his talk Buisson proclaimed to be delighted to speak in the “land of new and progressive ideas, the land of new and continual experimentation and unlimited improvement”.<sup>742</sup> He argued that the United States and France shared the same aspirations and ambitions.<sup>743</sup>

Outlining the recent political history of France, Buisson emphasised the importance of the republican ascendancy in French politics. According to him, only the republicans’ efforts were allowing France to catch up and to overcome the country’s backwardness in educational matters. Buisson inserted these efforts into a narrative of French traditions of enlightenment and republicanism. He characterised republican legislation as the fulfilment of the pedagogical thoughts of Michel de Montaigne, Jean-Jacques Rousseau and Joseph Lakanal: “At last the wishes of enlightened public opinion, so long frustrated, have been satisfied.”<sup>744</sup> Buisson justified his government’s financial expenditures for education which proved “who [...] the friend of the school-master and the school-boy [is].”<sup>745</sup>

Buisson’s remarks about the recent legislation were particularly interesting. He addressed the major issues, taking into account the expectations of his American

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<sup>741</sup> *Special Report by the Bureau of Education: educational exhibits and conventions at the World's industrial and Cotton centennial exposition; New Orleans 1884-85. Part 2: Proceedings of the international congress of educators*, Washington, Government Printing Office, 1886, p. 111-119.

<sup>742</sup> *Ibid.*, p. 111

<sup>743</sup> *Ibidem.*

<sup>744</sup> *Ibid.*, p. 114.

<sup>745</sup> *Ibid.*, p. 115.

audience. First, Buisson referred to the law that forbade clergymen to teach without proper educational certification:

“It is not in this country that I shall have to waste words in pleading the obvious justice of this law, which nevertheless was hotly denounced by the clerical party as an attempt against their rights. But I hope you will rather notice the equity and tolerance of our legislators, who allowed three years to non-certified teachers affected by this new order of things to obtain the required certificate.”<sup>746</sup>

Subsequently, Buisson discussed the law that made primary education free of charge:

“In this case again the example of some States of America has been often invoked by our reformers, and has helped us to convert to our views many liberals who, like those of England, would not, or could not, see at first that gratuity and compulsion are two correlative terms.”<sup>747</sup>

Finally he spoke about the introduction of compulsory education:

“I know that in several States of America, and especially in the South, you have not adopted this system; but however sad it may be to use the word compulsion when that of persuasion ought to suffice, most of you, I believe, will agree that the arm of law alone is strong enough to overcome the apathy, indifference, or selfishness of many parents who will persevere in misusing their liberty if they have the choice of sending or not sending their children to school.”<sup>748</sup>

Buisson also mentioned the increase in salaries of instructors. Their better pay, he argued, would increase the reputation of the teaching profession in society. Concerning pedagogical methods and contents Buisson went on to praise the victory of realism over nominalism which referred to the introduction of object lessons. Religious instruction in public schools having been abolished, Buisson also attempted to appease critics who denounced civic and moral instruction as “godless”.<sup>749</sup>

Buisson only mentioned in passing the remaining class-bias of French primary education when vaguely evoking that education should “gradually efface the barriers of class, enabling all intelligent and energetic member of society to have their *place*

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<sup>746</sup> Ibid., p. 116.

<sup>747</sup> Ibidem.

<sup>748</sup> Ibidem.

<sup>749</sup> Ibid., p. 118-119.

*au soleil*".<sup>750</sup> The fact that American common schools were "fitting schools" that potentially prepared all youth for high school and college, whereas French primary schools were "finishing schools" without providing certifications for entry in the secondary and higher education branches, was the major difference between the two systems of primary education, though.

The French representations at the exhibitions of 1884 and 1885 and Buisson's defence of the French reforms reflect the pride of republican educators in their recent achievements. In their perspective France was no more a backward country regarding primary instruction. At the same time they remained well integrated in transnational, especially transatlantic, networks.

As numerous comments in American sources from the 1880s indicate, American education experts spoke of the French as now applying educational knowledge originally acquired in the United States. Ferdinand Buisson now implemented what he had learned in America, James P. Wickersham argued.<sup>751</sup> John Eaton reassured Ferdinand Buisson after their encounter at the London exhibition of 1884: "Your brave labors in education are my constant admiration."<sup>752</sup>

After the closure of the New Orleans exhibition Benjamin Paul Buisson travelled to Asylum Station, Massachusetts, in order to meet the retired John D. Philbrick who was not at home, however.<sup>753</sup> This would have been the last chance for Buisson to meet the Boston educator, as he passed away the following year. The obituary Ferdinand Buisson published in the *Revue pédagogique* after Philbrick's death recapitulated the transfers carried out by these two men. Buisson stressed the

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<sup>750</sup> Ibid., p. 112. French and italics in the original.

<sup>751</sup> WICKERSHAM, James Pyle, *A history of education in Pennsylvania, private and public, elementary and higher. From the time the Swedes settled on the Delaware to the present day*, Lancaster, Inquirer Publishing Company, 1886, p. 581. See also *Education in France*, Washington, Government Printing Office, 1881, p. 5.

<sup>752</sup> NARA, Microfilm M-635, Roll 62, Letter John Eaton to Ferdinand Buisson, 4 September 1884.

<sup>753</sup> DUNTON, Larkin, *A Memorial of the Life and Services of John D. Philbrick*, Boston, New England Publishing Co., 1887, p. 130.

importance of transatlantic relations and spoke of Philbrick as “le trait-d’union de ces deux mondes”.<sup>754</sup> Wickersham in turn passed away in 1891. Ferdinand Buisson, according to the person who gave him the news, “seemed deeply touched to learn of his death”.<sup>755</sup> The death of these two American educators ended the transatlantic relationship between the American late common school crusaders and the French republican education experts.

Actors of the nineteenth century were well aware of the transatlantic circulation of pedagogical ideas. Some French authors tried to make sense of these transfers for France. Thus, Mathieu Jules Gauffrès (1827-1904), director of the orphanage of Paris and former director of a private secondary school, published a biography of Horace Mann, the first promoter of the American common schools. He argued that French educators were engaged in the same work as was Mann; France was going the way indicated by Mann.<sup>756</sup> This interpretation stressed the links between the two republics on both sides of the Atlantic and minimised the German reference.

This German reference was crucial and omnipresent, however. Franco-German transfers were often described in a polemical way. This is the case in the conclusion of Auguste Pinloche’s (1856-?) work on German educational reform in the eighteenth century, edited by the Parisian *Musée pédagogique* in 1889.<sup>757</sup> For

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<sup>754</sup> BUISSON, Ferdinand, « John D. Philbrick », in: *Revue pédagogique*, 8, 3, 1886, p. 245-247, here p. 245. The obituary was translated into English and published in a memorial volume on Philbrick: BUISSON, Ferdinand, « John D. Philbrick », in: DUNTON, Larkin, *A Memorial of the Life and Services of John D. Philbrick*, Boston, New England Publishing Co., 1887, p. 180-184.

<sup>755</sup> BROOKS, Edward, « In memoriam: Dr. John Wickersham », in: *National Educational Association. Journal of Proceedings and Addresses. Session of the Year 1892 Held at Saratoga Springs, New York*, New York, National Educational Association, 1893, p. 598-600, here p. 599. Note the mistake on Wickersham’s first name in the title.

<sup>756</sup> GAUFRES, M.-J., *Horace Mann. Son œuvre, ses écrits*, Paris, Delagrave/Hachette, 1888, especially p. 189.

<sup>757</sup> “Mais à qui la Prusse devait-elle la première inspiration de cette réorganisation scolaire, dont l’un des principes essentiels était précisément celui de l’éducation nationale, sinon aux philanthropistes, qui n’étaient, sur ce point capital, que les disciples de La Châtolais? Il est curieux de remarquer en effet que cette idée féconde dont le pays vaincu attendait le salut était venue de la nation même qui lui avait infligé la plus cruelle des défaites: comme s’il eût été dans les destinées de la France généreuse de donner d’une main le remède propre à guérir les blessures qu’elle faisait de l’autre.” PINLOCHE, A., *La réforme de l’éducation en Allemagne au dix-huitième siècle. Basedow et le philanthropisme*,

Pinloche, *maître de conférence* at the *Faculté des lettres de Lille*, the history of Franco-German educational transfers proved that the revival of German pedagogy at the end of the eighteenth and the beginning of the nineteenth centuries was actually based on French ideas. This, in turn, permitted educators in France to refer to German educational experiences, as for example an early institutionalised and well administered system of compulsory primary education, in a positive way in the political climate after the Franco-Prussian war. Eventually, this was a strategy to adapt several cultural elements from a country seen as competitor or enemy.<sup>758</sup>

Thus, at the exhibitions of the 1880s, French republican education experts proudly demonstrated that they had successfully implemented compulsory and free of charge primary education. They referred to modern primary education as the universal model, finally achieved in France, highlighted republicanism and stressed transatlantic ties.

## **2. From Individualism to Solidarity – Changing Themes of Primary Education**

While French republican educators had joined a movement that they perceived as universal, they first and foremost constructed their own institutions in a specific French context. Ferdinand Buisson's reports from the Vienna and Philadelphia exhibitions were the most important publications about the educational sections of world exhibitions during the 1870s. As shown above, however, French educators saw less need for the appropriation of foreign educational knowledge after the institutionalisation of republican primary education. As a result, in 1889, the most complete publications were already prepared before the exhibition started.

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Paris, Armand Colin, 1889, p. 335-336. Pinloche's work was a profound scientific study translated into German thereafter.

<sup>758</sup> VOGEL, Jakob, « Lernen vom Feind. Das Militär als Träger des deutsch-französischen Kulturtransfers im 19. Jahrhundert », in: FRANÇOIS, Etienne et al. (eds), *Marianne – Germania. Deutsch-französischer Kulturtransfer im europäischen Kontext 1789-1914*, Leipzig, Leipziger Universitätsverlag, 1998, p. 93-111.

The *Musée pédagogique* edited sixty monographs bound in six huge volumes.<sup>759</sup> They covered all aspects of French primary education and amounted to a first comprehensive official evaluation and competitive staging of the new Republican school. In his introduction Ferdinand Buisson called the project a “veritable livre d’or”<sup>760</sup> of the exhibition and outlined its key objectives, including to eradicate stereotypes of French education which were wide-spread among foreigners: “Les étrangers corrigeront l’idée un peu trop sommaire qu’ils se font de l’uniformité de nos méthodes et de la rigidité de nos cadres.”<sup>761</sup> This statement reflects how Buisson wanted to counter German criticism that depicted French educational administration as a form of oppressive centralisation.

Many leading republican educators featured as authors of the monographs. They included, for example, Henri Marion (1846-1896), professor of the recently created chair of pedagogy at the Sorbonne, who wrote about the movement of pedagogical ideas. Given the amount of sixty monographs, even low-ranking *chefs de bureau* in the Ministry contributed works on specific topics.

Of the sixty monographs only one dealt with private institutions. The republican organisers claimed to have initially reserved two monographs for the Catholic congregations. Their prospective author, Eugène de Fontaine de Resbecq (1837-?), a former *sous-directeur* in the Ministry, apparently did not deliver his manuscripts, however. As a result, the monograph on private education presented only the Protestant and Jewish institutions. The sources do not provide precise information on

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<sup>759</sup> *Recueil des monographies pédagogiques publiées à l’occasion de l’Exposition universelle de 1889*, Paris, Imprimerie nationale, 1889. The *Revue pédagogique* reported about and advertised the volumes: « Avis relatif à la publication de monographies pédagogiques pour l’Exposition universelle de 1889 », in: *Revue pédagogique*, 1, 1888, p. 533-536; STEEG, Jules, « Monographies pédagogiques publiées à l’occasion de l’Exposition universelle de 1889 », in: *Revue pédagogique*, 1, 1890, p. 1-24.

<sup>760</sup> BUISSON, Ferdinand, « Introduction », in: *Recueil des monographies pédagogiques publiées à l’occasion de l’Exposition universelle de 1889*, Paris, Imprimerie nationale, 1889, vol. 1, p. I-XI, here p. V.

<sup>761</sup> *Ibid.*, p. IX.

this non-inclusion, but it is clear that the relationship between the Republican Ministry and the Catholic church was one of extreme tension.<sup>762</sup>

Alongside the six volumes several other official publications were displayed at the 1889 exhibition. Emile Levasseur prepared four volumes of the *Statistiques scolaires* for the exposition.<sup>763</sup> The *Relevé général des constructions scolaires de 1878 à 1885* informed about the progress made in the construction of new school buildings throughout the nation.<sup>764</sup> Ferdinand Buisson's *Dictionnaire de pédagogie* was placed in the official booths of the Ministry.<sup>765</sup> Documents of educational societies such as the *Ligue de l'enseignement* now belonged to the official exhibits of the Ministry. This testifies to the complete change of political personnel, as the Ligue was actually discriminated against at the 1867 exhibition and also in the 1870s.<sup>766</sup> All in all, the 1889 exhibition featured the largest educational section until that date, despite weak foreign participation. The French Ministry of Public Instruction imposed its own state-centred and national vision on the entire exhibition.

Four years later, the Ministry prepared an exhibit for the Columbian Exposition. As a special feature, the exhibit showed the entire school career of a single student, from his first school day to graduation. Hence, one could follow the progress of this boy from age six to age fourteen. A photograph introduced the boy – who was said to be of average ability – on his first day at school. Another photograph showed him

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<sup>762</sup> See *ibid.*, p. X; vol. 6, p. 441.

<sup>763</sup> LEVASSEUR, Emile, *Statistique quinquennale de l'enseignement primaire*, Paris, Imprimerie nationale, 1889.

<sup>764</sup> *Relevé général des constructions scolaires de 1878 à 1885. 1er juin 1878 - 20 juin 1885*, Paris, Imprimerie nationale, 1890.

<sup>765</sup> DUBOIS, Patrick, « Le Dictionnaire de F. Buisson et ses auteurs (1878-1887) », in: *Histoire de l'éducation*, 85, 2000, p. 25-45, here p. 45.

<sup>766</sup> MARTIN, Jean-Paul, *La Ligue de l'enseignement et la République, des origines à 1914*, thèse de doctorat, sous la direction de Jean-Marie Mayeur, Institut d'études politiques de Paris, 1992. The United States report on the 1878 exhibition had still cited the Ligue's president Jean Macé: "Scarcely six weeks ago we had less liberty than under the Empire." CHAMBERLAIN, Joshua L., « Education at the Universal Exposition », *Reports of the United States Commissioners to the Paris Universal Exposition, 1878. Published under direction of the secretary of state by authority of congress*, Washington, Government Printing Office, 1880, vol. 2, p. 181-347, here p. 237.

upon leaving school. The student's works provided insights into the contents taught and the pedagogical methods used. It was possible to see the corrections made by teachers. Certificates and other administrative documents that accompanied his scholastic career were also on display. The student's works were not prepared for exhibition purposes, but were original materials which should give the most authentic impression possible, "la réalité pure et simple".<sup>767</sup> The emphasis on one single student underlined the importance of individualism at this time. As Jules Steeg put it, the primary education exhibit revealed what he conceived of as the psychology of French youth. He saw the exhibit as a demonstration of the superiority of French pupils to those of other nations.<sup>768</sup>

However, American organisers had attributed insufficient space to the French educational section, commissioner Benjamin Paul Buisson complained. Furthermore it was situated in a relatively dark and uncomfortable corner of the Palace of Industry.<sup>769</sup> This petty localisation was especially worrying in a situation of extreme competition between France and the German Empire at American expositions. In the light of this competition, Buisson also observed with satisfaction that more students studied French than German at Harvard University.<sup>770</sup> At most other colleges German was the first choice, however.

The *Musée pédagogique*, once created on the basis of American materials, now presented its collections and publications to an American and international

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<sup>767</sup> STEEG, Jules, « Enseignement », in: FAVETTE, L. G., STEEG, Jules, *Exposition internationale de Chicago en 1893. Ministère du commerce, de l'industrie des postes et des télégraphes. Rapports publiés sous la dir. de M. Camille Krantz. Comité 33. Education et enseignement*, Paris, Imprimerie nationale, 1894, p. 89-131, here p. 97.

<sup>768</sup> Ibidem.

<sup>769</sup> BUISSON, Benjamin Paul, *L'enseignement primaire aux Congrès d'éducation et à l'Exposition scolaire de Chicago*, Paris, Hachette, 1896, p. 41-42.

<sup>770</sup> COMPAYRE, Gabriel, *Rapports de la délégation envoyée à l'exposition colombienne de Chicago par le Ministère de l'instruction publique. 1893. Enseignement supérieur*, Paris, Hachette et Cie, 1896, p. 212.

audience.<sup>771</sup> At the close of the exhibition, French exhibits and publications were left to several American institutions. Nevertheless Benjamin Paul Buisson confessed, notably with regard to the success of the German publications: “Je crois que nos publications du Musée pédagogique et tous les documents publiés par le Ministère et les sociétés savants ne seront jamais trop répandus en Amérique.”<sup>772</sup>

In Paris in 1900 the Ministry of Public Instruction staged an important exhibit in the Palais de l'éducation. The central feature was a model class.<sup>773</sup> Similar to the monographs of 1889, the Ministry published a book on the situation of primary education in France. The work presented “un coup d’œil sur le chemin parcouru” to a foreign and French public, as Charles Bayet (1849-1918), Ferdinand Buisson’s successor as Director of Primary Instruction in the Ministry, wrote in his introduction.<sup>774</sup>

The exposition of 1900 evolved around the central theme of *solidarité*. Léon Bourgeois (1851-1929) who promoted this doctrine had a key role in the preparation of the exhibition and its congresses.<sup>775</sup> This stress on the social dimension contrasted with the individualism displayed seven years earlier in Chicago. At the international congress on social education at which he was a speaker Ferdinand Buisson called for “social fraternity” and reflected on how to prepare children through education to take

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<sup>771</sup> STEEG, Jules, « Enseignement », in: FAVETTE, L. G., STEEG, Jules, *Exposition internationale de Chicago en 1893. Ministère du commerce, de l'industrie des postes et des télégraphes. Rapports publiés sous la dir. de M. Camille Krantz. Comité 33. Education et enseignement*, Paris, Imprimerie nationale, 1894, p. 89-131, here p. 110.

<sup>772</sup> ANF, F17, 2760, Letter Benjamin Buisson to Ministry of Public Instruction, Tunis, 26 October 1904.

<sup>773</sup> LEBLANC, R., « L'Exposition du Ministère de l'Instruction Publique. Classe 1 », in: *Revue pédagogique*, 37, 7, 1900, p. 1-31.

<sup>774</sup> BAYET, Charles, « Rapport à Monsieur le Ministre de l'instruction publique », in: *Rapport sur l'organisation et la situation de l'enseignement primaire public en France*, Paris, Imprimerie nationale, 1900, p. V-XV, here p. V. The Ministry of Commerce published a rival work in five volumes on technical education in France: *L'Enseignement technique en France, étude publiée à l'occasion de l'Exposition de 1900*, Paris, Imprimerie nationale, 1900.

<sup>775</sup> BLAIS, Marie-Claude, *La solidarité: histoire d'une idée*, Paris, Gallimard, 2007.

responsible roles in society.<sup>776</sup> In this way, from the individualist display in 1889 to the expressions of solidarity, the educational sections reflected the changing ideological currents of their time.

At the closing banquet of the congress on primary education at the 1900 exposition, Gabriel Compayré vaunted the advantages of French primary schools in front of the American guests. A common singing of the *Marseillaise* concluded the banquet.<sup>777</sup> Primary education was now embedded in French national discourses:

“[...] Il y a vingt ans seulement que, faisant une véritable révolution scolaire, nous avons fondé l'école gratuite, obligatoire et laïque: et déjà nous y sommes habitués au point qu'elle fait maintenant partie intégrante de notre patrimoine, au même titre que les conquêtes de la Révolution; et il ne serait plus au pouvoir de personne de nous le prendre.”<sup>778</sup>

Compayré and his colleagues did not emphasise transatlantic links anymore:

“Et ne voit-on pas déjà qu'au delà des frontières françaises l'école primaire publique, telle que nous l'imaginons, telle que nous la maintenons, est l'objet de l'attention générale? Car telle est la force de la vérité! Notre conception de l'école entrera un jour dans tous les esprits, parce que c'est la conception vraie. Nous ne savons si ce temps est proche, mais le temps viendra, n'en doutons pas, où – nous aimons à le redire – l'école publique française, l'école de neutralité, de tolérance, de paix et de justice, sera l'école universelle.”<sup>779</sup>

Educators such as Compayré now imagined the transnational circulation of educational models as the diffusion of their own national model. The assertion that the French model of primary instruction embodied a “truth”, reflects the imperial claims of the French experts. These claims have to be understood as an implicit confrontation with German primary schools which legitimised an authoritarian empire.

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<sup>776</sup> *Congrès international de l'éducation sociale 26-30 septembre 1900*, Paris, Alcan, 1901, p. 477. Buisson urged his audience to overcome class boundaries. However, the congress tackled this theme only on the discursive level, as the remaining class bias of French primary education was not discussed.

<sup>777</sup> DOLIVEUX, Henri, *Le Congrès international de l'enseignement primaire*, Paris, C. Delagrave, 1900, p. 108-111.

<sup>778</sup> *Ibid.*, p. 112.

<sup>779</sup> *Ibidem.*

Thus, from the end of the 1880s onwards, international competition became a driving force in the staging of French primary education.<sup>780</sup> French educators presented their particular model of primary education and were convinced of its superiority. Republican discourses stressed equality and progress, although education continued to have a strong class and gender bias. The secular character of schooling was an especially important issue for French educators, as no other country had adopted a similar model. Furthermore, manual training was an important part of French primary curricula.

### **3. The Difficult International Standing of the New Universities – French Higher Education**

Not only primary education was a theme at French educational exhibits. The reform of higher education was one of the key projects of the Third Republic at the end of the nineteenth century.<sup>781</sup> Decentralisation and the administrative integration of the unconnected faculties aimed at fitting the Napoleonic model to a changed context. The staging of these new institutions created in 1896 as well as the general standing of French higher education in comparison with the other imperial societies was a central dimension of the turn-of-the-century exhibitions.

In the late 1880s, Louis Liard (1846-1917), the Director of Higher Education in the Ministry of Public Instruction, published a work on the history of French higher education.<sup>782</sup> The first volume treated the pre-revolutionary and revolutionary periods, whereas the second focused on the nineteenth century, culminating with the efforts of the Third Republic. It also contained source documents, as for example the

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<sup>780</sup> However, the exhibits also expressed an important national discussion between republican and Catholic educators. Catholic institutions prepared an extensive exhibit in 1900 and tried to undermine republican discourses by developing their own ones. See for example FONTAINE DE RESBECQ, comte de, *L'enseignement primaire catholique. Historique – législation 1789-1900*, Paris, Poussielgue, 1901.

<sup>781</sup> WEISZ, George, *The Emergence of modern universities in France: 1863-1914*, Princeton, Princeton University Press, 1983.

<sup>782</sup> LIARD, Louis, *L'enseignement supérieur en France 1789-1889*, Paris, Armand Colin, 1889.

legislative propositions for the re-establishment of universities. The work featured at the 1889 exhibition and was also sent to the subsequent exhibitions.

When the universities were effectively enacted, it was necessary to give them a tradition. The *Exposition rétrospective de l'enseignement et de l'éducation* as part of the 1900 exposition was designed to permit a comparison between the past and the present, showing the progress made. Organisers presented books, starting from representatives of enlightenment, such as Montaigne, Fenelon and Rousseau and went on until the recent works of Octave Gréard, Jules Simon and Louis Liard. Old documents, as for example doctoral theses of the eighteenth century embedded the new policies in tradition. University dresses of earlier centuries were juxtaposed to photographs of contemporary school and university life. A portrait gallery presented great French pedagogues. It started with Ramus, Rabelais, Calvin and Montaigne, mentioned Condorcet and Guizot, and the time line finally ended with the republican icons Félix Pécaut and Jules Ferry.<sup>783</sup>

French institutions of higher education were represented at the exhibitions, mostly with their publications, but they were never the central parts of the educational exhibits. Higher education exhibits ranged from the Parisian institutions through provincial faculties to institutions as the *Ecole française d'Athènes* which played an important role for cultural diplomacy. The *sociétés savantes* regularly sent materials. However, higher education was never the central theme of French educational exhibits

French participation in the International Congress of Arts and Sciences in St. Louis was a highly polemical issue and testified to the problematic situation of

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<sup>783</sup> Musée rétrospectif du groupe 1, éducation et enseignement, à l'exposition universelle internationale de 1900, à Paris. Rapport du comité d'installation, Saint-Cloud, Belin, [1901?]. Catholic commentators ridiculed this display: BOURMONT, Comte Amédée de, *L'Exposition de 1900 au point de vue historique*, Paris, Aux bureaux de la Revue des questions historiques, 1900, p. 17.

French higher education.<sup>784</sup> Christophe Charle has shown the subordinate character of French representation at this event, notably when confronted to German participation. There were seventeen French scholars, compared to thirty one from Germany.<sup>785</sup> In fact, American organisers were keen on inviting German scholars with whom they had often studied. In a letter to Simon Newcomb of March 1904 the French commissioner general Lagrave strongly protested against this practice and the fact that only twenty four French scientists had received invitations, but forty Germans. At the same time, Lagrave added that he would have liked to see the list of those invited to come, even suggesting blank invitations that the French authorities could then pass on to suitable candidates. If the organisers of the congress were not to agree to this procedure, Lagrave threatened to withdraw all French participation so that the congress would lose its international character. For Howard J. Rogers, one of the congress' organisers, this position was "absolutely indefensible".<sup>786</sup> He argued that invitations were personal and it had been made "not much thought of nationality when the selections were made".<sup>787</sup> "The Congress is not international in the usual acceptance of the term where all nations are invited to send delegates; but is international only in the sense that it may comprise in its membership scientists from many nations."<sup>788</sup> Congress authorities reaffirmed that the French participants were welcome, but selected by the organisers themselves. It turned out, however, that some of the invited French scientists showed no interest in attending the conference and refused to travel to St. Louis. The Ministry of Public Instruction wanted to

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<sup>784</sup> FOREST, Pierre-Gerlier, « Montrer pour démontrer: le congrès des arts et des sciences de l'Exposition universelle de Saint-Louis », in: *Relations internationales*, 46, 1986, p. 131-152; STAIQULY, Mathieu, « Les Français et l'Exposition Universelle de Saint-Louis (1904) », in: *Bulletin de l'Institut Pierre Renouvin*, 3, 1997, p. 40-44.

<sup>785</sup> CHARLE, Christophe, *La République des universitaires: 1870-1940*, Paris, Seuil, 1994, p. 376-383.

<sup>786</sup> ANF, F12, 4474, Letter Howard J. Rogers to Percy Peixotto, 18 March 1904.

<sup>787</sup> Ibidem.

<sup>788</sup> ANF, F12, 4474, Letter David R. Francis to Howard J. Rogers, 18 March 1904.

encourage French participation as much as possible, at the same time controlling the choice of delegates. Charles Bayet spoke of France's "intérêts moraux en Amérique".<sup>789</sup>

Initially, Gabriel Compayré had received an invitation from the congress authorities to represent France in the educational section. However, the Ministry refused to support his participation. Later it changed its mind and encouraged the rector of the Academy of Lyon to cross the Atlantic. At that stage, however, Compayré refused, giving "raisons de famille".<sup>790</sup> Finally, Charles Chabot (1857-1924), professor of educational sciences at the University of Lyon, represented France in the educational section of the congress. He gave a presentation on "The Professional Training of Teachers in France".<sup>791</sup>

Thus, French higher education was hardly visible at the world exhibitions. French representations in the educational sections of world exhibitions stressed primary instruction. By contrast, the republican primary school was promoted as a central theme of French education. One could observe a common French-American excitement for republicanism that was more and more replaced by more nationalist forms of presentation.

## **II. Germany**

After the Vienna exhibition of 1873, Germany did not participate in the educational sections of most world exhibitions. However, organisers made considerable efforts to represent the German Empire at the American expositions in

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<sup>789</sup> ANF, F12, 4474, Letter Charles Bayet to Lagrave, 22 March 1904.

<sup>790</sup> There is a whole range of correspondence with and on Compayré's travel to St. Louis in ANF, F17, 2760.

<sup>791</sup> CHABOT, Charles, « The Professional Training of Teachers in France », in: ROGERS, Howard J. (ed.), *Congress of Arts and Science. Universal Exposition, St. Louis, 1904*, Boston/New York, Houghton, Mifflin and company, 1907, vol. 8, p. 176-191.

Chicago and St. Louis.<sup>792</sup> Theodor Lewald, the German commissioner general to the Louisiana Purchase Exposition, wrote in a preparatory report that German influence in the United States was at a turning point. Thus, an impressive German participation would be necessary. Lewald urged his countrymen that Germany had to be the best represented nation at the exposition. The Empire, he argued, should make the educational section the central theme of the exhibit:

“Es ist in geistiger und materieller Hinsicht wichtig, dass das hohe, indessen hier und da erschütterte Ansehen des deutschen Schul- und Erziehungswesens durch die Vorführung unserer Einrichtungen neu gefestigt wird.”<sup>793</sup>

This quote shows that German organisers were well aware of the fact that education in Germany was slowly falling behind that of other nations. Most pedagogical innovations now developed outside Germany. Furthermore, it was the fundamental scope to foster German-American friendship and strengthen the “German element” in American society.<sup>794</sup> These remarks, though formulated in 1903, were valid for both the Chicago and St. Louis exhibitions.

Although the lower grades of the education system were broadly represented, the emphasis – in sharp contrast with France – was on the universities. Below the confident national discourses, the exhibits provoked controversial debates on the character of the German nation-state.

## **1. The Superiority of Prussian Administration – The Prussian Primary Schools at the Exhibition**

In Chicago and St. Louis, one part of the educational exhibit concerned the lower grades of education, this is all schools below university level. Obviously, its

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<sup>792</sup> Compare to FUCHS, Eckhardt, in: «Gouvernementaler Internationalismus und Bildung: Deutschland und die USA am Anfang des 20. Jahrhunderts», in: SCHRIEWER, Jürgen, *Weltkultur und kulturelle Bedeutungswelten: Zur Globalisierung von Bildungsdiskursen*, Frankfurt am Main, Campus, 2007, p. 45-73.

<sup>793</sup> BArch, R 901 Auswärtiges Amt, Nr. 503, Weltausstellung in St. Louis. Bericht des Reichskommissars Lewald, Berlin, 18 February 1903.

<sup>794</sup> See for example BArch, R 901 Auswärtiges Amt, Nr. 514, Denkschrift über das Goldene Buch der Deutschen in Amerika.

organisers did not belong to those who criticised German education through their reports.<sup>795</sup> They were officials of the Prussian Ministry of Education and represented the educational mainstream in Germany. Stephan Waetzoldt (1849-1904) was the commissioner in charge of the Prussian exhibit of the lower educational grades at the Columbian Exposition. Waetzoldt had studied at the University of Halle and had later spent a year in Paris at the beginning of the 1870s, probably as a teacher of German.<sup>796</sup> Afterwards he built up a reputation as an expert of girls' secondary education which culminated in his position as the director of the Elisabeth-Schule in Berlin. He was also an extraordinary professor at the university of this city.<sup>797</sup>

In 1904, the position of commissioner general of the educational exhibit was attributed to the Count zu Limburg-Stirum, a young low-ranking civil servant in the Prussian Ministry of Education from an influential conservative family from Silesia.<sup>798</sup> Thus, education was represented by someone who did not have particular credentials among education experts.

Several publications were especially prepared for the two exhibitions respectively. In 1893, in their book on primary education A. Petersilie from the Prussian *Königliches statistisches Bureau* and R. Schneider provided a detailed account on the development of primary education in Prussia, supported by extensive statistical data.<sup>799</sup> Conrad Rethwisch, senior teacher at a gymnasium in Berlin, published a work on German secondary education where he notably presented the history and

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<sup>795</sup> See above, third part, chapter III.

<sup>796</sup> GStA PK, VI. HA Rep. 92, Familienarchiv Waetzoldt, Nr. 60, Briefe Stephan Waetzoldts an seine Mutter aus Paris, 1872-1873.

<sup>797</sup> WYCHGRAM, Jakob, « Stephan Waetzoldt », in: *Der Saemann*, 3, 1, 1907, p. 1-7.

<sup>798</sup> LEWALD, Theodor, *Amtlicher Bericht über die Weltausstellung in Saint Louis 1904. Erstattet vom Reichskommissar*, Berlin, Reichsdruckerei, 1906, vol. 1, p. 108.

<sup>799</sup> SCHNEIDER, R., PETERSILIE, A., *Die Volks- und die Mittelschulen, sowie die sonstigen niederen Schulen im preußischen Staate im Jahre 1891. Nebst geschichtlichen und statistischen Rückblicken in die Vergangenheit. Denkschrift im Auftrage des Herrn Ministers der geistlichen, Unterrichts- und Medizinalangelegenheiten*, Berlin, Koebke, 1893, p. 47-51.

present situation of the gymnasium.<sup>800</sup> Post-primary education for girls (*Höheres Mädchenschulwesen*) was a special feature of the exhibit, although its institutionalisation in German was delayed in comparison with other countries.<sup>801</sup> The educator and feminist Helene Lange (1848-1930) wrote on the situation of this branch of education in the German states.<sup>802</sup> Ulrike Henschke (1830-1897), another feminist activist, published a work on female continuation schools.<sup>803</sup>

In 1904, the Prussian Ministry of Education edited in total six volumes on Prussian and German education for the Louisiana Purchase Exposition. One of them dealt with elementary education. Paul von Giżycki (1856-1908), a school inspector in Berlin, wrote on the situation of primary schooling.<sup>804</sup> Eduard Clausenitzer (1870-1920), a senior teacher at the teachers' seminary in Oranienburg, a small town close to Berlin, contributed another chapter on teacher training.<sup>805</sup> All publications, with the exception of some catalogues and guides, were in German only.

The exhibit on elementary education consisted of objects easily presentable, such as wall charts.<sup>806</sup> Waetzoldt's report gave insight into the underlying ideology of the exhibit. For example, it described one of the entrances to the school exhibit, which imitated a German oak, aiming at representing the persistent character of German

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<sup>800</sup> RETHWISCH, Conrad, *Deutschlands höheres Schulwesen im neunzehnten Jahrhundert: geschichtlicher Überblick im Auftrage des Königlichen Preußischen Ministeriums der geistlichen, Unterrichts- und Medizinal-Angelegenheiten. Mit amtlichen Nachweisungen über den Besuch der höheren Lehranstalten des Deutschen Reiches*, Berlin, Gaertner, 1893.

<sup>801</sup> ALBISETTI, James C., *Schooling German girls and women: secondary and higher education in the nineteenth century*, Princeton, Princeton University Press, 1988.

<sup>802</sup> LANGE, Helene, *Entwicklung und Stand des höheren Mädchenschulwesens in Deutschland. Im Auftrag des Königlichen Preußischen Ministeriums der geistlichen, Unterrichts- und Medizinalangelegenheiten*, Berlin, Gaertner, 1893.

<sup>803</sup> HENSCHKE, Ulrike, *Denkschrift über das weibliche Fortbildungsschulwesen in Deutschland*, Berlin, A. W. Hayn's Erben, 1893.

<sup>804</sup> GIŻYCKI, Paul von, « Das Volksschulwesen », in: LEXIS, Wilhelm (ed.), *Das Unterrichtswesen im Deutschen Reich: Aus Anlaß der Weltausstellung in St. Louis. Band 3. Das Volksschulwesen und das Lehrerbildungswesen im Deutschen Reich*, Berlin, Asher, 1904, p. 1-232.

<sup>805</sup> CLAUNITZER, Ed., « Die Volksschullehrerbildung », in: LEXIS, Wilhelm (ed.), *Das Unterrichtswesen im Deutschen Reich: Aus Anlaß der Weltausstellung in St. Louis. Band 3. Das Volksschulwesen und das Lehrerbildungswesen im Deutschen Reich*, Berlin, Asher, 1904, p. 233-346.

<sup>806</sup> *Deutsche Unterrichtsausstellung in Chicago 1893. Katalog der Ausstellung für das höhere Mädchenschulwesen und das gesammte Volksschulwesen*, Chicago, Stern, 1893.

education. Waetzoldt proudly recalled the German pedagogic tradition which had developed over several centuries. In contrast, he claimed that even a highly generous funding of education could not remedy the lack of such a tradition in the United States. The effective number of children frequenting school exactly matched the official number of school-aged youth because of the administrative perfection of the Prussian state. If the American school system showed on some occasions a high performance, it was not consistent (*gleichmäßig*). Waetzoldt used the noun “Geichmäßigkeit” several times in his account, indirectly pointing at the United States where high-performing states neighboured those with high percentages of truancy. In turn, Waetzoldt criticised too much experimentation in the United States and presented the German schools as a stable model in a changing world:

“Diese Tradition bewahrt uns vor dem planlosen Experimentieren, sie verbürgt die annähernde Gleichartigkeit des Unterrichts in allen Schulen und damit die Erreichung des der Volksschule gesetzten Zieles. Noch heute aber gilt der preußischen Volksschule als höchstes Ziel nicht die Übermittlung möglichst weit gehender Kenntnisse und Fertigkeiten, sondern vielmehr die Ertüchtigung des Kindes zu seiner Lebensaufgabe in Staat und Gesellschaft durch eine den ganzen Menschen fassende religiöse und vaterländische Erziehung.”<sup>807</sup>

This rhetoric, based on the claim of universal schooling and its function for the nation, had fascinated American educators half a century before. In the meantime, however, American education had developed further. Selim H. Peabody, chief of the liberal arts department of the Columbian Exposition, remarked that two kinds of exhibits were missing in the German section: those of shop training and the kindergarten.<sup>808</sup> This omission was by choice. In fact, manual training was not part of

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<sup>807</sup> WAETZOLD, Stephan, « Ausstellung des höheren Schulwesens und des gesamten Volksschulwesens », in: *Amtlicher Bericht über die Weltausstellung in Chicago 1893*, Berlin, Reichsdruckerei, 1894, vol. 2, p. 951-968, here p. 960. One should not, however, that this consistency concerned only Prussia, not the entire German nation.

<sup>808</sup> PEABODY, Selim H., « The Educational Exhibit at the World's Columbian Exposition », in: *Report of the Commissioner of Education for the Year 1892-1893*, Washington, Government Printing Office, 1895, p. 454-457, here p. 455.

the curricula of most primary schools in Germany. The kindergarten, although a German invention, developed mostly outside Germany.

The exhibit on primary education was an expression of both modern and conservative elements of the German Empire.<sup>809</sup> The Prussian Ministry of Education tried to depict German primary schools as well administered and efficient institutions. The lack of manual elements in elementary education and the absence of child-centred psychological approaches, however, marked a contrast to the other, notably American, presentations and was consciously staged as a German specificity. In turn, traditions and the fact that German education kept on sticking to these traditions more than others became crucial for German representations. In this sense, the German educational exhibit on the lower grades of education showed that German education was slowly falling behind.<sup>810</sup>

## **2. “Germania Facile Princeps”? – The German University Exhibits**

The university exhibit was by far more important – in catalogued items and covered space – than the exhibit on the lower grades of the education system.<sup>811</sup> Even though the German publications exaggerated the novelty and innovative character of the exhibit, it had been designed with remarkable consistency. The university section, in Chicago and St. Louis alike, provided an idealised and almost idyllic image of higher education in Germany, full of cultural meanings.

Dittmar Finkler (1852-1912), a professor of hygiene at the University of Bonn, organised the university exhibit of 1893. It was Finkler’s goal to provide Americans

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<sup>809</sup> NIPPERDEY, Thomas, *Wie modern war das Kaiserreich?: das Beispiel der Schule*, Opladen, Westdeutscher Verlag, 1986.

<sup>810</sup> See also WYCHGRAM, Jacob, « Frankreich. Von der Weltausstellung », in: *Deutsche Zeitschrift für ausländisches Unterrichtswesen*, 6, 3, 1901, p. 222-228, especially p. 223.

<sup>811</sup> It was characteristic that German organisers turned around the official classification when publishing six volumes on German education for the St. Louis exhibition. The American classification started with elementary schooling, whereas Lexis’ publications began with a first volume on universities, a second one on the gymnasium and other secondary institutions, a third one on primary schools and finally three volumes on technical education.

with a clear idea of German universities and to do the universities the honour they deserved in his view.<sup>812</sup> Friedrich Althoff, the director for higher education in the Prussian Ministry, played an important role in the background.

As Finkler claimed, it was nearly impossible to explain the characteristics of higher education in Germany to someone who had never attended a German university.<sup>813</sup> The Court of Honour, as the central part of the university exhibit, aimed nevertheless at providing insight in German higher education through visual impressions. Sculptures of Luther and Schleiermacher decorated the entrance, highlighting a Protestant filiation. In the middle of the court was a colossal bust of the Emperor. At the walls portraits showed, eminent past and present scholars. Shelves gave access to huge volumes in leather binding. Opposite to the court hang an impressive picture of the natural scientist Alexander von Humboldt which, according to Finkler, made a great impression on all visitors. Below were busts of the philosopher Gottfried Wilhelm Leibniz and the chemist Justus von Liebig. Just behind the court was the so-called Germania-Tower. It was the landmark of the entire German exhibit in the Palace of Industry. Hence, universities were in the very centre of the German exhibit in Chicago.

A range of publications introduced interested visitors to German higher education. In 1893, Wilhelm Lexis (1837-1914), professor of social economy in Göttingen, edited two large volumes on German universities.<sup>814</sup> Friedrich Paulsen (1846-1908), professor of philosophy at the University of Berlin and author of a monumental

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<sup>812</sup> "Eine einigermaßen richtige Vorstellung und Würdigung unseres Universitätswesens." See FINKLER, D., « Deutsche Universitätsausstellung », in: *Amtlicher Bericht über die Weltausstellung in Chicago 1893*, Berlin, Reichsdruckerei, 1894, vol. 2, p. 969-1029, here p. 971.

<sup>813</sup> "Dazu muß man an der Universität mit der jugendlichen Gluth eines deutschen Studentenherzens 'studirt', gelernt und gelebt haben." See FINKLER, « Deutsche Universitätsausstellung », p. 980.

<sup>814</sup> LEXIS, Wilhelm, *Die deutschen Universitäten*, Berlin, Asher, 1893. Some parts were translated into English in LEXIS, Wilhelm, « German Universities », *Report of the Commissioner of Education for the Year 1891-1892*, Washington, Government Printing Office, 1894, p. 247-368.

history of German higher education<sup>815</sup>, wrote an introductory part on the history and character of German universities.<sup>816</sup> Implicit and explicit comparison to France and England was omnipresent throughout his account. Paulsen claimed that German universities were now copied abroad, especially in the United States and France.<sup>817</sup>

Paulsen described German universities as not simply forming bureaucrats for state service. He argued that the leading German intellectuals served at a university which was not the case in the two other countries. Paulsen went on arguing that German appointment procedures were superior to French selection procedures based on competitive examinations. Paulsen criticised “godless” French universities without theological faculties. German universities symbolised the unity of science, in contrast to French faculties that lacked links between each other.

Paulsen called the *Abitur*, the final diploma of German secondary schools, an academic civil right. Paulsen underlined that this civil right was open to “everyone”. This referred to the nobility and the bourgeoisie, but obviously excluded the working class. Once obtained the *Abitur*, Paulsen argued, a German student belonged to a democratic society of equals. A student was even entitled to enforce his claim for equality with a gun in his hand.<sup>818</sup>

As Paulsen argued, an excellent relationship between students and professors prevailed in Germany, due to the lack of compulsory curricular elements. *Lernfreiheit* without limitations – an elective course of studies, as Americans would say – was another characteristic of German universities. Paulsen described the

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<sup>815</sup> PAULSEN, Friedrich, *Geschichte des gelehrten Unterrichts auf den deutschen Schulen und Universitäten vom Ausgang des Mittelalters bis zur Gegenwart: mit besonderer Rücksicht auf den klassischen Unterricht*, Berlin, De Gruyter, 1965, [1885].

<sup>816</sup> PAULSEN, F., « Wesen und geschichtliche Entwicklung der deutschen Universitäten », in: LEXIS, Wilhelm, *Die deutschen Universitäten*, Berlin, Asher, vol. 1, p. 3-114.

<sup>817</sup> *Ibid.*, p. 10.

<sup>818</sup> *Ibid.*, p. 54-56.

German student as idealistic and self-determined, not simply absorbing curricular matter, but making life-long experiences.<sup>819</sup>

Johannes Conrad (1839-1915), professor of social economy and statistician at the University of Halle, presented a statistical survey of German higher education. The specialised part of Lexis' volumes consisted of accounts on scientific disciplines. Lexis had gained eminent scholars as authors. Three-fourths of them were affiliated to Prussian universities.<sup>820</sup>

In addition to Lexis' volumes the exhibit comprised more than 1,300 books treating different aspects of German universities. Scientific monographs and journals presented the latest research results. Compendia on German scientific journals and doctoral dissertations should demonstrate the performance of German higher education and at the same time provide useful information to visitors with academic backgrounds.<sup>821</sup>

Finkler remarked self-confidently that this was the most consistent university exhibit of all participating nations. This was due to Germany being the only country with such a consistent system of higher education, Finkler added polemically. Tradition was once again a decisive factor. This was a clear statement against the young, but dynamic, American universities:

“Die Entwicklung des deutschen Universitätswesens ist alt und in logischer Konsequenz vorangeschritten, die Erfolge der Arbeit, des Lehrens und Forschens an diesen sind stetig, nicht momentan wie Treibhauspflanzen gezeitigte, sondern vorbereitet in Generationen, die viel geistige Kraft an den Ausbau der Wissenschaft gesetzt haben.”<sup>822</sup>

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<sup>819</sup> Ibid., p. 82-97.

<sup>820</sup> BAUMGARTEN, Marita, *Professoren und Universitäten im 19. Jahrhundert: Zur Sozialgeschichte deutscher Geistes- und Naturwissenschaftler*, Vandenhoeck & Ruprecht, 1997.

<sup>821</sup> *Verzeichnis der in Deutschland erschienenen wissenschaftlichen Zeitschriften*, Berlin, Reuther und Richard, 1893; *Verzeichnis der seit 1850 an den Deutschen Universitäten erschienenen Doctor-Dissertationen und Habilitationsschriften aus der reinen und angewandten Mathematik. Herausgegeben auf Grund des für die Deutsche Universitäts-Ausstellung in Chicago erschienenen Verzeichnisses*, München, 1893.

<sup>822</sup> FINKLER, « Deutsche Universitätsausstellung », p. 1029.

German technical universities had been excluded from the exhibit at the Columbian Exposition. The exhibit nevertheless comprised sciences such as mathematics, physics and chemistry which were taught at both classical and technical universities.<sup>823</sup> Eleven years later, in St. Louis, the university exhibit resembled that of Chicago, but comprised technical universities. In one of the official volumes, professor A. Riedler who had once learned from American experiences, now wrote an official chapter on mechanical engineering.<sup>824</sup>

In 1904 the Prussian government councillor Emil Fischer played a leading role in the preparation of the chemistry exhibit at the Louisiana Purchase Exposition. Fischer had observed that the German chemical exhibit in Paris in 1900 was a success and demonstrated German leadership in this innovative field.<sup>825</sup> The chemical exhibit in St. Louis, jointly with representatives of several interest groups of the German chemical industry, provided a good impression of how German organisers staged assumed scientific excellence, embedded in German traditions.<sup>826</sup> Visitors entered the chemistry department through a reading room. Two shelves of chemical literature should furnish the interested visitor with “a clear idea of the development of chemical science and work in Germany”.<sup>827</sup> The reading room featured busts of Justus von Liebig and five other German chemists.

The second hall was the reproduction of an alchemistic laboratory. The room, “under its gloomy Gothic caulked roofs, affords a glimpse into the mysterious workshops of those old adepts, to whose fantastic experiments, entangled as they were in

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<sup>823</sup> *Deutsche Unterrichts-Ausstellung in Chicago 1893. Katalog der Universitäts-Ausstellung*, Berlin, 1893, p. V.

<sup>824</sup> RIEDLER, A., « Das Maschinen-Ingenieurwesen », in: LEXIS, Wilhelm (ed.), *Das Unterrichtswesen im Deutschen Reich: Aus Anlaß der Weltausstellung in St. Louis. Band 4. Teil 1. Die Technischen Hochschulen im Deutschen Reich*, Berlin, Asher, 1904, p. 125-136.

<sup>825</sup> BArch, R 901 Auswärtiges Amt, Nr. 346, Weltausstellung in Paris im Jahre 1900. Report of Fischer, Berlin, 17 November 1900.

<sup>826</sup> *German educational exhibit. Chemistry*, Berlin, Büxenstein, 1904.

<sup>827</sup> *Ibid.*, p. 8.

mystic visions and shunning the eyes of the world, especially we in Germany owe so many great discoveries”, as for example gunpowder, porcelain and beetroot sugar.<sup>828</sup>

Objects from an ore mine were “to give an idea of the quarries which even in the Middle Ages were already being worked in Germany”.<sup>829</sup>

Consecutively visitors entered the Liebig laboratory. The message of this juxtaposition was clear: modern German research in chemistry did not come from Paris where Liebig had studied, but from the Germanic Middle Ages.<sup>830</sup> The exhibit fostered a nationally autonomous narrative on the history of chemical sciences, although its organiser Fischer was well aware of the fundamental role of Liebig’s reference to France during the first half of the nineteenth century.<sup>831</sup> “Liebig’s mighty personality recognised the immense economic importance of chemico-technical instruction for the people and organised a system for the spread of such instruction.”<sup>832</sup> The room was a reproduction of Liebig’s laboratory in Gießen. The guide explained the instruments that Liebig invented and used as well as the experiments he and his disciples carried out.

The remaining eight showrooms were dedicated to modern chemistry and thus presented “a fraction of the host of inventions which the world owes to Germany”.<sup>833</sup> They showcased about 3.700 objects of modern chemical equipment.

The German educational exhibit at the Chicago and St. Louis exhibitions received a large amount of prizes from the international jury. “Germania facile princeps”,

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<sup>828</sup> Ibid., p. 19.

<sup>829</sup> Ibidem.

<sup>830</sup> On Justus von Liebig and his inseration in comtemporary networks of expertice, as well as further references to secondary literature see VOGEL, Jakob, *Ein schillerndes Kristall: eine Wissensgeschichte des Salzes zwischen Früher Neuzzeit und Moderne*, Köln, Böhlau, 2008, p. 290-291, 333-341.

<sup>831</sup> BArch, R 901 Auswartiges Amt, Nr. 346, Weltausstellung in Paris im Jahre 1900. Report of Fischer, Berlin, 17 November 1900.

<sup>832</sup> *German educational exhibit. Chemistry*, p. 21.

<sup>833</sup> Ibid., p. 27.

proudly stated the German final report on the Louisiana Purchase Exposition.<sup>834</sup> But it is doubtful whether the German educational exhibits contributed to the diffusion of the German university model throughout the world. There was only limited reporting on the exhibits. Moreover, these reports mostly discussed the representational strategies instead of the exhibits' contents.<sup>835</sup> The German university exhibits were rather an effort of self-staging of the German mandarins.<sup>836</sup> Regardless of the exhibited scientific instruments, humanistic values were put forward.<sup>837</sup> The exhibits aimed at celebrating the role of German higher education for institutionalisation processes in the United States and at keeping these transfer processes in the American minds. It was designed to show Americans and French to whom they had referred when constructing their institutions. The exhibits did not present recent solutions, but highlighted older German institutional patterns and elevated them so that they acquired the status of a specific tradition. In this way, they were expressions of the crisis of the German university model.<sup>838</sup> Despite this defensive character of the German university exhibits the strong participation of German scholars at the Congress of Arts and Sciences underlined persisting German scientific excellence and transatlantic links.<sup>839</sup> The university exhibits contributed to and were an expression of the formation of a myth of German universities which also found

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<sup>834</sup> LEWALD, Theodor, *Amtlicher Bericht über die Weltausstellung in Saint Louis 1904. Erstattet vom Reichskommissar*, Berlin, Reichsdruckerei, 1906, vol. 1, p. 92.

<sup>835</sup> See for example STEEG, « Enseignement », p. 121. Finkler spoke of at least seven hundred visitors who made a detailed inspection of the university exhibit in Chicago and sixty potential students who were interested in studying in Germany. See FINKLER, « Deutsche Universitätsausstellung », p. 1026.

<sup>836</sup> RINGER, Fritz K., *The Decline of the German Mandarins. The German Academic Community, 1890-1933*, Cambridge, Harvard University Press, 1969.

<sup>837</sup> Paulsen stated that the philosophical faculty was the only veritable academic faculty, the others served only the memorisation of technical knowledge: PAULSEN, « Wesen und geschichtliche Entwicklung der deutschen Universitäten », p. 39.

<sup>838</sup> CHARLE, Christophe, VERGER, Jacques, *Histoire des universités*, Paris, Presses Universitaires de France, 1994, p. 101-105.

<sup>839</sup> At this congress Wilhelm Rein represented German pedagogy. On German-American relations more in general see KAMPHAUSEN, Georg, *Die Erfindung Amerikas in der Kulturkritik der Generation von 1890*, Weilerswist, Velbrück, 2002.

expression in the celebration of the centennial celebration of the University of Berlin in 1910.<sup>840</sup> But which was the Germany the exhibits referred to?

### **3. The Impossibility of a German Educational Exhibit – Prussian Dominance and Federal Claims**

The German participation at world exhibitions has always provoked polemics among the German states.<sup>841</sup> When preparing for the Universal Exposition of 1867, the Saxon government tried to centralise the representation of the German states under its control. This was part of a struggle of powers over the shape of the future German nation-state. This Saxon idea had to be abandoned after the Austrian defeat of 1866 in the Prussian-Austrian War in which Saxony had participated on the side of Austria.<sup>842</sup> The Prussian land school and the Saxon temple of public instruction which inspired French debates on universal primary education at the *Exposition universelle* in Paris in 1867<sup>843</sup>, in the end reflected the competition between the German states.

The new German Empire founded in 1871 lacked a central institution for the administration of educational affairs. It did not possess a federal ministry of education, which meant that education remained a competence of the particular states. Unlike the United States, it did not even have a centrally organised agency for

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<sup>840</sup> BRUCH, Rüdiger vom, « A Slow Farewell to Humboldt? Stages in the History of German Universities, 1810-1945 », in: ASH, Mitchell G. (ed.), *German universities past and future: crisis or renewal?*, Providence/Oxford, Berghahn Books, 1997, p. 3-27; LANGEWIESCHE, Dieter, « Die 'Humboldtsche Universität' als nationaler Mythos. Zum Selbstbild der deutschen Universitäten in ihren Rektoratsreden im Kaiserreich und in der Weimarer Republik », in: *Historische Zeitschrift*, 290, 2010, p. 53-91; PALETSCHEK, Sylvia, « Verbreitet sich ein 'Humboldt'sches Modell' an den deutschen Universitäten im 19. Jahrhundert », in: SCHWINGES, Rainer Christoph (ed.), *Humboldt international: der Export des deutschen Universitätsmodells im 19. und 20. Jahrhundert*, Basel, Schwabe, 2001, p. 75-104.

<sup>841</sup> CORNELISSEN, Christoph, « Die politische und kulturelle Repräsentation des Deutschen Reiches auf den Weltausstellungen des 19. Jahrhunderts », in: *Geschichte in Wissenschaft und Unterricht*, 52, 3, 2001, p. 148-161.

<sup>842</sup> KROKER, Evelyn, *Die Weltausstellungen im 19. Jahrhundert: industrieller Leistungsnachweis, Konkurrenzverhalten und Kommunikationsfunktion unter Berücksichtigung der Montanindustrie des Ruhrgebietes zwischen 1851 und 1880*, Göttingen, Vandenhoeck & Ruprecht, 1975, p. 35-36.

<sup>843</sup> See above, second part, chapter three.

statistical purposes. As a result, the prior competition among states continued in the form of institutional competition within the Reich.

In Vienna in 1873, the German educational pavilion had the form of a Roman Cross and gathered the exhibits of all states of the new Empire.<sup>844</sup> The articles were grouped according to their classification and use. Hence, it was not easy to know from which state they came, as an American commissioner remarked.<sup>845</sup> This was a conscious strategy of German organisers who wanted to stress the commonalities of the German exhibit, eclipsing state traditions.

The educational exhibit in Chicago, which on first sight aimed at representing the entire German Empire, in fact was organised by the Prussian Ministry of Education. This fact raised criticism among those who were not Prussian and did not want to recognise Prussian supremacy within Germany. Jacob Wychgram (1858-1927), director of the municipal higher girls' school in Leipzig and besides Waetzoldt a leading authority in higher girls' education in Germany, wrote a review of Waetzoldt's official report from the Columbian Exposition.<sup>846</sup> His review appeared in the *Deutsche Zeitschrift für ausländisches Unterrichtswesen* of which he was the editor. Wychgram argued that there was no German exhibit, but only a Prussian one. Throughout his review Wychgram constantly used quotation marks when mentioning the "German exhibit". As the Leipzig educator rightly mentioned, only the Ministry

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<sup>844</sup> BAUPEL, von, «Die Schule auf der Wiener Weltausstellung», in: *Allgemeine deutsche Lehrerzeitung*, 25, 27, 1873, p. 205-206; 25, 30, 1873, p. 229-231; 25, 32, 1873, p. 247-251; 25, 33, 1873, p. 253-255; 25, 34, 1873, p. 261-263; 25, 35, 1873, p. 271-273.

<sup>845</sup> HOYT, John W., «Report on Education», in: *Reports of the Commissioners of the United States to the International Exhibition held at Vienna, 1873*, Washington, Government Printing Office, 1876, vol. 2, p. 20. On the contrary, Eckhardt Fuchs has argued that state divisions were clearly visible in the German educational exhibit: FUCHS, Eckhardt, in: «Gouvernementaler Internationalismus und Bildung: Deutschland und die USA am Anfang des 20. Jahrhunderts», in: SCHRIEWER, Jürgen, *Weltkultur und kulturelle Bedeutungswelten: Zur Globalisierung von Bildungsdiskursen*, Frankfurt am Main, Campus, 2007, p. 45-73, here p. 50.

<sup>846</sup> Ironically, Wychgram moved from Leipzig to Prussia in 1900, accepting a position at the Augusta-Anstalten in Berlin on Waetzoldt's proposal. For the motivations of this transfer see WYCHGRAM, «Stephan Waetzoldt».

of Education of Prussia, together with that of Württemberg<sup>847</sup>, had organised the exhibit. Additionally, only Bavaria, Hesse and Bremen sent very limited exhibits to Chicago which were presented as part of the Prussian section. Wychgram wrote that he felt ashamed to see that Germany's federal character became obvious in such a way abroad. He criticised that Saxony and Baden, the states with, according to him, the best-developed education systems were absent. Wychgram deplored the fact that it was impossible to present national statistics of education, as each state drew its proper statistics. In fact, most of the publications especially prepared for the Columbian Exposition were Prussia-centred; they discussed developments in the remaining states only marginally. Finally, Wychgram regretted that Germany lacked of a national institution comparable to the Bureau of Education in Washington or the *Musée pédagogique* in Paris. In this regard he proposed to transform the existing *Pädagogische Centralbibliothek* in Leipzig into a truly national institution.<sup>848</sup>

Alternative displays which did not follow the dominant Prussian approach, such as the one organised by the *Deutscher Verein für Knabenhandarbeit*, disturbed rather than complemented the main discourse. Woldemar Götze as director of the *Deutschen Lehrerbildungsanstalt für Knabenhandarbeit* in Leipzig prepared a complete exhibit of his institution which he wanted to send to Chicago. Against initial agreements the Prussian commissioner Waetzoldt made clear that there would be neither money for transportation nor sufficient space in order to stage the exhibit appropriately. This was very much to the frustration of Götze.<sup>849</sup>

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<sup>847</sup> Württemberg had even an own catalogue: *Deutsche Unterrichtsausstellung in Chicago, 1893: Königreich Württemberg*, Chicago, Stern, 1893.

<sup>848</sup> Review of Waetzoldt's report from the Columbian Exposition in: *Deutsche Zeitschrift für ausländisches Unterrichtswesen*, 1, 3, 1896, p. 296-298.

<sup>849</sup> FRITZSCH, Theodor, *Woldemar Götze, der Vater der erziehenden Knabenhandarbeit*, Langensalza, Beltz, 1933, p. 38. The eminent Leipzig expert on technical education Karl Biedermann had often formulated anti-Prussian opinions. See GONON, Philipp, «Kaisertreue statt Internationalismus: Reformpädagogische Befindlichkeiten um die Jahrhundertwende», in: BÖHM,

The organisation of the German educational exhibit in St. Louis eleven years later resembled that of Chicago, although a step towards a more balanced showing was made. The Prussian Ministry of Education contacted the ministries of the other states in January 1903 asking if they wanted to collaborate in the preparation of an exhibit under Prussian guidance. Baden, Hessen, Mecklenburg-Schwerin, Sachsen-Weimar, Braunschweig, Lübeck, Bremen, Elsass-Lothringen declined to participate, although they were ready to collaborate in the preparation of Lexis' edited volume.<sup>850</sup> The Saxon ministry of education announced a very limited participation and nominated a certain Waentig, director in the ministry, as commissioner. Hamburg authorities showed interest in presenting local specificities. The Bavarian ministry, too, declared that it wanted to participate in the exhibition "damit diesselbe einen allgemeinen deutschen Charakter gewinnt".<sup>851</sup> Additionally, in a memorandum of November 1903 on the German participation at the St. Louis exhibition the organisers stressed their intention to make an exhibit that would be representative of the entire nation:

"Im übrigen wird Wert darauf gelegt, nicht nur die preußischen, sondern die Geamtheit der deutschen Einrichtungen zu veranschaulichen, wie denn auch an der Ausstellung ein Teil der außerpreußischen Bundesregierungen sowie zahlreiche außerpreußische Anstalten beteiligt sind."<sup>852</sup>

It seems that the exhibit eventually was not sufficiently national to convince all Germans. The commissioner general of the educational exhibit, the conservative Count Limburg-Stirum cared primarily for Prussian interests which led the Saxon

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Winfried (ed.), *Reformpädagogik kontrovers*, Würzburg, ERGON-Verlag, 1995, p. 177-200, here p. 186.

<sup>850</sup> GStA PK, I. HA Rep. 76 Kultusministerium, Vc, Sekt. 1, Tit. 11, Teil VI, Nr. 15, Adh. K.

<sup>851</sup> GStA PK, I. HA Rep. 76 Kultusministerium, Vc, Sekt. 1, Tit. 11, Teil VI, Nr. 15, Bd. 1, Bayerisches Staatsministerium des königlichen Hauses und des Äusseren to Reichsamt des Inneren, Munich, 29 April 1903.

<sup>852</sup> GStA PK, I. HA Rep. 76 Kultusministerium, Vc, Sekt. 1, Tit. 11, Teil VI, Nr. 15, Bd. 1. Denkschrift, betreffend die Beteiligung des Reichs an der Weltausstellung in St. Louis 1904, November 1903.

newspaper *Leipziger Tageblatt* to ask in August 1904 if the exhibit would be directed by a “Prussian particularist”.<sup>853</sup>

Even within Prussia, not all actors agreed with the state policies. As an introduction to the exhibit of the *Oberrealschule* Bochum in the industrial Ruhr area appertaining to Prussia one could read a statement that challenged the central authority of the Prussian state. Instead, it highlighted municipal autonomy in school affairs and stressed the innovative input by local actors:

“Die Oberrealschulen sind nicht vom Staate, sondern von den städtischen Gemeinden in Preußen geschaffen worden, und zwar besonders in denjenigen Gegenden, in welchen Industrie und Handel aufgeblüht sind, vor allem im Westen der Monarchie.”<sup>854</sup>

These findings confirm other recent research on the persistence of state authority in Germany after the foundation of the Empire.<sup>855</sup> With the exception of Prussia, there was nothing comparable to the Centennial histories of education of American states. Lexis’ and Paulsen’s publications were in a national framework centred on Prussia. The exhibit stressed the tendency of foreigners to equate Germany with Prussia. The elaborate national symbolism compensated for the lack of truly national institutions that would have allowed a better coordination of regional interests. Concerning education, the national level was even less institutionalised in Germany than in the United States. The educational exhibits served to impose a Prussian-centred narrative against a federal narrative. But when representatives of other states than Prussia spoke of the nation they referred to a federal model, not a Prussia-centred one.<sup>856</sup> Germans defined their model of *Bildung* as rooted in diverse federal

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<sup>853</sup> BArch, R 901 Auswärtiges Amt, Nr. 511. Clipping from the *Leipziger Tageblatt*, 26 August 1904.

<sup>854</sup> Cited in LIETZMANN, Walther, *Abhandlungen über den mathematischen Unterricht in Deutschland: veranlasst durch die internationale mathematische Unterrichtskommission*, Leipzig/Berlin, Teubner, 1909, p. 5.

<sup>855</sup> GREEN, Abigail, *Fatherlands: State-Building and Nationhood in Nineteenth-Century Germany*, Cambridge, Cambridge University Press, 2001.

<sup>856</sup> LANGEWIESCHE, Dieter, *Reich, Nation, Föderation: Deutschland und Europa*, München, Beck, 2008.

traditions of particular states, not oppressed by a centralising power. This provided the special freedom (*Freiheit*) of German academia. This federal tradition was only highlighted when it served the overall narrative and could be directed against France, as in Paulsen's essay.

In conclusion, the German educational exhibits in Chicago and St. Louis were the most sophisticatedly arranged school exhibits ever. But a closer look reveals a certain disenchantment. Pedagogical innovations, such as manual training, were largely absent. Instead, in the school and university sections alike, Prussian organisers constructed a splendid tradition that aimed at reminding participants from rivalising nations that Germany had been first in many pedagogical fields. It reminded non-Prussian Germans about who had the lead in the Empire.

### **III. Japan**

During the 1870s, reform-oriented former samurai established the new Japanese state. From the end of the decade on, however, Confucian scholars urged the Emperor to stop copying United States models and suggested that more emphasis be put on Confucian values.<sup>857</sup> Important political changes occurred in 1881, when power passed from the progressive modernisers, who were connected to the ideas of the Japanese enlightenment, to the conservative modernisers.<sup>858</sup> The latter were not Confucian traditionalists, but they used tradition in order to impose their authoritarian vision of modernity. This change also found expression in the increasing importance of the German model, at the expense of the United States model, in education and other fields. Mori Arinori, who had turned into one of the

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<sup>857</sup> TSURUMI, Patricia E., « Meiji Primary School Language and Ethics Textbooks: Old Values for a New Society? », in: *Modern Asian Studies*, 8, 2, 1974, p. 247-261, here p. 253.

<sup>858</sup> TANAKA, Masahiro, *The Cross-cultural Transfer of Educational Concepts and Practices. A Comparative Study*, Oxford, Symposium Books, 2005, p. 24.

foremost representatives of the conservative modernisers, became Minister of Education in 1886 and promulgated new school codes that year, introducing, for example, military drill in schools.<sup>859</sup> The Imperial Rescript on Education (教育勅語, *kyōiku chokugo*) of 1890, reflected the shift of the education system towards nationalism and authoritarianism.<sup>860</sup> One year later, the Ministry introduced the “Fundamental Principles and Rules for Elementary School Teaching” which introduced moral instruction (修身, *shūshin*) as the most important component of school curricula.<sup>861</sup> Devotion of the Emperor and the passing on to the next generations of the national essence (国体, *kokutai*) became central preoccupations of Japanese schools. The Sino-Japanese War of 1894-1895 and the Japanese victory also fostered nationalism. Discussing this transition of the 1880s, the sociologist Herbert Passins spoke of a “conservative counterattack” on Japanese education.<sup>862</sup> However, as has been suggested by others, the degree of change should not be exaggerated.<sup>863</sup>

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<sup>859</sup> *Japan's modern educational system: a history of the first hundred years*, Tokyo, Research and Statistics Division, Minister's Secretariat, Ministry of Education, Science and Culture, Government of Japan, 1980, p. 121-128. Mori was Minister of Education until his assassination in 1889 by a traditionalist.

<sup>860</sup> SUZUKI, Shin.ichi, YAMAKI, Kazuhiko, « Transforming Popular Consciousness through the Sacralisation of the Western School: The Meiji Schoolhouse and Tennō Worship », in: *Comparativ*, 19, 2/3, 2009, p. 44-77.

<sup>861</sup> GLUCK, Carol, *Japan's modern myths: ideology in the late Meiji period*, Princeton, Princeton University Press, 1985, p. 149.

<sup>862</sup> PASSIN, Herbert, *Society and Education in Japan*, New York, Bureau of Publications – Teachers College – Columbia University, 1965, p. 81. Similarly SCHRIEWER, Jürgen, « Multiple Internationalities: The Emergence of a World-Level Ideology and the Persistence of Idiosyncratic World-Views », in: CHARLE, Christophe, SCHRIEWER, Jürgen, WAGNER, Peter (eds), *Transnational intellectual networks: forms of academic knowledge and the search for cultural identities*, Frankfurt am Main et al., Campus-Verlag, 2004, p. 473-533.

<sup>863</sup> TSURUMI, Patricia E., « Meiji Primary School Language and Ethics Textbooks: Old Values for a New Society? », in: *Modern Asian Studies*, 8, 2, 1974, p. 247-261, especially p. 259. As showed a chapter in the *Report of the United States Commissioner of Education for the Year 1890-91*, the emphasis on values as obedience was not regarded in the United States as a departure from “Western values”. Instead, it was seen as the continuation of efforts started previously and in line with contemporary pedagogical considerations in the United States and Europe. Educators as William T. Harris stressed values as discipline, obedience and punctuality as crucial in a complex and industrialised world. Only the representatives of progressive education in the United States and reform pedagogy throughout the world sharply criticised this fact and contributed to a changing perception of Japanese education: FRENCH, Frances G., « The Educational System of Japan », in: *Report of the*

In his correspondence with the Japanese Foreign Ministry, Frederick Marshall (1839-1905), a British lawyer who spent a long period of his life as an employee of the Japanese embassy in Paris, offered to coordinate the Japanese exhibit for the *Exposition universelle* of 1889. He proposed a “new departure” and suggested a decisively national exhibit. This meant that Japan should no longer present itself as a nation among others taking part in a common modernisation process, but as a specific, though modern, world apart.<sup>864</sup> The Japanese organisers did not hire Marshall to organise their exhibit. But they fully took into account his advice to stage Japanese specificity. Japanese primary, higher and art education had achieved a relative maturity. Organisers presented them highlighting Japanese specificities.

### **1. In the Service of the Emperor State – Japanese Primary Education**

Tejima Seiichi has been introduced in the previous parts as director of the Educational Museum of Tokyo and the “father of industrial education” in Japan. His acquaintance with the United States was the reason why he became the Japanese commissioner general to the Columbian Exposition and the Louisiana Purchase Exposition. In these cases, Tejima was not only responsible for the educational section, but he was charged with a much more important and symbolic mission, namely to represent Japan as a whole. Because of his frequent missions, Tejima was called Japan’s “exhibition man”.

Tejima stood for close bonds between Japan and the United States. At the dedication ceremony for the Japanese building at the Louisiana Purchase Exposition, Tejima did not refrain from saying that Japan “owes much of her present progress

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*Commissioner of Education for the Year 1890-91*, Washington, Government Printing Office, 1894, p. 263-317, here p. 316-317; CHAMBERLAIN, W. I., *In memoriam, David Murray, PH. D., LL. D., superintendent of educational affairs in the empire of Japan, and adviser to the Japanese imperial minister of education, 1873-1879*, New York, Priv. print., 1915, p. 5.

<sup>864</sup> DRO, 3-mon, 15-rui, 2-kō, 7-gō, vol. 1, Letters of Frederick Marshall, 1876. On Marshall see YOKOYAMA, T., «Frederic Marshall as an Employee of the Japanese Legation in Paris», in: BEAUCHAMP, Edward R., IRIYE, Akira (eds), *Foreign Employees in Nineteenth-Century Japan*, Boulder, Westview Press, 1990, p. 259-278.

and development in commerce, industry, education, and other aspects of modern civilization” to the United States.<sup>865</sup> Tejima also commemorated Commodore Perry who “first introduced Japan [...] into the modern world” when he headed the American mission to Japan in 1853.<sup>866</sup> Thus, some Japanese leaders saw Japanese-American friendship as a key to the future.<sup>867</sup> At the same time, Japanese decision makers increasingly propagated distinctive Japanese traditions.

The Japanese Ministry of Education was the organiser of all Japanese educational exhibits. The *monbushō* published books for each exhibition, presenting the situation of education in Japan. Most publications were hard to read. They lacked a clear focus and were mostly translations of legal texts and chronologies of events. Additionally, most publications did not indicate authorship which made it difficult to attribute them to individual experts. The quasi-official Educational Society of Japan (帝国教育会, *Teikoku Kyōikukai*) also played an important role at international exhibitions. The Society sent delegates to the international congresses at the 1893 and 1900 exhibitions and paid the expenses of educators who travelled to exhibitions, as in the case of Kuki Ryūichi in 1885. On these occasions, the Society also presented its own publications and activities.<sup>868</sup>

From the late 1880s to the first decade of the twentieth century, the Ministry’s publications presented several common characteristics. First, publications claimed that the institutionalisation of the education system had now come to an end. In 1889, the *monbushō* published a French language brochure on the current state of education

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<sup>865</sup> « Japan’s Building Site », in: *World’s Fair Bulletin*, December 1903, p. 20-22, here p. 20.

<sup>866</sup> Ibidem. On occasion of the Columbian Exposition of 1893, the Japanese ambassador in the United States Tateno Gōzō had already expressed the same idea: TATENO, Gozo, « Foreign Nations at the World’s Fair. Japan », in: *North American Review*, 156, 42, 1893, p. 33-43, here p. 36.

<sup>867</sup> The business leader Shibusawa Eiichi expressed the same opinion when he erected a monument commemorating the arrival of Commodore Perry. See HAMON, Claude, *Shibusawa Eiichi (1840-1931): bâtisseur du capitalisme japonais*, Paris, Maisonneuve & Larose, 2007, p. 289.

<sup>868</sup> *The Imperial Educational Society of Japan*, Tokyo, 1904. The fact that the Emperor was a honorary member of the Society underlined its official character.

in Japan. It stipulated: “On peut dire que l’organisation de l’enseignement primaire se trouve aujourd’hui effectivement accomplie.”<sup>869</sup> This also reflected the fact that the Ministry had imposed itself as the inevitable provider of education in Japan.

Second, many brochures emphasised the long tradition of Japanese education.<sup>870</sup> Part two of this thesis has shown how the exhibits and publications of the *monbushō* in the 1870s tried to depict Japan as a decisively modern country that was successful in liberating itself from older traditions. The new rulers of Meiji Japan had described the old regime in a negative light because they had to show the difference to the Tokugawa regime in order to legitimate their own activities. This perspective began to change from the 1880s onwards, after most legal and institutional arrangements had been settled.<sup>871</sup> In 1900, one could find a far more positive description of old regime Japan. The brochure on the organisation of public instruction in Japan prepared for the *Exposition universelle* began as follows:

“Aussi loin qu’on peut remonter dans l’histoire de notre pays, on constate que de tout temps on y a compris la valeur de l’instruction et la nécessité de la répandre. Aux débuts même de l’Empire, il existe déjà une éducation, et cette éducation a un caractère original, elle se propose la culture de certaines qualités particulières, dont les premières sont le dévouement sans réserve au souverain, la piété filiale et la vaillance.

Bien que les vicissitudes politiques n’aient pas laissé de l’affecter dans une certaine mesure, l’éducation nationale n’en a pas moins poursuivi sans déviation un idéal élevé, s’efforçant toujours de développer à la fois le savoir et la vertu, d’inculquer des sentiments d’honneur, de faire respecter la morale, de pratiquer l’humanité, visant à former des corps robustes et des caractères sûrs.”<sup>872</sup>

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<sup>869</sup> *Observations explicatives sur les objets envoyés à l’exposition universelle de Paris (1889) par le Ministère de l’instruction publique du Japon*, Ministère de l’instruction publique du Japon, 1889, p. 3. The ministry printed 500 copies. See *Seventeenth Annual Report of the Minister of Education for the Twenty-Second Year of Meiji (1889)*, Tokyo, Department of Education, 1891, p. 26.

<sup>870</sup> On the invention of a Japanese monarchical tradition see FUJITANI, Takashi, *Splendid Monarchy: Power and Pageantry in Modern Japan*, Berkeley, University of California Press, 1996.

<sup>871</sup> Daniel Hedinger has remarked that the *monbushō* publication of 1876 referred to the events of 1868 as a “revolution” whereas the ministry’s publication of 1884 spoke of a “restoration”. See HEDINGER, Daniel, « Showcases of Revolutionary Transformation: Exhibitions in the Early Meiji Period », in: *Comparativ*, 19, 2/3, 2009, p. 78-102, here p. 80.

<sup>872</sup> *Notice sur l’organisation de l’instruction publique au Japon*, Tokyo, 1899, p. 1-2. The use of the term “national education” for the Tokugawa period is striking.

In the publication of 1900, almost no reference was made anymore to foreign models. The Japanese displays of the lower grades of education at the turn-of-the-century expositions demonstrated the extent to which the Japanese organisers were keen to highlight an indigenous tradition of Japanese education. This contrasted sharply with the exhibitions of the 1870s when the Japanese had narrated how they were refiguring the education system along European and American models. Conference participation also reflected the change towards orientations regarded as more specifically Japanese. Eudō Hidesaburō, a member of the schoolbook compilation bureau where he was in charge of the compilation of primary readers, made a presentation on “Confucius and his Educational Ideas”.<sup>873</sup>

Third, as the quotes demonstrate, the emphasis on tradition was linked to allegedly specific Japanese values enhanced through education, as devotion of the Emperor and duties of individuals towards the state.<sup>874</sup> Female etiquette included “fidelity and gentleness”.<sup>875</sup> The courses of study of the different kinds of schools which were printed in the official publications showed how moral education became the most important part of the curriculum. These lessons were designed to imbue students with these values.<sup>876</sup>

The exhibits of the *monbushō* regularly featured the Tokyo Normal School, as it was the best-equipped school of the country and defined the standards for the entire

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<sup>873</sup> Eudō spoke in German which implied a distance to the prior enthusiasm for American education *Proceedings of the International Congress of Education*, p. 308-313. Eudō als became an annual member of the NEA (p. 938). On Eudō see LINCICOME, Mark Elwood, *Principle, Praxis, and the Politics of Educational Reform in Meiji Japan*, Honolulu, University of Hawaii Press, 1995, p. 214.

<sup>874</sup> *Education in Japan: prepared for the Louisiana purchase exposition at St. Louis, USA. 2. Primary Education*, Tokyo, Monbusho, 1904, p. 12.

<sup>875</sup> *Ibidem*. More generally see *Japanese Women*, Chicago, Japanese Woman’s Commission for the World’s Columbian Exposition, 1893.

<sup>876</sup> Researchers who analysed textbooks came to similar results. They especially found an increasing emphasis on traditionalist and statist values: FRIDELL, Wilbur M., « Government Ethics Textbooks in Late Meiji Japan », in: *Journal of Asian Studies*, 19, 4, 1970, p. 823-833; MITA, Munetsuke, *Social Psychology of Modern Japan, Translated by Stephen Suloway*, London/New York, Kegan Paul International, 1992; NORDEBORG, Martin, *The "good child" and nation-building in Japan: the first Japanese primary school reader*, Göteborg, Göteborg University, 2007; TSURUMI, Patricia E., « Meiji Primary School ».

nation.<sup>877</sup> As in the case of the *Musée pédagogique* of Paris, the Educational Museum of Tokyo now presented its objects. After the London exhibition of 1884 was closed, for example, Japanese articles were left to the commissioners of the other nations. The Ministry stated proudly “that our articles, after serving for a temporary show, are now arranged in several educational museums of foreign countries, permanently serving to exhibit to foreigners something of the state of education in this country”.<sup>878</sup> At the minor Southern Exposition of 1883 at Louisville, Kentucky, the United States Bureau of Education showed Japanese articles.<sup>879</sup> This demonstrated how effectively Japanese officials were in diffusing their objects and presenting Japanese particularities to a large foreign audience.

In connection with the English edition of the annual reports of the *monbushō* and other publications for a foreign readership<sup>880</sup>, the Japanese educational exhibits permitted foreign educators to stay in touch with the latest developments on the archipelago. Organisers staged Japanese elementary education as both modern and culturally specific. Practical elements, such as drawing and manual work were part of primary curricula.<sup>881</sup> In higher education, too, Japanese displays were an expression of scientific excellence that slowly made its way.

## **2. Scientific Excellence from the “Earthquake Nation” – Japanese Higher Education**

The Japanese understanding of science, as the historian Shigeru Nakayama has argued, became one of the most modern in the nineteenth century, as it involved a

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<sup>877</sup> See for example *Catalogue spécial officiel du Japon. Commission impériale à l'Exposition universelle de Paris, 1900*, Paris, Imprimerie Lemerrier, 1900, p. 1-2.

<sup>878</sup> *Twelfth Annual Report of the Minister of Education for the Seventeenth Year of Meiji (1884)*, Tokyo, Department of Education, 1888, p. 61-62.

<sup>879</sup> *Articles Exhibited in the Southern Exposition of 1883 at Louisville, Kentucky, from the Museum of the United States Bureau of Education, Department of the Interior*, Washington, Government Printing Office, 1883, p. 14.

<sup>880</sup> For example KIKUCHI, Dairoku, *Japanese education: lectures delivered in the University of London*, London, J. Murray, 1909.

<sup>881</sup> *Education in Japan: prepared for the Louisiana purchase exposition at St. Louis, USA. 2. Primary Education*, p. 18.

practical and applied dimension. The fact that Japan is one of the tectonically most active zones of the world played a considerable role for the development of science in Japan and its representation at international exhibitions.

From the minor International Inventions Exhibition, held in London in 1885, onwards, the *monbushō* presented seismological apparatuses.<sup>882</sup> The most comprehensive higher education exhibit, was prepared for the Columbian Exposition. In Chicago, the College of Engineering of the Imperial University, the successor of the *Kōbu daigakkō*, presented models of traditional Japanese architecture. This included a wooden model of a famous pagoda. The catalogue described in detail the ingenious technology used to build the original and the model. The reader could find out that the pagoda had “the power to resist violent winds, as well as great earthquake shocks, which are well known to be frequent in Japan”.<sup>883</sup> A traditional Japanese carpenter had crafted the model under guidance of two professors of the College of Engineering. The explanatory note indicated that the technology originally came from China. But, the note continued, “in China this excellent mode of construction has been lost”.<sup>884</sup>

In the next division of the Japanese exhibit, the Department of Science of Tokyo Imperial University concentrated entirely on seismology. The catalogue comprised an explanatory note which claimed Japanese primacy: “The first earthquake instrument ever invented, is in all probability that of Chōkō, dating from the year A.

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<sup>882</sup> *Thirteenth Annual Report of the Minister of Education for the Eighteenth Year of Meiji (1885)*, Tokyo, Department of Education, 1888, p. 9, 14; *Observations explicatives sur les objets envoyés à l'exposition universelle de Paris (1889) par le Ministère de l'instruction publique du Japon*, Ministère de l'instruction publique du Japon, 1889, p. 27; *Catalogue spécial officiel du Japon*, p. 9. In 1900, the commissioner general Hayashi Tadamas announced that seismological apparatuses would “greatly save the face of Japan as a scientific nation”. See « Japan at the Paris Exposition », in: *The Yorodzu Choho. English Department*, 1, 189, 6 September 1899, clipping in BArch, R 901 Auswartiges Amt, Nr. 340.

<sup>883</sup> *Catalogue of Objects Exhibited at the World's Columbian Exposition*, Tokyo, Department of Education, 1893, p. 54.

<sup>884</sup> *Ibidem*.

D. 132.”<sup>885</sup> The note went on stressing Japanese excellence in the contemporary world:

“Since this not only have all forms of seismographs employed in Europe and America been employed, but many special forms have been designed in Japan, with the result that rather than Japan borrowing from Europe and America, these countries are using inventions which had their origin in Japan.”<sup>886</sup>

The exhibit showed seven seismographs made in Japan. A picture of an old Chinese seismometer was exhibited to create an “Eastern” scientific tradition. A series of photographs illustrated seismic and volcanic activities in Japan, mainly the effects of the Nōbi earthquake of 1891. These photographs demonstrated the vulnerability of Western architecture.

Why did this enthusiasm for seismology develop? In his study of Japanese architecture and seismology, Gregory Clancey has thrown light on the cultural implications of modern science.<sup>887</sup> In the first years after the Meiji restoration, British architects, as professors at the *Kōbu Daigakkō*, introduced brick and steel buildings to Japan. Such buildings were soon perceived as Western, modern and safe, especially in opposition to wooden Japanese architecture.

The Nōbi earthquake, which struck central Japan, completely changed this assessment. Recent buildings constructed in brick and steel collapsed, whilst some older buildings were not affected by the quake. Clancey summarised the earthquake’s implications:

“The political and gender relations between foreign knowledge and Japanese nature reverse over-night. Japan is no longer fragile. Its beauty, once considered refined, is now sublime, powerful. The Western factories and bridges now embody vulnerability rather than strength. They require an act of rescue.”<sup>888</sup>

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<sup>885</sup> Ibid., p. 57.

<sup>886</sup> Ibid., p. 57-58.

<sup>887</sup> CLANCEY, Gregory, *Earthquake Nation. The Cultural Politics of Japanese Seismicity, 1868-1930*, Berkeley/Los Angeles/London, University of California Press, 2006.

<sup>888</sup> CLANCEY, *Earthquake Nation*, p. 4.

English professors at the *Kōbu Daigakkō* established seismology in Japan from the 1870s onwards. But their disciples stressed the Japaneseness of seismology which was typical in a period of national and imperial rivalry. From an Anglo-Japanese science, seismology turned in a purely Japanese science. As Clancey has observed, Japanese scientists wanted to demonstrate that they were not “passive collectors of data for European interpretation”.<sup>889</sup> The Ministry of Education staged seismology nationalistically as a specifically Japanese science. Organisers put seismology in relation with aseismic architecture which was also displayed as a decisively Japanese skill. Moreover, Japanese scientists could fill a niche with seismology in order to build up a scientific reputation.<sup>890</sup> Japanese organisers showed that their science was coming of age, combining foreign and indigenous elements.

The Imperial Earthquake Investigation Committee (震災予防調査会, *Shinsai yobō chōsakai*), was founded in 1892. This committee was under tight control of the Ministry of Education and comprised almost exclusively Japanese members. It succeeded an earlier society which was dominated by British experts. The Committee developed into the central body for seismological research in Japan. This corresponded to developments in other branches where *oyatoi* were increasingly replaced by Japanese experts, too. This committee actively took part in the organisation of the Japanese exhibits, for example by sending its monographs and journals to the Paris 1900 and St. Louis exhibition.<sup>891</sup> Other comparable scientific institutions, such as the Central Meteorological Observatory and the Imperial Geological Survey, also regularly participated in international exhibitions.<sup>892</sup> They

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<sup>889</sup> Ibid., p. 162.

<sup>890</sup> Ibid., p. 160.

<sup>891</sup> *Catalogue spécial officiel du Japon. Commission impériale à l'Exposition universelle de Paris, 1900*, Paris, Imprimerie Lemerrier, 1900, p. 3; *The Exhibition of the Empire of Japan. Official Catalogue*, St. Louis, Woodward and Tiernan Printing Co., 1904, p. 47.

<sup>892</sup> In the case of the Columbian Exposition see *Explanatory notes on the exhibits to the World's Columbian Exposition at Chicago, U.S.A.*, Tokyo, Central Meteorological Observatory, 1893;

usually presented their organisational structure and research outcomes, including special features susceptible to interest a professional audience, such as soil samples.

In 1904, Kikuchi Dairoku (菊池大麓, 1855-1917), the president of Tokyo Imperial University, published an account on recent seismological investigations in Japan. It should have been presented at the Congress of Arts and Sciences in St. Louis, but eventually Kikuchi did not attend the congress.<sup>893</sup> Kikuchi argued “that organised scientific investigation connected with seismology was a duty which Japan owed to the scientific world”.<sup>894</sup> Japan was the ideal place for such research, as “no other country in the world offered such an opportunity for making a scientific study of the phenomena”.<sup>895</sup> Kikuchi stressed the practical dimension of seismologic research. Exchange of scientific knowledge was at stake as well. “Now that our improved seismographs show that earthquake waves are propagated to distant parts of the world [...] international cooperation has become desirable.”<sup>896</sup> Kikuchi called for international cooperation, hoping that Japanese science would take a leading role in such.

Eventually, four Japanese scientists, who were the only Asian representatives, spoke at the congress. This was a great success for Japan. Hozumi Nobushige (穂積陳重, 1856-1926), who had been trained in London and Berlin, gave a presentation on comparative law. The specialist of Asian art Okakura Kakuzō (岡倉覺三, 1862-

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*Organization of the Meteorological System in Japan*, Tokyo, Central Meteorological Observatory of Japan, 1893; *Imperial Geological Survey of Japan with a catalogue of articles exhibited by the Geological Survey at the World's Columbian Exposition*, Tokyo, Imperial Geological Survey of Japan, 1893.

<sup>893</sup> KIKUCHI, Dairoku, *Recent Seismological Investigations in Japan*, Tokyo, 1904. On Kikuchi see HORIUCHI, Annick, « Kikuchi Dairoku (1855-1917), un mathématicien à l'heure de la modernisation », *Daruma – Revue internationale d'études japonaises*, 12/13, 2002/2003, p. 233-261.

<sup>894</sup> KIKUCHI, *Recent Seismological Investigations*, p. 3.

<sup>895</sup> *Ibid.*, p. 3-4.

<sup>896</sup> KIKUCHI, *Recent Seismological Investigations*, p. 117.

1913) spoke on modern paintings. The zoologist Mitsukuri Kakichi (箕作佳吉, 1857-1909) who had received doctorates from Yale and Johns Hopkins University participated in the section on oceanography. The bacteriologist Kitasato Shibasaburō (北里柴三郎, 1853-1931), a disciple of the German scientist Robert Koch, gave a lecture on pathology. All Japanese participants in the Congress were based in Tokyo. Excluding Okakura who was director of the Tokyo School of Fine Arts (東京美術学校, *Tōkyō bijutsu gakkō*), all were affiliated with the Imperial University of Tokyo. This fact reflects the centralisation of Japanese science in the capital.<sup>897</sup>

The Ministry's staging of higher education aimed at reflecting the coming of age of Japanese science in specialised fields, such as for example seismology. Japanese science was predominantly a practical and technical science. At the same time organisers emphasised Japanese specificities. Art and art education were even more suited for this endeavour.

### **3. Cultural Specificity and Business – Japanese Art and Art Education**

Japanese artistic products had attracted the interest of foreigners from the first Japanese participations in world exhibitions onwards. It was principally for this reason that the Exhibition Bureau (博覧会事務局, *hakurankai jimukyoku*) was founded as a government agency in the early 1870s in order to manage participation in the Vienna exhibition.<sup>898</sup> Foreigners, such as the German Gottfried Wagener (1831-1892) and the Austrian diplomat Henri de Calice, played an important role in

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<sup>897</sup> This centralisation of Japanese science in state institutions of the capital becomes clear in the official publications as well which gave very limited space to private universities, as Fukuzawa's Keiō, Waseda or Dōshisha. See for example *Education in Japan: Prepared for the Louisiana Purchase Exposition at St. Louis, USA. 4. Superior Education*, Tokyo, Monbusho, 1904, p. 18-19. See also BARTHOLOMEW, James R., « Japanese Modernization and the Imperial Universities, 1876-1920 », in: *Journal of Asian Studies*, 37, 2, 1978, p. 251-271.

<sup>898</sup> JAHN, Gisela, *Meiji ceramics: the art of Japanese export porcelain and Satsuma ware 1868-1912*, Stuttgart, Arnoldsche, 2004, p. 18.

the preparation of the first Japanese exhibits.<sup>899</sup> The exhibits in Vienna and Philadelphia were successful, especially in the promotion of porcelain ware.<sup>900</sup> These exhibits responded to and reinforced the interest in Europe and the United States in Japanese art, generally known as *japonisme*.<sup>901</sup>

These practical uses of art necessitated an equivalent training of manufacturers and artists.<sup>902</sup> In 1876 had started the introduction of European methods to art education.<sup>903</sup> Afterwards, however, educators turned to methods they linked to specific Japanese tradition. In 1884, in a meeting held in the lecture room of the Educational Museum of Tokyo, a committee for considering the expediency of teaching Japanese drawing in connection with free hand drawing was appointed.<sup>904</sup> The American Ernest Francisco Fenollosa (1853-1908), together with Okakura Kakuzō, changed the orientation of art education in Japan. They wanted to save traditional Japanese painting, the so-called *nihonga*, and in this way contributed to the formation of a national art style.<sup>905</sup> It was institutionalised in the Tokyo School of Fine Arts.

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<sup>899</sup> On Wagener see FUJITA, Haruhiko, « Notomi Kaijiro: An Industrial Art Pioneer and the First Design Educator of Modern Japan », in: *Design Issues*, 17, 2, 2001, p. 17-31, here p. 20; JAHN, Gisela, *Meiji ceramics: the art of Japanese export porcelain and Satsuma ware 1868-1912*, Stuttgart, Arnoldsche, 2004, p. 50-51; KREINER, Josef, *Deutsche Spaziergänge in Tokyo*, Iudicium-Verlag, 1996, p. 159-163.

<sup>900</sup> AKUTSU, Mariko, « La modernisation de l'industrie porcelainière d'Imari à la seconde moitié du XIXe siècle », in: *Japon pluriel 8*, Arles, Picquier, 2010 (forthcoming).

<sup>901</sup> WATANABE, Toshio, *High Victorian Japonisme*, Berne/New York, Peter Lang, 1991.

<sup>902</sup> AMAGAI, Yoshinori, « The *Kobu Bijutsu Gakko* and the Beginning of Design Education in Modern Japan », in: *Design Issues*, 19, 2, 2003, p. 35-44.

<sup>903</sup> MARQUET, Christophe, « L'évolution de l'enseignement de la peinture dans la seconde moitié du XIXe siècle », in: HORIUCHI, Annick (ed.), *Education au Japon et en Chine. Eléments d'histoire*, Paris, Les Indes savantes, 2006, p. 49-76.

<sup>904</sup> *Twelfth Annual Report of the Minister of Education for the Seventeenth Year of Meiji (1884)*, Tokyo, Department of Education, 1888, p. 13.

<sup>905</sup> ADAL, Raja, « Japan's Bifurcated Modernity: Writing and Calligraphy in Japanese Public Schools, 1872-1943 », in: *Theory Culture Society*, 26, 2-3, 2009, p. 233-247; ASO, Noriko, *New Illusions: The Emergence of a Discourse on Traditional Japanese Arts and Crafts, 1868-1945*, PhD thesis, University of Chicago, Department of East Asian Languages and Civilizations, 1997; CHO, Eunyong, *The Selling of Japan: Race, Gender and Cultural Politics in the American Art World, 1876-1915*, PhD thesis, University of Delaware, 1998.

The use of Japanese paintings was also a commercial strategy, for example for the Takashimaya Department Store of Kyoto which regularly took part in international exhibitions. Through Japanese paintings the company created an image as a modern yet rich in tradition enterprise.<sup>906</sup> Japanese organisers and leading business men soon realised that traditional Japanese art had an enormous attraction for a foreign audience. Hence, they used Japanese art in order to promote the archipelago and their companies. This required a specific training for Japanese artists in art schools. This promoted a specific Japanese style that distinguished it from other countries.

This was also part of cultural diplomacy. The Ho-o-den had a function in depicting an unbroken Japanese tradition.<sup>907</sup> Professors of the Tokyo School of Fine Arts decorated the interior of the palace. As commissioner general to the Columbian Exposition Tejima Seiichi insisted that all work dominated by drawing or painting was “fine art” and to be displayed accordingly and not in the manufacture section. This was the first time a Japanese actor succeeded in defining what was art and in presenting his country’s products on its own terms.<sup>908</sup>

The Imperial Museum in Tokyo prepared a history of Japanese art on behalf of the Japanese Imperial Commission for the 1900 exhibition.<sup>909</sup> Okakura Kakuzō directed this project. The Japanese commissioner general and art expert Hayashi Tadamasa (林忠正, 1853-1906) wrote in his preface:

“Quelque influence qu’aient exercée sur nous les Coréens, les Chinois, les Hindous, jamais nous n’avons pu nous défendre de marquer d’un caractère de race et d’une physionomie personnelle même les oeuvres imitées ou copiées de nos initiateurs et de nos maîtres.”<sup>910</sup>

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<sup>906</sup> SAPIN, Julia, « Merchandising Art and Identity in Meiji Japan: Kyoto Nihonga Artists’ Designs for Takashimaya Department Store, 1868-1912 », in: *Journal of Design History*, 17, 4, 2004, p. 317-336.

<sup>907</sup> *The Ho-o-den (Phoenix Hall)*, Tokyo, Ogawa, 1893.

<sup>908</sup> JAHN, *Meiji ceramics*, p. 71-72. The Japanese ambassador in the United States Tateno discussed this in his article: TATENO, « Foreign Nations at the World’s Fair. Japan », p. 38, 40.

<sup>909</sup> *Histoire de l’art du Japon*, Paris, Maurice de Brunoff, 1900.

<sup>910</sup> *Ibid.*, p. VII.

The logical consequence for a reader was that the Japanese will neither lose their particular character through European and American influence. Kuki Ryūichi, who was now director of the Imperial Museum, wrote a foreword to the volume. As he stated, the book was the first attempt of a history of Japanese art. Kuki used an embellished language in order to describe the beauty of Japan's landscapes and nature:

“Ce paysage fait à souhait pour le rêve, c'est celui qui caractérise notre Empire. Et nous qui naissons sur ce sol, nous qui formons le peuple étroitement uni de cet Empire, nous en goûtons les beautés naturelles avec une joie incessamment renouvelée, car on peut dire en vérité que le Japon est comme le parc public le plus pittoresque et le plus varié de l'univers.”<sup>911</sup>

This charming nature inspired Japanese artists over centuries and kept on inspiring them. This, as Kuki continued, was not the case in India and China. In these countries art had fallen into obscurity. The great works of Indian and Chinese art would only represent signs of a glory past. Kuki wrote that the greatness of Asian civilisation could now only be observed in Japan:

“Dépositaires maintenant de ces richesses [...], nous les conservons pieusement, comme des reliques. Les foyers d'art d'où ces étincelles ont jailli se sont éteints, mais à notre foyer, toujours chaud, nous entretenons ces étincelles toujours vives – et nous tirons de cela aussi quelques orgueil.”<sup>912</sup>

Thus, Japan was the treasury of ancient oriental art. In this way Kuki depicted Japan as specifically Asian. This Asian tradition, however, had got lost on the continent. Modern Japan had become the only reservoir of Asian art and continued an Asian tradition. This implied a paternalistic attitude towards the continent and could legitimate political domination, which Japan increasingly sought to achieve in eastern Asia. Kuki's foreword matched the discourse of *tōyōshi*, the Japanese historiography on Asia, which Stefan Tanaka has brilliantly analysed.<sup>913</sup>

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<sup>911</sup> Ibid., p. XI.

<sup>912</sup> Ibid., p. XII.

<sup>913</sup> TANAKA, Stefan, *Japan's Orient: rendering pasts into history*, Berkeley, University of California Press, 1993.

The Japanese were successful in turning their artistic taste into business and attracting the attention of foreign educators. They exercised an immense influence on painting and drawing education in the United States, as American education experts reformulated drawing education. The German Ludwig Pallat observed during his trip to the United States in 1904 how innovators of drawing education in the United States as Arthur Daw, Denman Ross and Henry T. Bailey stuck to Japanese examples. Everyone of them had studied the Japanese masters, used Japanese models in drawing, worked with Japanese brushes and so on.<sup>914</sup> The German commissioner Czihak reported that the Prang Educational Company traded mostly with articles from Japan.<sup>915</sup> This concerned the objects students had to draw as well as brushes. In a similar way to his German colleagues, the French painter and inspector of drawing instruction Félix Régamey (1844-1907) travelled to Japan and reported on drawing education.<sup>916</sup>

As Lisa K. Langlois has convincingly argued for the representation of Japan at the Columbian Exposition, Japanese participation in international exhibitions was to a large extent an endeavour of cultural diplomacy.<sup>917</sup> Organisers aimed at depicting Japan as a civilised country, as contemporaries would say. Their goal was to renegotiate the unequal treaties and to counter the rhetorics of the so-called yellow

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<sup>914</sup> PALLAT, Ludwig, *Schule und Kunst in Amerika*, Leipzig/Berlin, Teubner, 1906, p. 20-28.

<sup>915</sup> « Bericht des Regierungs- und Gewerbeschulrats v. Czihak in Berlin », in: *Reiseberichte über Nord-Amerika. Erstattet von Kommissaren des Königlich Preußischen Ministers für Handel und Gewerbe*, Berlin, Moeser, 1906, p. 180-216, here p. 195.

<sup>916</sup> REGAMEY, Félix, « L'enseignement du dessin dans les Ecoles de Tokio », in: *Revue pédagogique*, 1, 1901, p. 70-90; REGAMEY, Félix, *Le dessin et son enseignement dans les écoles de Tokio*, Paris, Atelier F. Régamey, [1902]. On Régamey see MARQUET, Christophe, « L'évolution de l'enseignement de la peinture », p. 70.

<sup>917</sup> LANGLOIS, Lisa Kaye, *Exhibiting Japan: Gender and National Identity at the World's Columbian Exposition of 1893*, PhD thesis, University of Michigan, 2004.

peril and restrictive American immigration legislation which discriminated against migrants from Asia.<sup>918</sup> The education and science exhibits were part of this effort.

#### **IV. United States**

The third part of this thesis has shown how American educators appropriated features of practical and technical education at world exhibitions from the 1860s onwards. These efforts had a major impact on the development of education in the United States. Moreover, the United States was now one of the leading industrial and capitalist societies. Practical application of learned contents became henceforth primordial. This eventually resulted in the new or progressive education movement. A new generation of school administrators and education experts started to dominate the educational scene in the United States. These individuals prepared the American educational exhibits at world exhibitions. The new universities were one more reason for American pride.

##### **1. The Administrative Progressives in Action – American Public Instruction**

American education saw fundamental changes during the last two decades of the nineteenth century. David Tyack and Elisabeth Hansot have observed that school administration in the United States passed to a new generation of education experts during the 1880s. The ‘administrative progressives’ succeeded to the common school crusaders in key positions, such as city and state superintendents.<sup>919</sup> This new generation of administrators consisted of social engineers who contributed their part

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<sup>918</sup> SCHWENTKER, Wolfgang, « The ‘Yellow Peril’ Reconsidered. Western Perceptions of Asia in the Age of Imperialism », in: BROWN, Cedric (ed.), *Cultural Negotiations – Sichtweisen des Anderen*, Tübingen, Francke, 1998, p. 35-49.

<sup>919</sup> TYACK, David, HANSOT, Elisabeth, *Managers of virtue: public school leadership in America, 1820-1980*, New York, Basic Books, 1982, p. 6-7, 105-211. The transition between the two generations of education experts has been well described in REESE, William J., « Public Education in Nineteenth-Century St. Louis », in: SANDWEISS, Eric, *St. Louis in the century of Henry Shaw: a view beyond the garden wall*, Columbia, University of Missouri Press, 2003, p. 167-187.

to the formation of an urban and industrial society. They imposed their vision with managerial methods and cared about efficiency.<sup>920</sup> In contrast to the common school crusaders, the new school administrators did not regard their activities as a quasi-religious project anymore. Instead, they based their competence on science, in particular educational science and psychology which started to be institutionalised at the new research universities. Tyack and Hansot spoke of an educational trust formed by these administrative progressives. A group of university presidents and academic specialists of pedagogy and child psychology belonged to this educational trust. These academics trained and closely collaborated with school administrators.<sup>921</sup> New psychological theories had led to a reformulation of educational ideas. These new approaches were increasingly child-centred instead of society-centred. These education experts had learned from European experiences at world exhibitions, through studies at German universities or still other ways in the preceding decades. The period was characterised by stronger centralisation of education under state control and of a growing importance of bureaucracy in school administration.

The Bureau of Education continued to play a major role in the organisation of educational exhibits. Its director, the United States Commissioner of Education William T. Harris, represented a lonely position in American education, as he opposed most of the contemporary developments. For example, he disapproved the introduction of manual training to the curricula of public schools. Instead, he proposed a curriculum based on grammar, art and literature, mathematics, geography and history. For Harris, these subjects were the “windows of the soul” which aimed

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<sup>920</sup> CALLAHAN, Raymond E., *Education and the cult of efficiency; a study of the social forces that have shaped the administration of the public schools*, Chicago, University of Chicago Press, 1962.

<sup>921</sup> BLEDSSTEIN, Burton J., *The culture of professionalism: The middle class and the development of higher education in America*, New York, W. Norton, 1976.

at introducing children to general culture.<sup>922</sup> He was the only prominent American educator who continued to publicly defend the textbook method and to foster values such as discipline and punctuality.<sup>923</sup> Harris was closer to French and German pedagogical practices than the mainstream of American school administrators.<sup>924</sup>

The administrative progressives, besides Harris, imposed themselves as the organisers of the educational exhibits. These educators tried to stage the success of their institutionalisations. They took the key positions in preparatory committees, international juries and as conference attendees. Albert G. Lane (1841-1906), superintendent of public instruction of Chicago, argued that until then Americans had only studied foreign educational systems at the expositions. But, he went on to argue, they had never adequately represented their own country. As shown above, this was not completely true. However, Lane suggested that emphasis be put on the ongoing introduction of “the new in education”.<sup>925</sup> This was a novelty, indeed. The new notably referred to the introduction of practical elements to education and a new child-centred approach. The International Congress on Education, organised by the NEA at the Columbian Exposition in 1893 was the first one to include two panels on rational and experimental psychology, chaired by James McCosh (1811-1894), former president of Princeton University, and G. Stanley Hall (1846-1924), president of Clark University.<sup>926</sup> Hall’s career, which started after being a disciple of the

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<sup>922</sup> MOSIER, Richard D., « The Educational Philosophy of William T. Harris », in: *Peabody Journal of Education*, 29, 1, 1951, p. 24-33.

<sup>923</sup> HARRIS, William T., « Elementary Education », in: BUTLER, Nicholas Murray (ed.), *Education in the United States*, Albany, Lyon, 1900, vol. 1, p. 77-140, here p. 91.

<sup>924</sup> See for example HARRIS, William T., « Our Educational Exhibit at the International Exposition in Paris in 1900 », in: *Addresses and Proceedings of the National Educational Association*, Chicago, NEA, 1898, p. 122-131.

<sup>925</sup> LANE, Albert G., « Representation of Educational Systems at the World’s Exposition », in: *National Educational Association. Journal of Proceedings and Addresses. Session of the Year 1892 Held at Saratoga Springs, New York*, New York, National Educational Association, 1893, p. 161-165.

<sup>926</sup> *Proceedings of the International Congress of Education of the World’s Columbian Exposition, Chicago, July 25-28, 1893, under the charge of the National Educational Association of the United States*, New York, Little, 1894, p. 5.

psychologist Wilhelm Wundt at the University of Leipzig, was typical for educational scientists of that period.<sup>927</sup>

The administrative progressives also imposed their vision in the educational department of the Congress of Arts and Sciences in St Louis. The professor of Cornell University Charles DeGarmo (1849-1934), a partisan of Herbartianism<sup>928</sup>, chaired one session where Elmer Ellsworth Brown (1861-1934), professor of education at the University of California in Berkeley who had received a doctorate from the Prussian University of Halle, spoke on recent issues in educational theory. F. Louis Soldan (1842-1908), superintendent from St. Louis<sup>929</sup>, chaired another session where the New York City superintendent of public schools William H. Maxwell (1852-1920), a foremost representative of new education<sup>930</sup>, gave a paper on school administration.<sup>931</sup>

At the same time, one can observe a professionalisation of educational exhibits. Some of the organisers were not anymore those experts personally engaged in institution-building, but built their careers on the ability to organise exhibitions. The case of Howard J. Rogers (1861-?) demonstrates this shift.<sup>932</sup> He was one of the central persons for the organisation of turn-of-the-century educational exhibits. Rogers had received his college education at Williams College in Williamstown, Massachusetts. He made his first appearance at a world exhibition when he

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<sup>927</sup> WILSON, Louis N., *G. Stanley Hall. A Sketch*, New York, G. E. Stechert & Co., 1914.

<sup>928</sup> This educational current referred to the ideas of the German pedagogue Johann Friedrich Herbart (1776-1841). In Germany, Herbart's ideas were notably passed on at the Pedagogical Seminar of the University of Jena. In the United States, Charles De Garmo who had studied in Jena was the co-founder of the National Herbart Society in 1892: DUNKEL, Harold B., *Herbart and Herbartianism: an educational ghost story*, Chicago, University of Chicago Press, 1970.

<sup>929</sup> Soldan was a German immigrant who had arrived to St. Louis in 1863. See « F. Louis Soldan Dead », in: *New York Times*, 28 March 1908, p. 9.

<sup>930</sup> BERROL, Selma C., « William Henry Maxwell and a new educational New York », in: *History of Education Quarterly*, 8, 1968, p. 215-228.

<sup>931</sup> ROGERS, Howard J. (ed.), *Congress of Arts and Science. Universal Exposition, St. Louis, 1904*, Boston/New York, Houghton, Mifflin and company, 1907, vol. 8.

<sup>932</sup> The scrapbooks on the Louisiana Purchase Exposition preserved by the Missouri Historical Society comprise some articles that allow reconstructing Rogers' career.

supervised the educational exhibit of the State of New York at the Columbian Exposition.<sup>933</sup> Subsequently, he served as deputy state superintendent of public instruction of the same state from 1895 to 1901. In 1900, Rogers was director of the Departments of Education and Social Economy for the United States commission to the Paris Exposition. Four years later, he had even more responsibilities for the Louisiana Purchase Exposition where he was chief of the Departments of Education and Social Economy as well as director of congresses. Rogers was not eager to learn from the exhibits. Instead he wanted to demonstrate the excellence of New York and United States schools to an international audience.

The participation of American education in the *Exposition universelle* of 1889 was a disappointment for Americans and foreigners alike, as none of the great education experts was involved in its preparation.<sup>934</sup> This “disappointment”<sup>935</sup> underlines the transitional period of American education during the 1880s. Four years later, all state education systems were massively represented in Chicago. In St. Louis, too, all states displayed their educational system.

The American educational exhibit at the *Exposition universelle* in Paris in 1900 was of particular importance, because Americans prepared it with great care.<sup>936</sup> In March 1899, Rogers published a circular addressing all educational authorities of the United States and encouraging participation in the upcoming exposition.<sup>937</sup> The world, according to Rogers, was expecting America to present its superior educational methods. In Paris the national dimension of education was at stake.

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<sup>933</sup> *Report of the Board of General Managers of the Exhibit of the State of New York at the World's Columbian Exposition*, Albany, Lyon, 1894.

<sup>934</sup> Nathaniel H. R. Dawson (1829-1895), the then Commissioner of Education, refused any cooperation of the Bureau of Education. See NARA, Microfilm M-635, Roll 22, Letter Nathaniel Dawson to C. Wellman Parks, Washington DC, 10 January 1889.

<sup>935</sup> « Educational Exhibits », in: *New York Times*, 10 June 1889, p. 2.

<sup>936</sup> A short evaluation of the American participation at the 1900 exposition can be found in TROCME, Hélène, « 1900: Les Américains à l'Exposition Universelle de Paris », in: *Bulletin de l'Institut Pierre Renouvin*, 3, 1997, p. 25-35.

<sup>937</sup> *United States. Commission to the Paris Exposition, The educational exhibit: circular 1*, Albany, 1899.

Americans were on foreign soil. They had to prepare their exhibit “from an absolutely national point of view”.<sup>938</sup> At the Chicago and St. Louis exhibitions Americans were in their home country and the federal states competed with one another. This was not the case in Paris. “It was impossible to recognize States or any parts thereof as units. All were treated as contributors to the exhibit of the nation.”<sup>939</sup> Organisers deemed it unnecessary to inform foreigners about the exact origins of particular exhibits. No foreigner, Rogers argued, would be interested in the diverse performances of particular states, nor would he understand the organizational structure of education: “He looks upon the United States as a nation.”<sup>940</sup> Accordingly, each state presented an aspect of its education system in which it was excelling. The organisation of state participation was more balanced than in the German case.

Nicholas Murray Butler (1862-1947), professor of education and later president of Columbia University, edited a series of monographs on American education for the Universal Exposition of Paris in 1900, republished for the St. Louis exposition in 1904.<sup>941</sup> The initiative was directed by Rogers, the State of New York and the Bureau of Education and found support among the leading American educators.<sup>942</sup>

In conclusion, besides the omnipresent United States commissioner Harris, a new generation of school administrators and academics trained in educational sciences organised the American exhibits. The contents of the educational exhibits at the turn-

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<sup>938</sup> ROGERS, Howard J., « Report of the Department of Education and Social Economy », in: *Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900*, Washington, Government Printing Office, 1901, vol. 2, p. 323-485, here p. 337.

<sup>939</sup> Ibidem.

<sup>940</sup> Ibidem.

<sup>941</sup> Interestingly, a monograph on religious education, which had not been sent to Paris, was added in 1904. Probably American organisers did not want to make a negative impression on secularist French educators.

<sup>942</sup> Correspondence on the preparation of the volumes can be found in NARA, Microfilm M-635, Roll 44.

of-the-century expositions showed how the transformations of the preceding decades had changed American education.

## **2. Spontaneity and Manual Skills – The Boom of Progressive Education**

“Spontaneity is the keynote of education in the United States.”<sup>943</sup> This is how Nicholas Murray Butler started his introduction to the series of monographs prepared for the 1900 exhibition. This spontaneity, for Butler, symbolised the newness of American schools and universities. It also referred to their diversity according to local circumstances. Butler’s positive assertion of spontaneity can be seen as a direct answer to the claim of Stephan Waetzoldt, the German commissioner to the Columbian Exposition, that American education lacked consistency (*Gleichmäßigkeit*).

Spontaneity also meant a departure from stricter textbook methods to more practical instruction that allowed children to develop their creativity. In sharp contrast with the statements of the 1870s that no technical education existed in the United States, the whole education system was now impregnated with practical elements. In their publications, they discussed the institution building carried out since the 1870s. Isaac Edwards Clarke (1830-1907), an official of the Bureau of Education, traced the circulation of educational knowledge and what Americans made out of it in his monograph on art and industrial education of 1900.<sup>944</sup> Industrial elements in the general education system were discussed as based on cultural transfers, but accomplished in the United States. American organisers sought to display this difference at the exhibitions.

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<sup>943</sup> BUTLER, Nicholas Murray, « Introduction », in: BUTLER, Nicholas Murray (ed.), *Education in the United States*, Albany, Lyon, 1900, vol. 1, p. vii-xviii, here p. vii.

<sup>944</sup> CLARKE, Isaac Edwards, « Art and Industrial Education », in: BUTLER, Nicholas Murray (ed.), *Education in the United States*, Albany, Lyon, 1900, vol. 2, p. 705-768. On Clarke see EFLAND, Arthur, SOUCY, Donald, « A Persistent Interpretation: Art Education Historiography and the Legacy of Isaac Edwards Clarke », in: *History of Education Quarterly*, 31, 4, 1991, p. 489-511.

Similarly, the Commonwealth of Massachusetts published a set of brochures for the exhibitions of 1893 and 1900.<sup>945</sup> Special emphasis was put on industrial instruction to which Walter Smith had made a considerable contribution. At the Columbian Exposition, Boston was recognised as having a sound education system with manual elements that had developed since the Centennial Exhibition.<sup>946</sup>

The exhibit of the New York public schools at the Paris exposition consisted of a series of photographs that showed students engaged in various kinds of activities.<sup>947</sup> It gave a visual impression of how progressive education worked in practice. Visitors could see pupils who were not sitting in rows in a disciplined way. Instead, pupils were shown making scientific experiments and physical exercises. As did most of the American exhibits, the photographs provided large space for the representation of manual training. On the pictures, boys were engaged in working with metal and wood in spacious and well-equipped workshops. Girls were receiving instruction in home economics and learned cooking. This gender bias of practical instruction was common at this period, in the United States and other countries alike. In other subjects, however, the photographs showed how boys and girls learned together, sitting side by side. This also concerned scientific subjects in high schools. This contrasted with European practices where secondary education for girls developed slowly and was strictly separated from boys. In this sense, the photographs of the New York public schools were an expression of American specificities which must have struck European visitors. Maxwell, the city superintendent of public schools,

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<sup>945</sup> BAILEY, Henry Turner, *A sketch of the history of public art instruction in Massachusetts*, Boston, Wright & Potter Printing Co., 1900; BALDWIN, William Alpheus, *Physical training in Massachusetts normal schools*, Boston, Wright & Potter Printing Co., 1900; BOYDEN, Albert Gardner, *General view of the work of the normal school in Massachusetts*, Boston, Wright & Potter Printing Co., 1900; GAY, George E., *Origin and organization of the normal schools in Massachusetts*, Boston, Wright & Potter Printing Co., 1900.

<sup>946</sup> O'CONNELL, Kathryn D., *Industrial Education in Boston, 1870-1890: A Case Study in Curricular Change*, PhD dissertation, University of Wisconsin, 1975, p. 3.

<sup>947</sup> New York Public Library, photograph collections, *Photographs of the New York City Schools*.

personally travelled to the exposition together with other city officials and reported that it was “far superior to that of other countries”.<sup>948</sup>

After the closure of the exhibition Rogers wrote in his report:

“It was recognized that Americans were applying the results of scientific training in every field of manufacturing industry and accomplishing wonderful feats of engineering in all parts of the world. It was particularly hoped that what America exhibited would be not only a demonstration of the liberal training of the public schools, but also of the work of universities and technical and engineering schools, and of the application of science to useful arts.”<sup>949</sup>

Rogers continued putting practical training in an American framework that distinguished it from European experiences. He strongly criticized the class-biased character of German and French secondary education. As did Calvin M. Woodward before him, Rogers argued that manual training should not be used to assign subordinate social positions to working-class youth:

“The educational people of the United States desired above all else to demonstrate to Europe and the rest of the world the beneficial results of our liberal and elastic system of free public schools, which aim to train all pupils alike for the duties of citizenship rather than to train for special crafts and professions. It is the positive opinion of our people that this liberal training is the mainspring of the ‘practicality’ [...] and that the ‘craft’ or ‘profession’ grafts better in later years from a well-nourished and well-cultured trunk than when trained from the beginning for a special purpose.”<sup>950</sup>

Selim H. Peabody, the chief of the educational section of the Columbian Exposition remarked in a report that “the whole exhibition, from one end to the other, bristled with the work of the tool.”<sup>951</sup> Peabody raised eleven points that demonstrated the progress of American education since the Centennial of 1876. This concerned the very marked progress in the development of the universities. Peabody

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<sup>948</sup> « School Exhibit in Paris », in: *New York Times*, 17 October 1900, p. 16. See also « School exhibit for Paris », in: *New York Times*, 1 April 1900, p. 21.

<sup>949</sup> ROGERS, Howard J., « Report of the Department of Education and Social Economy », in: *Report of the Commissioner-General for the United States to the International Universal Exposition, Paris, 1900*, Washington, Government Printing Office, 1901, vol. 2, p. 323-485, here p. 336.

<sup>950</sup> *Ibid.*, p. 337. American education risked to develop exactly in this “European” direction, compare third part, end of first chapter.

<sup>951</sup> PEABODY, Selim H., « The Educational Exhibit at the World’s Columbian Exposition », in: *Report of the Commissioner of Education for the Year 1892-1893*, Washington, Government Printing Office, 1895, p. 454-457, here p. 457.

also remarked the increase in the number of normal schools. Something new was the strong, united and systematic character of the exhibits of business colleges that were free-lancers. Peabody was especially proud of the thirty-nine exhibits of manual training schools and those of the trade schools in large cities. The kindergarten had become an accepted component of the system. Probably in favour of the abstinence movement, Peabody praised that instruction was widely given as to the evil use of narcotics and toxicants.<sup>952</sup> This was a revision of the *Statement* of 1874. Features, such as the textbook method and military drill, were no more valued.<sup>953</sup>

Already in 1889, when the *New York Times* reported on the unsuccessful American exhibit in Paris, it stipulated that “the question of the time is not how to immortalize rare spirits, but how to render life happier, more reflecting, and more virtuous for the great body of people, to whom the arts and trades are [...] indispensable in modern ages.”<sup>954</sup> The exhibits made clear that schooling in the United States now differed significantly from the model that had been introduced around the world from the end of the 18th century to the 1880s.<sup>955</sup> Horace Mann existed only as a statue that decorated the exhibition grounds in St. Louis and reminded visitors of the founding father of American public schools. The world had changed, the rural school district with its small wooden schoolhouse was about to disappear. This change found also expression in a Massachusetts brochure of 1893 entitled *An account of the movement in Massachusetts to close the rural schools, and to transport their pupils, at public expense, to the village schools.*<sup>956</sup>

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<sup>952</sup> Ibid., p. 456-457.

<sup>953</sup> Compare second part.

<sup>954</sup> « Educational Exhibits », in: *New York Times*, 10 June 1889, p. 2.

<sup>955</sup> REESE, William J., « The Origins of Progressive Education », in: *History of Education Quarterly*, 41, 1, 2001, p. 1-24.

<sup>956</sup> EATON, William L., *An account of the movement in Massachusetts to close the rural schools, and to transport their pupils, at public expense, to the village schools*, Boston, Nathan Sawyer & Son, 1893.

After participation in the Paris exposition of 1900 Americans were convinced of the superiority of their education system. F. Louis Soldan, superintendent of public schools of St. Louis, saw global developments as an imitation of the United States and diffusion of its model. Back in the capital of Missouri, Soldan “referred to the growing tendency in Europe and thruout the civilized world to imitate the United States in spreading the benefits of education among the masses.”<sup>957</sup>

American education at the turn-of-the-century exhibitins was predominantly new or progressive education. This movement had profoundly changed they way Americans thought on schooling. Change did not affect public schools alone, but also the sector of higher education.

### **3. Liberal Arts, Research and Practical Service – American Higher Education**

The development of higher education had a decisive impact on American society.<sup>958</sup> The historian Laurence R. Veysey has rightly observed that the United States saw a wave of foundations of colleges and universities during the 1880s. In the 1890s significantly less universities were established and foundations almost stopped after 1900. The American university now had assumed its stable form which it was to preserve throughout the twentieth century.<sup>959</sup> The exhibits at world exhibitions and the related publications reflected this process.

Some of the volumes published for the 1900 exhibition dealt with higher education. One of the monographs featured the American college.<sup>960</sup> Its author, Andrew Fleming West (1853-1943) was a professor of Latin and the first dean of the

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<sup>957</sup> Untitled note on F. Louis Soldan and the Paris Exposition in: *The School Journal*, LXI, 29 September 1900, p. 299.

<sup>958</sup> BLEDDSTEIN, Burton J., *The Culture of Professionalism: The Middle Class and the Development of Higher Education in America*, New York, W. Norton, 1976.

<sup>959</sup> VEYSEY, Laurence R., *The Emergence of the American University*, Chicago, University of Chicago Press, 1965, p. 338.

<sup>960</sup> WEST, Andrew Fleming, « The American College », in: BUTLER, Nicholas Murray (ed.), *Education in the United States*, Albany, Lyon, 1900, vol. 1, p. 207-248.

graduate school of Princeton University. He had already played a role at the Columbian Exposition where he was a chairman of the International Congress on Education. West described the American college as a genuinely American institution, though it had first been established under decisive European influence. He stressed the liberal education aspect calling it “the repository and shelter” and “the sole guarantee of American liberal education”.<sup>961</sup> West saw a “fundamental tradition of liberal learning, which found its way from mediaeval Paris through Oxford to Cambridge, and then from Cambridge to our shores.”<sup>962</sup> The author described the transformation of the traditional college since the 1860s. Through the introduction of technical elements into college education the bachelor’s degree now represented different kinds of knowledge, humanistic and practical. Related to this, West as an advocate of liberal education – or as one of the “embittered defenders of liberal culture”<sup>963</sup>, to use the terminology of Laurence R. Veysey – defended a prescribed course of study and opposed elective curricula.

Edward Delavan Perry wrote the monograph on the American university.<sup>964</sup> Perry was a professor of Greek philology at Columbia University. Right at the beginning of his essay, Perry argued that “a university in the European sense does not exist in America”, quoting a statement of Hermann von Holst (1841-1904), a German historian at the University of Chicago.<sup>965</sup> Only graduate schools matched philosophical faculties at German universities, whilst undergraduate courses rather resembled *gymnasia*. Perry distinguished several types of American universities by

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<sup>961</sup> Ibid., p. 209.

<sup>962</sup> Ibid., p. 210.

<sup>963</sup> VEYSEY, *The emergence*, p. 394.

<sup>964</sup> PERRY, Edward Delavan, « The American University », in: BUTLER, Nicholas Murray (ed.), *Education in the United States*, Albany, Lyon, 1900, vol. 1, p. 249-318. Perry’s monograph was translated into German after the Louisiana Purchase Exposition. Leopold Bahlsen, who had been a Prussian commissioner to St. Louis, translated it: PERRY, Edward Delavan, *Die amerikanische Universität*, Leipzig, Teubner, 1908. See the correspondence preparing the translation in GStA PK, I. HA Rep. 76 Kultusministerium, Vc, Sekt. 1, Tit. 11, Teil VI, Nr. 15, Adh. B, Die Weltausstellung in St. Louis, Abteilung für höheres Unterrichtswesen.

<sup>965</sup> PERRY, « The American University », p. 256.

the relationship between graduate and undergraduate courses. Most institutions comprised both, graduate and undergraduate courses. More importantly, there was in most cases no rigid line between both levels (as between gymnasias and universities in Germany). Furthermore, American universities did not necessarily comprise the four traditional faculties (theology, law, medicine, philosophy), but often disposed of technical schools. Another characteristic was that student mobility between universities was infrequent.<sup>966</sup> These peculiarities distinguished American universities from their European counterparts.

Perry described the introduction of graduate instruction to the United States as the adaption of a German model. Not everything German was useful for the United States, though: “It is to the credit of American educators that so many ways have been found of keeping what is good for us in the German system, and bringing it into harmony with a national view of life quite different from that which produced this system.”<sup>967</sup> Perry emphasised that German methods have been adapted to the social conditions of the country. The German idea of the university was used to supplement the American college with research departments, not to substitute it.

West and Perry were professors of ancient languages, representing a classical, but still honoured discipline. They incarnated the humanistic side of American higher education. On the other side, some volumes on technical education stressed its practical side. James Russell Parsons, director of the University of the State of New York, presented the education for the learned professions, such as medicine, law and theology.<sup>968</sup> Charles W. Dabney, president of the University of Tennessee, authored

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<sup>966</sup> Ibid., p. 280-281.

<sup>967</sup> Ibid., p. 287-288.

<sup>968</sup> PARSONS, James Russell, « Professional education », in: BUTLER, Nicholas Murray (ed.), *Education in the United States*, Albany, Lyon, 1900, vol. 2, p. 465-550. Parsons had been American consul in Aachen from 1888 to 1891 and published a report on the Prussian school system. See FÜSSL, Karl-Heinz, *Deutsch-amerikanischer Kulturaustausch im 20. Jahrhundert: Bildung, Wissenschaft, Politik*, Frankfurt am Main et al., Campus, 2004, p. 33. The Paris exhibition featured

a monograph on agricultural education.<sup>969</sup> Edmund J. James (1855-1925), professor of public administration at the University of Chicago, wrote on the commercial college as the “peculiarly American” institution.<sup>970</sup>

Thomas C. Mendenhall (1841-1924), president of the Technological Institute of Worcester, Massachusetts, wrote on higher technical education.<sup>971</sup> He mentioned how much the technical schools of the United States were indebted to European models. But, he argued, “in all cases European methods have been adapted rather than adopted.”<sup>972</sup> This, once again, concerned the schools’ social function:

“The schools of engineering and technology in the United States are, and are intended to be, something more than a mere avenue leading to increased money-making power. They are intended to fit for the responsibilities of citizenship, and, if worthy of the name, their methods of instruction are such as to cultivate independence of thinking and personal responsibility in judgement. [...] As a whole, they represent one of the most important achievements of an age whose chief glory is found in the increase and diffusion of science and its applications.”<sup>973</sup>

These publications were official volumes. They represented all three contemporary tendencies of American higher education, namely their devotion to liberal arts, the diffusion of practical skills and scientific research. The major universities participated at the exhibitions as private institutions, though strongly supported by their states and integrated in state exhibits. The great American universities used the most modern presentation techniques. They offered bulletins, brochures, catalogues and statistics. Photographs of representative buildings in beautiful landscapes, models, ground plans showed the material dispositions. Scholarly publications with research results, doctoral thesis, stressed the research

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also a more descriptive volume on professional education: TAYLOR, Henry L., *Professional education in the United States*, Albany, University of the State of New York, 1900.

<sup>969</sup> DABNEY, Charles W., « Agricultural education », in: BUTLER, Nicholas Murray (ed.), *Education in the United States*, Albany, Lyon, 1900, vol. 2, p. 593-652.

<sup>970</sup> JAMES, Edmund J., « Commercial education », in: BUTLER, Nicholas Murray (ed.), *Education in the United States*, Albany, Lyon, 1900, vol. 2, p. 653-704, here p. 657.

<sup>971</sup> MENDENHALL, T. C., « Scientific, technical and engineering education », in: BUTLER, Nicholas Murray (ed.), *Education in the United States*, Albany, Lyon, 1900, vol. 2, p. 551-592.

<sup>972</sup> *Ibid.*, p. 554.

<sup>973</sup> *Ibid.*, p. 591-592.

aspect. Universities also presented their laboratory equipment and libraries. Special courses were offered on the exhibition grounds. The big universities, such as Harvard, Princeton, Columbia, Johns Hopkins University prepared extensive exhibits in Chicago and St. Louis.<sup>974</sup> The expositions were arenas for competition between the major universities.<sup>975</sup>

The Massachusetts Institute of Technology staged itself at the turn-of-the-century exhibitions.<sup>976</sup> The richly illustrated brochures of 1893 and 1904 described in detail the courses of instruction, buildings, libraries and laboratories. In its introductory note, the 1904 booklet explicitly mentioned how methods developed in Russia had influenced the Institute through the Centennial Exhibition. Although the Institute saw itself as a scientific school and a college of applied science, it stressed the general education dimension, insisting on liberal arts elements in the course of instruction. As the ample descriptions suggest, the Institute was proud of its sophisticated laboratory equipment of the different scientific schools. Finally, the booklet praised the “close personal relation between students and instructors”, “the careful adjustment of theoretical and experimental work in the courses of instruction” and the fact of “guiding the student rather than merely instructing him”.<sup>977</sup>

The university exhibits of the United States at the great international exhibitions as well as the International Congress of Arts and Sciences demonstrated the coming of age of American higher education.<sup>978</sup> This announced the dominance of American

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<sup>974</sup> « Educational Exhibit », in: *World's Columbian Exposition Illustrated*, 3, 4, 1893, p. 88.

<sup>975</sup> On competition between universities see VEYSEY, *The emergence*, p. 324-332.

<sup>976</sup> *Massachusetts Institute of Technology, Boston. A brief account of its foundation, character and equipment*, Cambridge, Wilson and Son, 1893; *The Massachusetts Institute of Technology. A brief account of its foundation, character and equipment*, Boston, Massachusetts Institute of Technology, 1904.

<sup>977</sup> *The Massachusetts Institute of Technology. A brief account of its Foundation, Character and Equipment*, Boston, Massachusetts Institute of Technology, 1904, p. 41.

<sup>978</sup> COATS, A.W., « American Scholarship Comes of Age: The Louisiana Purchase Exposition 1904 », in: *Journal of the History of Ideas*, 22, 3, 1961, p. 404-417.

higher education throughout the twentieth century. The vision outlined by John W. Hoyt after the 1867 exhibition had to a great extent been put into practice.<sup>979</sup>

The American exhibits in the primary, higher and technical education sectors proved the dynamism of American education in particular and American society in general.

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What impression did a visitor to the educational sections of France, Germany, Japan and the United States at the turn-of-the-century exhibitions get? What did a reader learn from the so similar publications edited and authored by Ferdinand Buisson and Louis Liard, Friedrich Paulsen and Wilhelm Lexis, Japanese officials as well as Nicholas Murray Butler and William T. Harris? He or she might surely have realised the central role elementary education played in modern societies. But the visitor might also have observed important differences between the national representations.

Most popular differences concerned the discourses with which education was put into relation with society and forms of government, the institutional organisation of schooling and curricular contents. The educational exhibits demonstrated the central role of primary education. The republican and secular character of French primary education was explicitly put forward as a distinguishing feature. Nevertheless, the French system continued to make distinctions between the pupils of the bourgeoisie and those of workers. Moreover, gender separation persisted. French schools had succeeded to include manual elements in primary curricula. The educational exhibits gave expression to the competition between the public schools run by the Ministry and private Catholic schools. German schools appeared as the best administered in the world. As in France, different schools received children of workers and the

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<sup>979</sup> Compare to the beginning of the third part of this thesis.

middle-classes, even though primary schools were unisex. The exhibits made clear that distinctively new features as manual training were largely absent in Germany. The exhibits were by far more inclined to tradition than future prospects. Prussia imposed itself as the dominant state, eclipsing the participation of other federal states. Likewise, Japanese primary schools also trained subjects of an authoritarian monarchy. The relatively new schools which did not discriminate by class or gender were embedded in an invented tradition, manual elements were introduced to primary curricula. In the United States, a new education made its appearance. The strong emphasis on manual and practical elements was the specific characteristic of American education. Schools seemed to make less distinctions between the social background and gender of their pupils. American ideology implied that each child should have equal chances in a democratic society.

Higher education also played a central role. French universities were in a subordinate position and had difficulties to compete with the institutions of other nations. The importance of the humanistic tradition for the German university model became clear, although Germans put also emphasis on natural sciences. The exhibits of Tokyo Imperial University demonstrated how the country achieved scientific excellence in specialised fields. In the United States, the new colleges and universities showed their dynamism.

These were the national models that had formed out during the previous decades. Most of the institutionalisation processes had been based on cultural transfers. The diversity of institutional models testified to the implementation of multiple modernities. The transnational appropriation processes were now obscured and integrated in accounts that highlighted autochthonous national traditions. The imperial societies of the turn of the century perceived their own national institutions as the best and understood the transnational circulation of knowledge as the diffusion

of their own model. But the national models did not reflect national essences. When taking a closer look at the national presentations one will soon realise the extreme fragility of the narratives. They were based on momentary compromises or even power impositions. Narratives reflected national political junctures and allowed to bring forward the opinions of those who had the temporary power in the national discursive fields.

## CONCLUSION

As a socio-cultural history of education experts in the context of the great international exhibitions from 1862 to 1904, this thesis makes a contribution to three historiographical fields: the history of education, research on international exhibitions and transnational history.

Some of the key protagonists of this thesis, such as Ferdinand Buisson, William T. Harris or Tejima Seiichi, were contemporary “superstars” in the field of education. As education experts they were the central actors involved in the organisation of the educational exhibits. They belonged to an intermediate group or were meso-level actors at world exhibitions. They were neither the exhibitions’ “big” organisers, such as the commissioner general Frédéric Le Play, nor did they belong to the mass public. Instead, they constituted an intellectual and administrative elite that both prepared and visited world exhibitions and used them for their own purposes. The educational sections of world exhibitions were one of the few occasions that brought together specialists from all over the world. World exhibitions were a central means of communication and of sociability for experts during the second half of the nineteenth century. Whereas most recent studies of world exhibitions focus on either the top organisers or mass audiences, this thesis concentrates on the role of experts. The central question is why education experts so enthusiastically prepared and visited world exhibitions. Clearly, they used the exhibitions for transnational activities. Taking part in an exhibition always involved border-crossing, be it by international travel or welcoming foreigners at home. That is why the question can be rephrased in the following way: Why did these experts go transnational?

This thesis argues that education experts went transnational at the exhibitions for two reasons: they wanted to learn from abroad for the profit of their own institutional context and they wanted to present the performance and alleged superiority of their own institutions to an international audience. World exhibitions were big market places for appropriation and self-representation.

World exhibitions played a considerable role in transfer processes. The concept of cultural transfers best captures these efforts.<sup>980</sup> Driven by the needs and preoccupations of their own institutional contexts, education experts searched for models abroad. The empirical cases discussed in this thesis permit to conceptualise and determine the particular place of exhibitions in transfer processes.

This thesis uses Matthias Middell's conceptualisation of cultural transfers which distinguishes four phases in appropriation processes. These phases can roughly be summarised as the perception of deficits, the location of contexts for reference models as remedy to these deficits, transfer work and the actual implementation in a specific institutional context. World exhibitions played a role for all but the last phase. A specific actor did not necessarily use world exhibitions for all phases of his appropriation efforts. It is also possible that transfer processes were interrupted without being finalised by institutional creations or reforms. Activities at world exhibitions can often be located in the first phase of potential transfers when the contact with a foreign education system provided – sometimes unexpected – impulses. Comparison with the performance of other countries made deficits in a specific context obvious and problems could thus be identified. This was the case for example of the British experts who were surprised by the quality of French industrial design and production at the exhibitions of the 1850s and 1860s and consequently

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<sup>980</sup> MIDDELL, Matthias, « Kulturtransfer und transnationale Geschichte », in: MIDDELL, Matthias (ed.), *Dimensionen der Kultur- und Gesellschaftsgeschichte: Festschrift für Hannes Siegrist zum 60. Geburtstag*, Leipzig, Leipziger Universitätsverlag, 2007, p. 49-72.

suggested improvements in technical education. In many cases world exhibitions were consciously used to investigate education systems of one or more countries, as part of the second phase of appropriation processes. Actors were already aware about the deficits, what they searched for and where they could find a reference model that fitted their expectations. This includes for example Ferdinand Buisson who went to Philadelphia and reported on education in the United States, the Americans who came to Europe in order to learn about technical education and Maximilian Weigert who went to the Paris 1889 exhibition. In some cases education experts used the exhibitions in a still more systematic way which corresponds to the third phase of Middell's model. World exhibitions then became an integral part of material and discursive transpositions. This was accompanied by cordial relationships, often personal friendships, between the involved experts. In this case they followed up previous encounters at exhibitions or on other occasions. World exhibitions, in this perspective, became venues where groups of education experts regularly came together and thus created certain continuities. They were places where transnational networks materialised. World exhibitions thus played a crucial role in various phases of transfer processes.

The occasions when the exhibitions attracted a high number of experts and repeatedly served as sites for organised transfer efforts of the same actors provide the most interesting cases. Many transfer processes perceivable over a long period took place in the field of primary education. The 1870s saw a climax in the professional interest in primary education at the exhibitions. Administrations strengthened their authority over this sector of the education system. They created new institutions, passed new regulations and built new schools. Modern primary education was institutionalised in some countries and strengthened in others where it had been introduced previously. The American late common school crusaders – despite

persisting insufficiencies in American education – looked proudly back on their accomplishments and attracted an enormous interest from two sides. The Japanese officials of the Ministry of Education were trying to reform the Educational Code and to push the implementation of primary education. The most eminent representatives were Tanaka Fujimaro and Tejima Seiichi, helped by their American advisor David Murray. After a first orientation during the Iwakura mission, the Japanese made immense efforts to appropriate American education with a climax at the Centennial Exhibition. Simultaneously, French republican educators prepared the republican school legislation of the 1880s. These were middle-aged officials of the Ministry of Public Instruction, led by Ferdinand Buisson. The best example of how intimate the relationship between education experts of the two countries was, is probably the fact that Buisson housed Philbick during his stay in Paris as commissioner at the 1878 exhibition. There was a network of the late common school crusaders, the young Japanese officials of the *monbushō* and the French republican education experts which regularly met at the exhibitions. Institutions such as the United States Bureau of Education, the *Musée pédagogique* in Paris and the Educational Museum of Tokyo were created as a result of these contacts or played a central role in them. Despite the common reference to American models in Japan and France, the education systems of both countries developed in different ways in the long run. This confirms how much appropriations responded to the demands, debates and traditions of particular institutional contexts.

Technical education was another field of sustained expert interest at the exhibitions. Experts suggested answers to the changing educational needs of industrial society. During a first period, in the 1860s and 1870s, American debates and institutionalisation processes were carried out with reference to European models. The American education experts who favoured more technical contents of

instruction belonged mostly to a new generation, different from that of the common school crusaders. A turn towards technical instruction manifested itself in the expansion process of higher education, as shown in the cases of John M. Gregory and John D. Runkle. Secondary education was also affected with the creation of manual training high schools, most prominently that of Calvin M. Woodward in St. Louis. Moreover, education experts promoted industrial drawing and manual training in primary education. The outcome of these transfers was the implementation and strengthening of school culture, as Peter Lundgreen has argued: Youths received their initial training for future industrial careers not anymore at the workplace but in schools.<sup>981</sup> Later on, Europeans became interested in American models. Education experts from Germany showed a particular interest in American developments which culminated in the years around 1900. They criticised the humanistic orientation of education in the German states. Alwin Pabst used world exhibitions most consistently for his own institution in Leipzig. Manual training was one issue of the pedagogical organisation of schooling that circulated. The workshop method had been developed in the Russian technical schools and presented at the exhibitions. Aims of manual training were manifold and constantly reinterpreted. Woodward and his follower Pabst saw manual training as an integral part of general education. World exhibitions linked the national reform debates on secondary education around 1900. These debates are reflected in the simultaneous developments of the German school conferences of 1890 and 1900, the American Committee of Ten of 1893 and the French Ribot Commission of 1898.

The analysed cases confirm that there was no opposition between the occurrence of cultural transfers and nationalism. On the contrary, cultural transfers and

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<sup>981</sup> LUNDGREEN, Peter, « Engineering Education in Europe and the USA, 1750-1930: The Rise to Dominance of School Culture and the Engineering Professions », in: *Annals of Science*, 47, 1, 1990, p. 33-75.

nationalism were intimately linked. Historical actors pursued cultural transfers, *because* they were engaged in nation-building projects. Cultural transfers served the institutional construction of national education spaces. In some cases, however, nationalism developed into extreme forms that blocked any foreign reference later on. In the specific case of education experts in the late nineteenth century, cultural transfers contributed to the self-assertion of this group in national frameworks, as became especially clear in the cases of Ferdinand Buisson and Alwin Pabst. Even if they were not institutionally based on the national level, they often perceived themselves as representatives of a nation, as in the case of Calvin M. Woodward.

Besides their role in appropriation processes world exhibitions were vehicles for the – often nationalist – self-representation of educational systems. Christophe Charle's interpretation of the major powers around 1900 as *sociétés impériales* provides a framework for these activities.<sup>982</sup> The administrative and intellectual elites of France, Germany, Japan and the United States firmly believed in the superiority of their own national institutions over those of other countries. Competition was thus a central characteristic of the period. Education was a distinctive feature of the *sociétés impériales*.

At the end of the nineteenth century, basic educational world standards had formed out, as the institutionalist writings of the Stanford school have shown. It was widely accepted, for example, that governments should provide elementary schooling for the whole population. But when looking more closely one could see that the world standards were a thin layer under which different approaches opposed each other. The relation between primary and secondary education was organised in different ways. The place of technical elements, particularly manual training and its

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<sup>982</sup> CHARLE, Christophe, *La Crise des sociétés impériales: Allemagne, France, Grande-Bretagne, 1900-1940. Essai d'histoire sociale comparée*, Paris, Seuil, 2001.

aims, was highly contested. The coeducation of the sexes posed problems in some countries. The character of universities was also debated. Institutionalisation had taken place on or below the national level. That is exactly why experts from different backgrounds organised competitive stagings of national standardisations.

The French education experts represented the achievements of the Republican regime. According to them, the free, compulsory and secular primary school, which was not co-educational and where a large percentage of youths received manual training, belonged henceforth to the French *patrimoine* as the French Revolution. On the other hand, the French did not succeed in favourably displaying the higher education system. The organisers from the Prussian Ministry of Education prepared the German school exhibits. They notably presented a well administered coeducational primary school system which – besides some exceptions – lacked manual elements. At the centre of the exhibits, however, was the humanistic university. It was presented as the oldest, classic and best form of a university, against the emerging institutions in other countries, notably the United States. The Japanese *monbushō* presented primary education as legitimating an Emperor-centred authoritarian regime. Japanese uniqueness in art and the coming of age of research in seismicity were further topics. In the United States sections, the generation of administrative progressives staged the alleged superiority of the new education movement. Spontaneity and a decisive turn away from academic contents towards more practical and child-centred learning characterised American education and differentiated it from other countries. The new American research universities staged their ambitions.

These hegemonic displays resulted from the fact that the dominant interest groups on the national level staged their solutions. It was thus of importance who had most power in the national discursive fields. In France one could observe a pronounced

struggle between Catholics and the Ministry of Public Instruction. The national dimension of world exhibitions required organisers in federally organised nation-states to think about how to stage national unity. In Germany the federal character of the nation-state always caused struggles. Prussia as the dominant state within the Reich largely succeeded in representing its model and policies as German. This in turn led German experts from other federal states to conclude and complain that the exhibits were not German at all, but only Prussian. In the United States, by contrast, the national negotiation process was more balanced. The Bureau of Education usually organised an exhibit which gave all interested parties the possibility to engage. As a result, there were no homogeneous national displays and no homogeneous notions of the nation.

The results of the thesis also suggest a periodisation. One can distinguish two periods of educational sections at world exhibitions. Until 1878 learning from foreign experiences was the most relevant practice of education experts at the educational sections of world exhibitions. The International Health and Education Exhibition in London in 1884 and the World's Industrial and Cotton Centennial Exposition in New Orleans in 1885 were a transition period. At the New Orleans exhibition one could observe for a last time the triangle participation of the United States, Japan and France as the most active nations. From the *Exposition universelle* of 1889 onwards, the representation of one's own context was the most important motivation for the participation in world exhibitions.<sup>983</sup> Thus, the character of the exhibitions for the transnational circulation of educational knowledge changed. During the first period knowledge circulated more easily than during the second. The foremost reason for the change of the exhibition's role was that the

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<sup>983</sup> Despite its persuasiveness, this scheme has to be attenuated, taking into account the German reports written in the aftermath of the 1900 and 1904 exhibitions.

institutionalisation of systems of primary education had now come to an end in most countries. During the studied period societies became increasingly nationalised.<sup>984</sup> Even though educational knowledge still continued to circulate, most relevant contacts took place outside the exhibition grounds. The re-appearance of the German Empire at the exhibitions in the United States changed the character of the educational exhibits. A new form of capitalism emerging with the German Empire as a major player and a new regime of territorialisation announced a new phase of globalisation.<sup>985</sup> A more expansive nationalism shaped the desire of actors to dominate, to put forward their own worldview. The study of the exhibitions permits accurately situating the shift, as suggested by Matthias Middell, from circulation to nationalisation of discourses in the late 1880s.<sup>986</sup> Finally, the shift to self-representation was also caused by the growing emphasis on entertainment aspects at the exhibitions. The wide-spread phenomenon of *Ausstellungsmüdigkeit* or exhibition fatigue emerged out of the awareness that exhibitions had lost their importance for expert communication. The two different phases saw two different *régimes circulatoires*, as Pierre-Yves Saunier suggested.<sup>987</sup>

On the level of the concrete practices, transferring foreign knowledge was based on the writing up of extensive reports. Representing one's own institutions was possible through extensive exhibits, but also the publications of books especially prepared for display at the exhibitions. A "learning curve" from appropriation to

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<sup>984</sup> NOIRIEL, Gérard, *Etat, nation et immigration. Vers une histoire du pouvoir*, Paris, Belin, 2001, p. 125-144.

<sup>985</sup> With a perspective on economic history: PETERSSON, Niels, « Das Kaiserreich in Prozessen ökonomischer Globalisierung », in: CONRAD, Sebastian, OSTERHAMMEL, Jürgen (eds), *Das Kaiserreich transnational. Deutschland in der Welt 1871-1914*, Göttingen, Vandenhoeck & Ruprecht, 2004, p. 49-67.

<sup>986</sup> MIDDELL, Matthias, « Das 'Spiel mit den Maßstäben' gestern und heute. Kompatibilität oder Diversität europäischer Wissenschaftssysteme – ein Blick auf die Transferprozesse im 19. Jahrhundert », in: SCHALENBERG, Marc, WALTHER, Peter Th. (eds), *"... immer im Forschen bleiben": Rüdiger vom Bruch zum 60. Geburtstag*, Stuttgart, Steiner, 2004, p. 199-212.

<sup>987</sup> SAUNIER, Pierre-Yves, « Les régimes circulatoires du domaine social 1800-1940: projets et ingénierie de la convergence et de la différence », in: *Genèses*, 71, 2008, p. 4-25.

representation can also be observed in municipal settings. Studying the handling of urban knowledge by the municipality of Lyon at the beginning of the nineteenth century through exhibitions and congresses, Pierre-Yves Saunier proposed a similar interpretative scheme.<sup>988</sup>

Indeed, one can observe learning curves in numerous national and individual cases. These experts first used the exhibitions in order to learn from abroad and then presented their illustrious institutions at the same venues a few decades later. The French republican education experts used the exhibitions of the 1870s in order to build up their knowledge and reputation. Later on they showed their institutional achievements to the world. Tejima Seiichi was involved in the institutionalisation of primary education in the 1870s and later proudly represented the Japanese nation as commissioner general and Japan's "exhibition man". Kuki Ryūichi travelled to Paris as a young commissioner in 1878 and then, having become the director of the Imperial Museum, wrote a preface to a *History of Japanese Art* for the 1900 exhibition where he claimed the superiority of Japan over the rest of Asia. The learning curves of the propagators of new education in the United States were remarkable. In the 1870s American experts showed a great interest in European technical education. Around 1900, the emphasis on practicality of American education became a guiding principle of the exhibits. The German case is the only one where no learning curve can be observed. Modern primary education and the German university model, the major themes of German exhibits, had already been institutionalised during the first half of the nineteenth century. Those who wished to subvert these models were not able to implement their ideas on a large scale. The

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<sup>988</sup> "The first period saw the accumulation of knowledge and was characterised by deference, recognition of foreign experiences and methods and the will to collect information. Then it seems that we encounter a more ostentatious moment, where self-confidence and pride in Lyon's know-how dominates. [...] Reports become rarer, and are no longer widely circulated or discussed." See SAUNIER, Pierre-Yves, « Changing the City: Urban International Information and the Lyon Municipality, 1900-1940 », in: *Planning Perspectives*, 14, 1999, p. 19-48.

reason is that those who wrote reports had no power to implement their ideas on the institutional level. One has to ask if the weakness of these actors, which was due to the relatively authoritarian structures in the German states, contributed to a loss of innovativeness of German education around the turn of the century. However, the efforts of those educators fostering more practical education succeeded to a certain degree with the reform pedagogy movement in the interwar period.

As outlined in the introduction, education experts went transnational for three reasons. Besides their need to appropriate foreign features and to represent their own institutions, the desire to cooperate on the international level played a considerable role as well. Madeleine Herren's concept of governmental internationalism provides the best historiographical framework for the analysis of cooperation efforts. Ferdinand Buisson played a major role in cooperation efforts. As early as in 1875, in his report on the Vienna exhibition, Buisson proposed the creation of an international bureau of education.<sup>989</sup> His colleague Emile Levasseur was eager to prepare international statistics.<sup>990</sup> Even in 1915, during the First World War, Buisson frequented the International Congress on Education in Oakland.<sup>991</sup> In 1919, he used a trip to the annual meeting of the NEA at Milwaukee to investigate the possibility of establishing an international bureau of education.<sup>992</sup> The international congresses were the forerunners to the international organisations dealing with education which

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<sup>989</sup> BUISSON, Ferdinand, *Rapport sur l'instruction primaire à l'exposition universelle de Vienne en 1873*, Paris, Imprimerie nationale, 1875, p. 343-345.

<sup>990</sup> LEVASSEUR, E., « Instruction primaire et secondaire », in: *Exposition universelle de Vienne en 1873. Rapports*, Paris, Imprimerie nationale, 1875, vol. IV, p. 351-529, here p. 506-508.

<sup>991</sup> BUISSON, Ferdinand, « Le congrès international d'éducation », in: *Revue pédagogique*, LXVIII, 1, 1916, p. 1-40, here p. 11-12.

<sup>992</sup> *National Educational Association of the United States. Addresses and Proceedings of the Fifty-Seventh Annual Meeting Held at Milwaukee, Wisconsin, June 28-July 5, 1919. Volume LVII*, Washington, NEA, 1919, p. 93.

were created in the interwar period.<sup>993</sup> It would be of great interest to analyse such cooperation efforts in the framework of world exhibitions in a more systematic way.

The exclusive focus on the role of world exhibitions in transfer processes can potentially lead to misinterpretations. Irregular national participations in world exhibitions can distort the knowledge on transnational contacts. For example, world exhibitions, on the one hand, allow in a comprehensive manner the tracing of contacts between French and American educators. On the other hand, they provide little information on the relationship between French and German education experts. This was due to the absence of the German Empire from the educational sections of world exhibitions during much of the 1870s. As recent studies on the *missions pédagogiques françaises* emphasise, however, the German education system was nevertheless a major reference for French educators during the mid and late nineteenth century.<sup>994</sup>

This thesis analyses the participation of education experts from four countries in world exhibitions. Firstly, this thesis makes a sustained contribution to the understanding of French history of education. American combined with French sources provide new insights in the transnational – especially transatlantic – dimension of French debates on the republican primary school that have not yet been systematically addressed by research. A group of republican educators led by Ferdinand Buisson used the exhibitions of the 1870s to build up their competence and reputation, thus preparing thus the republican school laws of the 1880s.

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<sup>993</sup> FUCHS, Eckhardt, « Kinderschutz und Völkerbund: zur Formierung des edukativen Multilateralismus in der Zwischenkriegszeit », in: FUCHS, Eckhardt (ed.), *Bildung International: Historische Perspektiven und aktuelle Entwicklungen*, Würzburg, Ergon, 2006, p. 163-180, here p. 166; FUCHS, Eckhardt, « The Creation of New International Networks in Education: The League of Nations and Educational Organizations in the 1920s », in: *Paedagogica Historica*, 43, 2, 2007, p. 199-209. See also NOVOA, António Manuel Sampaio da, *La construction du 'modèle scolaire' dans l'Europe du Sud-Ouest (Espagne, France, Portugal): des années 1860 aux années 1920*, sous la direction de Jean-Noël Luc, thèse de doctorat, Paris IV, 2006, p. 237-292.

<sup>994</sup> MATASCI, Damiano, « Le système scolaire français et ses miroirs. Les missions pédagogiques entre comparaison internationale et circulation des savoirs (1842-1914) », in: *Histoire de l'éducation*, 125, 2010, p. 5-26.

Transatlantic networks had a crucial impact on French education. After the institutionalisation of the republican primary school, these educators staged their own achievements at the exhibitions and contributed to the construction of the myth of the republican primary school. Another group of French educators used world exhibitions to get informed about the latest developments in technical instruction. Towards the turn of the century, world exhibitions played a role for French education experts in staying informed on developments in the primary, secondary and higher education sectors in the United States, although relations were less cordial then before.

Secondly, the German states early on used world exhibitions in order to stage their relatively well administered institutions on an international scene, as was the case in 1867 when the Prussian land school and the Saxon pavilion of public instruction attracted the visitors' attention on the Champ de Mars. After a long absence from world exhibitions, the German educational exhibits at the American exhibitions of Chicago and St. Louis, organised by the Prussian Ministry of Education, offered a highly sophisticated show of German education. At the same time as high ranking officials of the Prussian Ministry of Education staged the humanistic German ideal of scholarship at the expositions of the United States, a second group of experts with a lower status searched for ways to make instruction more practical and thus to subvert the hegemonic model represented in the German educational exhibits. These experts were mostly affiliated to the Prussian Ministry of Trade. This process started in the 1870s. The reporting on (mostly American) technical education from world exhibitions increased quantitatively at the turn of the century.

Thirdly, this thesis confirms earlier findings on the Japanese participation in world exhibitions. Historians who dealt with the foreign dimension of Japanese

education in the Meiji mostly concentrated on links between Japan and the United States. Alongside Christian Galan's book chapter<sup>995</sup>, this thesis contributes additional pieces of empirical evidence from French archives, although the transpacific dimension is generally confirmed. However, this thesis marks the first attempt the first attempt to put the Japanese experience in a larger comparative perspective. The transnational activities of Japanese education experts were similar to those of their French colleagues. Participation in world exhibitions primarily served building up the national education system during the 1870s. Japanese actors participated in a network which also involved French and American education experts. Later on, officials of the Ministry represented institutional achievements.

Fourthly, the participation of education experts from the United States has to a different degrees been addressed by previous research. At the same time as the late common school crusaders proudly staged their elementary schools and praised them as an expression of the "American idea", those interested in more practical approaches to education began to build up another kind of American specificity. American education at the Centennial illustrates an important transition in American education. Following Lawrence A. Cremins, it was the starting point of the progressive education movement, although similar points were already raised in the aftermath of the previous exhibitions. Later on, those education experts who had learned from European experiences in technical education proudly presented their new institutions at the exhibitions of the turn of the century. The administrative progressives, professors of educational sciences and presidents of recently founded universities presented their vision to the world.

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<sup>995</sup> GALAN, Christian, « Le nouveau paradigme éducatif du début de Meiji. Analyse d'une liasse de compositions écrites par des écoliers japonais durant les années 1870 », in: HORIUCHI, Annick (ed.), *Education au Japon et en Chine. Éléments d'histoire*, Paris, Les Indes savantes, 2006, p. 21-48.

The inclusion of other countries could possibly lead to modified outcomes. In this perspective future research has to take into account British actors as well. Francis Adams from the London School Board published a book entitled *The Free School System of the United States* and was probably the first one to use this term.<sup>996</sup> Matthew Arnold (1822-1888) was engaged in Franco-British educational relations.<sup>997</sup> Michael Sadler (1861-1943), director of the office of special inquiries at the Board of Education in London had an important role for the transnational circulation of educational knowledge. In 1900, Sadler delivered a lecture “How may we learn anything of practical value from the study of foreign educational systems?”<sup>998</sup> E. Lyulph Stanley (1839-1925) from the London Board of Education participated regularly in French educational congresses. The activities of the Italian Minister of Education Ruggiero Bonghi would be an interesting topic for future research. Bonghi was the Italian commissioner of the educational section at the Vienna exhibition of 1873. After the closure of the exhibition he contacted with Ferdinand Buisson in order to receive French materials for an educational museum he wanted to establish in Rome.<sup>999</sup> Actors from smaller European countries with well organised education systems, such as Belgium and Switzerland, were very active at world exhibitions.<sup>1000</sup> Austrian reports which have been mentioned occasionally await further analysis. Within Germany, the participation of Saxony in the educational sections of world exhibitions could also be analysed more in detail, based on the holdings of the

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<sup>996</sup> ADAMS, Francis, *The Free School system of the United States*, London, Chapman and Hall, 1875.

<sup>997</sup> BELLAIGUE, Christina de, « ‘Educational Homes’ and ‘Barrack-like Schools’: cross-channel perspectives on secondary education in mid-nineteenth-century England and France », in: PHILLIPS, David, OCHS, Kimberley (eds), *Educational policy borrowing: historical perspectives*, Oxford, Symposium Books, 2004, p. 89-108, here p. 99-105.

<sup>998</sup> BEREDAY, George Z. F., « Sir Michael Sadler's ‘Study of Foreign Systems of Education’ », in: *Comparative Education Review*, 7, 3, 1964, p. 307-314. Sadler was a speaker at the Congress of Arts and Sciences in St. Louis.

<sup>999</sup> See ANF, F17, 9386, correspondence of the commission of the French Ministry of Public Instruction to the Vienna exhibition, 1873.

<sup>1000</sup> GONON, Philipp, « Weltausstellung im 19. Jahrhundert als Ansporn für Schulreformen », in: HOFSTETTER, Rita (ed.), *Eine Schule für die Demokratie: zur Entwicklung der Volksschule in der Schweiz im 19. Jahrhundert*, Bern, Lang, 1999, p. 377-401.

*Sächsisches Staatsarchiv* in Dresden. Research has already been done on South American participation in the educational sections. José Zubiaur (1856-1921), Argentinean commissioner to the Paris 1889 exposition, used this occasion extensively to study French schools.<sup>1001</sup> Buisson's report on American education was translated and much appreciated in Brazil.<sup>1002</sup> It would be interesting to know if educators from still other parts of the world visited and reported on the educational sections.

Future research should also analyse the early exhibitions of 1851 and 1855. Even though they did not possess educational sections, this topic already played a major role in contemporary debates. The Universal Exposition of Brussels of 1910 also deserves further research. This exhibition was of particular importance for Germany, as the German Empire sent a very complete exhibit to the Belgian capital. After the closure of the exposition most exhibits formed the first collections of the *Zentralinstitut für Erziehung und Unterricht* in Berlin, the first national educational museum of Germany. The role of Ludwig Pallat, commissioner of the German educational exhibit in Brussels and director of the new institution in Berlin, was crucial.<sup>1003</sup> Still, the Panama-Pacific International Exposition of San Francisco in 1915 comprised important educational exhibits and congresses.<sup>1004</sup>

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<sup>1001</sup> DUSSEL, Inés, « The Spectacle of Schooling and the Construction of the Nation in Argentina's Participation in World Exhibitions (1867-1889) », in: LAWN, Martin (ed.), *Modelling the Future. Exhibitions and the Materiality of Education*, Oxford, Symposium Books, 2009, p. 129-152, here p. 141-142.

<sup>1002</sup> BASTOS, Maria Helena Camara, « Ferdinand Buisson no Brasil: Pistas, vestígios e sinais de suas idéias pedagógicas (1870-1900) », in: *Historia da educação*, 4, 8, 2000, p. 79-109; KUHLMANN, Moysés Jr., *As grandes festas didáticas: a educação brasileira e as exposições internacionais (1862-1922)*, Tese de doutoramento, FFLCH/USP, São Paulo, 1996; WARDE, Mirian Jorge, « Oscar Thompson na Exposição de St. Louis (1904): an exhibit showing », in: FREITAS, Marcos Cezar de, KUHLMANN Jr., Moysés (eds), *Os Intelectuais na História da Infância*, São Paulo, Cortez, 2002, p. 409-458.

<sup>1003</sup> FUCHS, Eckhardt, « All the World into the School: World's Fairs and the Emergence of the School Museum in the Nineteenth Century », in: LAWN, Martin (ed.), *Modelling the Future. Exhibitions and the Materiality of Education*, Oxford, Symposium Books, 2009, p. 51-72, here p. 57-58.

<sup>1004</sup> SOBE, Noah, « Attention and Spectatorship: Educational Exhibits at the Panama-Pacific International Exposition, San Francisco 1915 », in: BARTH, Volker (ed.), *Innovation and Education*

There are still numerous aspects of education at world exhibitions that deserve a more detailed analysis. Kindergartens, for example, were an important theme at most expositions. The circulation of ideas and materials related to object teaching would be a fascinating topic. This dimension relates to recent innovative scholarship on the materiality of education.<sup>1005</sup> The use of school statistics and the circulation of these materials also deserve greater attention.<sup>1006</sup>

World exhibitions were vehicles for the professional exchange of ideas in various subject matters. This thesis' method can also be applied to other fields of knowledge represented at the expositions. The subject most related to education was social economy. Governments started to regulate social welfare, introduce insurance schemes and protection laws at the end of the nineteenth century. The *Musée social*, established in Paris in 1895, emerged out of the world exhibition of 1889 and resembled in a striking manner the *Musée pédagogique* founded a decade earlier.<sup>1007</sup> The *Musée social* had a major role in the preparation of the 1900 exhibition devoted to the doctrine of *solidarité*. The museum provided an institutional background for the elaboration of this doctrine.<sup>1008</sup> The networks of many of its activists coincided with educational networks.<sup>1009</sup> The best example was Léon Bourgeois himself, the

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in *Expos/Innovation et Education dans les Expos. 75th anniversary of the BIE/75ème anniversaire du BIE*, Paris, BIE, 2007, p. 97-115.

<sup>1005</sup> LAWN, Martin (ed.), *Modelling the Future. Exhibitions and the Materiality of Education*, Oxford, Symposium Books, 2009; LAWN, Martin, GROSVENOR, Ian (eds), *Materialities of schooling: design, technology, objects, routines*, Oxford, Symposium Books, 2005.

<sup>1006</sup> LUC, Jean-Noël, *La statistique de l'enseignement primaire, 19e-20e siècles: politique et mode d'emploi*, Paris, Economica/INRP, 1985; WARDE, Mirian Jorge, « As estatísticas sociais como tecnologia de governo: as estatísticas escolares norte-americanas nas Exposições Universais (século XIX e início do séc. XX) », in: *XVIII Encontro Regional da ANPUH-SP, 2006, Assis. Anais do XVIII Encontro Regional da ANPUH-SP (CD-ROM)*, São Paulo, Anpuh-SP, 2006, p. 1-8.

<sup>1007</sup> HORNE, Janet Regina, *A social laboratory for modern France: the Musée Social and the rise of the welfare state*, Durham et al., Duke University Press, 2002.

<sup>1008</sup> BLAIS, Marie-Claude, *La solidarité: histoire d'une idée*, Paris, Gallimard, 2007. See also KAISER, Wolfram, « Transnational Mobilization and Cultural Representation: Political Transfer in an Age of Proto-Globalization, Democratization and Nationalism 1848-1914 », in: *European Review of History*, 12, 2, 2005, p. 403-424; RODGERS, Daniel T., *Atlantic Crossings: Social Politics in a Progressive Age*, Cambridge, Belknap Press of Harvard University Press, 1998.

<sup>1009</sup> KAISER, Wolfram, DITTRICH, Klaus, « Political Communication at the World Exhibitions: Transnational Negotiation of Social and Education Policy, 1889-1904 », in: ALBERT, Mathias,

main propagator of the idea of *solidarité*, who had been two-time Minister of Public Instruction in the 1890s. A further investigation on these issues in transnational terms could relate to current transnational historical research projects, for example on health and safety at work.<sup>1010</sup> The series of volumes on the German insurance schemes edited by the German commission to the St. Louis exposition is a major source in this field.<sup>1011</sup>

The fields of education and social economy were to a large extent dominated by state actors. It would be interesting to compare these findings with the circulation in other fields where private interests had a stronger lead. World exhibitions also contributed to the circulation of knowledge in various industrial subject matters. Building on Kroker's monograph on Ruhr industrialists, many sources still remain to be analysed. Beyond the official reports, the 1893 editions of the *Zeitschrift des Vereins deutscher Ingenieure* comprised numerous articles on technology at the Columbian Exposition, for example. Fascinating publications could result from the exploitation of these sources.

Future research should also investigate other functions of exhibitions which have not been addressed in this thesis. It would be of interest to know more about how education experts wanted to convince the masses of visitors to the exhibitions of the legitimacy of their projects of extended primary and technical schooling. Such a study would follow Tony Bennett's idea of what he has termed the exhibitionary

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BLUHM, Gesa, HELMIG, Jan, LEUTZSCH, Andreas, WALTER, Jochen (eds), *Transnational Political Spaces. Agents – Structures – Encounters*, Frankfurt am Main, Campus-Verlag, 2009, p. 162-184.

<sup>1010</sup> ROSENTAL, Paul-André, « Health and Safety at Work: An Issue in Transnational History – Introduction », in: *Journal of Modern European History*, 7, 2, 2009, p. 265-282; MOSES, Julia, « Foreign Workers and the Emergence of Minimum International Standards for the Compensation of Workplace Accidents, 1880-1914 », in: *Journal of Modern European History*, 7, 2, 2009, p. 219-239.

<sup>1011</sup> *The German Workmen's Insurance as a Social Institution*, Berlin, Imperial Printing Office, 1904, 5 vol.

complex.<sup>1012</sup> Similarly, further research has to be done on how educational exhibits at international, national and regional exhibitions served the diffusion of the latest educational knowledge within national frameworks. In this perspective, the reports of French primary instructors sent to the Paris expositions preserved in the French *Archives nationales* and partly published furnish material on how a professional group perceived world exhibition.<sup>1013</sup> Future research should put a greater emphasis on aspects of presentational strategies and reception, aspects which this thesis deliberately neglected. Aspects of everyday life that can inform us how transnational contacts actually evolved in practice have to be more deeply explored in the future. Postal traffic, rail and steamer travels as well as many other aspects of transcontinental journeys can provide insights in contemporary practices.

What does all of this tell us about the history of globalisation in the late nineteenth and early twentieth century? Bringing together people from all over the planet, world exhibitions were one of the driving forces in this process. World exhibitions were portals of globalisation, according to Matthias Middell and Katja Naumann who define such portals as “those places that have been centres of world trade or global communication, have served as entrance points for cultural transfer, and where institutions and practices for dealing with global connectedness have been developed.”<sup>1014</sup>

Analysing globalisation processes of the late nineteenth century, this thesis did not use the notion of the West as an epistemological unit. Taking into account individuals, the classic idea of a “giving” West and a “receiving” East is not persuasive any more. In the sources of the late nineteenth century the notion of the

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<sup>1012</sup> BENNETT, Tony, « The Exhibitionary Complex », in: *New Formations*, 4, 1988, p. 73-102.

<sup>1013</sup> See for example ANF, F17, 9387, Reports of primary instructors at the *Exposition universelle* of 1878.

<sup>1014</sup> MIDDELL, Matthias, NAUMANN, Katja, « Global history and the spatial turn: from the impact of area studies to the study of critical junctures of globalization », in: *Journal of Global History*, 5, 1, 2010, p. 149–170, here p. 162.

West occurs almost exclusively in Japanese documents.<sup>1015</sup> It was also used by those Americans and Europeans who were in contact with Japan. From this perspective it would rather appear that Americans and Europeans later adopted this Japanese attribution to describe themselves. There was no strong Western-Oriental division, but actors searched for answer to a shared crisis of modernity that expressed itself in different ways according to the context.<sup>1016</sup> Cultural transfers did not happen on a one-way street from Europe to Asia.<sup>1017</sup> Historical actors in many parts of the world were equally engaged in activities that one can describe as appropriation and self-staging.

But, if many parts of the world were taking part in a common modernisation process, how could one make a difference? Middell and Naumann recently rightly define globalisation “as a dialectical process of de- and re-territorialisation” and thus insist on the dialectics between opening and claims for self-assertion.<sup>1018</sup> The turn towards self-representation and the competitive staging of one’s own achievements and alleged traditions was thus inherent to the modernisation process. According to which of the two practices prevailed, this translates into phases of globalisation.

Today’s historians have only just started to think about a common history of modernity and globalisation. The transnational circulation of knowledge will be a central force of such a history. This shall be a history that does not use the philosophical and normative concepts of the global and the local. Instead of a deductive approach, an inductive approach has the potential to develop new categories from the bottom up and to elaborate new spatial frameworks and

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<sup>1015</sup> European and American documents usually referred to the civilised world or *Kulturländer*, notions which are not less problematic.

<sup>1016</sup> HILL, Christopher L., *National History and the World of Nations. Capital, State, and the Rhetoric of History in Japan, France, and the United States*, Durham, Duke University Press, 2008.

<sup>1017</sup> Such an idea is implicite in OSTERHAMMEL, Jürgen, *Die Verwandlung der Welt: Eine Geschichte des 19. Jahrhunderts*, München, Beck, 2009.

<sup>1018</sup> MIDDELL, NAUMANN, « Global history and the spatial turn », p. 152.

periodisations. A socio-cultural history that places the individuals – bound to their concrete institutional contexts – and their transnational practices at the core of the analysis is one way toward such a common history of modernity. This is how an actor-centred history of an intellectual and administrative elite in the nineteenth century can contribute to contemporary historiographic debates.

Today, at the beginning of the twenty-first century, the situation is not altogether dissimilar from the late nineteenth and early twentieth century. Elite actors from all over the world still go transnational. They still search for solutions to problems of their own contexts. Similarly, they still promote their own interests on the international scene which is also a means of preserving autonomy in an interconnected world. Collaboration on the international level has increased decisively. Thus, it becomes clear that today as well people live in a period of sustained globalisation. Arguably, under these circumstances of joint challenges to humankind, people need to learn to better cooperate and take responsibility for the globe as a whole. Maybe what is needed is more patriotism, as defined by Ferdinand Buisson in a lecture in 1905. He argued that patriotism is the constant opening-up of the individual to ever larger societal connections.<sup>1019</sup> For his time, Buisson observed that patriotism was restricted to national frameworks. But, he went on to say, it should not be like this forever. Buisson urged his audience to overcome the contemporary national limitations of patriotism and to adopt “inter-patriotism”, a term he created in an analogy to internationalism. Buisson wrote this article about one hundred years ago. His observations have not lost any of their timeliness today.

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<sup>1019</sup> BUISSON, Ferdinand, « L’instruction et l’éducation internationale », in: *Grande revue*, 9, 7, 1905, p. 5-19. The *Thüringer Universitäts- und Landesbibliothek* in Jena holds an off-print of this article coming from the personal library of the professor of pedagogy Wilhelm Rein. It contains a manuscript dedication of Buisson: “Mon cher ami, le professeur Rein.”