



# Infrastructuring public history: when participation deals with the past

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## ABSTRACT

In this paper, we relate participatory design (PD) scholarship with public history (PH) research, deepening the understanding of the relationship of PD with history, focusing on ‘history with PD’. The latter refers to when history itself is explicitly the object of participation, and we discuss it by presenting a secondary analysis of a PH project, *HistorEsch*, conducted through the conceptual lens of infrastructuring. In this way, we show how PD and PH practices consider the past of a place and how they relate to public formation, intermediation, and proliferation.

## CCS CONCEPTS

• **Human-centered computing** → Interaction design; Interaction design process and methods; Participatory design.

## KEYWORDS

public history, infrastructuring publics, urban history

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## 1 INTRODUCTION

The Participatory Design (PD) research community is ongoingly deliberating its own history, from the seminal projects in Scandinavia in the 1970-1980s [61], to the past relation with Computer Professionals for Social Responsibility [2]. Conversations revolve around historically relevant developments in digital technologies [38] and participatory processes [1], from the relationship with “big

issues” [9] to the role of future visions in participation [34]. We see these discussions as a ‘history of PD’ — a narrative revitalized and appropriated by contemporary scholarship, which remains an important component of PD research, including the definition of different eras [7], visible not only in textbooks but also in recent publications, e.g., [38, 54, 56]. If that stands as a topic of collective reflection and shared narrative among PD practitioners, and one we would encourage, in this paper we explore different relations between history and PD.

Here, it is important to acknowledge that “history” has different connotations. The word could mean: history as an academic discipline; (producing) history as a practice; and history as the produced narrative. In this paper, we explore the production of history. In relation to PD, history practice has been used to contribute to design methods, becoming an instrument for PD research to engage local participants in discussing other design things, what we can call ‘history in PD’. Notable contributions in the realm of ‘history in PD’ articulate how history and historical narratives can be part of PD processes. Huybrechts and colleagues [32, 33] — who introduced ‘counterfactual scripting’ as a framework to understand, revisit, and shape decision-making in PD processes — propose that PD researchers identify turning points in the history of a place or a design process, and act on them with specific methodological choices. Similarly, Zuljevic and colleagues [62] worked with the theme of ‘the past’ to elucidate how previous design assumptions and strategies impact ongoing participatory processes. Importantly, these authors champion the past as an active participant in the design space. Thus, ‘history in PD’ strongly elucidates that the past is continuously acting on and through the historical landscape.

In this paper, we take another angle, what we call “history (making) with PD”, a way of looking at the relation between participatory processes and history, interrogating participatory practices when history, as a narrative of the past, becomes itself the object of participation. By working with the notion of ‘history (making) with PD’, we aim to enrich the discussion on PD and history, hoping to develop possibilities for PD research in history making. In this way, we see our contribution as PD in a fairly new domain [29].

To foster a renewed relation between scholarship in PD and in history, we first turn to the conversations happening in history as an academic discipline and look at how public participation has been framed there. Consequently, we aim to build bridges between research in PD and public history (henceforth, PH). PH refers to

\*We acknowledge a shared first authorship between Violeta Tsenova and Maurizio Teli, based on the conceptualization and writing of this paper.



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situations in which the broader public engages with history as a narrative of the past. Narratives can originate from professional historians in academic settings, museums, or other cultural institutions, or they can emerge through the publics' use of historical information by diverse social actors such as political parties, media outlets, grassroots organizations, and companies, etc.

In accordance with PDC2024 theme “Reaching Out: Connecting Beyond Participation”, our paper explores what PH practice reveals about social practices of communicating and coordinating historical narratives and how that can inform future PD research. We examine the empirical work done during a specific PH project run in the southern part of Luxembourg, *HistorEsch*, conceived since the beginning as a participatory project within the PH academic discourse. To establish a dialogue between PD and PH, we approach *HistorEsch* through the theoretical lens of infrastructuring, well consolidated in PD research. In this way, PD can bring a new perspective to the conversation on PH, but more importantly for the PD community, we see this dialogue as contributing to PD.

The paper is structured as follows. First, we introduce PH and its relationship with history as a discipline, pointing to how PH shares with PD similar tenets on democratizing knowledge production. Second, we discuss how PD conversations on infrastructuring can help understand PH projects, deriving specific research questions. Third, we introduce and present the *HistorEsch* project, a PH project conducted in Luxembourg, that we analyzed through an infrastructuring and biography of a project approach. Finally, we discuss what — by looking at *HistorEsch* — PD and PH researchers can learn

about infrastructuring participatory processes in the public realm, outlining opportunities for future interdisciplinary collaboration.

## 2 HISTORY AND PUBLIC HISTORY

History, as an academic discipline dedicated to studying the past, follows methodological rules in building historical knowledge. Professional historians are trained to take a stance toward the past, engaging with ongoing self-reflection; collect and contextualize information; negotiate the particular with broader processes; identify key moments and events while examining history's resonance in societies over time, emphasizing empathy towards people of the past and present. By forefronting the professional training, the discipline long remained exclusionary to public participation, despite the recognition that history as a narrative and “the public” are always interacting. This process can be summarized with the HisTree metaphor (Figure 1), which we take from Cauvin [11].

The HisTree illustrates PH production, interpretation, communication, and use. The roots of the tree are the primary sources created during any period or “significant” event (i.e., census data, photographs, oral histories, letters, diaries, etc.) and their preservation (in databases and archives). The tree trunk is the process of interpreting sources. Primary sources need to be fact-checked, cross-referenced, contextualized for a historical hypothesis to be verified, and constructed into a historical narrative. The tree branches are the way in which history is communicated (i.e., books, games, films, academic and popular papers, podcasts, etc.). Finally, the leaves are the uses of history — from identity formation, to politics, to education, to reconciliation, and social justice — also impacting

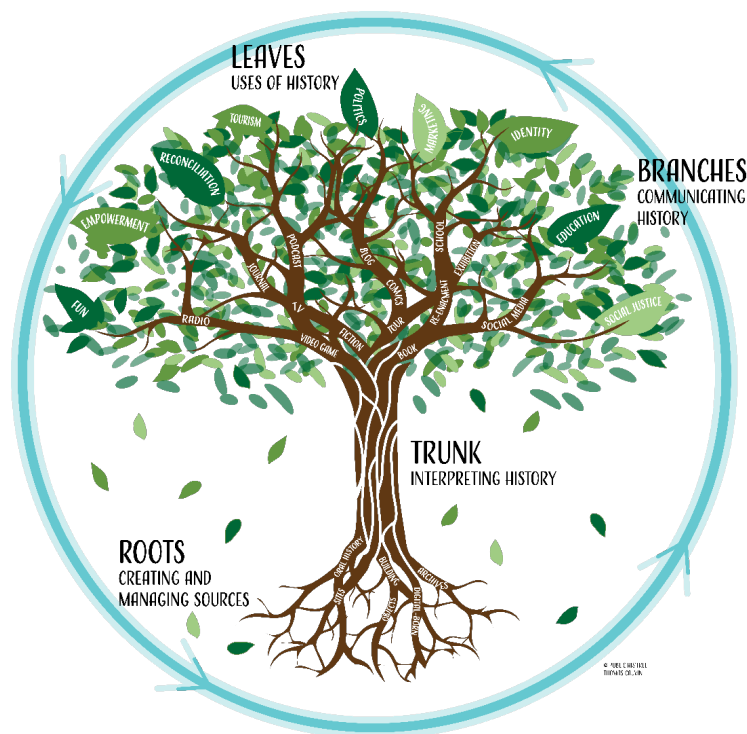


Figure 1: Public HisTree. Credit: Thomas Cauvin 2022.

what new sources are created and preserved as the historical cycle begins again. Each society or social group goes through the process of historical application, construction, marketing, and public consumption in specific and situated ways [13].

Since the cycle of the historical process is ripe with opportunities both for exclusion and inclusion, PH practitioners called for ‘an acknowledgement that the history-making process (from gathering and archiving sources to interpreting and communicating history) depends on who is — and who is not — involved, whose voices and interpretations are included or ignored’ [12]. Those who participate in history-making shape the subject and nature of producing history as well as the storylines chosen [19], subsequently impacting what future sources are generated and historical narratives produced. PH, thus, developed as a subfield of the history discipline in the 1970s as a way to open history for the people around three main principles: ‘a focus on non-academic audiences, an interest in the present-day uses and applications of the past, and the development of collaborative practices’ [13]. The turn to public participation in history becomes part of larger processes of democratizing knowledge production, of which PD scholarship is an example when focusing on digital technologies or design methods.

PH denotes an active role for participants in producing representations of the past and shapes the subject and nature of production [19]. For example, participating publics determine storylines and narratives and are involved in strategies and technologies of representation. In these processes, the PH practitioner acts as a facilitator. These engagements typically result in outcomes that communicate history, such as video games [45], exhibitions [50], podcasts [52]. In making history, participatory projects also focus on the creation and management of sources aiming to diversify perspectives and increase awareness of previously marginalized histories [63, 64]. Sources and database management needs have brought frameworks, operational pipelines, and crowdsourcing opportunities for community-run archives, foregrounding the emotional and information work required to maintain these [10, 49]. Rapid response archives — created to document an on-going crisis — benefit from robust metadata, increased accessibility and discoverability for researchers and general audiences [55]. Despite infrastructures of collecting, managing, and sharing history, we identify limited efforts involving people in the interpretation step of history-making, which is typically left to the professional historian.

With various publics having increased access to historical documentation, there is a need to strengthen capacities for critically engaging with the past and its processes. We identify an opportunity to infrastructure not only how to generate sources but how to interpret history together. From this point of view, and in parallel with the reflections that take place in PD on the role of PD practitioners between institutions and publics [20, 22, 40, 58, 60], we look at the empirical case of *HistorEsch* to investigate how ‘history (making) with PD’ pushes professional historians toward adopting new practices and what PD can learn from these practices.

### 3 TOWARDS INFRASTRUCTURING PUBLIC HISTORY: LESSONS FROM PD SCHOLARSHIP

We sketched out how PD research has engaged with history, its own as a research field (‘history of PD’) or the one of places in which researchers have been working (‘history in PD’), to ask ourselves what-if history becomes the object of participation, a “design thing” [24] in itself, that we called ‘history (making) with PD’. To start exploring this design space, we reviewed how public participation is described in history, mostly through the academic field of PH.

Our aim for this paper is to translate lessons learned for PD practitioners who would engage with history-making methods in their research. Therefore, we choose the theoretical concept of infrastructuring and its resounding debates to help us learn what infrastructures and practices are needed to facilitate participatory historical interpretation. In this section, we look at infrastructuring as a baseline to explore ‘history (making) with PD’, when participation is related to the interpretation of historical information.

To engage in such a task, we first refer to the seminal work on infrastructuring by Pipek and Wulf [47] and Karasti [36]. These works provide two complementary perspectives, both meaningful for the purpose of this paper. If Karasti has helped to articulate a view of infrastructuring as ‘a way to advance overarching community interests’ [36], Pipek and Wulf have provided some methodological guidance for the study of infrastructuring activities, mostly the identification of what they call ‘point of infrastructure’, ‘the moment when an infrastructure becomes visible to its users’ (*ibidem*). “Point of infrastructure” has been used in PD scholarship to discuss community and public efforts [8, 43], and it evokes ‘resonance activities’, encompassing all observations and communications that occur at a point of infrastructure [42:1]. These two pieces of work are relevant for us as they are the background of our methodological choice to adopt a “biography of a project” approach [48], an approach particularly suited for understanding infrastructuring activities [46].

Following up on the seminal work, PD research on infrastructuring has evolved to include the understanding of infrastructuring, publics, and their relations with institutions [31, 59]. The discussion on infrastructuring and publics in PD has been maturing for over a decade [17, 21] and, recently, Geppert and Forlano [28] have extended the focus on ‘infrastructuring agonistic public spaces’ [5, 6] through the concept of chain of equivalence. In this case, attention is given to how alliances are made more than to the conflicting parties, and design practices are framed in relation to different groups that acknowledge being disadvantaged by a specific situation.

In our understanding, Geppert and Forlano highlight the position that design researchers can assume when in the middle of conflictual situations. This has been explored in recent PD scholarship, e.g., by Teli et al. [58, 60] with concepts like: 1) intermediation — the capacity of advancing community interests in relation to existing institutions, as part of institutioning processes [31, 59]; 2) public formation — the explicit effort of design researchers to promote the formation of agonistic publics [6, 17, 28]. With intermediation, the accent is on the “specific set of skills and techniques needed to advance the interests of the communities designers work with

— and doing so in a world not necessarily aligned with the community's interests" [43]. With public formation, the focus is on the activities design researchers do to favor the gathering of people around an issue that seems shared, and about which people are concerned [17, 57]. Efforts at promoting public formation have also allowed connecting design research practices with a wide adoption of project outcomes [26], conceptualized as scaling [27], i.e., the growth in the number of users of one specific material output — or proliferation [39] — that is, the appropriation and adaptation of a variety of outcomes in different contexts.

In this paper, we look at the practices of intermediation and public formation put at play by researchers engaged in PH, which leads us to formulate the following research questions (RQs): how do design researchers and professional historians in a PH project engage in public formation and intermediation? How does the understanding of PH as infrastructuring allow PD researchers to better engage with the history of places and history's capacity to engage publics in democratic processes? How does a PH project combine elements of scale/proliferation while aiming for public formation?

## 4 BIOGRAPHY OF HISTORESCH

### 4.1 Methodological Considerations

Empirically, we focus on the case study of *HistorEsch*, which is part of the wider research program Public History as the New Citizen Science of the Past (PHACS), launched in 2020. While proposed by university researchers, *HistorEsch* was structured as a collaborative project involving institutions, urban artists, and residents to collectively interpret and represent the history of the city in public spaces. The *HistorEsch* activities were conducted by two university researchers (Joëlla van Donkersgoed and Thomas Cauvin) and two employed student assistants, alongside support by other PHACS research members (including Violeta Tsenova), and a group of cultural and citizen associations, which we detail later.

For this paper, Joëlla and Thomas shared their anonymized data (notes, timelines, photographs, social media analytics), granting permission to Violeta and Maurizio Teli to interpret data through the lens of infrastructuring and contribute insights to the PD community. Violeta further led discussions with Joëlla and Thomas about their experience of the project, focusing on potential "points of infrastructure", the decisions made to address arising challenges, and the outcomes of those decisions. To analyze *HistorEsch*, we have adopted a biography of a project approach [46, 48] based on what we consider an illustrative case of PH with participatory orientation. Illustrative cases have been used before in PD and nearby fields [25, 41, 58], and the biography of a project approach derives meaningful insights from points of infrastructure and resonance activities [42, 47]. As *HistorEsch* is the first introduction of a PH project to the PD community, we use project biography approach and infrastructuring to translate the logic of PH practice.

We first outline the place's context and *HistorEsch*'s set up. We then illustrate biographies of the three participatory initiatives — due to length limitations, we emphasize key details that emerged through "points of infrastructure" as experienced by the research team and discussed by all authors.

### 4.2 Place Context

*HistorEsch* is a collaborative project consisting of participatory history-making activities carried out in Esch-sur-Alzette (henceforth, Esch), Luxembourg. Esch is the second largest municipality in Luxembourg in terms of population, defined by cultural and linguistic diversity with over 150 nationalities. At the project's outset, Esch had around 36,000 residents, comprising 15,000 Luxembourgish nationals and 21,000 foreign nationals. Notably, 45% spoke Luxembourgish, 32% Portuguese and 10% French, with some Italian, German, and English speakers. The official languages of the country are Luxembourgish, French, and German.

This diversity stems from the region's history. In the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, Esch underwent rapid transformation from a rural area to Luxembourg's leading center for the mining and steel-processing industries. The 1970s industrial crisis changed the status of the city, leading to increased social inequalities and feelings of passivity in the population. Between the years 2000–2010, policies of urban transformation led to relocating the University of Luxembourg main campus from the capital city to Belval, part of the municipality of Esch-sur-Alzette. Esch's cultural diversity and the need for socio-economic regeneration led to its selection as the European Capital of Culture 2022 (Esch22), aiming to enhance social cohesion by decentralizing the cultural offer from the country's capital.

### 4.3 Setting up *HistorEsch*

*HistorEsch* was conceived as an ambitious PH pilot project — one that communicates and makes history more accessible (branches and leaves of the His'Tree), that interprets elements of history in a participatory manner (the trunk), and that collects sources (the roots). *HistorEsch* Team<sup>1</sup> (henceforth, HT) worked around three main value pillars. The first, 'multiple voices', engaged in a people's history of the town, without determining any specific aspect or problems to be researched. These were to be generated collectively with the local population. The second pillar was creating a collection, where sources were gathered, curated, and interpreted by participants as a way of sharing the professional authority of historians. The third pillar was facilitating history-making by local communities outside the university campus in more familiar urban spaces such as cafés, community centers, and online. The third pillar enabled HT to facilitate activities conducive to the first two in three main ways.

First, HT started by acknowledging that English is not a widely spoken language in Esch, perceived as elitist and academic, rendering it ineffective for engaging the local population. Therefore, HT had to develop a public-facing identity for research activities in a language resonating with the local community. To this end, the project's name *HistorEsch* is not only a wordplay with the city's abbreviated name 'Esch', but it also means "historically" in the Luxembourgish language.

Second, online spaces were set up: a Facebook group and a project website. The Facebook group, called 'Fl'ESCH Back', was a place to discuss project activities, post discussion prompts, ask questions, and share photos and stories. 'Fl'ESCH Back' became a

<sup>1</sup>With "HistorEsch team", the reference is to Joëlla van Donkersgoed and Thomas Cauvin, who led the empirical part of this project.

vibrant digital space with over 1500 members. The project website functioned independently of the corporate and ethical restrictions of the social media platform, and it was a key element to collect sources digitally and structure curatorial and voting activities (described below).

Third, *HistorEsch*'s timely start in late 2021 enabled HT to seamlessly integrate into Esch22 activities. Esch22 initiatives allowed HT to collaborate and share resources with Esch's municipality and various cultural organizations, including Nuit de la Culture (NdIC) and Kulturfabric (KuFa), Boîte à Histoire (BaH, a PH consulting company), and local community associations like Harmonie des Mineurs, Amis de l'Histoire et du Musée de la Ville d'Esch, Club Mosaïque, Juppe Scouten Esch, and Associazioni Cristiane Lavoratori Italiani.

NdIC organized five free and open-air cultural festivals as part of Esch22 in five key neighborhoods in Esch. At these events, the research team was provided with a 'cabin' to promote the project and engage in conversations with festival visitors about the history of each neighborhood, collecting information about how the city's community perceived its history, what themes were important to them, and to highlight their social histories. Many visitors in those festivals also recognized the project from having engaged in the 'Fl'ESCH Back' group.

Having established online and physical spaces, HT reached out to members of the involved associations and inhabitants of various neighborhoods, leading to forming a Citizen Historians Circle (CHiC). These volunteers from the local community interested in historical interpretation served as an advisory board for subsequent history-making activities. CHiC members brought together three distinct forms of expertise: personal, research, and work-based, where some members held more than one type of expertise. The CHiC was a dynamic mix of locals, acquainted with Esch-sur-Alzette through birth or long-term residence, actively participating in local associations. Some members, who did not have the label of a 'historian', had conducted research — exploring their own family histories, contributing articles to local newspapers, or even writing published books. Comprising approximately 20 members, the CHiC played a pivotal role in the grand tableau of *HistorEsch*. Group members participated in workshops, peer review activities, oral history research, and became key supporters and promoters of the project.

In summary, the *HistorEsch* participatory base consisted of online spaces ('Fl'ESCH Back' and website), physical spaces (workshops and cultural events organized in collaboration with the partnering associations), and the CHiC members. These underpin the three participatory history-making initiatives of *HistorEsch*: 1) an audio tour imbuing the streetscape with oral histories; 2) *ArtistEsch*, urban art project to co-create a fresco of one neighborhood's history; and 3) 'Esch in 25 objects', a co-created exhibition, with objects sourced and co-interpreted by local residents. All these projects involved variations in participants' compositions, the adaptation of research methods, approaching curatorial work, creating different mechanisms of participation, and storytelling. In the remainder of this section, we provide a biography of the projects [45], which helps us understand the infrastructuring activities happening. As we describe our empirical data, we ask the reader to keep in mind that, although we provide a distinct linear story of *HistorEsch*, the

projects and base-line activities were interrelated, co-existed at the same time-period, and built on top of each other, influencing HT's decision-making processes.

#### 4.4 *HistorEsch* Audio Tour

The *HistorEsch* audio tour initiative offers a guide to the history of Esch, covering key locations in the city's diverse neighborhoods. The audio guide was not a predetermined output but developed organically and in response to the online and onsite activities undertaken in late 2021, early 2022. As an output, it resonated with HT's aim to transform the cityscape and explore how historical narratives impact public spaces and their communities. We describe the choices made to realize the audio tour, considering Esch's socio-cultural context.

During community workshops, co-organized with BaH, the stories of various people and their neighborhoods kept being foregrounded. HT and BaH reached out to these individuals with an invitation to conduct oral history interviews. Nine people agreed to be interviewed for the tour, whilst 20 other submissions of historical testimonies were collected during workshops, all connected to social and working-class history. For example, one testimony included in the tour covers the experience of working in Belval's iron and steel smelting blast furnace — a symbol of the steel industry. Another testimony discusses the first airstrip in Luxembourg, providing a direct connection between Esch and London, UK. Each audio site is in a different neighborhood of Esch, and the audio sites were launched when the NdIC's cultural festival was hosted in the relevant neighborhood.

Although dedicated mobile applications have been popular in communicating oral histories [37, 51], this initiative was modeled after a North-American project called *Hear,Here*, which uses a call-center system. *Hear,Here* originates from La Crosse, Wisconsin, USA, as an audio tour documenting and showcasing stories of marginalized populations (LGBTQ+, foreign nationals, people who have experienced homelessness) to reflect the La Crosse's community at large [65]. Since its US launch in 2015, *Hear,Here* has been adapted for the community in London, Canada, by Michelle Hamilton in 2018. The Luxembourg pilot is the first European implementation, co-developed with Ariel Beaujot, the founder of *Hear,Here*, and it required alterations.

First, HT followed the original *Hear,Here* project and set up a local phone number, the same for all sites, aiming to reach diverse audiences with the audio tour. Using a phone number was preferable to downloading an app or scanning QR codes, making access easier. Furthermore, reaching wider audiences meant that more participants could be attracted, including people who would have liked to submit their own oral history. Second, the original *Hear,Here* street signs are in English. Given the local attitudes towards English, using the original name raised concerns that the Esch community might not participate or identify the audio tour as connected to the existing project. Hence, the visual identity of *Hear,Here* was maintained, but HT changed the text on the sign to read *HistorEsch* (Figure 2).

Additionally, in Esch the tour is developed in Luxembourgish, French, English, and Portuguese. This choice of multiple languages meant that, even though a caller has the possibility to listen to the





**Figure 2: The visual identity of *Hear,Here* and the *HistorEsch* implementation.**

**Figure 3: The page to contribute a story. Legal and ethical information is also included.**

original recording, the majority of which are in Luxembourgish, the caller might not always make that choice. Here, the trade-off is between the listener's experience of hearing emotionally charged first-hand narration and language accessibility. To do that, the US/Canada implementation of Amazon Connect — the backend

for *Hear,Here* — needed to be modified to accommodate different languages. One of the implications of these modifications has been the impossibility of submitting new stories via the phone. The *HistorEsch* website is the way to contribute new stories when HT is not conducting targeted interviews (Figure 3).

#### 4.5 ArtistEsch

*ArtistEsch* ('artistically' in Luxembourgish) was an initiative to bring history, art, and participation together. This urban art project aimed to celebrate one neighborhood's social history through a co-constructed historical narrative depicted in a public space artwork. Together with NdIC, the Lallange neighborhood was selected for this project due to the timing of the festival in spring in Lallange. HT collaborated with KuFa, which has been producing urban art in Esch since 2014. All partners wanted to develop participatory practices, and this project was an opportunity to approach participatory art-based PH practice.

Figure 4 illustrates the decision-making process for the *ArtistEsch* project. The graphic shows key steps in co-designing the project, its trajectory, and its alternatives in dotted lines. The associated partners focused predominantly on logistics. KuFa identified an initial possible location for the fresco on a private building in Lallange. HT and KuFa organized two meetings with the homeowners to pitch and discuss the idea. In the first meeting, HT presented the project and collected initial reactions from the homeowners which, albeit positive, were apprehensive that 'culture is useless' rendering the historical fresco unnecessary. Simultaneously, other homeowners expressed some interest in having a fresco of present-day stories. This posed two points of contestation. First, the homeowners appeared in disagreement with each other on the value of a fresco on their building. Secondly, the preference for present day stories meant transforming the artwork into a commission project for the homeowners, which contradicted the research aim of co-creating PH interpretation. Despite HT's enthusiasm to work with them, the homeowners voted against the fresco in the second meeting.

This refusal represented a key point in the process. KuFa, together with NdIC had to secure the municipality permissions for working on another building — a wall on a social housing in Lallange. KuFa then helped select the artist, Mariana Duarte Santos, who was eager to open her practice to co-creation methodologies. HT structured participatory ways of working between the artist and residents, building on practices of hanging-out in cafés and NdIC festival activities. HT facilitated discussions among CHiC members who identified 4 key themes defining the neighborhood — sport, nature/concrete, migration, Arbed<sup>2</sup>. HT organized community workshops to further discussions on the identified themes with attendees knowledgeable and/or interested in the history of their neighborhood. During the workshops, 50 residents brought their own sources, explored, and sorted photographs according to the themes.

By contributing additional historical research, HT combined all the resources to provide the artist with historical background information about specific sites in Lallange, such as the first airfield. This was accompanied by a community-led walk through Lallange

<sup>2</sup>ARBED is the name of the major steel- and iron-producing factory in the country and region.

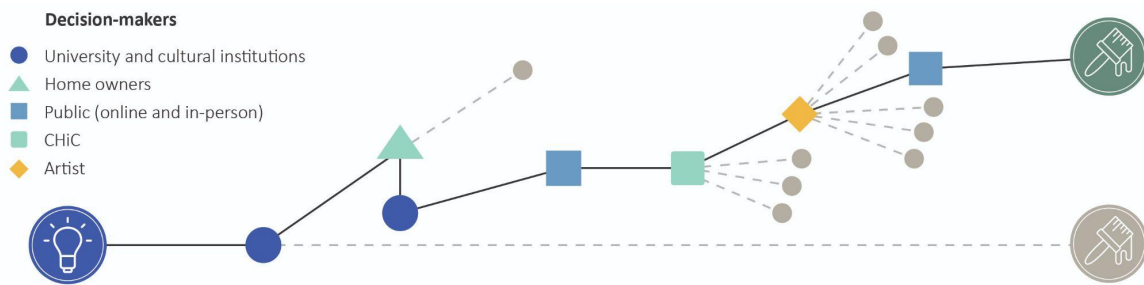


Figure 4: Visualization of the decision-making process for the ArtistEsch fresco. Credit: Joëlla van Donkersgoed, 2024.



Figure 5: The six sketches put to vote. Created by: Mariana Duarte Santos, 2022.

for the artist to further engage with the space and its residents, who shared their memories (also with RTL, the national radio, that sent a reporter to the walk to interview residents and not the researchers). After consulting the material, Mariana Duarte Santos showcased her first interpretative ideas during an online conversation. She received feedback from attendees and the online audience — some residents asked for more “authentic” sites in the fresco that distinguish Lallange from other places in Luxembourg. The artist reworked her interpretation and produced six different sketches (Figure 5).

To diversify the decision-making process, the six sketches were put through a public vote. This raised the questions of who and how they could choose the sketch to be painted as a fresco, being inclusive of online members, but respecting the connection residents have with the site. Therefore, HT implemented a weighted voting system — onsite and online. Onsite, a voting station was set up in front of the residential building where the mural was to be painted, and the team members carried out local door-to-door canvassing. Online, a voting page was created on the *HistorEsch*

website. People who voted in person had 3 votes to give, whereas those who voted online had 1 vote. This system is a first step toward negotiating relevance in decision-making. 350 unique votes were collected. Finally, the artist updated the selected sketch based on last-minute residents’ feedback, suggesting that she incorporated an airplane, the scattered photographs, and the children playing (Figure 6).

#### 4.6 History of Esch in 25 Objects

Lastly, we present the ‘History of Esch in 25 Objects’ (‘Esch in 25 Objects’) project, which follows the concept of narrating the history of a theme or country using a specific number of objects, such as the ‘History of the World in 100 Objects’ [44]. *HistorEsch*’s goal was to showcase the history of Esch through 25 objects, all sourced, interpreted, and curated by the local community. Preparing ‘Esch in 25 Objects’ spanned all activities from late 2021 until September 2022.





Figure 6: The final fresco.

Objects for the exhibition were obtained through various channels, with HT inciting interest and discussions and sharing historiographical sources about Esch on 'Fl'ESCH Back' and at NdIC festivals. At the festivals, visitors could engage in discussions about collected objects or share their own, and HT promoted the website, allowing people to submit their own objects. Furthermore, BaH organized 24 community workshops and open meetings at café-bars where residents could bring family objects and photographs. Many participants learned about the project through 'Fl'ESCH Back', others joined due to neighborhood-focused discussions, or specific themes. For example, there were two workshops organized specifically for the Italian community in Esch.

Collecting objects took longer than expected, influenced by conceptual disparity in what an 'object' means. For historians, objects are historical sources — they are markers of our material culture, which when interpreted and contextualized, tell stories about our past societies. However, for the non-historian, an object is an everyday belonging that may or may not have personal significance; when it does, it is typically associated with the object's sentimental value within the framework of family history. For a non-historian, it is challenging to extrapolate the intimate history of an object and

relate it to broader historical processes. In *HistorEsch* workshops and public meetings, people initially brought history books, and HT needed to clarify that the project is not about the history already written in textbooks but about the importance of personal objects. That required slowing down activities and dedicating more time to discussions at café-bars and on 'Fl'ESCH Back', resulting in adapting timelines and expectations.

A total of 106 objects were collected, championing sources that promoted a history retelling focused on local, familial, and personal perspectives. For example, a teddy bear that belonged to a woman who had emigrated from Italy to Esch when she was six, reflected a deeply personal understanding of the city's immigration history and the shared experiences of children from immigrant families. HT also collected rare objects from a historical perspective. One participant brought a wooden toy made by an *Ostarbeiter*<sup>3</sup> in the camps established by the Nazis to provide labor for local factories during WWII. The *Ostarbeiter* made the toy and gave it to the participant's mother to thank her for sharing some food during the

<sup>3</sup> *Ostarbeiters* were the 4000 people from the occupied territories of the Soviet Union and Poland who were forcibly put to work in the iron and steel industries by the German occupiers.





Figure 7: The *Ostarbeiter* toy.

war (Figure 7). For HT, it was a point of success to witness that people connected their family history with the city's broader history. This encounter between private/family and public narratives is something to keep investigating.

To narrow down the objects from 106 to 25, HT implemented an online voting mechanism, appropriating lessons learned from the *ArtistEsch* initiative. Based on discussions Thomas had had with curators, HT worked with the assumption that audiences had a bias towards voting for “pretty” objects. As the sources collected were objects, their appeal generally resided in their visual impact. Moreover, given Esch's industrial history, a significant portion of the well-preserved objects gathered had ties to industrial heritage. HT anticipated this would mean that they might end up with 25 objects repeating the place's most well-known historical narrative, instead of a selection based on the diversity of stories that objects held within. Therefore, HT collaborated with CHiC members to curate the collected objects into themes.

HT did not lead this discussion but played a key role by asking questions and helping participants to connect individual objects and stories within broader national and transnational histories. The CHiC members derived the following four themes: house, work, commerce/consumption, and leisure/celebration, which were used for the voting mechanism. Since HT wanted participants to group objects, some discrepancies between the researchers' and participants' views on categorization became apparent. For instance, participants categorized the *Ostarbeiter* toy as ‘work’ whereas HT conceived it as related to ‘leisure’. However, for participants, the toy symbolized the workers, their lives, and their struggles. Another example includes four pins from the WWII resistance movement, symbols of patriotism and resistance to Nazi occupation, which participants classified in ‘commerce/consumption’ because the pins were carved from coins.

Voting took place digitally through the project website. The voters could see the list of themes, click on one, and access images of all objects within this theme with a short explanation. Voters had a maximum of five ‘votes’ to give per theme, potentially 20 votes in total, and could vote for an object only once. Voters were not obliged to vote on each theme. Some people only voted for one or two objects per category, others used all their five votes per category. Voting took place between 2<sup>nd</sup> and 19<sup>th</sup> June 2022. In total, there were 899 votes across the categories: house (250), work (220), commerce/consumption (172), leisure/celebration (257). Due to the anonymized voting mechanism, it is not possible to measure how many unique voters participated.

Once the 25 objects were selected, HT facilitated collaborative writing of the objects' histories. When objects were first submitted (online or in person), donors had to provide basic metadata: a date and a short description of the object's function. The level of information was sparse and required more research to place the objects appropriately in a historical context. This research and writing were to be done together with the CHiC members. However, interpretation is a difficult and intimidating step in historical research, and CHiC members found that challenging when prompted to write from scratch. Instead, they asked to contribute information, based on their expertise — lived and previous research. In some cases, they provided single sentences, and in others more descriptive texts.

HT had to supplement these snippets with further research, which was carried out by the team, its student assistants, and by requesting colleagues with expertise in relevant areas to contribute additional information. For example, one person donated a handheld lamp, selected for the exhibition. This lamp is a utilitarian object with little information published about it and with a great deal of knowledge held by those who used the object every day. The donor identified the lamp as a miners' handheld lamp, but the donor

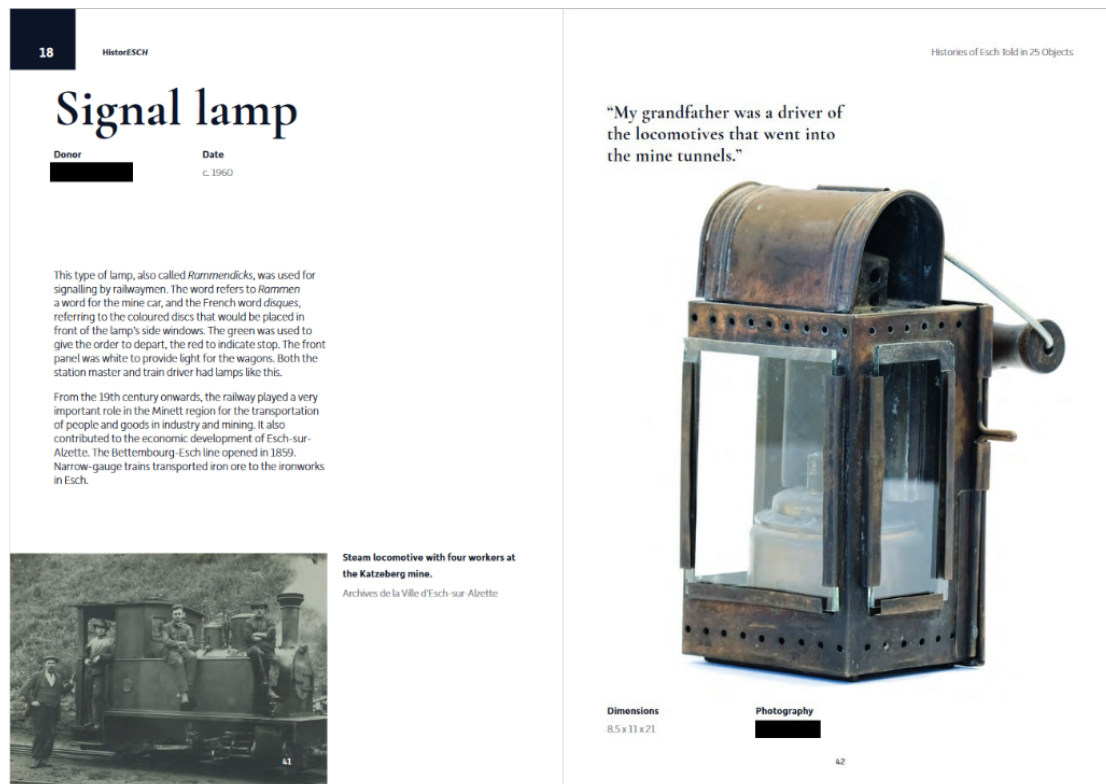


Figure 8: The Rammendicks page spread from the exhibition catalog.

had not worked as a miner themselves. Background work indicated that this was not a handheld lamp; instead, it was a signal lamp put on miners' wagons, and two CHiC members reported that the lamp was called Rammendicks. The fact-checking process informed both the donor and the audiences about this piece's history (Figure 8).

The initial metadata, CHiC members' inputs, and the background research all resulted in a patchwork of information which needed to be consolidated into texts for the exhibition. Working with drafted texts proved easier for CHiC members, who felt more comfortable advising on and editing the texts, annotating them with suggestions and sometimes adding sentences. They became collaborators on a scale from peer-reviewers to co-authors. The final text was the result of these collaborative efforts.

Typically, exhibition labels are short and placed beside the displayed objects. Based on the collaboration, a 200-word historical interpretative text was created for each of the 25 objects for the exhibition. Instead of having the texts displayed next to the object, which would have meant selecting a dominant language, the objects were numbered. The numbers relate to an exhibition catalog which was produced in three languages — Luxembourgish, French, and English. These catalogs were freely distributed at the exhibition and could be taken home. The exhibition was installed in a Pop-Up space on Esch's main street throughout September 2022, a location secured by NdIC. After a successful opening (approx. 200 guests), the exhibition was attended by almost 750 visitors. All objects were returned to their owners after the exhibition.

## 5 DISCUSSION AND CONCLUSION

While thinking about 'history (making) with PD', we set the task of answering three deeply related questions based on the PD concept of infrastructuring. The three RQs are: 'How do, in a PH project, design researchers and professional historians engage in public formation and intermediation? How does the understanding of PH as infrastructuring allow PD researchers to better engage with the history of places and history's capacity to engage publics in democratic processes? How does a PH project combine elements of scale/proliferation while aiming for public formation?'

Our biography of a project was in itself historicizing and reflecting on *HistorEsch*. Violeta and Maurizio — the two of us with a PD academic profile — individually drew out answers to the three questions, which they shared with Joëlla and Thomas — the historians among us. Violeta and Maurizio then examined those answers to identify a few elements that serve as a bridge between PH and PD thus providing a common background for our detailed answers. All mentioned parts of *HistorEsch* were related to creating a *final product, a thing*: the collection of accessible stories for the audio tour, the fresco for *ArtistEsch*, and the 'Esch in 25 Objects' exhibition. These products are both interpreting and communicating history and, by opening their production, professional historians are pushed towards finding strategies and tactics to negotiate the content of such products with *non-professionals*. Such processes question how history making happens, with professional historians looking to establish collaboration with a wider public navigating both *physical and digital spaces*.

## 5.1 Professional historians, public formation, and intermediation

When looking at our first RQ, ‘How do, in a PH project, design researchers and professional historians engage in public formation and intermediation?’, the importance of physical and digital spaces of participation becomes evident. To intermediate an agenda of equivalence in public formation, HT aimed at maintaining a level of *heterogeneity* in the make-up of those who participated and the levels at which they could participate. Digital spaces allowed people who were not physically in Esch, but might be related to the place, to contribute to Facebook discussions and share family photos. In person workshops were aimed at building other, in some ways more homogeneous, publics; when creating *ArtistEsch*, the team worked with people who had lived through the place’s change; likewise, different expertise was key to co-write exhibition interpretations. Doing so allowed *HistorEsch* to explore different interpretation options and allow people to feel confident in their contributions, a well-known issue in participatory projects [53].

Trade-offs were introduced to ensure that activities could build confidence in diverse participants. One example is adapting the *language options* for the audio tour to attract heterogeneous publics; also, with hopes to build future participation — *HistorEsch*’s participatory activities did not effectively reach or integrate Portuguese-speaking residents, while the team wanted them to have access to different stories and lay the foundations for working with this community. Another trade-off was changing *project timelines* to facilitate shared definitions. In order to work together in interpreting different histories, HT needed to clarify what an object is, effectively participating in making any object a Thing [24]. These “points of infrastructure” revealed assumptions in the PH practice — beyond communicating the interpretative process, that process required a different approach to infrastructuring the engagement of desired audiences.

Finally, setting up voting mechanisms illustrates how intermediation can consider diversity between participants. By granting someone 1 or 3 votes, *HistorEsch* poses the question of *equity in participatory processes*. This “point of infrastructure” elucidates that different groups could have different agendas needing to be negotiated while writing and representing the history of Esch. The implication is that every project needs to decide for its context in which way democratic processes — including voting mechanisms — are adapted to support public formation, intermediation, and chains of equivalence.

## 5.2 On the history of places and public engagement

This leads us to how we answer our second RQ: ‘How does the understanding of PH as infrastructuring allow PD researchers to better engage with the history of places and history’s capacity to engage publics in democratic processes?’ In our introduction we mentioned the work of Huybrechts, Zuljevic and their colleagues [32, 62] who explored the past as a resource for PD, leveraging source collection activities and engaging in some form of counterfactual interpretation (i.e., what-if scenarios, typology definitions) to incite participation in democratic processes. We agree that the past should be forefronted in design, but when history itself is the

object of participation, we need to move towards ‘history (making) with PD’, that means to consider history-making as a potentially democratic process. The case of *HistorEsch* illustrates the complexity unveiled by adopting the infrastructuring perspective when dealing with PH.

First, we observe the importance of certain stories and the *affective attachments* associated with them [40]. We described how some stories were repeated and accentuated, such as the experiences of working in the steel industry, as well as how certain objects became containers of larger histories, such as the *Ostarbeiter* toy standing in for experiences of WWII occupation. Such histories are largely influential in *identity building* [28]. Simultaneously, we heard less of other histories, including those related to the more recent Cape-Verdean immigration. Here, we could speculate on reasons that led to this: from legal considerations (we can draw a parallel with history of Italian immigration to Luxembourg in the early 20th century, where those of Italian descent only recently have started discussing experiences of immigration including marginalization and deportation), to the privilege of time, associated with participatory activities, rarely reimbursed in collaborative projects.

Second, as mentioned before, an underlying theme of our answers is the need to inhabit both physical and digital spaces to structure activities across collection, interpretation, and communication [11]. Expectedly, *in situ* workshops with CHiC members consisted of the same attendees, meaning that *HistorEsch* gained *depth through ongoing collaborations*, but other methods and modes of participation were needed to *increase the number* of participants and the stories collected. Through Facebook and the website, the team received diverse input and engaged in online discussions, which otherwise would have been impossible. Such discussions could then become the starting point of in-person activities, for example, what was presented during NdIC festivals. HT’s considerably *decentralized infrastructure* (of activities, modes of engagement, products) is what laid the foundation of spread-out participation.

Third, *appropriate techniques* and ways for people to engage with history were developed. That involved both communicating what an object is and finding ways in which these objects were curated and selected. HT had to negotiate and let go of their position as experts and make space for participants to categorize objects in themes that experts would not, i.e., when WWII resistance pins were categorized as ‘commerce’. In parallel, *professional knowledge* needed to be incorporated into background research to facilitate the shared interpretations. This balance between participants’ input and professional knowledge allowed HT to work with affective attachments without championing a simplified nostalgia-driven representation of the past. We argue this is imperative for PD researchers increasingly engaged with historical narratives of places and communities.

## 5.3 Between scaling and proliferation

Moving to our third RQ — ‘How does a PH project combine elements of scale/proliferation while aiming for public formation?’ — the attention to digital and physical spaces remains. HT aimed at reaching different people and engaging them with the issue of PH via participation in different activities, for example, existing festivals or planned events. By aligning themselves with initiatives like NdIC, or Esch2022, HT granted the project wide visibility. Interestingly, this was also the first contact Maurizio had with the

project, and the case of *HistorEsch* reinforces that public events are worth receiving attention by PD researchers engaging with local populations [18, 46, 57]. *Public events* were not the only way *HistorEsch* tried to establish connections with a wider public but also a way of scaling up the number of participants in history-making. Moreover, since the project's early phases, HT engaged with local associations that could act as *intermediaries* in the recruitment of participants [14, 15]. Additionally, HT and its partners had to champion the importance of history to private stakeholders and authorities. Whilst local municipalities provided project support, the homeowners association voted against painting a historical fresco on the private building. We see this as illustrative of navigating historical narratives that traverse across public and private spaces and acknowledging that private and project objectives will differ. HT's intermediation work (whether successful or not) aimed at supporting different groups to appropriate what *HistorEsch* had to offer, allowing for the proliferation of PH practices.

The effort put on public engagement by HT has also been possible because of some *technological choices* made to support the different products. In the audio tour, by relying on existing technologies and adapting them to the local context, HT was able to focus on addressing the topic of language, a challenge in a multilingual country like Luxembourg. This confirms that, from a PD perspective, it does not always make sense to produce new technologies. In the relevant context, adopting *off-the-shelf* or already existing technologies can benefit participatory processes, whose focus exceeds technological production [3, 4, 23].

The way the participatory process has been structured in *HistorEsch* points to one last discussion element, based on the already mentioned negotiation between professional historical practices and participatory, public, ones. When looking at the use of voting in 'Esch in 25 Objects' and *ArtistEsch*, what we see is a specific choice done by HT. Voting was scaffolded according to criteria different from one-head, one-vote, among equally presented options, but it was organized reflecting some *curatorial principles*. In 'Esch in 25 Objects', the trade-off was between what participants would consider "prettier" and the need, from the perspective of historians, to allow for a more diverse selection of objects. Furthermore, when CHiC members were writing descriptions of those objects, professional knowledge acted as a prompt for public participation. Similarly, in *ArtistEsch*, the voting was weighted based on the technique used to collect votes — face-to-face in the neighborhood or online. Simultaneously, HT had to relinquish their "professional authority" — rather than making the professionally perceived as "correct" decisions, they had to continuously step back and let decision-making structures account for Esch's different historical and current contextual parameters. We conclude that HT was concerned with the qualitative *proliferation of knowledge* on history making and on the circulation of products that would be responsive to public participation and to professional history making.

## 5.4 Concluding remarks

In this paper, we looked at *HistorEsch* as a case study of 'history (making) with PD', where history itself becomes an object of participation by a wider public. By analyzing how infrastructuring helps

us understand *HistorEsch*'s biography, we draw broader implications for 'history (making) with PD' from a PD perspective. We consider these insights inspirational for the broader field of PD.

In summary, 'history (making) with PD' is the organization of physical and digital spaces to allow for the collaboration between professional historians and non-professionals around the production of specific things (exhibitions, stories, artworks). To accommodate for heterogeneous participants, researchers should be ready to adjust their project timelines, the use of language, and to question the equity of the infrastructuring practices they adopt, including the technological choices made. Having explored the infrastructuring of *HistorEsch*, we highlighted a community of partners and citizen historians that create an ecosystem of participation [16]. The ecosystem recognizes that no one platform can fulfill all elements of democratic participation [16, 30] but there is a need for decentralized public formation. In *HistorEsch*'s case, the PH practitioners helped intermediate through the multiple diverse channels of participation and built an infrastructure of participation.

By privileging off-the-shelf technologies [3], the focus can be placed on supporting affective attachments between participants and the various elements of participation (contributions, interpretation, dissemination), including adopting such technologies for ongoing collaboration or to increase the number of participants. In either case, professional knowledge is negotiated, and participants can be recruited through public events or intermediaries as associations. When reaching a relatively wide public, participatory activities are designed to allow curatorial principles to be integrated, so that 'history (making) with PD' becomes a way of letting knowledge of history-making proliferate.

In our conceptualization, these insights offer several possibilities for future work — both in PD and at the intersections of PD and PH, in Luxembourg and with cases in other localities, thus extending PDC2024's theme. First, looking at PH through an infrastructuring lens, we can better scope the relation of participatory processes and PD with the past of places and social groups. PD practitioners working with the history of place can employ their design skills and facilitate a shared understanding and engagement with wider historical processes, and by extrapolating everyday objects to identify their broader implications, similar to the work of Huybrechts, Zuljevic, and their colleagues [32, 62]. Second, since design is orientating itself towards maintenance and repair in light of multiple crises [35], a careful interaction with the past is necessary, which a participatory project such as *HistorEsch* illustrates.

Finally, our account opens opportunities for extended cross-pollination between PH and PD. Although we chose to introduce PH through the concepts of public formation, intermediation, and proliferation, we envision future work that adopts concepts native to history disciplines and appropriates them to PD projects. Such concepts include sharing authority, thinking historically, curating multiple histories, conceptualizing bigger processes, family history, and will offer avenues for deeper historical understanding of the contexts where PD projects take place. Therefore, we encourage studies in other localities, in Europe and beyond, so that what we learnt from *HistorEsch* could be only the first, situated, reflection on the relationship between PH and PD.



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