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OpenHeritage: Deliverable 5.5 (Report)

Methodological guidance to the application of crowdsourcing in the adaptive re-use of heritage sites

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Executive summary

Deliverable 5.5 is the output of Task 5.3 aimed at refining the uses of crowdsourcing in adaptive reuse. It presents a set of guidelines for those willing to facilitate community involvement in crowdsourcing tasks for the adaptive reuse of heritage sites.

This tool summarizes methodological issues related to crowdsourcing and provides step-by-step guidelines on how to launch a crowdsourcing project. It explains how to build a community of interested individuals ready to work towards a specific aim. Using examples from OpenHeitage and other heritage-related projects, the deliverable presents conceptual findings, practical recommendations, and technological solutions for the crowdsourcing application.

These recommendations can be helpful for project managers starting a new crowdsourcing project and those seeking recommendations to improve their running projects. Since the report discusses the ethical issues of using volunteer work, it can be of interest to volunteer managers.

1 Introduction: what is crowdsourcing

Crowdsourcing or citizen science is asking the public to take on tasks via the internet, which contribute to research or educational interest related to cultural heritage collections or knowledge. Crowdsourcing projects aim at generating or/and processing content, such as transcribing manuscripts or oral interviews, classifying objects, annotating documents, geotagging, and identifying people and objects on photos. However, crowdsourcing is more than just a framework for creating content. It allows the initiators to build a community of interested individuals ready to work towards a specific aim. Mia Ridge et al. fairly noted that "a crowdsourcing project can create joy, inspire curiosity, foster new understanding, encourage wider social connections, promote learning, and help people cultivate new skills and expertise" (Ridge et al. 2021, Chapter 2).

1.1 Crowdsourcing in heritage domain: benefits and challenges

Crowdsourcing is based on the concept of "wisdom of the crowd," according to which, under the right conditions, crowds can be remarkably intelligent (Surowiecki 2005). Many popular online services, such as Wikipedia, Google Translate, and Trip Advisor, are based on this principle. Crowdsourcing realizes the ideal of participatory culture and focuses on working towards "a shared, significant goal or research interest" together with the online community (Ridge 2014, 2).

Crowdsourcing allows cultural heritage organizations to obtain new information, add to the existing collections, create new knowledge, present and promote heritage collections and organizations (Ferriter 2017). Building online communities is another crucial benefit of this model. Crowdsourcing can foster better engagement with the public and enable heritage experts and the public to share the responsibility for heritage assets. Crowdsourcing projects can also contribute to reaching socially relevant objectives such as gaining new software skills and online communication experience (see 5.2). They also provide an opportunity for socializing. Crowdsourcing creates a relationship with the public (Ridge et al. 2021).

Crowdsourcing as a tool for online public engagement has some limitations and side effects. Although volunteers usually do not get monetary compensation, crowdsourcing projects require resources to set up and run a website and communicate continuously with the online community. Research has demonstrated that it is crucial to invest in website design, create clear user manuals, and craft convincing texts explaining the social or academic significance of the project (McKinley 2016). Crowdsourcing is not about having the job done for free but rather about being open to new ideas and willing to do things for and with the public.

Some heritage experts are skeptical about crowdsourcing due to the questionable quality of the results. However, several efficient controlling mechanisms exist, such as having different volunteers perform the same microtask. Another option is to engage experts at the final stage of the task so that they can check the quality of the results and request a rework if necessary. Practice shows that well-designed crowdsourcing tasks result in a high-quality outcome (Ridge et al. 2014).

Crowdsourcing is sometimes perceived as a job done by "an undefined generally large group of people in the form of an open call" (Howe and Robinson 2006). In practice, a little group of enthusiasts – so-called "super-contributors" – do most of the work. The challenge is how to find such contributors who are interested in the topic and how to engage them. Moreover, if, for some reason, a "super-contributor" withdraws from the project, it significantly reduces the speed of the progress.

Engaging the public through the internet requires open access to the materials to make them available for the volunteers. Therefore, only those materials can be used whose online publication does not violate copyright regulations. The results of crowdsourcing projects should also be freely available online.

Democratizing heritage by increasing public participation is perceived by some heritage experts as de-professionalizing and amateurizing the cultural heritage domain (Owens 2013; Fredheim 2018). Some heritage organizations also fear losing control over the process of working with their collections. Successful crowdsourcing projects are grounded on shared responsibility, trust, and collaboration between heritage organizations and the public.

1.2 What is crowdsourcing for?

Mia Ridge eloquently describes the main categories of crowdsourcing in four groups (Ridge et al. 2021):

1) "Type what you see" refers to transcription tasks. See, for example, the Transcribe Bentham project (https://www.ucl.ac.uk/bentham-project/transcribe-bentham).
2) "Describe what you see" refers to tasks of adding tags or describing an image.
3) "Share what you know" refers to tasks of contributing with information based on public's knowledge *Google Maps Reviews* (https://maps.google.com) can serve as an example. See also 5.1 and 5.3 in this report.
4) "Share what you have" refer to uploading a picture or memory to a collection. The *First Day* project (https://firstdays.saada.org/) is an excellent example of such a task. Pomaz Lab (https://www.pomaziertektar.org/) used this task intensively in one of their crowdsourcing projects (see 5.1).
5) "Validate other inputs" refers to checking and correcting text that has been transcribed. See, for example, the *Building Inspector* project https://www.nypl.org/digital-research/projects/building-inspector

Describing photos, identifying the emotional impact of sentences, validating and correcting translation are among the tasks offered by Google Crowdsource (Figure 1.). As Google explains, by contributing to the project, "You bring your own unique background, experiences, and perspectives to Crowdsource. As a member of our global community of contributors, you're helping to create AI that can best serve the rich and varied diversities of our planet!" (https://crowdsource.google.com/about/).
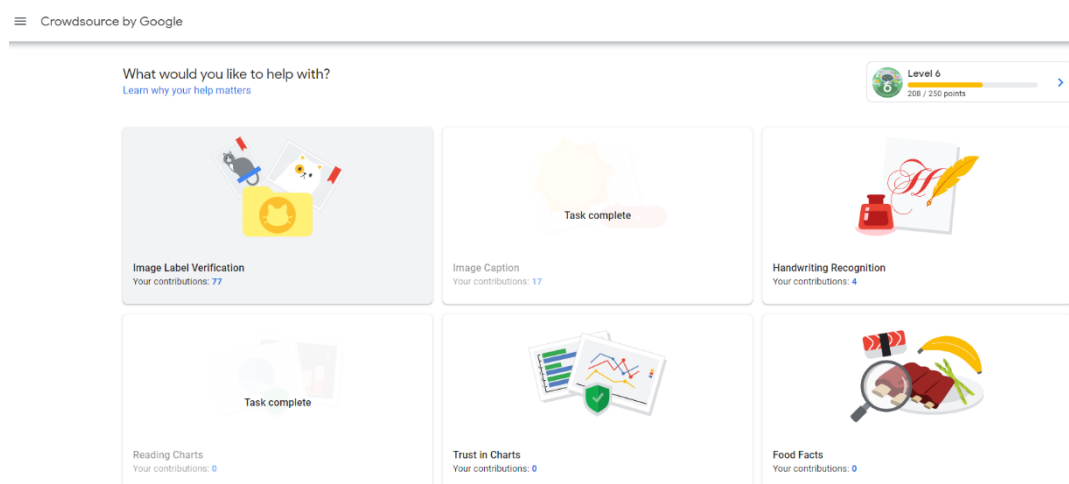
Figure 1 Home page of Google Crowdsource, the project helping "to contribute to the building blocks of Artificial Intelligence (AI)"

Many crowdsourcing projects include more than one type of task, i.e., they ask one group to "type what they see" and then another group to validate the results. It is always a good idea to divide labor and split big tasks into microtasks. Besides making the work more digestible, this approach allows your contributors to focus on what they are the best.

Crowdsourcing projects can also be classified by applying the functional approach. For example, some tasks can be aimed at generating new data or/and processing them. Others are focused on connecting stakeholders or better distribution of resources. Here are a few examples:

Generating new data

Open Plaques (http://openplaques.org/) is a project that catalogs, curates, and promotes commemorative plaques and historical markers (often blue and round) installed on buildings and landmarks throughout the world. Thousands of contributors from 66 countries make possible to browse over 50,000 plagues by person, place, and organization.
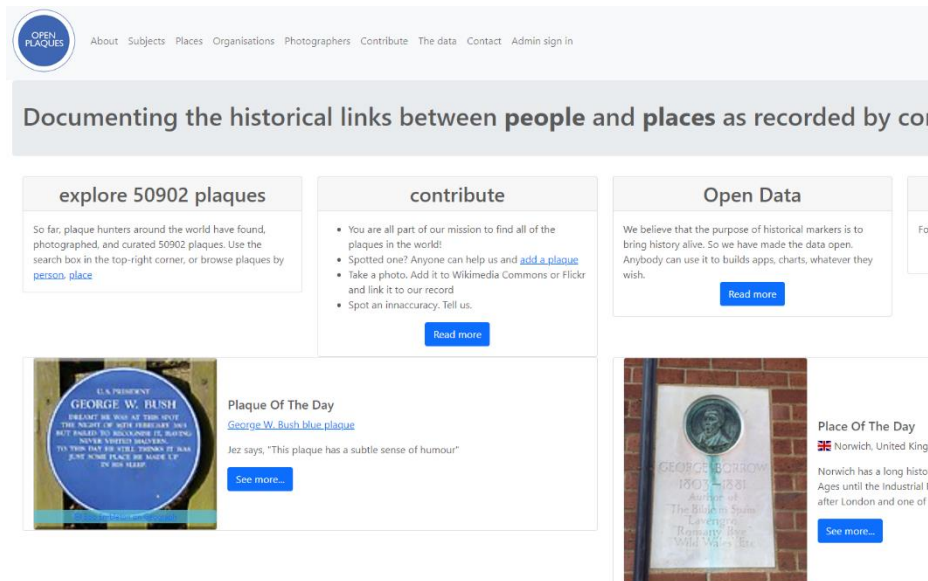
Figure 2 Home page of OpenPlaques project. Source: http://openplaques.org/

Selected observations about the project:

- It is a big database behind it, but the interface and the process are straightforward. The instruction explains three steps to contribute: "1) Take a photo, 2) Add a plaque? 3) Talk to us."
- It connects the online community with the curators "on the spot."
- It uses open-source platforms like Wikimedia Commons and Flickr to store and share the data.

Processing existing data

Imagine you have a great collection of old documents that you would like to digitize and extract usable, searchable texts from the scanned pages. While you get a decent OCR output from texts with regular prints, handwriting and fancy typography will end up as abracadabra. Volunteers can help to transcribe even these latter kinds of documents. The New York Public Library asked volunteers to help transcribe its collection of 45,000 restaurant menus dating from the 1840s to the present. In the "What's on the Menu?" project (http://menus.nypl.org/), thousands of volunteers have transcribed 1.3 million dishes from 17,550 menus.
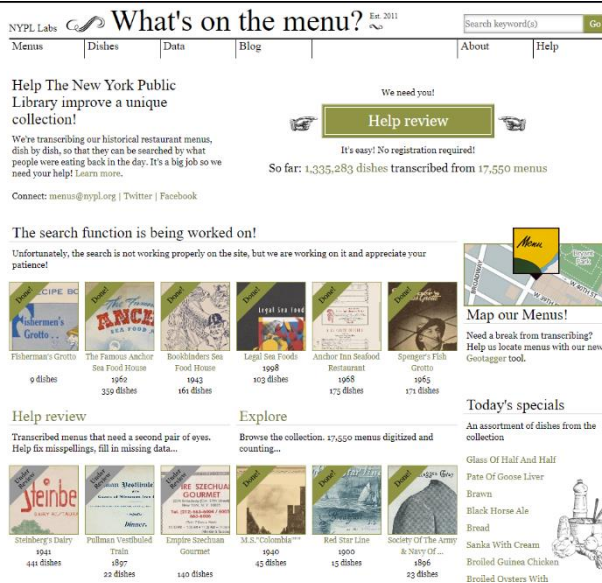
Figure 3 Home page of "What's on the menu?" project. Source: http://menus.nypl.org/

Selected observations about the project:

- Great design: no registration, easy to enroll.
- Simple and easy: the project offers you to perform tiny, enjoyable tasks.
- Contextual instructions are written in plain language.
- Open access to the processed data and creative use of the materials.

Connecting for partnership

CrowdBuilding (crowdbuilding.nl) is an initiative to make a living more fair, sustainable, and social. CrowdBuilding organizes the development of homes through bottom-up building cooperatives. The platform connects people and helps them realize their shared housing plans. In addition, the initiative tries to convince municipalities and investors to give more room to collective self-building.

Figure 4 The CrowdBuilding platform. Source: https://www.crowdbuilding.nl/bouwgroep/the-urban-tree-village

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Selected observations about the project:

- Targeting main stakeholders by guiding them via specialized pages (e.g., "for professionals," "for municipalities").
- Briefly but clearly explaining "how it works."
- Providing summary information of the items in a visually appealing and/or table format.

Making decisions

Crowdsourcing can help with managerial decision-making and problem solving (Power 2014). As Chao-MinChiu et al. explain, t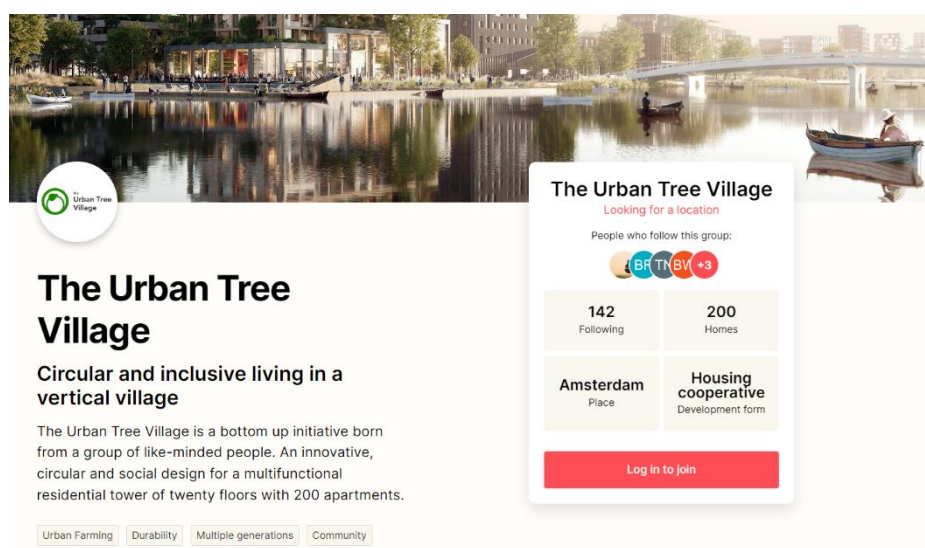he contributors "generate ideas and may also be involved in analyzing and prioritizing proposed solutions to problems. Crowd members also may recommend one best alternative." (Chiu, Liang, and Turban 2014, 40).

Pomaziertektar (https://www.pomaziertektar.org/), developed by the Pomaz Lab, relies on crowd-decisionmaking for the Heritage List of Pomáz. The initiative aims to enable all interested community members to learn about heritage values and participate in the debate about them (see 5.1 for details).

Figure 5 Fill-in form to submit short proposals. Source: https://www.pomaziertektar.org/%C3%B6tletek-1

Selected observations about the project:

- The selection is not limited to the options provided by the organizers. The public is encouraged to propose other sites to the list.
- The site provides an option to download the form, fill it out, and send it by email (for those who do not wish or cannot work with the online form).
- Contributors submitting proposals are also encouraged to attach photos and other relevant documents supporting and justifying their suggestions.

Raising awareness

"Is this how you feel?" project (https://www.isthishowyoufeel.com/) was created by science communicator Joe Duggan. From 2014 to 2015, he reached out to the world's leading climate scientists and asked them to answer a straightforward question: "How does climate change make you feel?". In 2020 he approached

the original contributors again and asked them the same
question. The project presents the letters written by the scientists.
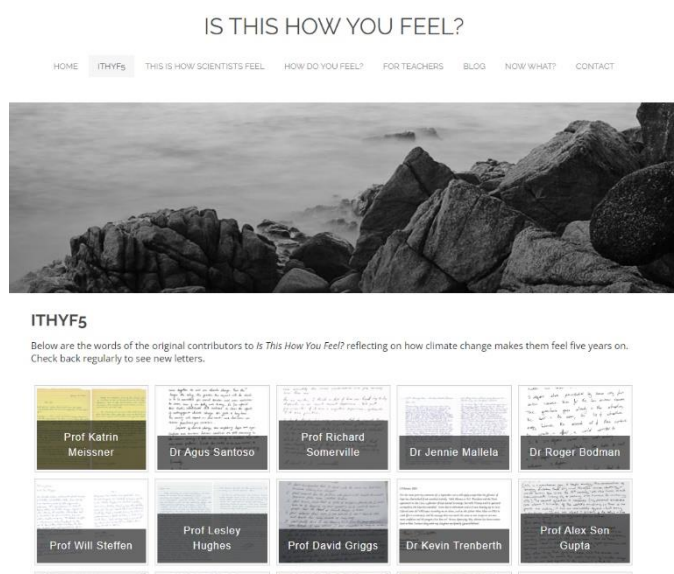
Figure 6 "Is this how you feel?" website presenting handwritten letters

Selected observations about the project:

- Asking the contributors to share their ideas in a handwritten form creates a special connection with them.
- Re-approach to the contributors in several years with the same question provides valuable information about the transformation of their views.
- Presenting the materials to the teachers and explaining how they can be used in the class.

1.3 Questions to consider before starting a crowdsourcing project

- Why do you want to initiate a crowdsourcing project? Without a clear answer to "why," it is better to restrain from starting a crowdsourcing project.
- Does your organization's culture resonate with the crowdsourcing principles?
- Does your organization have the capacity to run this project? Do you have the resources to invest in communication with the public?
- What are specific skills and knowledge volunteers need to have?
- Can you share the results of the crowdsourcing project publicly?
- How do you measure success?
- How do you retire the project?

2 Participatory practices and heritage

Participation is conventionally perceived as a good thing. Among the benefits of participation for heritage organizations, the researchers mention means to

expand audience, generate new content, better understanding
the public expectations, and having a social impact (Ridge 2014; Roued-Cunliffe
and Copeland 2017; Ridge et al. 2021). It is also perceived as ethical because it
is on the list of human rights (see "Universal Declaration of Human Rights,"
Article 27) and is supposed to democratize cultural institutions and help
disseminate knowledge. Reconsidering the roles of the heritage organization in a
couple of last decades, from being an information source to being community
hubs and generating social capital, also boosts participation.

Public participation in the work of heritage organizations is an old phenomenon,
but "participatory culture" and "participatory heritage" are relatively young ideas
(Huvila 2020, 128). Participation is among the keystones in modern heritage
practice and theory (Onciul, Stefano, and Hawke 2017, 1). It is included in the
new definition of a museum proposed by The International Council of Museums in
2019. The latter defines museums as "participatory and transparent," working "in
active partnership with and for diverse communities" and "aiming to contribute
to human dignity and social justice, global equality, and planetary wellbeing"
(ICOM 2019).

The admiration of participation has its downsides. It is turning into a buzzword
and often is used imperceptive. Nico Carpentier has reasonably pointed out that
"in many fields and disciplines, participation is still used to mean everything and
nothing, remains structurally under-theorized, and its intrinsically political nature
remains unacknowledged" (Carpentier 2011, 14). Carpentier identifies the
ambivalent character of such definition vagueness: he welcomes "plurality of
approaches towards participation" but suggests that some clarification can
expedite academic dialogue "to understand better the role of participation in
contemporary societies" (Carpentier 2016). Besides, without certain clarification
about the criteria, "any kind of social action can be labeled as participatory and
then celebrated as part of the trajectory towards a democratic nirvana"
(Carpentier 2016, 70). Bryony Onciul raises similar concerns about the
vagueness and fluidity of terms like "community" and "engagement" because
they "range so broadly as to be entirely dissimilar" (Onciul, Stefano, and Hawke
2017, 1).

This section critically examines challenges related to the participatory approaches
exercised by cultural heritage organizations (Simon 2016; Bollo and Zhang 2017;
Black 2020, 4; Richardson 2018; Fredheim 2018). It focuses on five topics:
"true" participation, sharing power with actors beyond the organization, the
problem of representation, fairness of using free work of volunteers, and ethics
of practicing social media for public engagement. This is not an exhaustive list,
but it shows how obscure and effortful the road to participatory heritage
organization, which aims to engage with the public as social actors and facilitate
progressive social change. It is a critical interpretative synthesis, meaning the
analysis is more reflexive and exploratory (and therefore less formal and
standardized) than a systematic literature review (Xiao and Watson 2019, 101-
102).

2.1 Participation vs. non-participation

In 1969, Sherry Arnstein published an article presenting a typology of citizen participation summarized as a ladder (Arnstein 1969). Three levels and eight rungs constitute Arnstein's ladder (Figure 7). The first level, "disempowerment," is non-participation. The second level includes three kinds of tokenism. The only power the public is given here is the right to be heard. The upper level presents three degrees of citizens' power. At this level, heritage professionals and local governments expand their roles from regulators to facilitators. The highest rung of the ladder is "citizen control," wherein the public gains full decision-making.
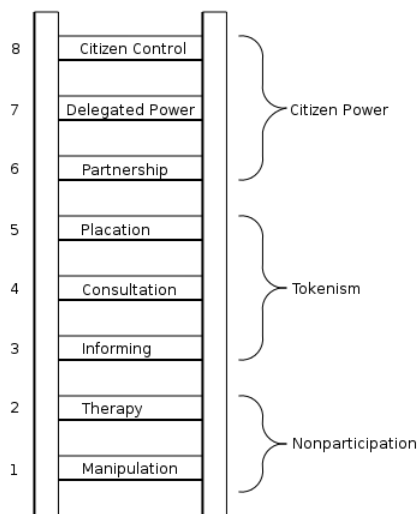
Figure 7 Sherry Arnstein's Ladder of Citizen Participation. Notes: DuLithgow, Wikimedia Commons.

In the following decades, scholars and public government bodies developed alternative typologies that modify in some respect Arnstein's model (Karsten 2012). For example, the Council of Europe in 2009 identified four levels of engaging civil society: information, consultation, dialogue, and partnership (Council of Europe 2019). The International Association for Public Participation (IAP2) developed another popular typology of public participation. Their "Spectrum of Public Participation" defines five forms of public participation ranging from the weakest to the strongest in terms of impact on decision-making: 1) Informing provides the public with the information; 2) Consulting is used to obtain the public's feedback; 3) Involvement assumes working directly with the public through a dialog; 4) Collaborating is the type of participation where the public is a partner in each aspect of the decision-making process; 5) Empowerment means that the final decision making is handed over to the public (Institute for Public Participation undated).

All these models are based on a traditional ontology of vertical (top-down or bottom-up) planning. In contrast, Beitske Boonstra and Luuk Boelens (2011) suggest going beyond Arnstein's hierarchical participation model and embrace a "horizontal" approach. According to the latter, there isn't necessarily a qualitative difference between various involvement, but their efficiency and applicability depend on the specific context. While dialog or even citizen control is the most

fruitful approach in some cases, there are situations where
transparently providing the information is the best way to involve a community.

In her book on the participatory museum (2010), Nina Simon also argues that all types of participation are important. Museum curators should not focus exclusively on "creators" (who produce content) but also on "critics" (who submit reviews, rate, and comment), "collectors" (who aggregate content for personal or social consumption), and "joiners." Simon presents the example of YouTube as a participatory tool: the platform offers something to all participants, from "liking" content to sharing video clips.

Nico Carpentier believes that such a "horizontal" model is widely accepted in sociology. The sociological approach "defines participation as taking part in a particular social process and <…> includes all types of human interaction, in combination with interactions with text and technologies" (Carpentier 2016, 71). From this perspective, consumption or (dis)liking posts on social media is participation.

In contrast, the political (studies) approach gravitates to the ladder-based model. From this perspective, participation is "the equalization of power relations between privileged and non-privileged actors in formal or informal decision-making processes" (Carpentier 2016, 72). Arnstein unconditionally connected participation with power. She distinguishes between "the empty ritual of participation and having the real power needed to affect the outcome of the process" (Arnstein 1969, 216). In other words, from the sociological perspective, participation is interaction, while from the political studies perspective, it is empowerment. For the latter, taking part in the process is not enough to be labeled as "participation"; it must be about the equalization of power inequalities in a particular decision-making process.

The two approaches also have a different levels of sensitivity towards the synonymous confinement. From the point of the sociologist approach, "participation," "interaction," and "access" are interchangeable. In contrast, the ladder-based approach, access (presence), and interaction (communication) are conditions of participation, which is about decision-making (Carpentier 2011, 31).

To further complicate the matters, one can go further and deconstruct the concept of "power."[1] For Nina Simon, YouTube is an example of a participatory tool that is equally attentive to participants with different levels of engagement. It is not that simple for a ladder-model proponent: various categories of participants influence the platform, but the public is not part of YouTube management (as a business enterprise) (Jenkins and Carpentier 2013, 275). On the other hand, consumer preferences influence business decision-making. From the perspective of Michel Foucault's interpretation of power, who argued that power is an always-present characteristic of social relations, the distinction between the "sociological" and "political (science)" approach is blurring.

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[1] Usually defined as the ability of those who possess power to bring the outcomes they desire.

On a practical level, there are many toolboxes that heritage-led organizations can apply to empower the public (Lynch 2011; Carpentier 2016, 85; Benetua, Simon, and Garcia 2018). Besides that, Bernadette Lunch's suggestion to exercise "constructive deconstruction" (Lynch 2017, 22) seems very useful. It includes collaborative reflexivity on what the heritage organization and its public consider participation, how the heritage organization's public engagement practices are "useful," and who can help identify the most appropriate approach to participation.

2.2 Sharing power

By embracing participation, the actors learn from each other, build trust, make better decisions, and establish legitimacy. However, participation also entails some typical challenges. In the museum sector, critics mention the risk of "undermining knowledge, dumbing down, perpetuating banality and mediocrity, and false democratization" (Salaman, Cunningham, and Richards n.d.). Democratizing heritage by increasing public participation is perceived by some heritage experts as de-professionalizing and amateurizing the cultural heritage domain (Fredheim 2018).

Many heritage organizations also fear losing control over the process of working with their collections (Black 2020, 45). For example, the popularity of citizen science and crowdsourcing raised fears of declining the quality of cataloging, transcribing, and like activities performed by volunteers instead of employed experts. However, many participatory projects successfully solved the quality control problem through such instruments as asking different contributors to perform the same task or have it checked by the experts. Several case studies demonstrated that volunteers could solve even quite complex tasks with adequate management and clear instructions (Causer et al. 2018). So, it is more a problem of accepting differences and letting go of some control.

Those ready to share power need to understand how much control they should let go of. Deborah Agostino et al. identified several "dilemmas" related to controlling content offered by a museum (Agostino, Arnaboldi, and Lema 2021, 70-71). For example, "should services be organized around what engages users the most or around what the museums want?" Control can be a "cage" but also a "navigator" or "scaffolding" (Carletti 2016). Considering this, how a heritage organization can find an optimal balance between planning and control on the one hand and creative freedom on the other?

Successful participatory projects are grounded on shared responsibility, trust, and collaboration between heritage organizations and the public. So, as Bernadette Lunch reasonably concluded, "the aim of the democratic, participatory museum must be to practice trust – a radical trust in which the museum cannot control the outcome" (Lynch 2012, 160). She suggests that museums should treat the participants as actors rather than beneficiaries.

Sharing power in practice can cause certain difficulties. It leads to change, may increase uncertainty, and generate more conflicting situations (Neal 2015). Moreover, Helena Robinson points out that urges to fully empower the public cannot be realized if the heritage organization wants to be an agent of social

change. In other words, the expectation for the museums to be "democratic forums" and "social activists" at the same time are self-contradictory (Robinson 2020, 483).

One efficient solution is to invite an independent actor to play a moderator and mediator between heritage organizations and the communities. For example, Amsterdam Municipality invited a bureau Marineterrein Amsterdam (marineterrein.nl/en/), to manage the project of repurposing the Old Navy Yard into a community space (Tomescu 2019). In her paper on the complexity of participation and engagement, Bernard Schiele presented various participatory tools, such as consensus conferences, deliberative polling, scenario workshop, citizen jury, and upstream engagement (Schiele 2020, 61).

2.3 The problem of representation and "false consensus."

The so-called representation problem refers to the situation when citizen participation involves only a small proportion of the population (community), so the decision is skewed to the perspective of a certain group of interest. Participatory governance can also be critiqued, especially due to the (often non-conscious) processes of in- and exclusion (Irvin and Stansbury 2004, 58). Besides, participants are always skewed (in the context of the entire population) along the lines of gender, age, ethnicity, geography, and other socio-demographic characteristics.

Bernadette Lynch, in her investigation of engagement and participation in the UK museums and galleries, detected a "false consensus" phenomenon. It refers to a situation when heritage organizations "tend to reward those whose behavior was less challenging and more in keeping with the organization's priorities, placing them at the head of the queue." This way, public participation is used to rubber-stamp existing plans, "exercising consensual power, convincing the participants that their interests are the same as those of the institution" (Lynch 2011, 12). Lynch's study demonstrated that even organizations with good intentions use participation in a way that can be interpreted as manipulation (Lynch 2012, 146).

Another lesson from Lynch's observation of the UK heritage organizations is that it is not only "who" but also "how" is engaged. Having a seat at the table of discussion is not equal to empowerment. Bernadette Lynch provides evidence that just setting up an agenda can be a powerful tool for channeling discussion and decisions (Lynch 2011, 12). Thus, it is not enough to send an invitation to participate in underrepresented groups of people. Instead, they should be provided with enough level of agency to impact the strategic development of the organization or the project. Participation requires that power, resources, and benefits be redistributed more egalitarian way (Kisić and Tomka 2018, 10).

On the practical level, the problem of underrepresentation can be tackled by 1) identifying the underrepresented groups; 2) explicitly stating that bridging the gap is the priority; 3) contacting the leaders of the underrepresented communities and setting up partnerships (see, for example, artandfeminism.org/about/ or ofbyforall.org/); 4) making sure that they have agency to impact the strategic planning of the project or contribute to defining the mission and vision of the organization. Another (or additional) tool can be

appointing an advisory board and inviting key members of the underrepresented groups to join this board.

To address the "false consensus" problem, heritage-led organizations should accept the confrontational culture. On the other hand, a consensus-based decision-making style can lead to a confrontational, debate-led community culture (Ridge et al. 2021, Chapter 12, p. 8). Debates can be exhaustive and obstruct strategic decision-making. Heritage-led organizations should look at the public sphere as a diverse and non-unifiable community which not always need to be consolidated.

2.4 Using free work of volunteers

Crowdsourcing in the heritage domain is based on the free work of volunteers (we are not aware of any projects where contributors were paid). Using unpaid volunteer work raises concerns about the ethical side of crowdsourcing (Vercammen et al. 2020, 399). Is it acceptable to use the free work of people who could instead sell their labor for money, or does it count as exploitation?

Several studies have demonstrated that the motivations of volunteers are usually combined with intrinsic and extrinsic elements, so they benefit from crowdsourcing in various non-monetary ways (Ridge et al. 2014). Still, as Jenny Kid reasonably pointed out: "If the activities are important, then why are they not costed into core business and offered as paid roles to those interested in working in the sector?" (Kidd 2020, 79). Jenny Kid thinks that the traditional ways of interpreting free work as a value exchange, common good, and intrinsic reward "may well prove too limited in the near future" (Kidd 2020, 79).

Some special studies have problematized the way in which volunteering is presently conceptualized. Instead of looking at it as "leisure activities," they approach it from the perspective of unpaid labor (R.A. Stebbins and Graham 2004; Allan 2019; Overgaard 2019). Charlotte Overgaard argues that "while all researchers of volunteering are apt to recognize the unpaid nature of volunteering, they are much less apt to recognize that volunteering is the unpaid opposite of paid labor" (Overgaard 2019, 129).

Kori Allan argues that in many cases, volunteering is just a form of un- or under-employment, which she calls "hope labor." Allan says that hope labor "promises that exposure and experience will possibly lead to employment in the future." Her study presents convincing evidence that, in many cases, volunteering work is "about filling one's resume and chasing [job] opportunity – prominent forms of neoliberal risk management in contingent and competitive labor markets." (Allan 2019, 68). This situation creates opportunities for non-profit organizations and the state, but they must not take advantage of precarious labor markets.

To run crowdsourcing based on ethical principles, the managers should distinguish between volunteering and hidden employment (unpaid work). Uniformity and transparency matter. By setting up uniform and transparent principles of payment or accepting free work, they can diminish the risks of perpetuating systematic inequality. Finally, they should pay for work

wherever possible and otherwise offer concrete non-monetary incentives to volunteers.

2.5 Ethics of using social media

Jasper Visser and Jim Richardson promote digital engagement "Because it's one of the best opportunities we've had in decades to really reach and engage other people, work with them on ideas that are bigger than us, and generate value together." (Visser and Richardson 2013, 3). The potential of social media to develop a people-centered heritage was demonstrated by several case studies (Ginzarly and Teller 2020). Although heritage organizations are still mostly involved with one-way communication strategies using social media, there is some evidence that they are trying to increase the use of social media for multi-way communication strategies (Fletcher and Lee 2012, 505).

Using the internet to lower the barriers and "opening up more participatory ways of interacting with heritage objects and concerns" might look like an easy solution (Giaccardi 2012, 1). **However, just starting a conversation on social media does not solve the problem automatically.** Chiara Bonacchi et al. studied social profiles of the project "MicroPast" (UCL and the British Museum) and found out that digital tools, such as crowdsourcing, help to expand the audience but do not necessarily determine structural changes: "the involved public cohort is not radically different in socio-demographic make-up to the one that physically visits such institutions, being for example financially better-off with high levels of formal education"(Bonacchi et al. 2019, 166). Moreover, online platforms may reinforce hegemony and the Authorized Heritage Discourse depending on the kinds of interaction through the point at which users are engaged as consumers and producers of content and on the space they provide for conflicting views to come together, pursuing a convergent or a crystallized view (Ginzarly and Teller 2020, 362). Therefore, **digital tools should be applied together with other strategic approaches aimed at increasing the inclusivity of the organization or the project.**

Concerns about ethical issues related to social media use in the non-profit sector are not new. However, recently more and more voices say that most of the current society is fundamentally harmful and challenge the idea of "ethical" uses in principle. Vikram Bhargava and Manual Velasquez convincingly demonstrated in their special study how media platforms are designed to render them addictive (Bhargava and Velasquez 2021, 326). They point out three design elements that make social media platforms addictive. "First, the use of intermittent variable rewards; second, taking advantage of our desires for social validation and social reciprocity; and third, platform designs that erode natural stopping cues." The more users spend time on social media, the better the platforms know them (collect more data) and the more efficient the algorithms are in manipulation (Bhargava and Velasquez 2021, 326).

Social media have benefits: build new and recover old relationships, share knowledge, educate, mobilize communities, etc. Still, Bhargava and Velasquez argue that considering the amount of harm associated with internet addictions, "it is wrong to use social media platforms to addict users, and these harms are

not justified by the benefits those technologies produce"
(Bhargava and Velasquez 2021, 328). They suggest that many benefits can be produced even "if social media companies did not introduce the addictive mechanisms they have designed into their websites." "Social media addiction is not a necessary part of delivering the benefits these products provide" (Bhargava and Velasquez 2021, 333).

The interpretation of social media as fundamentally harmful places heritage organizations in front of difficult choices. On the one hand, it sounds reasonable for a heritage organization to go where the audience already is (though multiply skewed) and provide good content. Or not to contribute to "attention-economy business" in principle by restraining from using social media. This is a too complex issue to solve in this report, but project managers should be aware of the dark sides of using social media and have a well-thought strategy to mitigate the harm.

2.6 Takeaways

Successful participatory project:

- Participatory projects are about both process and product.
- Consider the interests of different stakeholders. Defining goals and assessing outcomes for participants, staff members, and non-participating audiences is important.
- Not any call for participation will work. You should offer a meaningful experience.
- To be inclusive and participatory often means accepting the confrontational organizational culture,
- Do not focus only on creators; think about other types of participants.
- Use the work of volunteers responsibly. Why should people give their time to your organization or your project? How will they benefit from the project?

Other questions to consider:

- How much influence will the participants have on decision-making?
- How do you measure participatory success?
- How will you facilitate community-building? What are the obstacles and barriers? How will you mitigate them?
- Do both the organization and participants benefit from the project?
- Does your project have the potential to be transformative for the community? How to unleash this potential?
- Does the project help to increase access to cultural heritage?
- Does it beneficial to all key stakeholders?

3 Volunteers and their motivation

Volunteers are the blood of any crowdsourcing project. How to find contributors for your project? How to engage with them? How to keep them motivated? To answer these questions, you should know who your volunteers are and what

their motives are to crowdsource. One of the academic definitions of volunteering is "un-coerced, intentionally-productive," altruistic activity framed in distinctive context and engaged in during free time" (R. Stebbins 2013, 342). Therefore, understanding the motives and intentions of the volunteers is a crucial task to keep the project going.

3.1 Knowing your public

There are two main methods to know your public: ask them about their profile during the registration or run special questionnaires. The advantage of asking for some demographic data during the registration is that you get the whole picture. The disadvantages are that it raises barriers to entry that may deter some volunteers from continuing registration and the actual crowdsourcing tasks. The best solution might be to keep the registration optional. The crowdsourcing project "What's on the menu?" run by the New York Public Library explicitly says, "It's easy! No registration required!" which means that there are no barriers, and the volunteers can immediately start accomplishing the tasks (Figure 8).
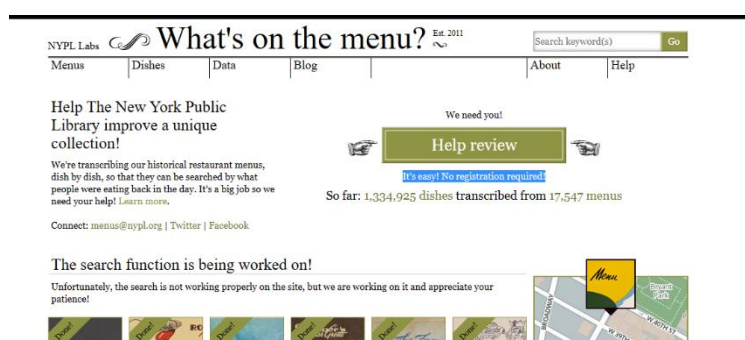

Figure 8 The fragment of the front page "What's on the menu?" project.

However, the project offers the contributors an option to register, explaining that [http://menus.nypl.org/about].

From menus.nypl.org/about

"Our current policy is to keep things as open as possible, but we intend eventually to tie into a NYPL-wide user account system that's currently in the works. We'll always preserve the option of participating without a login, but providing a way for more intensive contributors to identify themselves will allow for a community to develop and the possibility of more complex tasks. We're grateful for the time/effort you've devoted to this project so far, and hope to be able to recognize some of our top contributors down the road."

Another option is to ask the volunteers to participate in a questionary about their profiles (Jennett et al. 2016; Maund et al. 2020). Usually, only part of the volunteers respond but based on the sample; you can judge the general population (Alender 2016; Domroese and Johnson 2017). For example, in 2015, Zooniverse, the largest citizen science platform, asked 3,000 volunteers to answer a few questions about their social profiles. Out of these, 300 responded. The results showed, for example, that over 61% of participants were male. Although Zooniverse attracted participants from 118 countries, more than half came from English-speaking countries. 52% of respondents said they were employed, and 15% said they were retired (Simpson 2015).

Another example is a project called TROVE, run by The National Library of Australia (trove.nla.gov.au), which studied the profile of their volunteers to find out that a "typical" contributor is "a very well-educated, highly paid, English speaking employed woman aged fifty or over, with a significant or primary interest in family or local history, who visits the Trove website very frequently" (Ayres and Andro 2013, 5).

Understanding the profile of your contributors, on the one hand, can help to serve their needs better. On the other hand, it can help identify a systemic bias that can create a knowledge gap. In this latter case, you may consider special initiatives targeting underrepresented groups. For example, when Wikipedia contributors noticed gender bias in Wikipedia content (women are underrepresented), they initiated several campaigns to mitigate this bias. "Women in Red" was one of such initiatives aimed at "creating content regarding women's biographies, women's works, and women's issues" (Wiki 2019).

3.2 The "super-contributors" dilemma

In most crowdsourcing projects, the majority of the work has been carried out by a minority of users. For instance, in the TROVE project, the top 100 contributors (1.1%) have undertaken 43% of the tasks. Half of the registered users have spent less than half an hour on the project's website and thus did not contribute too much (Ayres and Andro 2013, 6). Another example is the Transcribe Bentham project, where 15% of registered people contributed something, and 15 top contributors (out of 2,454 registered users) have performed over 15% of the work (Causer and Terras 2014). In theory, crowdsourcing projects rely on many independent, decentralized people. Any interested person is free to participate in a crowdsourcing project. In practice, a dedicated community of self-motivated individuals is the one who does the bulk of the job.

The top contributors (sometimes called supercontributors) are highly motivated and essentially run the project. As Mia Ridge reasonably pointed out, a crowdsourcing project with a handful but dedicated participants ("hardly a crowd") "might be tremendously successful (Ridge et al. 2021). On the other hand, heavy reliance upon super-contributors puts a project in a potentially precarious situation. If some of them cease participation, the overall performance drops significantly. Therefore, project managers should balance micro-participation from many unconnected individuals and a virtual community model based on strong connections among a committed set of connected members (Haythornthwaite 2009).

3.3 Motives and incentives

To attract volunteers and keep them engaged, you should understand their motives. Motivation gives the reason for peoples' actions, desires, and needs. Understanding the motives of their volunteers can help the managers to optimize the recruitment and retention of volunteers.

Psychologists suggest distinguishing between intrinsic and extrinsic motivations (Ryan and Deci 2000). Intrinsic motivation emphasizes inherent satisfactions

rather than the separable consequences of the act (e.g., acting just for fun). Extrinsic motivation is where the activity is just an instrument for achieving a certain desired outcome. Intrinsic motivation refers to doing an activity simply for the enjoyment of the activity itself, while extrinsic is supposed to have an instrumental value (Ryan and Deci 2000, 60). Unlike crowdsourcing in business, which often relies on the monetary reward given to crowdworkers (extrinsic motivation), heritage crowdsourcing is primarily based on free work (intrinsic motivation). Still, it is always a good idea to combine the two types of motivation.

Another approach to classifying volunteers' motivation is a functional principle. Based on the secondary literature and case studies from crowdsourcing projects in heritage and interviews with the representatives of the OpenHeritage Labs, we suggest the following list of incentives in crowdsourcing (Clary, Snyder, and Ridge 1992, 336) and (Alam and Campbell 2012).

1. Curiosity and fun (I am interested in a topic/issue; enjoyment is my motivation and gain")
2. Social (being part of the community)
3. Value (I feel it is important to help others)
4. Career (volunteering will look good on my resume)
5. Understanding (volunteering lets me learn through direct hands-on experience)
6. Protective (volunteering helps me work through my personal problems)
7. Esteem (volunteering makes me feel important)
8. Addiction and challenge (I was "hooked in" to perform the task better and faster than the other participants)

Contributors typically do not have a single motivation. Moreover, as József Laszlovszky mentioned in the interview, based on his observations from Pomaz Lab, many volunteers "develop new motivations" during the project. However, it is possible to identify a dominant motivating factor in many cases. For example, in the survey, the *Galaxy Zoo* project top motivators were interested in astronomy. In the *TROVE* project, top contributors were very much interested in family history. Volunteers were interested in art in the Art Tagging project (Ridge 2014).

Reward

For the most part, crowdsourcing projects do not reward their contributors directly in material or professional terms. Conversely, contributors to crowdsourcing projects are not subject to discipline (in either sense) or sanctions. Most heritage projects are based on intrinsic motivation. However, there are several ways to boost it.

1. Explain clearly what new skills your volunteers can advance. How can it help them in career development?
2. Be explicit about the social contribution of the project. What social values does it generate?

3. Think about the interests of different types of
   contributors. Provide a range of tasks from mere voting to contributing
   with original content. The Google Maps review system is a good example
   of addressing various types of contributors.
4. You may wish to establish a system of evaluating contributors (ranking
   system). It provides helpful feedback to your contributors and directly
   impacts their motivation.
5. Consider awarding the most active contributors with certificates and
   symbolic gifts, and invite them to conferences and other fora organized
   within the project.

4 Setting up a crowdsourcing project

4.1 Crowdsourcing software solutions

Crowdsourcing projects use standard software solutions, such as social media,
Wikimedia, and platforms for citizen science, or they order custom-designed
websites (Severson and Sauvé 2019, 6-7). There are also free or subscription-
based solutions. For a project aimed at classifying objects, the best solution,
perhaps, would be the *Zooniverse* (zooniverse.org) – the world's largest platform
for people-powered research. Projects aimed at collecting visual materials and
stories can use the *Omeka Contribution* plugin developed by the Roy Rosenzweig
Center for History and New Media (omeka.org). Transcribing projects often use
Scripto (scripto.org) – a free, open-source tool enabling community
transcriptions of document and multimedia files. Commercial solutions, such as
Curatescape.org or *Fromthepage.com*, offer custom integration, feature
development, and user support.

Donelle McKinley developed 21 website design principles for crowdsourcing
cultural heritage based on crowdsourcing projects and the relevant literature
(McKinley 2016). You can http://nonprofitcrowd.org/crowdsourcing-design-
principles/ a paper with a detailed explanation, examples, and benefits of
compliance. It is worth keeping these principles in mind when constructing a
crowdsourcing project on any platform.

1. Provide clear, concise, and sufficient task instruction
2. Show how project output is freely accessible to the public
3. Keep content current
4. Minimize the effort to contribute
5. Prioritize key information
6. Minimize user error
7. Enable users to review contributions
8. Clearly identify tasks
9. Present reasons to contribute
10. Provide task options
11. Simplify the task
12. Design is attractive to users
13. Acknowledge participation
14. Encourage users to engage with the collection
15. Display project progress
16. Convey a sense of community
17. Convey the credibility of the project
18. Support community interaction
19. Publicly recognize contributions
20. Support content sharing
21. Convey a sense of fun

Figure 9 Website design principles for crowdsourcing cultural heritage by Donelle McKinley. Source: http://nonprofitcrowd.org/crowdsourcing-design-principles/
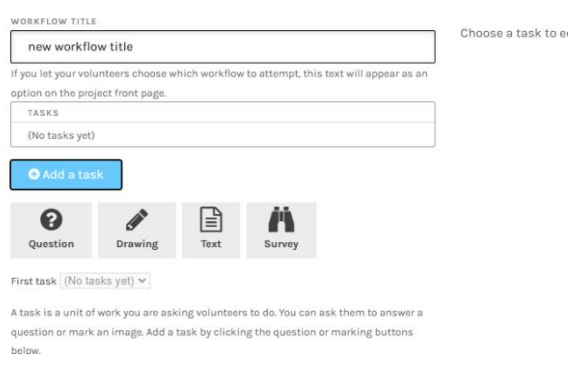
4.2 Zooniverse

Zooniverse is a popular platform hosting many citizen-science projects. It relies on volunteers who help to complete research tasks online. Volunteers help to transcribe texts, classify, or tag objects. For example, the Galaxy Zoo project invites people to assist in the morphological classification of large numbers of galaxies. The advantage of the platform is that it is free and easy to build a new project. The major limitation is that only administrators can upload images to be processed by the public. Citizen scientists cannot add images by themselves.

Zooniverse offers a simple way of building projects via its Project Builder. The main steps:

1. Register or sign in to the Zooniverse account (right upper corner).
2. Click *Build a Project* (left upper corner) and then *Create a new project*.
3. Fill in the forms in a pop-up window: project name, short project description, and an introduction. The Project Builder (Figure 10) will take you to the *Project detail* page, where you can add more details about the project.

Figure 10 Zooniverse Project Builder interface

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4. Click *Subject Sets* (subjects being data that volunteers are presented to in projects) on the left panel, then *New Subject Sets,* and upload the images to be processed. Add metadata for your images in *.csv format.
5. Click *Workflow,* which defines the sequence of tasks that you ask volunteers to do. Click *New workflow title* (you can give a meaningful name) and *Add a task* (Figure 11). Here you can ask volunteers to answer questions, select something on the images (drawing), write a text, or identify objects on the images (survey).
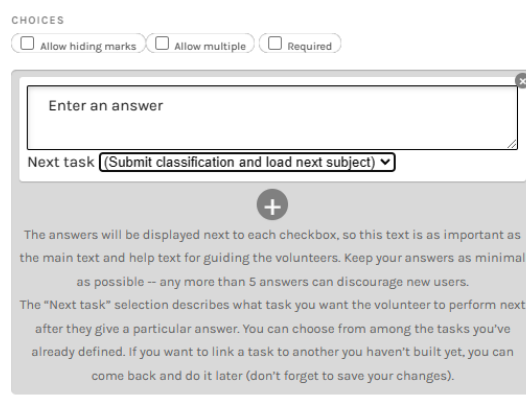
Figure 11 Adding a new task on Zooniverse Project Builder

6. If you choose *Questions*, describe the task in the Main Text field.
7. Add a detailed explanation of the task in the field *Help Text*. You can use markdown to format this text and add images.
8. Describe the task or ask the question in a way that is clear to a non-expert. You can use markdown to format this text.
9. Click on a "plus" button to add choices (Figure 12). The *Next task* drop-down list provides an option for the subsequent actions when one task is completed.

Figure 12 Adding variants for answers

10. Associate your workflow with the relevant subject set (see *Associated subject sets*).

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11. Click *Test this workflow* at the bottom of the page to see how the task works.

12. Add instructions to the Tutorial (a step-by-step introduction to the project's interface) and a field guide (a place to store general project-specific information displayed as a panel on the right side).

13. Change visibility to the *public* when the project is ready to go live.

You can find more information about building a Zooniverse project on https://help.zooniverse.org/, including detailed step-by-step instructions, an example project, the glossary, and best practices recommendations.

4.3 Omeka contribution plugin

This part provides a short step-by-step instruction for setting up an Omeka platform with the Omeka contribution plugin, allowing you to collect user-generated content, such as stories or media materials. A detailed manual can be found on https://omeka.org/classic/docs/. You can find a video with detailed instructions on how to set up the contribution plugin here https://vimeo.com/165200216.

Omeka Classic is a web publishing platform for sharing digital collections and creating media-rich online exhibits. It was developed by The Roy Rosenzweig Center for History and New Media and George Mason University, VA. It allows users to publish and exhibit cultural heritage objects and extend its functionality with themes and plugins. Omeka relies on the Dublin Core metadata standard, a set of fifteen "core" elements for describing resources.

Using Omeka, one can build sites like this: https://omeka.org/classic/showcase/. Some third-party companies use the Omeka platform to create customized or more advanced versions. For example, *Curatescape* offers a web and mobile app framework for publishing location-based content using the Omeka content management system.

There are two options to set up Omeka with the Omeka contribution plugin. The easiest is to buy a package with hosting on https://www.omeka.net/. Depending on the size and complexity of the project, the service costs (as of July 2022) from 35 USD per year. Another option is to set it up on another hosting. We will demonstrate how to do it using hosting https://reclaimhosting.com/.

Installing Omeka on the Reclaimhosting platform

Step 1. Hosting. Create an account on Reclaimhosting and register a new domain. In our example, it is crowdsourcingheritage.net (Figure 13).

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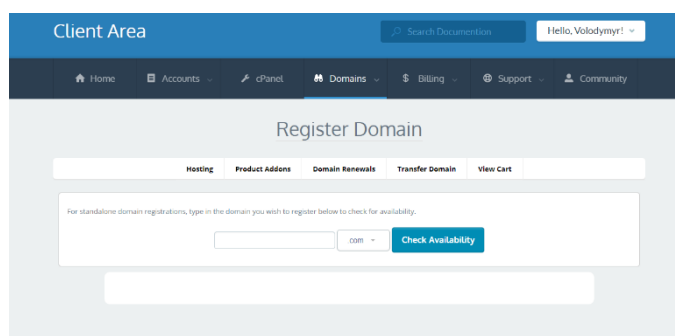
Figure 13 Registering a new domain on Reclaimhosting

Step 2. Installing Omeka. Click on *Cpanel* will redirect you to the Reclaimhosting applications menu. Select *Omeka* and then *Install this application*. Scroll down and fill in *Administrator Username*, *Password,* and *Website Title* fields (Figure 14).
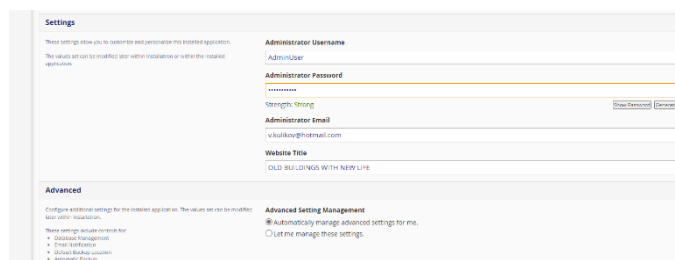
Figure 14 Installation of Omeka. Settings

Step 3 Adding plugins

To allow the public to add items, it is necessary to add the *Contribution plugin*. Plugins can be downloaded on https://omeka.org/classic/plugins/. Download the *Contribution* plugin, which allows collecting items from visitors, *Guest User,* which adds a guest user role, and *Geolocation* which adds location info and maps to Omeka. You may also wish to download more *Themes* https://omeka.org/classic/themes/ determining the look and feel of the public side of your Omeka site.

Get back to the *Cpanel* (https://cpanel.bikinikill.reclaimhosting.com/) and click *File Manager*. Click Upload and add downloaded plugins and themes to respective folders. A right mouse click will open a menu with an option to extract (unzip) your plugins.
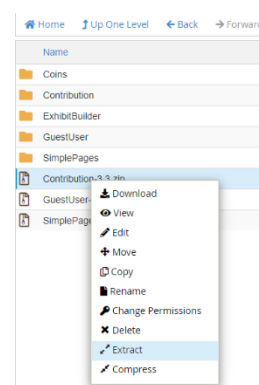
Figure 15 Unzipping downloaded plugin

Deliverable 5.5 Methodological guidance to the application of crowdsourcing

Setting up Omeka

Use http://[your website]/admin/ to enter the admin panel, where you can add items manually or set up the Contribution plugin to collect materials from the public. Click *Plugins* on the panel in the top right. Install plugins (Figure 16). You can keep the default settings and change them later.
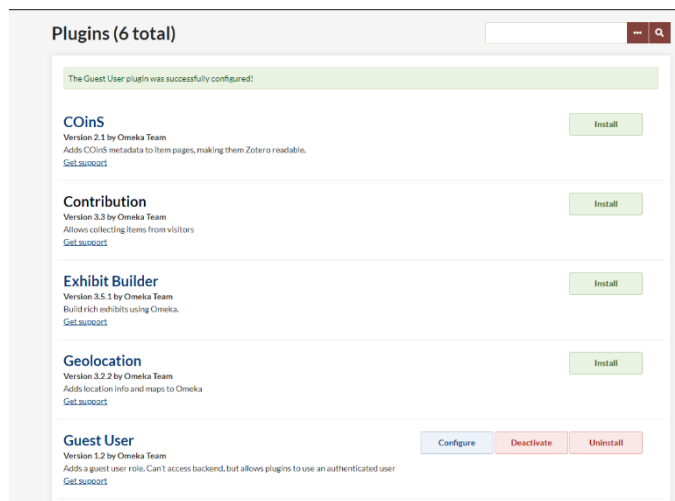
Figure 16 Installing plugins on the Omeka dashboard

The Guest User plugin adds a user role to your Omeka Classic site.

Guest user. The administrator must approve all submissions before they go public. So, if you contributed, the item will not appear until the administrator's approval. The plugin can automatically add a reCAPTCHA box at the bottom of each form to prevent spam bots from spamming your website. The *Contribution* also offers users options to create guest accounts, making it easier for one user to submit multiple items.

The Contribution plugin provides a form to collect stories, images, and other files from the public and manage those contributions on your Omeka Classic site as items. Click *Contribution* on the left vertical panel, which leads to *Contribution | Submission Settings*. The settings are pretty explanatory, but the dashboard additionally provides a short explanation for every field.

Geolocation. Install the geolocation plugin if you wish to display the items on the map. When installed, click *Plugins* and then *Configure* (Geolocation).
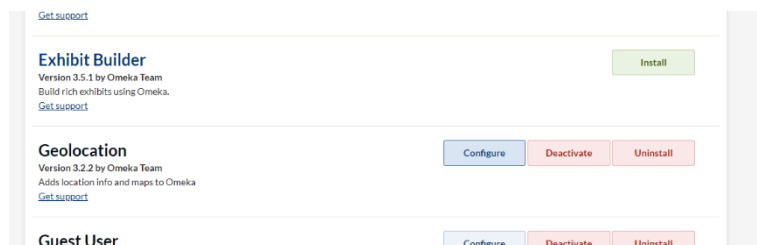
Figure 17 Configuring geolocation

Scroll down and tick boxes related to the map integration (Figure 18). You may also wish to set up default latitude and longitude so that, by default, the map

opens on your city/country/continent. See the details here:
https://omeka.org/classic/docs/Plugins/Geolocation/.

Map Integration

Add Link to Map on
Items/Browse Navigation

Add a link to the items map on all the items/browse pages.
☐

Add Map To Contribution
Form

If the Contribution plugin is installed and activated, Geolocation will add a
geolocation map field to the contribution form to associate a location to a
contributed item.
☐

Figure 18 Integrating map with the contribution plugin

Other important settings: go to settings on the upper panel, click *General* and
add to *ImageMagick Directory Path*: **/usr/bin** for proper display of the uploaded
images. Click *Test,* and you should see "The ImageMagick directory path works."

Do not forget to add general information about the site and disclaimers, if
needed. For example: "The information (including images) on this website is for
general information purposes only. We do not own the content published about
the collected spots. The website's administrators endeavor to keep the
information up to date and correct at all times."

Contributions remain invisible to users of the site until they are approved.
Approving the submissions must be done manually by the administrators of the
site. In addition to approving – and thus making the spot publicly visible on the
site – several further steps must be taken by the administrators so that the
added elements can be searched and categorized properly.

1. Categorizing: spots can be organized under various categories (Omeka
   refers to them as collections). New categories can be added at any time.
   Each element can belong under only one category, but there are no limits
   to how many elements can be organized under one category. The
   categorization of items can only be done by the admins.
2. Tagging: tags are also added by the admins. The system remembers
   existing tags and automatically adds any new tag that is created. Adding
   tags is simple and works very much like hashtags on social media,
   marking characteristics of the spots, which can be used as a search tool.
   Consistency is key here. Clicking on the "Tags" tab in the admin editor
   interface shows the existing list of tags, helping the admins choose the
   appropriate ones for each element or reveal missing tags that need to be
   added to the list.

5 Case studies

5.1 The Local Heritage List of Pomáz – Pomáz Lab

The Pomaz Lab initiated the Local Heritage List Project during the COVID
pandemic (2019-21) when events had to be postponed, and activities were
transferred to the online space. Heritage Lists are part of a national program that

aims to raise awareness of cultural, architectural, industrial, historic, and other values on a national, regional, or local level. Every settlement can have such a list that they continuously update and expand. The heritage items included on the list have to be presented on a website as specified by the law. In Pomáz, the local government commissioned the OpenHeritage Lab's partner, [Friends of Pomáz Association](), to form the Heritage List Committee and officially manage the heritage list, and the OH Lab contributed with setting up the website and fostering the crowdsourcing process ([https://pomaziertektar.org]()).[2]

Crowdsourcing 1: People are encouraged to submit proposals for heritage items to be added to the List. Anyone can suggest any heritage item. If it is only a brief idea, the fill-in form on the website can be used to send the short proposal to the Friends of Pomáz Association, who then decide if it is realistic and help the person who submitted it to prepare a longer, official proposal with detailed documentation (as set by legal requirements), which can later be officially discussed by the Heritage List Committee. This first submission form is intentionally kept very simple, as the Pomaz Lab had the feedback and experience from the Decidim website that potential contributors are likely to decide not to get involved if the first steps of the procedure are complicated. The official form for detailed proposals is also available on the website for download, so people who prefer not to work together with the Association can even prepare it individually and submit only the long version that is intended to be final.

Crowdsourcing 2: Although the decision about new heritage list items has to be made by the official Heritage List Committee, everyone is welcome to join the discussion and voice their view about a proposed heritage item. This is possible through the website's forum ([https://www.pomaziertektar.org/el%C5%91k%C3%A9sz%C3%BCletben]()), where all items have their own thread. The Heritage List Committee considers in their decision the arguments and opinions of the locals voiced through the forum.

Crowdsourcing 3: People are also encouraged to submit their own documents, photos, old newspaper articles, etc., about items on the List and items in the discussion phase. This is also done in the website's forum. Materials that are not copyrighted and are interesting can be added to the official page of the given heritage item.

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[2] Initially, the Poaz Lab used the Decidim website for this purpose, but they received feedback that the site was too complicated to navigate, and people gave up on contributing. Many of the local community interested in heritage belong to the 50+ generation and using complex websites proved to be an obstacle for most of them.
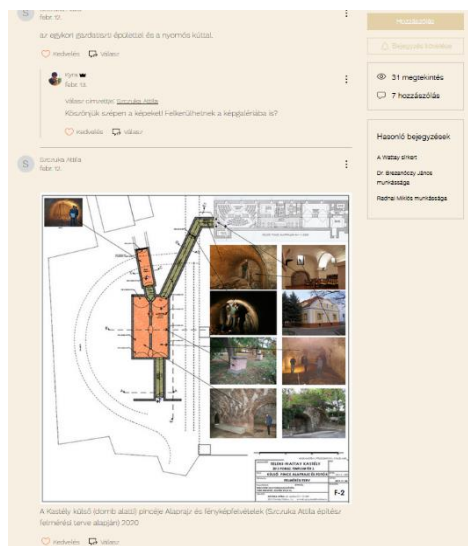
Figure 19 Additional material uploaded in the forum by private contributors: an architect shared his survey on the heritage list
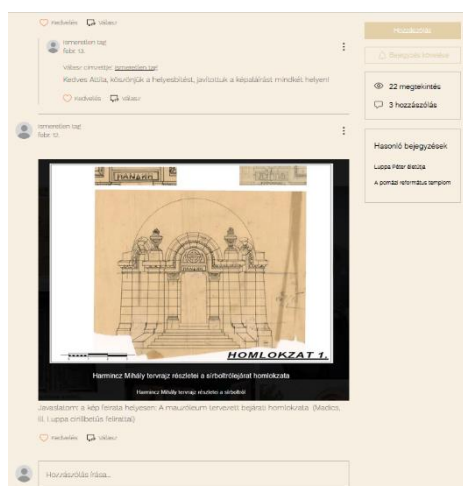
Figure 20 Additional material uploaded in the forum by private contributors: an architect shared old documents about monuments on the heritage list

In addition to obtaining new material through crowdsourcing, this website also serves as a tool to foster and strengthen the local community of culturally committed people and ensure that when the project ends, there will be locals who continue the work.

It must be noted that not all crowdsourcing related to the Heritage List goes through the website. As this is a relatively small local community where most people know each other personally, those who are interested in the local heritage know the Friends of Pomáz Association and the members of the Heritage List Committee. Often they turn to them directly with their proposals and ideas. The website, though, is a great tool to raise awareness about the opportunity to join in heritage-related work.

So far, the willingness to contribute is moderate: ideas are continuously submitted to the Association (in fact, all heritage values that are now accepted and featured on the website were proposed by locals), but few additional

contributions have been made. As noted above, this may also be
due to the difficulties of transferring pre-existing communication channels online.

Another part of the project where the Pomaz Lab uses crowdsourcing focuses on the heritage site itself. The site has been used for educational purposes by elementary and high school students as well as by universities. In the past few years, many student groups visited the site. As part of the project, the Pomaz Lab is now compiling supplementary pedagogical material based on the feedback and proposals by teachers who participated in the visits. The aim is first to get feedback and recommendations on what to change in order to facilitate school programs, and second, to collect material from those who have experience on how the site can be best used in schoolchildren's education and include those in a small publication that will be made available for teachers planning to visit the site with a group.

This is done through the project's Decidim website, as this form of crowdsourcing is not general but targeted to a certain group of people, and digital literacy is not a problem for the teachers the Pomaz Lab aimed to reach. There is a short description about the "highlights" of the site, things that student groups usually visit when they are there (with photos to make it easier for the teachers to remember), and it is indicated what kind of feedback the Pomaz Lab would like to get. The proposals and ideas are submitted here as a forum discussion (https://pomaz.openheritage.eu/processes/schools/f/363/debates/50).

Example of a task[3]:

One of the tasks in the Open Heritage project at Pomáz-Nagykovácsi-Puszta is to create a teacher's manual for the site, offering helpful information and tips on how to approach children's self-exploratory process of discovering their cultural heritage at the complex site of Pomáz-Nagykovácsi-Puszta, and on integrating the acquired knowledge and skills into the National Curriculum. The pedagogical manual for the site is developed jointly with experts, local organizations, teachers, and children throughout a process facilitated by personal meetings as well as collaborating through the project's Decidim platform.

The process is projected to invite three different but comparable reference groups from mainstream schools, specialized schools, and alternative curriculum schools. It was launched by the visit of the first reference group from the Dabas micro-school, a member of the alternative-curriculum primary education network Budapest School on May 20, 2022. The children in this school are no strangers to extramural education; their Pomáz visit was organized as one of their three learning expeditions a month. The group is mixed age from 6 to 11 and fully integrates a number of students with varied special education needs. Besides the project team, they were accompanied by two mentor teachers, two parents, and Sárki, a small comodo dragon in his carrier box, who had not given his opinions but seemed to enjoy the scenery.

The children were taken on a tour guided by László Kiss and Csilla Siklódi. Levente Kiss presented blacksmithing in a live demonstration and Q&A.

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[3] Developed by Zsuzsanna Reed, CEU/Pomaz Lab. This description of the task is provided by Zsuzsanna Reed too.

Zsuzsanna Reed, on behalf of the Open Heritage Project, tracked the group's engagement with the site and the tour (mapping/timing their movement; taking photos and short interviews, documenting questions, visiting time, and engagement level both electronically and on paper).

5.2 Volunteer opportunities and crowdsourcing challenges: Sunderland Lab

The Sunderland Lab activities are based in 3 buildings on High Street West in Sunderland, UK, and carried out by the Tyne & Wear Building Preservation Trust (TWBPT) and Newcastle University. The aim is to get three buildings on the edge of Sunderland city center back into long-term sustainable socio-cultural use. Several relevant initiatives took place around the site, including crowdsourcing, crowdfunding, and volunteer opportunities.

Volunteering happens mostly through PopRecs, who were crucial in the reuse process as the "future user" and co-creator of the coffee shop and music venue that are now in the buildings. They offer several volunteering opportunities: be a barista, bartender, musician, or assisting during events or gigs, etc. They are working on more structured volunteer opportunities, with the possibility of formalizing the gained skills in a qualification. Until now, there have been several moments and opportunities to volunteer, but not a structured route or program. In the Sunderland Lab, the TWBPT also worked with Sunderland College to offer short-term work experience placements for building work such as electrical works and plumbing and joinery. Loes Veldpaus comments on how volunteering became an important ***way for PopRecs to connect to the various communities as well as create a space for a wide range of people to thrive***: "PopRecs wants to offer opportunities for young people who are underrepresented or somehow have fallen out of the system, left school, and who take an alternative route to learning, or who simply need a place to feel they belong. This is a way to gain social skills, work experience, and maybe even get into the job market. [...] Some people now working in a paid job at PopRecs started this way 5 or 6 years ago. And now still want to be involved. It is really nice to see the community they are building."

The Lab, as well as other actors taking part in the revitalization of the buildings, used ***crowdfunding*** tools as well, not only as a means of fundraising but also of community-building, in synergy with public funding. PopRecs organized a very successful crowdfunding campaign that engaged their broad national and local audience in the [past](), and building on their experiences, the OpenHeritage Lab organized a campaign, "[Buy a Brick for Sunderland]()." This engaged more with heritage-minded people as it was led by [TWBPT](), and thus appealed to those who have an interest in or already know their work. People could 'adopt' a brick for £1, which would then be used in the building, and the idea was they could come and write their name on it, but that last bit was made impossible by the pandemic. People could also invest more and get a "scaffold tour," for example. Some local companies also offered 'boosters' in this crowd funder. Three other crowd funders were run by users of the builds; the TWBPT stimulated all of them with a match-fund grant from Architectural Heritage Fund to match up to

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£25.000 of crowd funding. To have such match funding and boosters, it was crucial to make it attractive and test and try this new approach. And even though it didn't all go as planned, they were all successful in their way, in what they were aiming to do. Moreover, as Veldpaus explains: "The ethical questions of why to do a crowd funder were really important to all, especially because such funding is often not – or not only – for the money. It is a promotional tool, or a way to develop membership, or a way to get a message out there, and the question is if the "tool" fits the message."

Crowdsourcing has also been used in the Sunderland Lab. It offered opportunities to engage with untold histories, ***reflect on, and facilitate the discussion about problematic aspects of the past***. To address the lack of women in the formal histories of Sunderland, the Rebel Women project, including an exhibition, posters, and stories, recognizing key local female figures, was recently featured on the national BBC TV program "Songs of Praise" (March 2022), was created. It was initially developed and commissioned by Laura Brewis from Sunderland Culture for Heritage Open Days 2019 in response to the theme of that year, People Power, in partnership with Open Heritage and the Sunderland Heritage Action Zone. Nominations for Rebel Women of Sunderland were crowdsourced through social media, with over 100 nominations of inspirational women of the city. Fourteen women were selected from past and present to represent the diversity of the achievements of the women. Further events offered moments to learn and discuss the women and their presence (or lack there off) in history books, including a blue plaque commemorating the contributions of Marion Philips and another one to the Quaker women to anti-slavery activity. The plaques were initiated by Dr. Sarah Hellawell and Prof. Angela Smith from Sunderland University, also based on research by their students.

During Heritage Open Days 2021, OpenHeritage developed a small exhibition about food because the theme of this year was "Edible England". The stories for this exhibition were also crowdsourced: there was an open call developed with 'Sunshine Co-operative' fruit and vegetable shop, which is based in one of the three Lab buildings, to find people who could tell the stories connected to food practices in the past. Four local artists were commissioned to engage with these stories to produce small artworks in relation.

The Lab also commissioned local artist Kathryn Robertson to create a mural in the temporary space where visitors could partake. She set out the outline, and people could come and help her finish the mural, which could be seen as a cross-over of crowd sourcing and engagement. It was also meant to be part of the crow funding offer, as empty 'signs' (billboards) in the mural could be obtained by people to add their name or a message, but because the buildings had to be closed during Covid-19, we could not use this in the end. As the space was eventually refurbished to become the home of Sunshine Co-operative, the mural has now been painted over. Not everything needs to remain – this point highlights the processual nature of crowdsourcing in the process of engaging people in adaptive heritage reuse, which is ongoing.

5.3 Balancing professional expertise and
people's participation: Praga Lab

Praga Lab, located in the Praga district in Warsaw, is focused on the revitalization of material and immaterial heritage and is led by a team of architects, urbanists, фтв усщтщьшiеi from the Warsaw Branch of the Association of Polish Architects (OW SARP). Strong partnerships with professionals in the field and municipal and civic institutions allowed the Praga Lab to appeal to the professional community and decision-makers. The Lab team explains: "We really want to make a change in the future, and this is impossible without the gatekeepers of change, those decide or impact the use of municipally owned premises. This is exactly the community we wanted to engage. The general public was involved in the events which the Lab organized or co-organized, like a co-creative workshop; it was really important because people had a chance to experience the meaning of heritage and its role. And the general public was involved through the publications and knowledge. We tried to influence their perception of Praga, not to engage them in a decision-making process directly because they have no power to change the things we wanted to change."

All the key actions of the Lab were implemented through open calls. In the case of the Living Memory Exhibition, the Lab had an open call for a co-curator. They had another call for the artists and craft people to participate, so this exhibition was co-created by people who are really creators in Praga. The team did not want something created especially for this exhibition but wanted to give another meaning to something that already existed. "In the open call, we gave them a general idea and preferred proposals connected to the places of the heritage of work. We chose five propositions that fit very well into what we wanted to see; we did not want to tailor it much more; they were implemented almost exactly as they proposed. For the Living Memory Exhibition, the advisory board worked as well; these were not discussions but an exchange of many ideas. We managed to produce an excellent call, so it was clear what was expected for everyone, and we could choose the right artists."

As for the engagement of volunteers, Praga Lab was very cautious about to which extent and where they could rely on volunteers and professional performance. Dominika Brodowicz estimates this balance as 30% volunteering and 70% covered by the budget: there were many supporters of the Lab, but when working on LME or workshop on possible ways to adaptively reuse the old bakery, "We wanted people who will be very committed. And we searched the participants via open calls, and we signed legal agreements with them, it was not a huge financial reward, but we wanted to make sure that they would be on time."[4]

Another task of the Lab was mapping initiatives and places connected to heritage and the future of productive work (including all forms from industrial labor to

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[4] Katarzyna Sadowy, the member of the Praga lab commented on this: "Craftspeople and artists are usually in financially wise. So, it would not be fair to ask them to participate as volunteers, there is a problem of pressure for the creative sector to work for free or to underestimate their work. We want to showcase it as valuable for the community so renumeration is necessary. For me it was the main argument."

contemporary arts and crafts). This was work over time, with
the great help of the Lab advisory board, Museum of Praga (part of Warsaw Museum), Creativity Center Targowa, NÓW – association of craftspeople, and using data from the city and the district. "It is more about connecting the dots" – that's how Dominika Brodowicz described this type of cooperation.

5.4 Crowdsourcing as engagement into critical discussions of the past: Rome Collaboratory

The Rome ACT Collaboratory activities stimulated individual and collective memories and the use of the past for solidarity actions and social activity for the future. It united and promoted existing NGOs and informal groups of inhabitants (such as the Comitato di Quartiere di Torre Spaccata, FusoLab, and more) and new institutions (Comunita per il Parco Pubblico di Centocelle, CooperACTiva). For example, guided tours around the district were developed in partnerships with local associations, and participants were eager to share their memories. Similarly, workshops organized by the lab revealed how many people have memories connected to the environmental heritage of the area – which is also beneficial for the initiatives to protect it.

The Living Memory Exhibition of the Rome ACT Collaboratory took place as a set of events from July to December 2021. One of the important participatory processes was co-designing a set of art murals in all the neighborhood territory, including a big mural on the school wall, representing the project's principles and the district values. The idea was to reveal the memories and cultural identities of the area. As Elena De Nictolis (part of the research team until 2021) noted, "we did not involve scholarly historians but rather the school, the neighborhood civic library, local artists because *we focused on intangible and emerging heritage*; *it is about collective reinterpretation* rather than scholarly reconstruction of the past. Also, historians are already active in the area with projects of cultural/archeological storytelling walks organized by the Ecomuseo Casilino" As the research team explained, Alessandrino, Centocelle, and Torre Spaccata have an increasingly young, mobile, and diverse population; therefore, there are divided memories: especially in Centocelle and Torre Spaccata, there are strong memories of the Resistance in some phases of the WWII which was fierce and courageous. For others, including many newcomers and younger generations who come and settle there for other reasons, it represents something else.

The co-creation Lab for the Living Memory Exhibition involved local artists selected through a call, with the support of a professional who was not a historian but a contemporary art curator. The Lab organized co-design labs, where everyone interested could join. Children, teachers, and residents contributed and told the artists what they wanted to have at discussions with professional facilitators and other discussions with schoolchildren. Especially between the discussions during the labs, the interpretation from the artist, and the discussion with the team of researchers and partners involved, diverse narratives started to emerge. The artwork contains images and words, and it was

a very tense discussion: some lab participants and partners
preferred to use the word "freedom" and others the word "solidarity." Such
questions, such as "what is this neighborhood for us in comparison to what is
happening in the world and the city?" There were divergent opinions, but the Lab
team eventually led it through moderation. As the team explained, "we
eventually chose in favor of what was more coherent to the project because
there is also a balance between a scholarly and an artistic interpretation of living
memory in the OpenHeritage project."

On September 25, 2021, as part of the European Heritage Days 2021, the
"PartecipArte - Living Memory Exhibition of Open Heritage in Torre Spaccata"
took place. M'appare event was a part of it: three participatory video maps were
presented. The first, "To a child sculptor," was animated by the drawings of
Centocelle's children made during the videomapping workshop at Fusolab, in
June, within the "Outdoor Education" project. The work "Urban Oracle" is the
work of the interaction design studio Ultraviolet.to, which reveals the words
suggested by the inhabitants of Centocelle to describe the neighborhood. The
adjectives have been collected in the last few months through the game
Centoparole in which people participated and in a digital version via the website.
The installation presents the map in different colors changing respectively to the
activities on the territory at every given moment. Also, the illustrated map of the
neighborhood was created by the street artist Croma who was able to reinterpret
the territory of Centocelle through its people and its activities (Adnkronos 2021).

5.5 Crowdsourcing as co-creation of non-hierarchical knowledge: synergies of Lisbon Lab of Open Heritage and ROCK Project

Lisbon lab is focused on Marques de Abrantes aristocratic manor, which is now
being converted into the community center, as a part of the wider priority
intervention area of Marvila and Beato. Living Memory Exhibition in Lisbon is
implemented in the form of the Interpretative Centre of Marvila and Beato in the
local Marvila Library. The Center was developed in a synergy of OpenHeritage
and ROCK projects (https://lisboa.rockproject.eu). This interactive exhibition
presents stories and narratives of the local community. It is developed in a
participatory inventory process, where people share their life testimonies,
photos, and other sources and narrate and interpret them in cooperation with
professional historians. The methodology of the Interpretative Center refers to
the idea of shared authority in knowledge production, co-authorship, and co-
production. Participatory Inventory is seen as incomplete and in permanent
evolution and recognizes a plurality of valid knowledge (Silva 2020). The timeline
combines events of "big" history and local events, such as the construction of
residences and convents, changes in industrial production, and reconversion of
the buildings into new functions. The interactive map identifies main heritage
objects, including info on their reconversion and heritage aspects; descriptions;
documentary footage; and excerpts from the interviews with local residents
talking of the material and immaterial heritage of the districts.

All individuals designated by the initiators of the project as relevant were contacted and gave final interviews to the operational team from 6 to November 22, 2019. Later the interviews were edited by the Municipal Archive/Videoteca crew. The persons identified for interviewing had diverse experiences of the neighborhood: memories of economic hardships, ecological aspects, occupation of unfinished and/or empty houses, evictions, everyday life in the neighborhood, local community groups and associations, work in industry, and port, etc. The interview excerpts are periodically released through Facebook (Silva 2020). As Reis e Silva summarizes, the aim of the interpretative Center is to be "a catalyst for further discussion about this territory, promoting reflection about its memory, identity and ongoing urban transformation." (Silva 2020, 12).

It is also worth mentioning that the Marvila Library has already had significant experience with digital tools before, including support of computer games culture (Koenig 2019). This institution is open to everyone as a leisure and community center and offers a range of diverse activities; therefore; it was successful in Giving a voice to the residents is especially important in this underprivileged area, which is poorly connected to the rest of the city, lacks many elements of infrastructure and has racial and group tensions. Empowering people through participatory inventory is an important part of broader improvements and change in power relations in the area.

5.6 Crowdsourcing as affirmative action for the underprivileged area: Jam Factory Art Center in Lviv, Ukraine

Jam Factory developed crowdsourcing of memoirs of life in Pidzamche - (post)industrial district of Lviv - as a tool of community engagement and critical gesture against the ongoing oblivion of the industrial past. There is a stark contrast between the dilapidated historical built environment, including closed factories, and new development, which either ignores or only appropriates and commercializes the features of the historical past. New residents are agents of gentrification, and residents of older age feel deprived and alienated from the rapidly changing environment. Therefore, back in 2015, the Jam Factory team started to collect the narratives of the people who worked and lived in the district. Former workers of the Jam Factory shared insights into the functioning of the enterprise in the building, and this helped in the discussions of future renovations and the art center's programming. The understanding of the main features of the industrial era (the connection between city and agricultural vicinity; seasonal work and hard female labor; shadow market and informal economic exchange practices; ecological impact) *contribute to the critical reassessment of the past and go against nostalgic myths* of the industrial and socialist epoch. This critical approach *helps reestablish the lost connection between the past and future uses beyond* nostalgia and uncritical excitement about future development. The information on cultural institutions attached to the enterprises (workers clubs, leisure activities) helped to map the past cultural landscape and better position new cultural institutions. In 2021, in the framework of the international project MagiC Carpets (supported by the Creative Europe та Harald Binder Cultural Enterprises), new oral stories of

former workers from key industrial enterprises were collected.
They became the basis of the walking tour along the district and an exhibition co-created by two artists from Ukraine and Croatia. Local craft fragrance workshops created special smells based on industrial smells (not always pleasant), so the participants of the tours could experience the past through smelling. The excerpts from the interviews fused with specially created music supplemented the tours, in this way giving a new life to the historical evidence. The storytellers participated in the tours and had a chance to discuss between themselves, commenting on memoirs of each other - also critically arguing sometimes. The collected stories are archived in the institution and will be used in future art and historical projects, such as the permanent exhibition on Jam Factory history in the tower of the art center. ***Proper archiving of oral histories,*** which takes place within the institution of the art center, ***presents the opportunity to share the stories with people beyond the institution and internationally***. This case represents a sensitive approach to the past and an attempt to connect the past and the future. It is also worth mentioning that Jam Factory is an institution of contemporary art that aims at provocative and socially critical art, which can be potentially disturbing and even irritating for the part of the district's residents, so the crowdsourcing tool can be seen as a tool of mutual understanding and cooperation beyond the generational divisions and divergent tastes in art.

6 Interviews

Interview with Dominika Brodowicz and Katarzyna Sadowy, members of Praga Lab, June 1, 2022, conducted by Iryna Sklokina

Interview with József Laszlovszky, member of Pomaz Lab, 2 July, 2022, conducted by Volodymyr Kulikov

Interview with Loes Veldpaus, Martin Hulse, and Ashley Mason, members of Sunderland Lab, June 6, 2022, conducted by Iryna Sklokina

Interview with members of Centocelle Lab, June 21, 2022, conducted by Iryna Sklokina

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