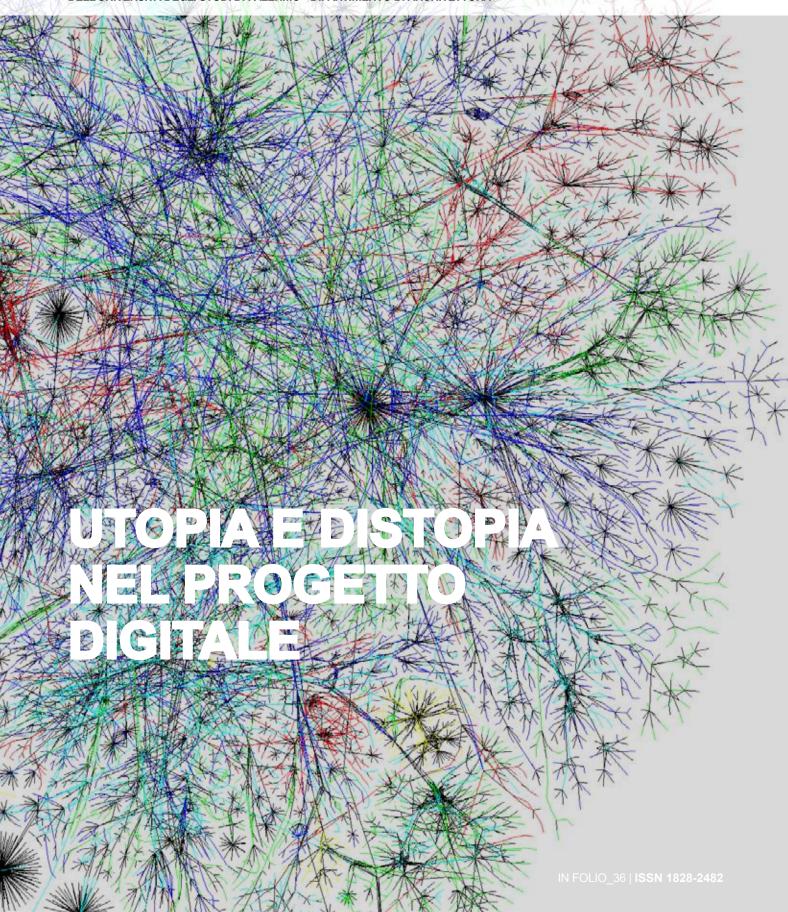
# BILL BOTTOPATO DI DICERCA IN APCHIETTI DA APTI E DIANIFICAZIONE

RIVISTA DEL DOTTORATO DI RICERCA IN ARCHITETTURA, ARTI E PIANIFICAZIONE DELL'UNIVERSITÀ DEGLI STUDI DI PALERMO - DIPARTIMENTO DI ARCHITETTURA





### **Direttore**

Filippo Schilleci, Coordinatore del Corso di Dottorato

### Comitato scientifico

Filippo Schilleci Tiziana Campisi Simona Colajanni Maria Sofia Di Fede Emanuela Garofalo Francesco Maggio Marco Picone

### Comitato di redazione:

### Revisori

Simona Colajanni, Maria Sofia Di Fede, Marco Picone

### Redattori (2019-2020)

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### Progetto grafico

Marco Emanuel Francucci, Francesco Renda

### Per questo numero:

### Curatori

Ruggero Cipolla, Marco Emanuel Francucci, Salvatore Damiano, Francesco Renda, Dalila Sicomo

### Impaginazione e redazione

Francesca Anania, Bianca Andaloro, Simona Barbaro, Ruggero Cipolla, Salvatore Damiano, Eleonora Di Mauro, Maria Stella Di Trapani, Giuseppe Gallo, João Igreja, Marina Mazzamuto, Marijana Puja, Francesco Renda, Dalila Sicomo

### Contatti

infolio@riviste.unipa.it

### Sede

Dipartimento di Architettura (D'ARCH)
Viale delle Scienze, Edificio 14, Edificio 8
90128 Palermo
tel. +39 091 23864211
dipartimento.architettura@unipa.it
dipartimento.architettura@cert.unipa.it (pec)

### In copertina

Rielaborazione grafica di The Opte Project Map of the Internet, Barrett Lyon, 2003 (CC BY 2.5).







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# Learning From Social Media In Urban Design. Thinking about digital participation through the development of the OpenKyminlinna platform

Sezione tematica

Nicolas Descamps, Petra Grgasović, Alice Lemay

This paper aims to provide a critical feedback from author's engagement in the reflection on the creation of the digital participation platform "OpenKyminlinna". It questions the use of social media in participative processes in urban design and how it can be adapted. By integrating the functionalities of these social media, we identified four types of approaches, spatialities and temporalities that foster cooperation between citizens, elected officials and planners. This initial research has highlighted some limits and perspectives of this approach in order to develop further investigations.

Keywords: Digital Participatory Platform, Social Media, Participatory Urban Design, Collective Intelligence, OpenKyminlinna

### Introduction

This paper draws from the authors' direct engagement in the thinking of the digital participation platform "OpenKyminlinna". In this article, we will rely on Simeone's definition of participation in urban design as a «process of investigating, understanding, reflecting upon, establishing, developing, and supporting mutual learning between multiple participants» (2015, 8) who actively participate in co-design. This paper constitutes a reflexive feedback of an empirical study project carried out in August 2019 during the 25th IFHP Summer School "Making, Shaping or Letting be". The platform model we proposed was a first reflection for the application of functionalities inherited from popular platforms, adapted to urban design and to the Kyminlinna site.

For some years now, the generalization of mainstream social media (Facebook, Twitter, Instagram, Flickr, etc.) have been the subject of research and have been integrated into many scientific disciplines (Toscano 2017). Despite the increasing use of Information and Communication Technologies (ICTs) and the hybridization of urban life, the use of ICTs and social networks in urban design participation is lagging behind. In fact, Wilson et al. demonstrated that one of the main

issues regarding digital participation is that «[c]urrently, digital platforms designed for participation in planning mirror traditional methods rather than leveraging the opportunities technology offers, and rarely go beyond a one-way provision of information» (2017, 288).

Nonetheless, it is worth noting that research and experimentation within the realm of social media in urban design and in digital participation tends to develop (see Afzalan, Evans-Cowley 2015, Liu et al. 2020, McQuire 2014, Simeone 2015, Song, Fernandez, 2017, Wilson et al. 2017). Yet, in order to achieve a significant change on digital participation, these reflections and experimentations need to be pushed further as they seem relevant to empower citizens, bring a lot of information on urban practices to the authorities (Simeone 2015) and «can also provide a virtual framework for e-participation and online deliberations». (Antoniadis, Apostol 2014, 1) We can distinguish two non-exclusive approaches to research and practice in this recent field of study (Lin, Geertman 2019). On the one hand, social media can be used as a co-design medium, either in self-organization or in partnership with public institutions (Bannon, Ehn 2012, Mosconi et al. 2017, Sawhney et al. 2015). On the other hand, the analysis of social network data can be helpful to study the uses and urban perception of inhabitants (Liu et al. 2020, Simeone 2015, Song, Fernandez 2017, Toscano 2017) in that it offers a vast panorama of how social media users live, perceive and act within the city. Moreover Kleinhans et al. (2015, 239) have shown that «[t]he popularity of [...] social media has spurred a demand for new forms of participatory planning and self-organizing governance by citizens». Thus, using what we can learn from social media could be a new and pertinent step towards developing digital participation. Alas, urban design is still taking little advantage of new forms of digital expressions to respond to the citizens' will of actively participating in shaping their city. Yet, taking into account the lessons learned from the use of social media and adapting them to urban design, seems to be a fertile field of research as explained by Falco and Kleinhans (2018, 17):

In fact, DPPs [Digital Participatory Platforms] include all the features proper to 'conventional' social media (such as Facebook and Twitter): they are based on Web 2.0, allowing for user generated content, and sharing of such content. However, compared to conventional social media, DPPs also include different and more elaborate technological features.

### Research questions

Considering the potentials of social media as «sources of knowledge for participatory urban design and management» (Simeone 2015, 2) as well as a tool that may create new forms of participation, how can urban design benefit from the utilisation of social media in the planning process?

### Hypothesis

We posit that drawing inspiration from mainstream social media can be relevant in the development of digital participation. First, the functionalities of these networks facilitate self-organization, two-way communication as well as concrete actions in urban practices and are already known from a growing part of the population. Secondly, the data created and shared by users on these platforms, can provide elements on the perceptions, the uses and the expectations of citizens and thus constitute a support for designers. Thirdly, using social media can enable quick acceptance of the new urban design by the local community and thus increase the probability of continuous and long-lasting active space utilisation.

We also hypothesize that to be truly relevant, this kind of approach requires cooperation between inhabitants, elected officials, policy makers and planners.

### Objective

This paper aims to have a critical feedback on our experimentation, i.e., the way we used social media, the possible courses of action we proposed as well as some limits and new perspectives we encountered in order to draw lessons for further research and action.

### Methodology

This paper is based on a study project carried out during the 25th IFHP Summer School held from 6th to 16th August 2019 on the theme "Making, Shaping or Letting" be" in partnership with the Town Planning Department of Kotka, Finland. It was organised by Aalto University, Tampere University and the International Federation for Housing and Planning (IFHP) and aimed to question the practice of urban design and the role of the designer. The problem set by the organisers was to develop a suitable plan for reviving the Kyminlinna fortress, taking into account the local and national context. The 74 hectares fortress located in Kotka, a Finnish town of 53,000 inhabitants, was built beginning in 1803 by the Russian army as part of a large-scale defence system to protect St. Petersburg (Kyminlinna Fortress | Kotkan-Haminan Seutu, n. d.) and was still used by the Finnish army until 2005. Since then, the fortress has remained abandoned due to lack of investment and proposals for redevelopment (Fig.1).

The work was carried out by international teams, one of which consisted of the authors of this paper. All teams were attributed full liberty in choosing the approach and the level of the solution proposed. General conditions in which the work took place were the following:

- the proposal had to be developed in ten days;
- the proposal had to address the needs of the population and potential visitors, considering the already existing offer of cultural heritage and recreational sites in the surrounding area;
- the approach had to move away from implementing permanent construction interventions and demonstrates sensitivity towards the cultural and natural value of the site;
- the proposal had to take into account the feedback of the municipality.

To overcome external hindrances and avoid proposing an insufficiently context-adjusted design, we conceived a tool for citizens participation. The process of platform development included three main steps: setting the objectives, defining corresponding activities and recording results. The first objective was to identify the level of the existing digital and participative culture,



Fig.1. Aerial picture of the Kyminlinna fortress in its 2019 state. In the background, the town of Kotka. Picture provided by the municipality.

how citizens self-organize, their relationship with public space as well as the attachment and uses in Kyminlinna. To do so, social media was recognised as a potential source of input for the platform development. Thus, we explored Facebook, Instagram and Twitter with the hashtags #kyminlinna, #kotka, #kotkansaari, #visitkotka etc. and watched Facebook events in Kotka in order to have deeper site-related insights. thanks to the groups, comments and personal pictures we found there (Fig. 2). Moreover, the written and visual expression of the users was also freer, more spontaneous and personal than during traditional public consultations, having a potential of bringing a true added value for planners. The second objective was to understand the existing state-of-the-art in social media and digital participation's research. In fact, researchers who have studied the use of social media in urban design and have proposed methodologies, whether empirical or based on data analysis, point out some of the limitations to this kind of processes.

First, Shirky (2008, 159 cited in Morgan, Eve 2012, 524) notes that «social tools don't create collective action – they merely remove the obstacles to it». While we agree that social tools do not ultimately create participation, we have reservations about their ability to remove all obstacles, in that the virtual space «is subject to inequalities in terms of access, representation, participation, and ownership» (Antoniadis, Apostol 2014, 2).

Secondly, applying those methodologies seems pertinent only under certain circumstances and mostly in «densely-populated urban areas» (Liu et al. 2020, 52) because of the big amount of geolocated data (Idem), which is less relevant to smaller towns. Moreover, digital participation – as well as non-digital ones – suffers from «accuracy and precision problems, [and] sampling biases» (Idem, 53) in terms of representation.

The third objective was to define the features of the platform to ensure its long-term attractiveness, usage and availability to all stakeholders of the participative process. The set of activities carried out to reach this objective included:

- identifying the stakeholders and their roles;
- identifying the key requirements for the future digital interface such as simplicity, adjustability, transparency, etc.;
- defining the key functionalities of the platform to enable all phases of the participative process such as education, co-design, decision-making and data collection;
- developing a preliminary design of the interface and platform architecture, including the diagram of platform operations and user interface layouts;
- identifying and mitigating accessibility issues especially by balancing social groups coverage.

Finally, the proposal required alignment with urban policies and development plans of the local authorities, realised through collaboration with the representatives of the Kotka Municipality, who provided continuous feedback and crucial information during the development process. The final pre-program, based

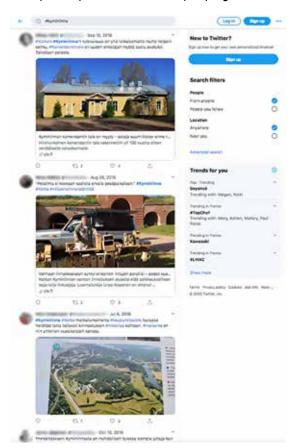


Fig.2. The exploration of social networks allowed us to enrich our analysis thanks to the participation of the inhabitants on social media. (https://twitter.com/hashtag/kyminlinna?lang=en)

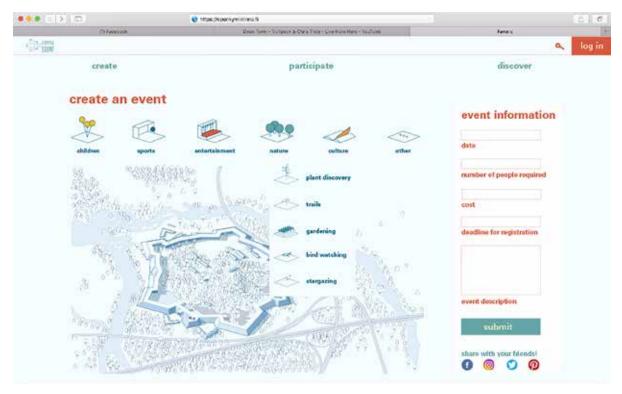


Fig.3 Visual of the OpenKyminlinna interface. The emphasis is on ease of use and virtual discussion spaces (by the authors).

on that feedback and the features inherited from social networks, aims to facilitate and develop educational, cultural and sporting events within Kyminlinna by enabling the inhabitants to create and organize events and light urban actions, either autonomously or in partnership with elected officials.

# Results: Four types of possible courses of action, spatialities and temporalities allowed by the platform

During the process, we worked on 4 possible courses of action that we set out one by one for the sake of greater clarity, even though these approaches can be intertwined. By doing so, we tried to figure out the most effective way to build bridges between online activity and its materialization in physical space – a recurrent and complex challenge in digital participation (Afzalan, Evans-Cowley 2015).

### The online action

Firstly, online activity should not be considered as a premise for the work, but as a work in itself. Indeed, despite its virtual nature, urban online activity produces ideas, frictions, discussions, acceptances, objections, etc.; basically, all we can find in the physical public space. The simplicity of use, the graphic form of the fortress model and the open character of the interface

allow the inhabitants to easily make proposals for events and submit them to the appreciation of other users. The number of participants measures the degree of acceptance, and a virtual space devoted to discussion allows for dialogues and collaboration around the proposal to issue a favourable or unfavourable opinion, ideas for improvements, etc (Fig.3).

This online activity could result in materialization in physical space in logic of complementarity between virtual and physical actions.

### The choice of "non-intervention"

Our second approach is to do nothing. This choice has already led to some successes in urban design, as in the case of the embellishment of the Place Léon Aucoc in Bordeaux (Fig.4) by the French architects Lacaton & Vassal (Anne Lacaton and Jean-Philippe Vassal, «Freedom of Use», YouTube, 2015). In addition to the success of the operation, the approach of the project shows a modest, poetic and reasoned attitude *vis-à-vis* architecture, which they describe as such:

«It possesses the beauty of what is obvious, necessary, right. Its meaning emerges directly. People seems [sic] at home here in an atmosphere of harmony and tranquillity formed over many years. [...] Embellishment has no place here. Quality, charm, life exist. The square is already beautiful» (Lacaton, Vassal, n. d.). We also

believe that immediate physical action is not always the best proposal. One of the first functionalities we have developed is precisely to facilitate social interaction and action at Kyminlinna itself, directly inspired by the "create an event" functionality of Facebook.

Moreover the Kyminlinna fortress has sufficient qualities and strong urban, historical and symbolic roots to justify this approach: there is no doubt that the protected areas will attract walkers, joggers or birdwatchers; that the lake will attract local fishermen or families or that the rich heritage will attract recreational historians.



Fig.4. Place Léon Aucoc in Bordeaux, which, according to the architects, does not require any modifications (www.lacatonvassal.com)

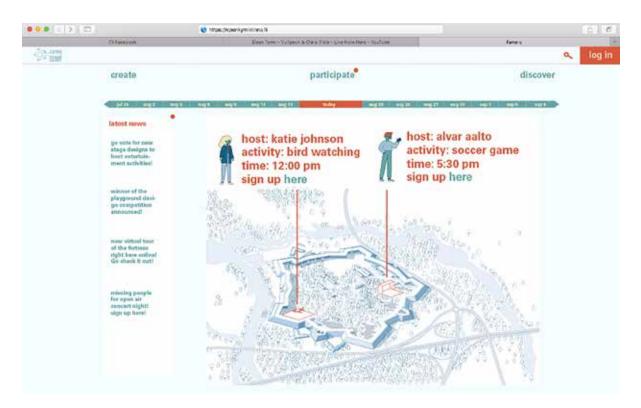
Light interventions on the basis of frequent uses

If non-intervention has undeniable qualities, notably in the preservation of the genius loci and in the immediate (re)appropriation of the place, we think that light interventions on the basis of frequent uses can make it possible to improve practices, without altering the relationship between users and the environment.

To do so, the platform relies on the analysis of quantitative data, using the same logic as crowdsourcing and qualitative data. The analysis of quantitative data is based, among other things, on the acceptance rate of the proposed events, their recurrence and the number of participants. The qualitative analysis is based on the study of proposals, debates, comments and pictures posted on the platform.

Let us look at examples. Imagine a group of friends playing soccer every Saturday. Slowly, other players join them to form three or four teams so that they could organize tournaments. Imagine also, that families meet in Kyminlinna for picnics and that a history enthusiast organizes tours every Tuesday.

The analysis of the uses would show that certain uses are sustainable and that a light action is possible (Figg. 5-6). The municipality could therefore justify investments such as goal nets; locker rooms; barbecues; tables, benches or path maintenance. This validation by use and following the proposals of the inhabitants makes it possible to invest public money without risk, without distorting the place and its practice.



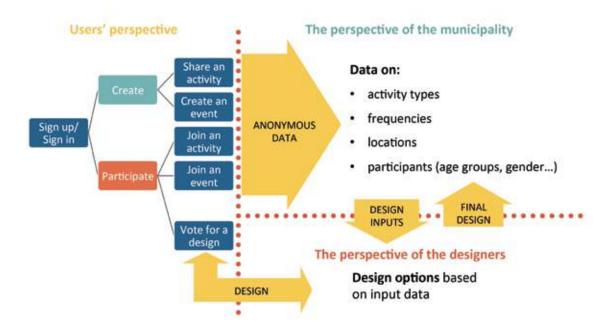


Fig.5-6 .Representation of the usage analysis leading to the perpetuation of non-intervention (by the authors).

### The "traditional" bottom-up approach

The last approach is in the continuity of the previous ones and is close to the more traditional digital mediations. It concerns events that require more significant financial support from public authorities. The fundamental principles remain the same, clearly stated by Falco and Kleinhans (2018, 18), as follows:

- collection and sharing of ideas, solutions, local knowledge;
- discussion and collaboration through opinion maps, surveys, commenting, forums;
- simulation tools such as budget allocation and 3D design:
- · voting and ranking of ideas;
- analytics features of comments, votes and general user activity on the platform.

Let us take another example. A user who wishes to organize a small outdoor festival has to submit a proposal and its conditions on the platform. If it reaches a sufficient number of participants, then online, offline and on-site discussions can take place between users and the municipality (Fig.7).

A relatively traditional participation procedure follows in order to gain financial support from the municipality. After that, the municipality may choose to hire architects and planners to draft a design that would support the popular event, then upload the design to the platform and users can vote on it. If a certain number of votes

is obtained, the project can be funded and take place within Kyminlinna. Subsequently, if the platform managers note a recurrence in the requests and the participation in cultural events requiring a stage, we can very easily imagine a perpetuation of the infrastructure, validated by the use.

### Discussion

### Temporality and spatiality

One of the main pitfalls of digital mediation lies in the spatio-temporal divergences between physical and virtual spaces and in the difficulty of bringing them together. Indeed, this divergence between the immediacy of digital technology and the long planning durations can lead to a certain form of frustration for the user and ultimately to the abandonment of the deliberative process. While developing OpenKyminlinna, we recognised these difficulties and responded by proposing more flexible alternatives in order to minimize the long temporalities of urban processes or to lengthen the immediacy of the Internet. We have relied on the principles of tactical or agile (Ottaviano 2013), DIY (Foster 2020; Antoniadis, Apostol 2014) or transitional urban design in order to respond to this problem.

By doing so, OpenKyminlinna aims to facilitate investment and the re-appropriation of public space by users through time thanks to different temporalities.

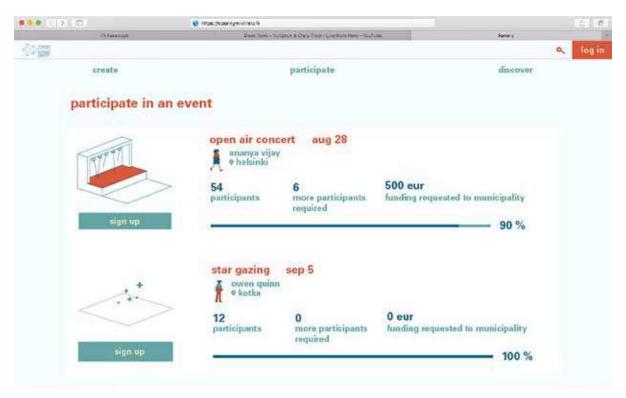


Fig.7 Visual of the "events" interface with an infrastructure request and an event proposal (by the authors).

Facilitating participation through specific digital tools

In order to facilitate participation and empowering citizens, we relied on the functional effectiveness of common social media to make it easier to get to grips with OpenKyminlinna.

We adapted these functionalities to the needs of the project, to make them more relevant for developers, but also because we believe that the architecture of the platform has a significant impact on its use (De Filippi, Bourcier 2014; Antoniadis, Apostol 2014) and that «how a technology develops, and how it is used, is a matter of social and political choice» (Flew 2018, 6). The ease of use, the care given to the interface of the platform and the forums aim to reduce the difficulty of conceptualizing, formulating and representing projects as well as the confrontation with the «technical and legalistic language which can be difficult for nonplanners to understand » (Wilson et al. 2017, 288). We chose to adopt a logic of «plug and play» (Antoniadis, Apostol 2014, 8) solutions in localized contexts that are highly graphic and take the form of easily identifiable icons corresponding to some activities. The representations are intentionally vague and need to be clarified by a text for small events or by online and offline deliberations for larger events. In doing so, the limitations stated earlier are minimized, which allows for more people to propose, participate and initiate debates or public actions. Finally, the different approaches we suggest make it possible to invest the venue and public action easily, immediately or in the long term and contribute to «converting online support into support through the traditional public hearing process» (Evans-Cowley 2010, 408).

Place and role of the user, the municipality and the urban planner

By choosing to give OpenKyminlinna a great deal of freedom by not proposing any precise program of intervention, we are committing to a logic that is antithetical to a normative urban design practice. In doing so, we do not wish to delegitimize the action of politicians or professionals, but to compensate for the frequent absence of users in the decision-making process. We consider that the implication of inhabitants is necessary during all phases of this kind of project. Moreover, «the anonymous aggregation of the choices of many» (Carpo 2012, 103) in the platform tends to bring out unexpected, complex and diverse solutions from users in a logic of collective intelligence (Lévy 1997). Although we consider the creation and use of DPPs

as an additional tool that aims to simplify collaboration between elected officials and citizens (Falco, Kleinhans 2018) in a constant feedback reflection (De Falco et al. 2017). Earlier, we proposed to establish a validation of the events and heavier actions with regards to the acceptance rate expressed by users.

However, we refuse to subscribe to a logic of "number is law" but rather consider this acceptance rate as a first step in engaging concerted design in order to develop processes that would be «fluid [...] engaging, and fitting within decision-making mechanisms that are often more static» (Wilson et al. 2017, 290).

Thus, the tool we proposed is in no way intended to replace the expertise of professionals and local elected officials, but rather to encourage collaboration «around place-based planning issues» (Evans-Cowley 2010, 407) to facilitate citizen engagement and concrete actions that could bring out unexpected forms and practices that best meet the expectations of inhabitants.

### Conclusion

The development of the OpenKyminlinna concept confronted us with several open issues.

Since the further development of the concept requires funds and a multidisciplinary approach, one of the crucial challenges is the financial and administrative capacity of the local authorities to develop, maintain and encourage the use of such a platform.

The success of the proposed digital tool – as well as in the case of a conventional participation procedure – largely depends on the level of the existing participative culture of a community. A second factor of success lies in achieving the equal involvement of all citizens' groups in the participatory process.

Furthermore, while our empirical approach may be sufficient in the context of a theoretical and small-scale study project aimed at hosting events or small architectural endeavours, its upscaling will require a more specific methodology and technical skills.

As opposed to the conventional participative design, the one based on digital platforms and social networks can be performed continuously, through a wider time span and also has the potential to achieve more transparency, since all the phases of the process are open and accessible to the public. It also enables quick alignment of the process to mitigate potential deficiencies (e.g. low representation of certain social groups). In fact, the interface of the platform designed as a 3D model, the dedicated functions and discussion places are designed to help people propose through direct communication with the municipality, providing a sense of contribution and importance of the ideas suggested. Witnessing the acceptance of the proposals given by the citizens can create a sense of ownership that is crucial for the successful design of community spaces. Since the platform was designed around theoretical assumptions, the proposal should be validated through

developing a test version of the platform, further tested in real-life conditions (living-lab).

The feedback gained can be used to improve the initial premises set by the authors and adjust the solution to user-needs, the territorial scope, social conditions and other variables impacting the acceptance of the digital tool proposed by this paper. In line with the commonly accepted notion of the hybridization of urban activities, it is already certain that hybridization of the urban design practice is the next response. This, together with adopting a wider multidisciplinary approach in dealing with the new challenges, seems indispensable to fully integrate what can be learned from social media into rapidly evolving participatory urban design.

Nicolas Descamps, Ph.D student AMUP Laboratory, School of Architecture of Strasbourg University of Strasbourg nicolas.descamps@strasbourg.archi.fr

Petra Grgasović, Mag. Ing. Arch Erkon Ltd, Zagreb, Croatia pgrgasovic@gmail.com

Alice Lemay, Architecture student McGill University alice.e.lemay@gmail.com

Opening image: Aerial picture of the Kyminlinna fortress in its 2019 state, detail. Picture provided by the municipality.

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