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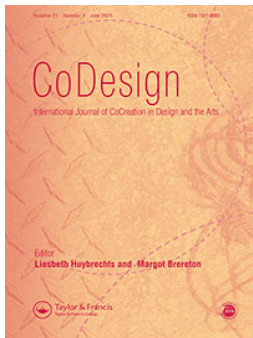
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# Untangling the participation buzz in urban place-making: mechanisms and effects

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# Untangling the participation buzz in urban place-making: mechanisms and effects

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## ABSTRACT

Place-making is a promising approach to foster strong communities in cities. While participation has always been central to urban place-making, novel approaches such as using co-design and digital technologies change how stakeholders participate in the design of place-making interventions and the potential effect of these interventions. These new approaches open up questions on how participation works in place-making and how it is facilitated to achieve the intended outcomes. Through a literature review, 23 articles were selected and analysed using qualitative analysis informed by program theory. This allows us to understand the goals and workings of participation in place-making and its influence on the place-making itself. Findings include that designers of place-making interventions often do not explicitly consider their participation goal in selecting participatory mechanisms, and that place-making efforts driven by physical space are most effective in achieving impact.

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Place-making; participatory design; neighbourhoods; literature study; program theory

## 1. Introduction

Place-making is an established approach to improve urban life and enhance social cohesion in neighbourhood communities (Kalandides 2018). The place-making Europe network, for example, unites urban planners, designers, and researchers to ‘accelerate place-making as a way to create healthy, inclusive, and beloved communities’ (Placemaking Europe 2022). Place-making programs and initiatives in urban contexts aim to transfer neighbourhoods from *spaces* to *places* (Harrison and Tatar 2008) where residents feel at home and part of the neighbourhood community (Lepofsky and Fraser 2003; Wood et al. 2019).

Although place-making is a known concept that has been widely studied in urban design literature (Borrup et al. 2021), other research fields (e.g. design and human-computer interaction (Harrison and Tatar 2008)) are becoming interested in this concept due to a strong potential and interest in using digital technologies to facilitate participation in urban planning and development.

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While place-making interventions are very often initiated and implemented from top-down, participation of local stakeholders is central to successful place-making (Kalandides 2018). Scholars (Strydom, Puren, and Drewes 2018) have called for a more democratic and collaborative approaches that support bottom-up place-making initiatives and resident participation based on partnership instead of consultation (Arnstein 1969). Such motivations and reasoning strongly align with the democratic and pragmatic ideals of participatory design (PD) (Schuler and Namioka 1993; Simonsen and Robertson 2013). Echoing Foth (2017), the PD discourse can untangle the participatory element in place-making, to design more effective and inclusive interventions.

At the same time, the use of digital technologies in urban planning is opening up opportunities for new ways for residents to shape place-making interventions. For example, using an in situ mobile phone application to acquire input from residents on how urban space can be improved (Peacock, Anderson, and Crivellaro 2018). Input can also be gathered in the digital space, for example when residents play video games (Álvarez and Duarte 2018) or use immersive technology (Globa, Beza, and Wang 2022) to experience current urban places and design future ones. This has led to the development of concepts such as hybrid or digital place-making to describe participation in place-making processes that include digital technologies (Foth 2017; Gonsalves, Foth, and Amayo Caldwell 2021). Place-making is thus a dynamic and developing concept where co-design and the use of digital technologies are increasingly playing a role in the way residents participate (Cilliers and Timmermans 2014; Foth 2017). We, like Kalandides (2018), believe that these developments can and should lead to new participatory approaches in place-making and open up questions on how these approaches work and how they impact the success of place-making interventions.

Given the increased and intersecting interest into place-making by various research domains, the knowledge is scattered, ranging from urban planning (Ellery and Ellery 2019), sociology (Lan Fang et al. 2016), community building (Teernstra and Pinkster 2016), design (Eggertsen Teder 2019), and Human–Computer Interaction (HCI) (Wood et al. 2019). How do the most recent participatory approaches in place-making work, why are they selected, and how do they influence the place-making outcomes? This paper aims to find an answer to this question by integrating the knowledge from multiple fields through a systematic literature review to find and screen potential research papers. These will then be analysed qualitatively to gain insights into what these new participatory approaches are and how these work in place-making programs to achieve the intended effects.

## 2. Defining place-making

To inform and scope the literature review, this section defines the main ideas and concepts related to place-making and participation, as well as the theoretical lens of program theory which is used in the analysis.

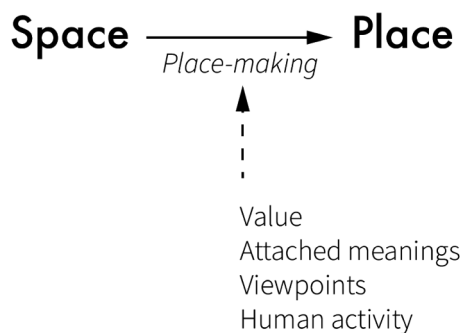
### 2.1. *Moving from spaces to places*

Places are spaces that you can remember, that you can care about and make part of your life. The world should be filled with places so vivid and distinct that they can carry significance. Places could bring emotions, recollections, people, and even ideas to mind. (Lyndon 1983, 2)

Harrison and Tatar (2008) theorise the construction of place to aid designers create technologies which support place-making. In their view, and resonated by Cilliers and Timmermans (2014), place-making is the process of adding value and meaning to a space, for it to become a place. To illustrate this point, Harrison and Tatar (2008) compare the relationship between space and place to the relationship that exists between the notions of ‘house’ and ‘home’. House here is similar to a space, in that one can describe it using abstract properties such as size or orientation. A home can be described with similar properties but may also be a property of a house, in the sense that a house can be home-like. As such, the notion of home is one that seems to have a particular value or meaning added to it, in comparison to a house. This is very similar considering space and place, echoing (Tuan 1997, 6): ‘what begins as undifferentiated space becomes place as we get to know it better and endow it with value’. Figure 1 abstracts this movement from space to place as place-making, whereby place-making is constructed through value, attached meanings, viewpoints, and human activity (Cilliers and Timmermans 2014; Harrison and Tatar 2008; Paay and Kjeldskov 2008). This paper focuses on place-making of urban spaces.

## 2.2. Place-making drivers

Various drives can support the transformation from spaces to places. In this paper, we distinguish three of these place-making drives: the public space itself, the community, and the institutions. The spatial elements of the public space, as the first driver, provide affordances for residents to connect with a place (Lentini and Decortis 2010) and with each other (Balestrini et al. 2016). Benches on a public square, for example, can be a simple intervention to foster social interactions (Jacobs 1961). Social connections are the second place-making driver. Public spaces come to life through social practices (Friedmann 2010), defining communities and the other way around (Carroll and Beth Rosson 2013). Place-making can thus be driven by the social interactions that people have in the public space of their neighbourhood (Harrison and Tatar 2008; Lentini and Decortis 2010). Formal institutions (such as the local government) also play a role in place-making processes (Foth 2017; Friedmann 2010), and hence is the third driver. Place-making is a collaborative engagement that requires the active involvement of all



**Figure 1.** Illustration of place-making: values, attached meanings, viewpoints and human activity can transform a space into a place.

interested stakeholders (community members, local authorities, commercial partners, academia, etc.) (Strydom, Puren, and Drewes 2018; Thomas 2016). On the one hand, governments need to respond to place-making movements from bottom-up (Crivellaro et al. 2015) and encourage and guide local initiatives for place-making (Friedmann 2010; Stokes 2020). On the other hand, citizens taking ownership of their neighbourhoods require negotiation with institutions (Peacock, Anderson, and Crivellaro 2018). The shape and form of such institutional support influence to what extent place-making can be achieved.

### 3. Methods

The following section outlines the use of a systematic literature review (SLR) to identify and select relevant scientific articles on place-making. The participatory design program theory (Brodersen Hansen et al. 2019) was then used as a template (Cassell, Symon, and King 2025), to support the thematic content analysis (Graneheim and Lundman 2004) of the articles.

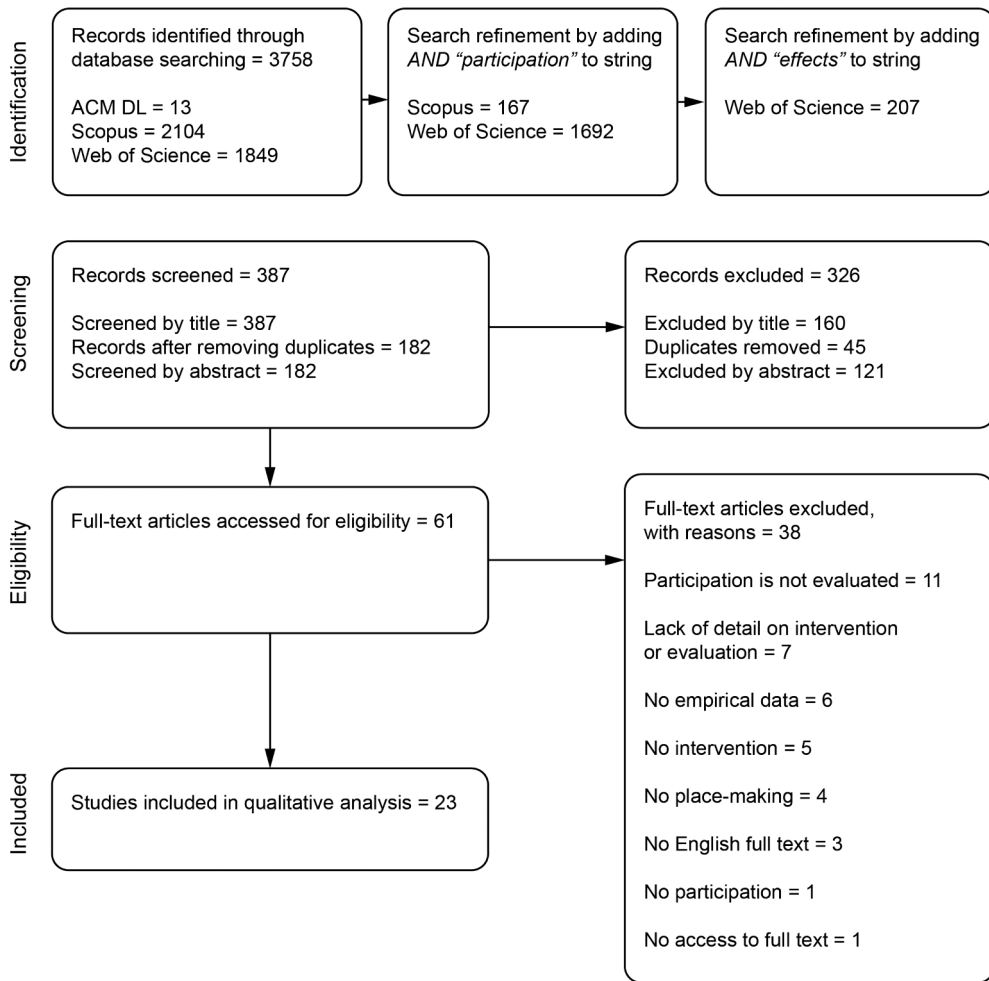
#### 3.1. Systematic literature review approach

An SLR was selected to integrate knowledge from diverging fields interested in place-making. Through its specific and systematic search strategy and approach, SLRs are effective in synthesising studies that are scattered across domains (Cottineau-Mugadza et al. 2024). The place-making literature, as we argued before, is very much dispersed. The SLR is documented using the PRISMA declaration (Preferred Reporting Items for Systematic reviews and Meta-Analyses) (Moher et al. 2009). Accordingly, the search protocol, screening protocol, and in- and exclusion criteria are outlined in Figure 2 and discussed below.

Following Creswell (2009), multiple online databases were searched: The ACM Digital Library (ACM DL), Scopus, and Web of Science (WoS) libraries, using the keywords ‘place-making’, OR ‘placemaking’ within the abstract, title, and author keywords. We deliberately chose to select only articles that use place-making as a specific term in their study, thus excluding papers that may use a place-making approach but not refer to it so specifically. Furthermore, place-making programs that focus on a virtual space were excluded. Only conference proceedings and journal articles published between January 2013 and February 2023 were included. A 10 year timespan was chosen to include the most relevant studies in the sample, following several scholars (Cilliers and Timmermans 2014; Kalandides 2018; Strydom, Puren, and Drewes 2018), who, in the last decade, called for novel participatory approaches in place-making.

The search within the ACM DL led to 13 hits, yet the Scopus and WoS libraries identified over 1500 articles (2104 and 1849 respectively). Therefore, we iterated on the keywords (Creswell 2009), and ‘participation’ was added as a keyword to the string in these two libraries. Consequently, 167 articles were identified in the Scopus library. WoS still gave 1692 articles and thus needed further refinement (Vom Brocke et al. 2009). The keyword ‘effects’ was added and resulted in 207 articles in the sample. In total, 387 articles were included in the total sample of the ACM DL, Scopus, and WoS.

Next, articles were checked to our in- and exclusion criteria (Moher et al. 2009). One researcher screened the articles using the title to check whether the article discusses place-making initiatives where stakeholders participated in some way and if it is located in the



**Figure 2.** Flow diagram of the literature search and selection of articles, following the PRISMA (Moher et al. 2009) guidelines.

urban domain. This led to 160 articles being excluded from the sample. Duplicates were removed, and the abstracts of the remaining articles were read to inspect if empirical data was collected and an evaluation of the initiative took place, focusing on both participation and place-making. Finally, 61 articles were found to be eligible for a full-text analysis.

Two researchers read the full papers and analysed whether the paper reported enough level of detail to identify activities and mechanisms of the place-making intervention. Furthermore, a second check according to the above-mentioned criteria was done. Although the abstract may have hinted at empirical work, reading the full text sometimes revealed that the paper was merely conceptual. Six articles, for example Jiang, Spencer, and Werner (2021), were excluded following this reasoning. There were also many articles (11 papers) which did not evaluate the participatory element of their place-making program, or that documented too little detail on the intervention or the evaluation to analyse the program using our analysis template (7 articles). The two researchers

discussed the papers about which they doubted whether they fulfilled the inclusion criteria. Based on consensus, 23 papers were finally included in the sample to be analysed in depth. Considering the place-making drivers introduced in Section 2.2, of the place-making programs described in these articles, twelve were primarily driven by the physical space, five by social connections, and eleven mainly by institutional support. These programs are analysed using the template and procedure described in the next section.

### 3.2. Analysis template: program theory for participatory design

We use the participatory design mechanisms and effects structured in a program theory schema (see Table 1) to analyse how different participatory place-making efforts lead to various forms of impact. Program theory comes from the field of evaluation and has been developed and used in design and HCI by first Bossen, Dindler, and Sejer Iversen (2016, 2018) who highlighted its potential for analysing and evaluating participatory design projects. This perspective was further developed by Brodersen Hansen et al. (2019) who developed a fuller schema to highlight the unique aspects and mechanisms of participatory design compared (see Table 1) to other design methodologies, specifically how certain *mechanisms* such as mutual learning is core to participatory design. This schema was then further appropriated by Falk, Kannabiran, and Brodersen Hansen (2021) to understand and critically evaluate hackathons. Their motivation was to clarify the causal relationships between hackathon organisation formats and outcomes, thus enhancing the understanding and effectiveness of hackathons as a participatory design method, and especially how participatory approaches in hackathons work to establish certain outcomes.

Table 1 shows the schema-format to represent the different facets of program theory and participatory design, developed by Brodersen Hansen et al. (2019). The best way to read the schema is right to left: the impact created by a certain programme is the result of a lot of shorter-term outcomes that are shaped by the outputs of multiple activities. For instance, following the schema in Table 1, an *activity* like a design workshop is part of

**Table 1.** The program theory schema developed by Brodersen Hansen et al. (2019) with our additional aspects in inputs and process marked in *italic*.

Input	Process		Effects		
	Mechanism	Activity	Output	Outcome	Impact
Users	Collaborative reflection	Field Studies	Social Infrastructure	Mutual engagement	Long term relationships
Designers	Collaborative ideation	Workshops	Technological products	Personal and professional skills	Democratic influence
Stakeholders	Balancing power relations	Prototyping	Problem analysis	Competence	Quality of (work) life
Design materials	Mutual learning	Infrastructuring	Design alternatives	New (work) practices	
<i>Inhabitants</i>	Knotworking	Evaluation	Domain knowledge	Organisational structures	
<i>Municipality</i>	Networking		Modified prototypes		
<i>Artists/designers</i>	Design Games		Action plans		
<i>Local businesses</i>	Urban walks		Scenarios		
<i>NGO/local organizations</i>	Storytelling		Evaluation results		



a larger PD program. This activity might take as its *inputs* various sources of inspiration and expert users, employ *mechanisms* such as collaborative ideation and reflection, mechanisms for balancing power, such as turn-taking in talking, all depending on the desired effects. The *outputs* of such a workshop might be a collection of sketches and paper prototypes, while the *outcomes* might be mutual engagement among participants about a particular topic, a prototype of a digital system or similar. All of this is aimed at, in the end, achieving some longer-term form of *impact*, for instance more equitable working conditions, workplace democracy or similar. In that sense, program allows discussing, for instance, the value of citizens learning a new set of skills, as not valuable in itself, but a necessary means for further programs of empowerment down the road.

Program theory allows us to study the participatory efforts in place-making interventions identified in the sampled papers, just like the previously cited authors consider for instance a PD project (Bossen, Dindler, and Sejer Iversen 2018; Halskov and Brodersen Hansen 2015) or a hackathon (Falk, Kannabiran, and Brodersen Hansen 2021). Given that participation is so central to the design of place-making interventions, we follow Foth (2017) in considering these interventions as participatory design programs. In short, program theory consists of both a conceptual (a theory about how we will achieve the goals of a larger effort) as well as an evaluation-part (examining and evaluating how and why things worked or did not work as intended) (Bossen, Dindler, and Sejer Iversen 2018). The program theory schema allows us to review different research projects as *programs* intended to achieve certain short-term and long-term effects.

### 3.3. Analysis procedure

The participatory design program theory schema (Table 1) provided the template for an initial analysis of individual articles, using thematic content analysis (Graneheim and Lundman 2004), through deductive and inductive coding and intercoding (Braun and Clarke 2019; Given 2008, 86). Through inductive coding, specific inputs, and activities (e.g. urban walks) were identified and added to the schema.

As a first step, all articles were divided into three groups, as shown in Table 2, based on the primary place-making driver. Then, two authors coded five articles (two physical, two social, one institutional) on a Miro board. They applied the PT schema to identify which Participatory Design activities and mechanisms were at play in the place-making program and which outputs, outcomes, and impacts were reported. Furthermore, the authors coded the types of actors involved in place-making (government, residents, local entrepreneurs, NGOs, or researchers). The intercoding of these five articles was discussed to reach consensus on the method and definitions. The remaining 18 articles were divided among the two authors and analysed using the same procedure.

The authors iterated on the analysis for several months and continuously shared and discussed their insights during the analysis (Braun and Clarke 2019). After all articles were coded, the authors analysed patterns in the coding, to formulate answers to the research question: How do the most recent participatory approaches in place-making work, why are they selected, and how do they influence the place-making outcomes?

Coding along the PT schema provided insight into the mechanisms of the participatory approaches (*how do the most recent participatory approaches in place-making work*) and their effects on place-making outcomes (*how do they influence the place-making*

**Table 2.** An overview of the 23 sample articles clustered according to the three place-making drivers.

Place-making driver	Paper
Physical space (12)	Mapping Dialectics: Ways to Understand and Support Collective Place-making in the Context of a Residential Subdivision (Roosen and Devisch 2018)
	The role of a location-based city exploration game in digital place-making (Lan Fang et al. 2016)
	Informing Streetscape Design with Citizen Perceptions of Safety and Place: An Immersive Virtual Environment E-Participation Method (White et al. 2023)
	The InstaBooth: an interactive methodology for community involvement and place-making (Guaralda et al. 2018)
	Temporary urban intervention in the vertical city: a place-making project to re-activate the public spaces in Hong Kong (Rossini 2019)
	Creating places through participatory design: psychological techniques to understand people's conceptions (Dayaratne 2016)
	Inclusive Creative place-making Through Participatory Mural Design in Springfield (MA) (Sucupira Furtado and Morgan Payne 2022)
	Engaging Children to Co-create Outdoor Play Activities for Place-making (Slingerland, Lukosch, and Brazier 2020)
	Towards a Hyper-diverse Town Center Implementing a game approach for public realm and place-making of Hackney Central (Jin 2022)
	We Are Martinsville (WAM): Leveraging Mobile Gaming for Community Engagement and Improving Health (El Khafif et al. 2021)
	Undercover placemakers: transforming the roles of young people in planning (Strachan 2018)
	Visualising urban redevelopment: Photovoice as a narrative research method for investigating redevelopment processes and outcomes (Erfani 2021)
Social connections (5)	Beyond Conditionality: Community place-making in Taiwanese Social Housing Management (Cinco Yu, Tsai-Hung, and Dabrowski 2023)
	Attracting Locals Downtown: Everyday Leisure as a Place-Making Initiative (Johnson, Glover, and Stewart 2014)
	Designing for Digital Playing Out (Wood et al. 2019)
	Contradictions in Participatory Public Art: place-making as an Instrument of Urban Cultural Policy (Brandrup Kortbek 2019)
Institutional support (11)	Place-making with older persons: Establishing sense-of-place through participatory community mapping workshops (Lan Fang et al. 2016)
	metaPLACE: Co-designing Sino-Australian Urban Media for Participatory place-making (McArthur and Xu 2021)
	place-making as co-creation – professional roles and attitudes in practice (Eggertsen Teder 2019)
	Designing an incubator of public spaces platform: Applying cybernetic principles to the co-creation of spaces (Karadimitriou et al. 2022)
	Participation in neighbourhood regeneration: achievements of residents in a Dutch disadvantaged neighbourhood (Teernstra and Pinkster 2016)
	Role of urban agriculture in the space-to-place transformation: Case study in two deprived neighborhoods, Haiti (Paul Audate, Cloutier, and Lebel 2022)
	Enhancing urban nature and place-making in social housing through community gardening (Truong, Gray, and Ward 2022)

outcomes), but did not provide an answer to *why these participatory approaches are selected*. Therefore, the authors also coded the goals, aims, and intentions of the initiators of the place-making programs to select a particular participation approach.

### 3.4. Method reflection and limitations

Following earlier contributions (Brodersen Hansen et al. 2019; Falk, Kannabiran, and Brodersen Hansen 2021), this paper used program theory to untangle and analyse how participation in place-making works. One of the challenges of comparing place-making programs is that they have diverging characteristics, for example considering the scale and time span of the program. Smaller interventions can be part of bigger programs. In

addition, a challenge and a strength is that the papers sampled came from a range of disciplines and reported following conventions in their field. Program theory helps to situate and illustrate these and provides an overarching framework that allows us as HCI and design researchers to begin to discuss what place-making is, and how it might fit into the larger efforts of our fields. Specifically, PT can help us talk about how our already existing approach might fit into the larger programs conducted for urban transformations. For instance, the YES planning approach (Strachan 2018) uses picture cards and cognitive mapping for youngsters to talk about the urban space but was conducted by urban planners and local officials, meaning that the outcomes and impacts of participatory design workshops should be evaluated for their role in the larger program. PT is then helpful to create an overarching framework that could be applied to all cases. However, a few limitations should be reported. First, program theory comes from information systems and planning research and thus more strongly aligns with human-computer interaction papers than with papers published in urban design journals. This meant that sometimes more interpretation was needed when coding papers from urban design. This limitation was minimised by selecting five articles to be reviewed by two researchers to agree on the level of interpretation and the definitions of the program theory framework.

Another limitation is that we could only code and analyse what was reported in the papers. Mechanisms that were used but not mentioned in the paper cannot be documented in the analysis. Together with the fact that in some analysis clusters only four to five papers were included (e.g. five papers in socially driven place-making), the opportunity to find any patterns is rather limited. Therefore, no guidelines or definitive recommendations are drawn up in this paper, and its contribution is positioned as descriptive and synthesising the scattered knowledge on place-making and participation.

## 4. Participation mechanisms in place-making and their effects

In this section, we discuss what mechanisms were used (the how), as well as the effects (the outcomes). All of mechanisms from Table 1 were used in at least one of the examined papers. And four papers reported outputs as effects, seven papers included outcomes, and twelve papers reported impact effects. These findings are summarised in Table 3 (and with more detail in the supplementary materials – Tables 7, 8, 9) and further elaborated below.

### 4.1. Place-making driven by the physical space

Place-making programs driven by the physical space particularly focus on using the spatial and built environment to foster a sense of place and connection. For example, We Are Martinsville (El Khafif et al. 2021) is a location-based mobile game that aims to promote healthy behaviour and community wellbeing through gameplay in the public space. This comprised a three-year-long development and testing with the local community, completing a full design cycle. Participation of residents in the design of this game is facilitated through workshops. Mechanisms such as collaborative ideation and mutual learning underlie the participatory activities, for example by allowing residents to propose their own game cards to the game. All three levels of participatory effects are reported: the game and corresponding game cards (outputs), increased physical activity

**Table 3.** The identified participation mechanisms and effects of the place-making programs. In brackets, the number of programs in which a mechanism or effect was found.

Mechanisms	Outputs	Outcomes	Impact
Physical space			
Collaborative reflection (7)	Domain knowledge (5)	Mutual engagement (6)	Long-term relationships (1)
	Design alternatives (5)	Democratic influence (4)	
Collaborative ideation (6)	Evaluation results (3)	Quality of (work)life (3)	
	Social infrastructure (3)		
Mutual learning (5)	Technological products (2)	New (work) practices (2)	
Design games (4)		Organisational structures (2)	
Urban walks (2)	Action plans (1)	Professional or personal skills (1)	
Networking (1)			
Storytelling (1)			
Evaluation results (3)		Competence (1)	
Social connections			
Collaborative ideation (3)	Domain knowledge (3)	Mutual engagement (3)	Quality of (work) life (1)
	Action plans (2)	Competence (1)	
Design games (2)	Scenarios (1)	Organisational structures(1)	Long-term relationships (1)
Balancing power relations (2)	Technological products (1)		Democratic influence (1)
Urban walks (2)	Design alternatives (1)		
Collaborative reflection (1)	Problem analysis (1)		
Networking (1)	Domain knowledge (3)		
Institutional support			
Collaborative ideation (3)	Domain knowledge (3)	Mutual engagement (3)	Quality of (work) life (1)
	Action plans (2)	Competence (1)	
Design games (2)	Scenarios (1)	Organisational structures (1)	Long-term relationships (1)
Balancing power relations (2)	Technological products (1)		Democratic influence (1)
Urban walks (2)	Design alternatives (1)		
Collaborative reflection (1)	Problem analysis (1)		
Networking (1)			

of residents and new places that residents visit (outcomes), and residents' improved quality of life due to healthy behaviour (impact).

Six of the nine participation mechanisms are used in physical space driven place-making. *Collaborative reflection* and *collaborative ideation* are mentioned most often (seven and six times, respectively). Interestingly, *balancing power relations* is never mentioned as a mechanism, while this may seem crucial when formal and informal stakeholders collaborate. The physical space provides the opportunity to design and play games to support participation in place-making. *Design games* were used in four occasions. For instance, Jin (2022) used a form of design game to generate discussions about values for urban revitalisation and to build up shared understanding and knowledge among the participants.

What is outstanding about the place-making programs that are driven by the physical space, is that many of them report outcome (3 times) and impact-level effects (7 times). Using the physical space to foster place-making invites program designers to use tangible materials and tools during activities. For example, the YES planning approach (Strachan 2018) uses picture cards and cognitive mapping for youngsters to talk about the urban space. Very often, spatial-driven place-making programs aim to engage residents in thinking about improvements for the public space. Professional stakeholders, such as

urban planners or local officials, are then involved which stimulates impact-level effects (e.g. democratic influence). The outcomes and impact of such programs can be observed and measured because they might lead to changes in the built environment or plans to make changes.

#### **4.2. Place-making driven by social connections**

Socially driven place-making programs focus on stimulating or strengthening social connections as a way to achieve place-making. The Youth Innovation in Social Housing program (Cinco Yu, Tsai-Hung, and Dabrowski 2023), for example, aimed to increase the participation of social housing tenants in the management of their housing. This program focuses on the interactions and partnerships that were built between urban planners and tenants through the program. The participatory mechanisms collaborative ideation, balancing power relations, and networking were underlying the community program. Reported effects include developed community services (output), the redefined roles of the stakeholders (outcome), and increased tenant participation (impact).

Six participation mechanisms were found for this place-making category with little overlap between papers. This suggests that the selected mechanism is unique to the case. When social connections are considered the driver for place-making, the participation mechanism needs to be chosen specifically for the context, depending on the demographics and the existing social fabric. This pattern may hint at designers of place-making programs carefully selecting a mechanism by taking the specific neighbourhood or city into account.

The place-making programs that are driven by social connections report less impact-level effects (two cases). This can partially be explained given the focus of the paper. For example, the Participatory Public Art program that ran in Denmark (Brandrup Kortbek 2019) specifically considers the social and power dynamics that were observed between artists, residents, and local governments in designing and implementing art installations to foster place-making. The effects reported remained on the output level: these were the artworks produced. The authors reflect that this happened because residents felt they had no real influence over the process. In contrast, the Participatory Community Mapping Workshops (Lan Fang et al. 2016) show that when residents are given leadership over the workshops, in this case, senior citizens leading the community walks, new social networks can be initiated towards long-term relationships (impact level).

#### **4.3. Institutional support for place-making**

Institutional place-making often includes programs that are initiated and run by authorities, such as governments. Although such programs have a top-down nature, the programs included in our analysis are participatory and hence include residents in the place-making processes. An example of this is the Community Greening program run in Sydney (Truong, Gray, and Ward 2022). The program was introduced to support six community gardens in social housing communities. Collaborative ideation, on the design of the garden and community activities, and balancing power relations were the two participation mechanisms. Six to 7 months after the gardens were installed residents reported to have gained knowledge, built social relationships, and developed

neighbourhood pride. The garden as an intervention naturally asks for continuation and in itself supports sustainment.

Considering the participation mechanisms for institutional place-making, a similar pattern is observed as in the socially-driven place-making. Seven different types of mechanisms are reported in the sample paper, and only *collaborative ideation* is found in three programs. *Networking*, *balancing power relationships*, *knotworking*, and *collaborative reflection* were found twice. The mechanisms in this category relate to building social infrastructures and dealing with power dynamics. In institutional-driven place-making such mechanisms are expected to be at the forefront. One example of this is Teernstra and Pinkster (2016) who conducted a case study of efforts to regenerate the Transvaal neighbourhood in Amsterdam. Despite efforts to foster community through networking and building infrastructures, residents still only felt able to influence small-scale decisions, leading Teernstra and Pinkster (2016) to question the legitimacy of the participation efforts conducted.

Notably, the programs in this category benefit from resources provided by the authorities. This brings the premise to achieve impact-level effects because the program is embedded within a governmental system. However, this is not always successful. The metaPLACE program (McArthur and Xu 2021) designed participatory urban media with various stakeholders, to gather input of inhabitants on the city. For example, a big public screen that displays statements on which inhabitants can respond with 'yes' or 'no'. The effects reported, unsettlingly, were only on the output level: a modified prototype of urban media and scenarios on how this could be used. This suggests that institutional involvement does not guarantee impact.

## 5. The intentions behind participation approaches in place-making

Outlined in Table 4, the analysis identified four intentions behind participation in place-making programs: capacity building, building partnerships, revitalising places, and following democratic ideals.

Four articles were grouped with *capacity building* as an intention for participation. An example is the YES Planning approach (Strachan 2018) that centralises the aim to boost the confidence of youngsters between 11 and 18 years old to participate in urban planning processes. Capacity building is then a secondary aim to the place-making program and may result in the program to be designed for this goal, rather than the place-making itself.

The second group uses participation in place-making to *build partnerships* (five articles). For instance, the long-term place-making process of Roosen and Devisch (2018) uses maps to support 'collective place-making' and evidently intends for the local community to build partnerships with the formal institutions. And similarly, Eggertsen Teder (2019) presents a thorough study of how the Berlin-based platform 'Urban Catalyst' might lead to a new role for urban planners and architects as facilitators, and citizens and users of the urban spaces as the actual producers of urban transformation. While capacity building is related to skills and competence, building partnerships is about the social component of participation, the interactions, and the relationships.

The third cluster of six articles contrasts the first two because the participation serves to *revitalising places*. Take the City Explorer Game (Pang et al. 2020), where

**Table 4.** An overview of the 23 sample articles divided into four different types of intentions behind participation in place-making.

Participation goal	Paper
Capacity building (4)	Engaging Children to Co-create Outdoor Play Activities for Place-making (Slingerland, Lukosch, and Brazier 2020) Designing for Digital Playing Out (Wood et al. 2019) Undercover placemakers: transforming the roles of young people in planning (Strachan 2018) Enhancing urban nature and place-making in social housing through community gardening (Truong, Gray, and Ward 2022)
Build partnerships (5)	Mapping Dialectics: Ways to Understand and Support Collective Place-making in the Context of a Residential Subdivision (Roosen and Devisch 2018) Beyond Conditionality: Community place-making in Taiwanese Social Housing (metaPLACE: Co-designing Sino-Australian Urban Media for Participatory place-making (McArthur and Xu 2021) place-making as co-creation – professional roles and attitudes in practice (Eggertsen Teder 2019) Place-making with older persons: Establishing sense-of-place through participatory community mapping workshops (Lan Fang et al. 2016)
Revitalising places (6)	The role of a location-based city exploration game in digital place-making (Lan Fang et al. 2016) Temporary urban intervention in the vertical city: a place-making project to re-activate the public spaces in Hong Kong (Rossini 2019) Attracting Locals Downtown: Everyday Leisure as a Place-Making Initiative (Johnson, Glover, and Stewart 2014) Towards a Hyper-diverse Town Center Implementing a game approach for public realm and place-making of Hackney Central (Jin 2022) We Are Martinsville (WAM): Leveraging Mobile Gaming for Community Engagement and Improving Health (El Khafif et al. 2021) Role of urban agriculture in the space-to-place transformation: Case study in two deprived neighborhoods, Haiti (Paul Audate, Cloutier, and Lebel 2022)
Democratic ideals (8)	Informing Streetscape Design with Citizen Perceptions of Safety and Place: An Immersive Virtual Environment E-Participation Method (White et al. 2023) The InstaBooth: an interactive methodology for community involvement and place-making (Guaralda et al. 2018) Creating places through participatory design: psychological techniques to understand people's conceptions (Dayaratne 2016) Inclusive Creative place-making Through Participatory Mural Design in Springfield (MA) (Sucupira Furtado and Morgan Payne 2022) Designing an incubator of public spaces platform: Applying cybernetic principles to the co-creation of spaces (Karadimitriou et al. 2022) Contradictions in Participatory Public Art: place-making as an Instrument of Urban Cultural Policy (Brandrup Kortbek 2019) Participation in neighbourhood regeneration: achievements of residents in a Dutch disadvantaged neighbourhood (Teernstra and Pinkster 2016) Visualising urban redevelopment: Photovoice as a narrative research method for investigating redevelopment processes and outcomes (Erfani 2021)

participation of citizens in the game is limited to providing input on improving places and gaining traction at abandoned places. The participatory motivation benefits the place-making process. Similarly, Jin (2022) presents their work on using a participatory planning game for revitalising urban spaces, and the main effects are outputs in the form of ideas for revitalisation. The reasons for organising a participatory process in the programs in this cluster are pragmatic and very much aligned to the place-making goals.

The fourth cluster of eight articles bands a value-driven goal for participation in place-making: *following democratic ideals*. Sucupira Furtado and Morgan Payne (2022) in their research take a specific focus on including minorities in the design of a place-making mural because these groups are often excluded from contemporary place-making initiatives. And in the same vein of democratic involvement, Dayaratne (2016) reports on



a study on directly involving local worker community and their families in designing a low-cost area of living for them, allowing each family to have an influence on their own living conditions and the immediate surroundings. Papers in this cluster include people in place-making programs simply because they think it is the democratic right of citizens to shape local transitions.

## 6. Relationships between participation intentions, mechanisms, and effects

To fully grasp how participation works in place-making to achieve its intended outcomes, Table 5 (with more detail in the supplementary materials – Tables 10, 11, 12, 13) maps the identified participation mechanisms and effects according to the intentions. This overview will provide insight into the relationship between these three elements as is suggested by program theory.

Comparing the participation mechanisms for each intention scrutinises whether the motivation to design a participatory place-making intervention influences the type of used mechanisms. Not surprisingly, the central PD mechanisms *mutual learning*, *collaborative ideation*, and *collaborative reflection* are found in all four clusters. The other mechanisms are scattered on two or three of the participation intentions. Therefore, no direct relationship can be identified between the participatory motivation and the mechanisms. This may suggest that designers of participatory place-making interventions do not select the mechanisms based on their participatory goal.

The four motivations for participation in place-making are also taken as a lens to inspect the reported effects in the sample articles (outputs, outcomes, and impact). Each intention cluster includes studies that report effects on all three levels. This suggests that the intention to take a participatory approach is not changing what kinds of effects the place-making may have.

This insight is further grounded when examining the specific effects reported over the four groups. Table 5 reports in bold which effects are found in all four clusters. In addition, *social infrastructures*, *evaluation results*, and *action plans* are mentioned for three of the intentions. These patterns hint at a limited influence of the pursued participatory goal on the realised effects, which is an interesting pattern that we return to in the discussion.

As a final step in our analysis, we inspected the relationship between the place-making drivers and the intentions for the participation. Table 6 puts these two lenses of analysis alongside each other. This exercise highlights two things. First, many place-making programs driven by the physical space pursue participation following democratic ideals or because they believe it leads to more lively places. Both patterns can be viewed as the most traditional form of place-making and how participation works in it: aiming to revive places through participation and the idealistic view that local stakeholders should have a say in this. Other patterns cannot be observed as the remaining papers are scattered across the drivers and participatory goals.



**Table 5.** The identified participation mechanisms and effects of the place-making programs, grouped according to the participation intention. In brackets the number of programs in which a mechanism or effect was found. In bold the mechanisms and effects that are reported in all four clusters.

Meccshanisms	Outputs	Outcomes	Impact
Capacity building			
<b>Collaborative ideation</b> (3)	<b>Mutual engagements</b> (2)	<b>Organisational structures</b> (1)	<b>Long-term relation-ships</b> (2)
<b>Collaborative reflection</b> (2)	Competence (2)		<b>Democratic influ- ence</b> (1)
<b>Domain knowledge</b> (2)	Professional or personal skills (2)		
<b>Mutual learning</b> (1)	New (work) practices (1)		
Design games (1)	Scenarios (1)		
Balancing power relations (1)	<b>Design alternatives</b> (1)		
Urban walks (1)	Socialinfrastructures (1)		
Build partnerships			
<b>Collaborative ideation</b> (3)	<b>Domain knowledge</b> (3)	<b>Organisational structures</b> (3)	<b>Democratic influ- ence</b> (2)
Balancing power relations (3)	<b>Design alternatives</b> (3)	<b>Mutual engagements</b> (1)	Quality of (work) life (1)
<b>Collaborative reflection</b> (2)	Action plans (1)		<b>Long-term relation- ships</b> (1)
<b>Mutual learning</b> (2)	Modified prototype (1)		
Urban walks (2)	Scenarios (1)		
Networking (1)			
Revitalising places			
<b>Collaborative reflection</b> (3)	<b>Domainknowledge</b> (2)	<b>Mutual engagements</b> (3)	<b>Democratic influ- ence</b> (3)
Design games (3)	Technological products (2)	<b>Organisational structures</b> (1)	Quality of (work) life (1)
<b>Collaborative ideation</b> (2)	<b>Design alternatives</b> (1)	Personal and profes- sional skills (1)	<b>Long-term relation- ships</b> (1)
Networking (1)	Action plans (1)	Competence (1)	
Knotworking (1)	Problem analysis (1)	New (work) practices (1)	
<b>Mutual learning</b> (1)	Social infrastructures (1)		
Balancing power rela- tions (1)			
Urban walks (1)	Evaluation results (1)		
Democratic ideals			
<b>Collaborative ideation</b> (4)	Social infrastructures (5)	<b>Mutual engagements</b> (3)	<b>Democratic influ- ence</b> (2)
<b>Collaborative reflection</b> (3)	<b>Design alternatives</b> (3)	<b>Organisational structures</b> (1)	Quality of (work) life (1)
Design games (3)	<b>Domain knowledge</b> (2)	Competence (1)	
<b>Mutual learning</b> (2)	Action plans (2)		
Networking (2)	Evaluation results (2)		
Knotworking (1)	Technological products (1)		
Storytelling (1)	Modified prototype (1)		
<b>Design alternatives</b> (3)			

## 7. Discussion and conclusions

How do the most recent participatory approaches in place-making work, why are they selected, and how do they influence the place-making outcomes? These questions were addressed in this paper through a systematic literature review and thematic content

**Table 6.** Integration of the two lenses of analysis (place-making drivers and participatory goals).

	Physical space	Social connections	Institutional support
Capacity building	<b>2</b> (Strachan 2018; Slingerland, Lukosch, and Brazier 2020)	<b>1</b> (Wood et al. 2019)	<b>1</b> (Truong, Gray, and Ward 2022)
Democratic ideals	<b>5</b> (Dayaratne 2016; Erfani 2021; Guaralda et al. 2018; Sucupira Furtado and Morgan Payne 2022; White et al. 2023)	<b>1</b> (Brandrup Kortbek 2019)	<b>2</b> (Karadimitriou et al. 2022; Teerstra and Pinkster 2016)
Revitalising places	<b>4</b> (El Khafif et al. 2021; Jin 2022; Pang et al. 2020; Rossini 2019)	<b>1</b> (Johnson, Glover, and Stewart 2014)	<b>1</b> (Paul Audate, Cloutier, and Lebel 2022)
Building partnerships	<b>1</b> (Roosen and Devisch 2018)	<b>2</b> (Cinco Yu, Tsai-Hung, and Dabrowski 2023; Lan Fang et al. 2016)	<b>2</b> (Eggertsen Teder 2019; McArthur and Xu 2021)

analysis with the PD program theory schema as a template. This section reports the three main findings from the SLR and further discusses these in relation to the broader discourse on design and participation and provides recommendations for future research.

### **7.1. Insight 1: designers of place-making programs do not align their mechanisms with their participation goals**

The analysis of the reported participation mechanisms in the place-making interventions did not always seem to have been selected with the intention of the participation in mind. This insight was further grounded by putting the papers alongside each other following the intentions and the place-making drivers. Notwithstanding the traditionally organised place-making programs, driven by the physical space and pursuing participation because that is what you should do, the place-making drivers seem to be more defining in which mechanisms are used. The socially driven place-making programs, for example, followed the suggestions of Thomas (2016), by selecting mechanisms based on the community culture and context, serving network building and relations. This contrasts the conclusions of Strydom, Puren, and Drewes (2018), who highlight focusing on the process (i.e. participation) instead of the outcome (i.e. place-making).

Not considering the participation process in relation to the selected mechanism is a gap and a missed opportunity. It strengthens Kalandides (2018) observation that participation in place-making is not fully understood. Designers of place-making programs do not seem to choose their mechanisms based on their participation goal. For example, if one wants to achieve capacity building, one could select mechanisms to support this. The studied article samples did not show such considerations to be made. In this way, place-making somewhat mirrors the distinction drawn by Brodersen Hansen et al. (2019) who highlight that the difference between user-centred design and participatory design is not so much in the activities used, but rather in the mechanisms powering them.

Place-making interventions are participatory, driven by democratic ideals (Strydom, Puren, and Drewes 2018). However, what participation is in place-making and how it should work is still open to debate (Kalandides 2018), and participatory design frameworks are suggested (Foth 2017) to help researchers explore how participation in place-

making works. The SLR identified four intentions to use participation in place-making: capacity building, building partnerships, revitalising places, and following democratic ideals. While there is always an overlap between the goals, because they all relate to engaging stakeholders in place-making, the goals are different in nature considering the dynamic between place-making and participation. For the first two goals, place-making is actually serving the participation process, while for the latter two, it is the other way around. Ellery and Ellery (2019) suggest communicating the aim of the participation process, and hence its relation to place-making explicitly to the participants. We have not observed many articles doing so, yet this is probably related to the studies focusing on place-making rather than their participatory approach.

## ***7.2. Insight 2: place-making programs driven by the physical space are most efficient***

The reported effects were analysed given the participation mechanisms used. Place-making programs driven by the physical space were mostly found in the article sample. This makes sense since place-making is about the spatial environment and thus this often provides the starting point (Lentini and Decortis 2010). This type of place-making regularly leads to impact-level effects, because of its tangible and observable nature – it is easier to tell when a physical space has been transformed than when, for instance, citizen empowerment has been achieved. This might skew perceptions somewhat towards thinking that physical place-making programs have more impact – the question is whether this is true – but we can observe that measuring and arguing for such changes is easier, especially in a research paper format.

Socially driven place-making programs aim to achieve a stronger sense of place through strengthening the community. Considering the reported effects, the findings indicate that the role given to residents as well as when they are engaged is crucial to go beyond output-level impacts. Seminal work such as the ladder of citizen participation (Arnstein 1969) and more recently the co-design landscape (Gaete Cruz et al. 2023) relate to this. A recommendation for designers of place-making programs, therefore, is to consider when and how to involve stakeholders in place-making, for them to build networks that last beyond the intervention.

Institutional place-making initiatives seem to have more of a networking focus in the mechanisms that were identified among the literature sample. In these place-making programs, institutions drive or support the place-making but in collaboration with other stakeholders. How the institutions do this and which role they take is, according to AlWaer et al. (2017), essential for the type of effect that place-making has. Institutions provide organisational structures (infrastructuring) to take the next step, because residents are connected with professionals who can provide resources and facilitate initiatives. An example of this is the Urban Catalyst project (Eggertsen Teder 2019) in which urban designers and planners are tasked with helping citizens and other groups create initiatives. Thereby the Urban Catalyst offers ways of interfacing with the resources of other stakeholders.

### ***7.3. Insight 3: power dynamics is a neglected concept in current participatory place-making literature***

None of the included articles reported to engage in any activities to deal with the power dynamics. This contrasts with suggestions from others (e.g. Bradley Beza and Hernández-Garcia (2018)) and the general notion in PD, where power dynamics are central (Iivari and Kinnula 2018). This is somewhat surprising, given the recent focus in place-making on bottom-up citizen-driven initiatives. Despite this, collaborative ideation and reflection were central mechanisms in place-making programs that were driven by the physical space. Given that many of these programs were successful in terms of effects, these two mechanisms seem to work to achieve place-making in the physical space, but like Teernstra and Pinkster (2016) it might be that power was only with the citizens during collaborative ideation and reflection. This echoes a criticism raised by participatory design, where Halskov and Brodersen Hansen (2015) have highlighted how PD activities are both shaped by preceding activities, and interpreted afterwards, meaning that it is not enough for participants to just be involved in singular activities. Similarly, Schneider et al. (2018) have investigated the more general notion of ‘empowerment’ in HCI through a thorough study of CHI (Conference on Human Factors in Computing Systems) conference proceedings. Their findings somewhat echo ours – some of the papers discussed by Schneider et al. (2018) focused on ‘community empowerment’, and while not explicitly the same as place-making, they also found that this form of empowerment was often done using an ‘expert’ rather than a ‘participatory’ mindset. This translates into a focus more on the outputs (that citizens were involved for instance), rather than a focus on who has the power to act in certain situations. Based on this, it would be valuable for researchers to focus on potential useful activities and associated mechanisms that might level power-relations when involving people affected by place-making.

### ***7.4. Recommendations for future research endeavours***

The three insights increase our understanding of place-making effects on neighbourhoods and how participation plays a role, yet also highlight new questions for future research endeavours. The first recommendation is to further study ways to measure the effects of place-making, especially for programs driven by social connections and institutional support. Our study showed that there are fewer effects reported in these types of place-making, and we hypothesise the underlying reason is not the way the program is designed, but rather the way of measuring effects. The second recommendation is to focus future research on the influence that power dynamics play within place-making since our study reveals that this is a neglected concept within the current literature.

Very few place-making programs used digital technology or prototyping as a mechanism in the article sample. Najafi et al. (2022) with their literature already identified this gap specifically for senior citizens, and this study extends their conclusion towards a broader group of residents. The exceptions to this (El Khafif et al. 2021; Jin 2022; Karadimitriou et al. 2022; Pang et al. 2020; White et al. 2023; Wood et al. 2019) use digital artefacts to facilitate place-making but mostly do not allow residents to co-design the technology. As such, stakeholders are subjects rather than co-creators of the place-

making technology. The third recommendation for future research, therefore, is to expand participatory approaches in place-making including digital technologies, where participants are also co-designers of this technology.

Participatory approaches in place-making are very much under development and this paper provided three insights into the effects of place-making and the role of participation. The study showed how mechanisms for participation were not always explicitly chosen based on the goals of having participation with citizens but rather for the overall goal of place-making, such as transforming a physical space, creating social connections, or building up infrastructures. While that is valuable in itself, democratic involvement of citizens requires that they can participate directly in choosing *what* transformations they would like. In this aspect, place-making still has some ways to go, as does design and HCI, and this SLR exchanges the available knowledge within these distinct discourses.

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