The Act(ivat)or's Toolbox: Expanded Roles, Actions, and Parameters in the Production of the Urban Commons

It takes more than a physical intervention to produce successful urban public spaces. As more and more urban spaces are formed and activated from the bottom up through citizen-architect collaborations and initiatives, the design tasks involved need redefinition. This paper is based on the premise that any successful urban public space is a product of the complex interaction of architectural, social, temporal and representational parameters.¹

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INTRODUCTION

The paper examines and expands these parameters in the context of public space generated from the bottom up, arguing that the design considerations must include in equal measure the configuration of the physical construct, the choreography of the use of the space, the formation of its image, and the integration of citizens into the process. To do this, both tactical (possible *actions* in space) and strategic (rules and structures conceived for the longer-term *activations* of space) ways of working must be integrated into a process that is in itself an object and outcome of design. The subject of this paper are bottom-up interventions that aim to produce public space as a new type of urban commons, collectively made and managed. If the parameters for the bottom-up activation of public space (and their corresponding knowledge areas) can be unfolded around the known terms of *hardware*, *software*, *orgware* and *brandware*, then the design of such spaces must also bring into play the consideration of a process that productively integrates the expertise of all participants—put forward here as *formware*.

The following paragraphs outline the context of contemporary urban commons and their challenges for the role of architects. A brief review of the parameters associated with the production of public space as urban commons is followed by the description a studio project in collaboration with a local community. As a case study for the potential organization of work on *hardware, software, orgware, brandware* and *formware* in practice, it also serves to propose a pedagogy for integrating knowledge building in these areas into architectural education. A final paragraph summarizes the expanded set of skills and knowledge associated with the role of the architect in the production of an urban commons.

EXPANDED ROLES: PUBLIC SPACE AS URBAN COMMONS

The term "urban commons" has seen a revival in both academic writing and the public press. The reasons come as no surprise: global economic crises and austerity policies have taken their toll on public services and investment in public space. Increased population density in cities makes open space more and more scarce. Privately owned public open spaces (POPOS) frequently replace urban spaces that allow limitless access and collective freedom of expression. At the same time, in the age of the collaborative economy, city dwellers are increasingly receptive to ideas of participation, shared ownership and collective management². Citizeninitiated public space projects like Madrid's "El Campo de Cebada", a collaboration between local citizens and the architecture practice Zuloark, tell a story of activation and stewardship that brings back the original understanding of the "commons": shared land, or resource, managed by the collective entity of those who use it. A derelict former public square about to be turned into a private sports facility, El Campo de Cebada was reclaimed by citizens of the neighborhood who developed physical interventions and cultural programming in collaboration with designers and, ultimately, with government approval.

The notion of "commoning" is different from "public" in that it requires active participation³. In order to avoid the exploitation of shared resources—the "tragedy of the commons" as first described by William Forster Lloyd⁴—the rights of usage of the commons come with obligations, including a participation in its management. Correspondingly, it can be argued that an active public space—if it is understood as a contemporary urban commons—cannot function without strategies for programming and long-term stewardship⁵. Rather than assigning this task entirely to public or private entities, recent models for activating public spaces from the bottom up experiment with durable cooperative institutions that are organized by the space's users⁶. Understood in this way, the urban commons are in equal parts process and resource⁷: as much concerned the formation of local relationships and mechanisms for organizing activities as they are with the space itself.

EXPANDED ACTIONS: STRATEGIES AND TACTICS COMBINED

Architects participating in such projects, no longer work in the conventional client relationships of earlier top-down models. They become active participants who insert themselves into local relationships and foster productive links between existing local resources and expertise. This paper uses the terms *actor* and *activator* to describe the expanded role taken on by architects and designers working with citizens on urban public space. The term *actor*, here, describes the often much more direct immersion of architects in the form of an ongoing dialog with citizens, and through participation in full-scale construction. Architects as *actors* become involved hands-on tacticians in close connection with a community as client-collaborator. At the same time, if bottom-up interventions are to have long-term impact and are to produce a lasting version of a commons, more than this direct action is needed: The architect as *activator* is tasked with anticipating future scenarios, using his or her knowledge and expertise to catalyze and structure processes over time—processes that they are no longer themselves involved in. As *activators*, architects devise strategies in the form of a long-term plan of action, a process towards a collective goal.

Outside of a military context, strategies and tactics have frequently been described as opposites: Strategies are the domain of those with power and control, be they a government or business. Tactics operate opportunistically, and are the purview of the weak as they adapt to the environment created by the strategists⁸. The latter has been the mode of operation for many of the sanctioned and unsanctioned bottom-up urban projects that have activated urban space. Yet, 10+ years into the popularity and ubiquity DIY urban projects, a reinterpretation of the relationship between strategy and tactics is necessary. In the context of collectively produced public space as examined by this paper—where the polarities of public and private give way to a primacy of the collective—the tactical has little impact if it is not paired with strategies that ensure the existence, maintenance and impact of an intervention over time. Rather than being antithetical, short-term tactics and longer-term strategies are different layers that need to be developed jointly to ensure successful long-term activation of public space. In the following paragraphs, strategies and tactics will be discussed as integral to the parameters that make up successful public space.

EXPANDED PARAMETERS: TERRITORIES OF INTERVENTION AND KNOWLEDGE

To examine the public space arenas in which an architect, as both actor and activator, intervenes, the individual parameters that contribute to the production of successful, active public spaces need to be unpacked. At its foundation lies urban space itself: its location in the city, its physical form, its accessibility, positive qualities like shade for hot climates, and formal attributes that allow for uses at various scales—by individuals, and for group interactions and large gatherings. Yet, if we follow Henri Lefebvre's observations on the city, what makes something 'urban' is not so much its size, or physical parameters, but the processes of interaction that make up everyday life⁹. According to Lefebvre, the production of space is a collectively created place of encounter based on local rhythms and uses¹⁰, a space of the playful and the unexpected¹¹, produced and reproduced in a dynamic process. Space achieves meaning through lived experience, and its urban quality takes form through the activities and interactions of those who use it. Lefebvre's understanding of urban space shifts our attention from the space itself to the processes of its production.

The formal-spatial manifestation in dialog with the layer of lived experience and social interactions, have frequently been described as the hardware and software of a space¹². In literature, the exact use of the term *software* varies from programmed space¹³, to the implementation of ideas and knowledge¹⁴, to meanings and interpretations (through use)¹⁵. Yet, these different uses of the term share the understanding that the physical form is read, understood and shaped through activities taking place in it. The German term "Bespielung" ('to transfer play onto something') aptly describes software as both the act of playful interpretation, and the temporary addition of something that has its own rules and content¹⁶. In addition to hardware and software, the Dutch research and planning practice "Crimson Architectural Historians" have described a third parameter, orgware (organization-ware)-a term that describes the layer of administration and the underlying rules and structures that enable any project to function¹⁷. Orgware negotiates between software and hardware¹⁸ and connects stakeholders. It can be seen as the organizational intelligence that makes things happen: the connections between a set of stakeholders, the schedules, the rules that structure what takes place in a space, and who is responsible for what. A fourth parameter also has its roots in Lefebvre's writing: the way a space is conceived and perceived, and ultimately, represented¹⁹. This includes on the one hand the understanding formed internally—in someone's mind-through experience. On the other hand, this layer also includes the way a space is represented to an audience through various forms of communication and media. Mona El Khafif has described this layer as brandware—a layer that deals with knowledge about a space, with marketing, and with the manipulation of perception as information is selectively brought to the attention of an audience²⁰.

The above parameters have originated at different times and were formulated in relationship to a specific context: an understanding of the city (Lefebvre), masterplans for housing (Crimson), and culturally programmed urban spaces (El Khafif). Yet, they retain significance in the context of creating or activating urban common space from the bottom up: the physical form and the conditions provided (*hardware*) in dialog with desired activities and social interactions (*software*) remain critical; the organization of what takes place in the space in order to keep it active and establish rules for its use (*orgware*) are equally necessary; communicating information about activities, the production of a positive image, and the projection of this image towards a relevant audience (*brandware*) are important components of the success of any active public space. Yet, when it comes to the production and activation of a contemporary urban 'commons' that is neither led by a government agency nor the purview of a private entity one more component appears critical: that of designing a process that choreographs the interaction of all stakeholders (citizens, architects, and other collaborators) and ensures the productive use of their respective knowledge and expertise. This includes structuring work flow, feedback sessions and team interactions across the involved participants The production of the urban commons itself has to be designed. This paper introduces the term 'formware' for this fifth layer, appropriating the way the term 'form' is used in dance choreography where it describes movement itself, including the occupation of space, timings, the specific use of the body: form understood as opposite to content and expression.

Formware in dialog with orgware develops longer-term frameworks for the production and the life of a space. Together, they provide a strategic mode of operation that can work in dialog with, and can adapt to, the tactics employed to produce *hardware, software*, and sometimes *brandware* parameters. All of these layers are codependent, and it is only their close interaction that generates successful space. The parameters of orgware, brandware, and formware expand the conventional knowledge areas and tools of architects. Yet, in the context of producing urban collective spaces in collaboration with local citizens, architects are ideally positioned for involvement in all of them, combining tactical and strategic modes of operation, and developing connections between all layers. The following paragraphs examine a studio project within an urban commons project that explicitly works with these five parameters in dialog with a local community.



A TEST CASE IN PEDAGOGY AND PRACTICE

context_ The studio in question was a three-week summer travel studio concerned with the formation of public space. Its pedagogy combined first-hand observation through site visits with hands-on immersion in a full-scale project in collaboration with a community. To understand the complex layers for the production of successful urban public spaces, the travel portion of the class contrasted two cities, Vienna and Madrid, that provide examples of complementary mechanisms for the formation of public space: Vienna has a long history of investing in both the public realm and social initiatives. It offers a range of recent projects that combine innovative strategies for producing contemporary, flexible, and highly programmed spaces within urban space typologies from several centuries: from the Museumsquartier in the city center, to locally and communally developed neighborhood spaces like the Sargfabrik Coop. Madrid's recent economic struggle, on the other hand, has sparked the evolution of a culture of sanctioned and unsanctioned bottom-up urban initiatives, fostering opportunistic public space projects. Long-term projects like Esta Es Una Plaza and El Campo de Cebada demonstrate models reliant on a tight group of citizens who act as stewards. Together, the two cities provided a rich set of case studies to shape a dialog about the parameters that shape public space—its physical form and urban relationships, the social interactions catalyzed, the role of local values and culturally rooted activities, the underlying programming and economic models, and the formation of image and cultural significance. This allowed the studio travel component to become a platform for conversation about how architects, designers and artist in the role of 'urban act(ivat)ors' insert themselves into the larger physical, social, economic and cultural forces that produce urban space.

Figure 1: The San Cristóbal site in its original state (left), and in 2015 before the studio's intervention.

*site and project*_ The project site for the studio work was the space under a freeway overpass known as Puente de Colores (Fig.1) in the San Cristóbal neighborhood of Madrid. On the outskirts of the city and home to different immigrant groups, this neighborhood has been lacking in public spaces, employment opportunities and social infrastructure. The Puente de Colores site is located at the edge of the neighborhood in proximity to its only park. It is a big open space with three 'islands' of flexible furniture (stacks of wooden platforms), divided by a street with frequent car traffic. Basurama, a Madrid-based artist collective concerned with issues of urban consumption, waste and reuse at multiple scales, has been working with the community of San Cristóbal in the framework of their *Autobarrios* (Self-Made Neighborhoods) project. *Autobarrios* uses the collective production of an urban condition or space as a tool for empowering the community²¹. Basurama's efforts are focused on local resources, their relationships, everyday life and activities and the spaces that contain them. The *Autobarrios* project in San Cristóbal began in 2012 and continues to develop the Puente de Colores as a space that is both informal and local, but can also serve as an outdoor cultural center and reach a larger public when events are being held.

Basurama has been providing orgware through the creation of a network of local non-profits, professional partnerships and industry as resources that have supported the project through funding, donations, activities and expertise. As part of what can be considered Basurama's formware for the space, a different collaboration, national or international, contributed to the production of hardware for the space each year: BoaMistura, well-know graffiti artists, collaborated with local youth on murals in 2013; the french architecture group Collectif Etc developed multifunctional urban furniture in 2014; and in the summer of 2015, a group of architecture students from California College of the Arts were invited to collaborate on further additions to help with its activation. Their work, and the nature of their involvement, is the subject of this case study. The short-term task was the design, development and construction of a stage backdrop for an upcoming TEDx Madrid Salon to be held in the space under the bridge, including a screen for projection; simultaneously, the student team was tasked with improving the activation of the space through more frequent uses going forward. Despite the current hardware of flexible wooden platforms for seating, the space is not used on a daily basis and tends to falls into disrepair; trash accumulates; the 'urban commons' of San Cristóbal are not yet working.

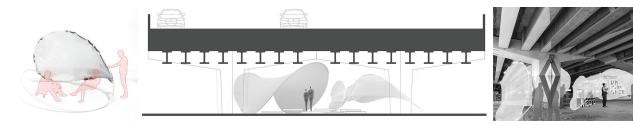
PEDAGOGY

configuring the team_ The studio was set up as a cross-disciplinary course in order to integrate expertise outside of architecture. Design MBA students and sculpture students with interest in public space and community engagement joined a group of architecture students in their final years of a BArch or MArch program. The collaborators in Madrid included members of Basurama (the initiators of the project), Teamlabs (an educational company that provides platforms for social entrepreneurship), Casa San Cristóbal (the local neighborhood organization and cultural center), and Fundaçion Montemadrid (a center for culture and social exchange). The two studio instructors added expertise in public space formation and experience with design-build projects.

configuring the framework_ Based on the five parameters described above, the scope for the studio was outlined as follows: Students needed to understand the specific qualities of the existing space and produce flexible deployable structures that could address both shortterm and long-term needs for the activation of the space (*hardware*); social activities and local patterns of use needed to be researched in order to ultimately link existing and possible activities to the space under the bridge (*software*); local organizations, citizens, and institutions that do or might benefit from using the space needed to be connected into a mutually beneficial network that could make activity happen on a regular basis (*orgware*); and the current perceptions and representations of the space in the local population as well as the media needed to be understood in order to contribute to the strengthening of its image and presence (*brandware*). Lastly, it was critical to understand the goals and expertise of everyone involved in order to develop a process that took advantage of everyone's knowledge, and to build in moments of productive overlap and feedback (*formware*).

To ensure a reciprocal relationships between the parameters during the process, three teams were formed, each around the intersection of two categories. Team 1 bridged between *hardware* and *software*. It was tasked with developing the physical components for the stage environment, while integrating the long-term needs of the community into the design considerations. Team 2 worked at the intersection between *software* and *orgware*. Its tasks included engaging the local social context, researching existing activities and desires, and uncovering space needs and potential links between local organizations and institutions. Team 3 was concerned with the overlap of *orgware* and *brandware*. Its research assembled all available information disseminated by various stakeholders that had impacted the perception and representation of the space both locally and online in the past three years. The goal was to further shape the site's identity through communication strategies, and to promote it to a larger audience in the process. The different backgrounds of the students were distributed across the teams. In addition, one to two people in each team served as 'links' to the respective other teams, keeping them abreast of ongoing work on a daily basis.

Supporting the work in these four categories, the instructors, with input from student leaders of the three teams and supported by members of Teamlabs and Basurama, operated as a *formware* team. The *formware* team shaped the work flow and the feedback sessions between teams internally, and between the teams and the community. The *formware* team also structured the schedule around the physical construction to enable community participation, and the concurrent documentation of the work including the production of printed 'handbooks' for the community for later use.



*configuring the process*_ A construction method—tensile membrane structures to cope with a short time frame and financial constraints—was given and tested in a three-day workshop with all students before travel and team formation, so that everyone in the course was familiar with the construction technique and its space-making potential. As invited participants to an ongoing community project, it was critical not to arrive with a fixed design, imported into a little-known context. Therefore, the workshop was set up to develop "form families" as part of the experimentation with the construction method. These early formal studies described possible constructs, their potential uses, and options for their deployment on the site via model photographs and collages (Fig.2). These visualizations showed their role in, and effect on the space, as well as their relationship to the scale of the body. They were compiled into a booklet and sent to the community in Madrid before traveling there, giving the community a three-week feedback period. Upon arrival in Madrid, a first discussion session with neighborhood representatives and local collaborators served to set a design direction based on feedback on these formal studies.

Figure 2: Examples from the "form families" studies.

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Once on site, team 1 developed four full-scale constructs based on spatial and material constraints while considering possible uses in connection with Team 2. Team 2 developed a questionnaire about desired activities and the perception of the space under the bridge, and interviewed citizens in the neighborhood. Simultaneously, posters were put up in key locations of the neighborhood as ad-hoc message boards to capture input from different groups and generations (Fig.3, left). This process was augmented through a drawing event held with kids from a local summer camp, collecting their desires for the space. In addition, Team 2 conducted research into organizations operating in the neighborhood. This research also revealed the perception of Puente de Colores within the local population. Team 3 gathered all information available on the Puente de Colores in social media, news and blogs. In response to the findings, Team 3 proposed a more centralized presence of the site through a Facebook and Wikipedia page that could connect all the existing information, including the development of a logo.



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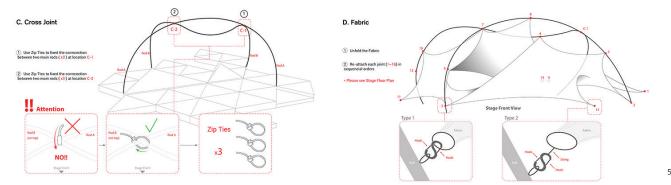
Community feedback accompanied, and at times, redirected the work. Team 1 learned that leaving the constructs on site permanently was not an option, which focused the design on easy set-up, detachable connections and options for transport and flat storage. Team 2 discovered that a network of organizations were already holding events in the neighborhood, though not in the space under the bridge. This shifted Team 2's work towards identifying existing regular events, augmenting them with suggestions for new ones, and proposing specific ways in which the physical constructs developed by the studio could be used to facilitate these activities under the bridge. Maintenance of another Facebook page was not considered feasible by representatives of the community, who (via Casa San Cristobal and Autobarrios) had an existing Facebook presence that was already difficult to keep active and updated. Instead, Team 3 promoted the daily activities and changes through social media platforms under the name of the studio (Urban Act(ivat)ors) and worked on communicating longer-term orgware proposals to the locals. As a further part of the formware concept, members of the community were also invited to participate in aspects of the construction of the deployable structures on the site: Summer camp kids assisted in temporary signage to the space, and were taught skills as they helped with construction.

*results*_ At the end of the process, the products of the studio touched all layers for public space activation: the four-part *hardware* for the site included a stage backdrop with a back-stage area (Fig.4, left and center), a projection screen, and two mobile 'shells' that could organize traffic flow for large events, but also define small areas for reading events and sheltered play spaces (Fig.4, right). All structures are quick to set up and easy to store when not in use. The studio also compiled easy-to-follow visual instructions (Fig.5) for set-up into a handbook that was left with the community's cultural center where the components are stored. In addition to the physical constructs, the studio produced a *software/orgware* document

Figure 3: Community input through poster and final message board

outlining scenarios for the deployment of the structures during specific activities including photography classes, reading spaces, venues for small theater performances, movie nights, etc. This document took into account activity time frames, the simultaneous presence of different groups on the site, and (where not already existing) proposed collaborations of local organizations and potential sponsors. As part of *orgware/brandware*, a message board was constructed and left permanently on the site to gather further citizen feedback and announce future events, improving their visibility to locals (Fig.3, center and right). The site's bilingual Wikipedia pages went live, and the documentation of the project for Puente de Colores was picked up by various blogs and news outlets—a small contribution to shaping the evolving image of the space.





THE ACT(IVAT)OR'S TOOLBOX

The studio plugged into an ongoing process of development of an urban commons in the San Cristobal neighborhood. Many of the aspects of this project are unique and cannot be generalized or transferred in their specific form to another context. The compressed time scale of a three-week travel studio also presented unique circumstances. Yet, the engagement of multiple parameters in addition to the physical conditions extends beyond the specifics of this project to other processes that aim to develop urban space as a commons. Both the long-term endeavor around Puente de Colores and the studio's intervention show that interrelated *hardware, software, orgware* and *brandware* components are critical to enabling both short-term uses and long-term success. The complex and sometimes conflicting desires of stakeholders and collaborators highlight the importance of designing a process—*formware*— in which all parameters are developed in close dialog with one another, and in a structured dialog with local constituents.

Considering the difficulties of engaging a different cultural context with the studio, the *formware* layer was also critical to the success of the dialog between students, collaborators, and community. While in a pedagogical context, the role of generating *formware* naturally falls to the instructors, it is critical in any project configuration in which various stakeholders with

Figure 4: Final physical constructs

Figure 5: Excerpts from the assembly instructions

ENDNOTES

- 1. see Mona El Khafif, Inszenierter Urbanismus: Stadtraum für Kunst, Kultur und Konsum im Zeitalter der Erlebnisgesellschaft. Saarbruecken: VDM, 2009. p.17
- Justin McGuirk. "Urban Commons Have Radical Potential—It's Not Just About Community Gardens". The Guardian, accessed Sept. 22, 2015, http://www.theguardian.com/cities/2015/jun/15/ urban-common-radical-community-gardens.
- for a definition of the commons, see Peter Linebaugh. Stop Thief!: The Commons, Enclosures, and Resistance. Pm Press, 2014. p.14
- 4. Lloyd, William Forster. *Two lectures on the checks to population*. England: Oxford University, 1833.
- 5. Justin McGuirk. "Urban Commons".
- see Ostrom's analysis for different and hybrid models in Elinor Ostrom. Governing the Commons—The Evolution of Institutions for Collective Action. Cambridge University Press, 1990.
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- Michel de Certeau. The Practice of Everyday Life. Berkeley: University of California Press, 1984. p. 36–37
- Christian Schmid. "Henri Lefebvre, the Right to the City, and the New Metropolitan Mainstream" in Cities for People, Not for Profit, Neil Brenner a.o. editors. New York: Routledge, 2012. p.49
- Lefebvre, Henri. "The Right to the City." Writings on cities, Vol. 63, no. 2. Oxford: Blackwell, 1996: 63-181. p.178
- 11. Lefebvre, Henri. *The Urban Revolution*. University of Minnesota Press, 2003. p.39
- see for example Bernhard Butzin, "Was macht die Industrieregionen alt—Das Beispiel Ruhrgebiet", in: Berichte zur deutschen Landeskunde, Bd. 67, H.2 (1993), S. 243–254; Rients Dijkstra, Michelle Provoost and Wouter Vanstiphout, "30,000 houses near Utrecht", in Archis, Nr.8, 1995, pp.70-80; Mona El Khafif, Inszenierter Urbanismus: Stadtraum für Kunst, Kultur und Konsum im Zeitalter der Erlebnisgesellschaft. Saarbruecken: VDM, 2009, among others.
- 13. Mona El Khafif. Inszenierter Urbanismus. p.20
- 14. Dijkstra a.o. "30,000 Houses".
- Michael Speaks in Rahul Mehrotra, Ed., Everyday Urbanism, Margaret Crawford vs. Michael Speaks, Michigan Debates on Urbanism, vol. 1. New York: Arts Press, 2004, p.18
- 16. Mona El Khafif. Inszenierter Urbanismus. p.65
- 17. Dijkstra a.o. "30,000 Houses", p.71
- 18. Michael Speaks, Everyday Urbanism, p.39
- 19. see Christian Schmid. "Henri Lefebvre". p.51
- 20. Mona El Khafif. Inszenierter Urbanismus. p.20
- Basurama. "Autobarrios/Self-Made Neighbor- hoods", accessed Sept. 21, 2015, http://basurama.org/en/projects/ autobarrios-self-made-neighborhoods/

different knowledge and expertise contribute to a common goal. In this particular studio, students were put in leadership roles that allowed them to structure a part of the process in relationship to team interactions. In a situation without student involvement, structuring the process to ensure productive integration of varied individual expertise becomes the purview of the architect. In addition to immersing themselves into the context as *actors* (participating tacticians), architects (as *activators*) have to add to their skill set the strategic design of processes that combine design knowledge and local expertise into the productive long-term evolution of today's urban commons.