

DESIGNING PHYGITAL PUBLIC SPACE

At the intersection of the physical and digital space

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I INTERSECTION BETWEEN PHYSICAL AND DIGITAL

For the first time I actually encountered a moment in which my preliminary thoughts of my position within the study and the discipline itself was confirmed. This happened to be during the first lecture of the course, provided by Jorge Mejía, in which he raised the question: „why are we told that certain things are very important?“. Mejía used the Villa Savoye to illustrate this way of thinking. He stated that Le Corbusier developed and defined a set of five principles which represented his techniques for designing, forming his personal ‘law and principle’. Years later, Le Corbusier had grown to a truly renowned and praised icon within the discipline of Architecture and so we, as upcoming architects, get familiarized with Le Corbusier’s way of designing: with his laws and principles. So when we see and get lectured upon the Villa Savoye, it is presented as a correct embodiment of Le Corbusier’s personal law and principles, which are in fact the results of his researches through the years. In other words, these five principles are born out of certain methodological ways of researching and designing that are representative for Le Corbusier. So, by giving this example, Mejía intended to raise the question: why is this Villa Savoye important to us? I find this a very interesting question and as I said, it would not be the first time for me to think this way. Is this somehow a form of determinism within the study of architecture? Is it then a complete strange thought to sometimes maybe question the validity of the methodological approach of others, when we are urged on the other hand to discover our own personal laws and principles? Of course, by looking at ‘others’, whom are true icons and have been of great influence on our discipline, we can slowly adapt and develop our own styles and ways of doing research. But, sometimes, I get the feeling that it is not just about getting educated on works like the Villa Savoye, but about making sure that this object is recognized as a one-to-one reflection and symbol for what true Architecture is supposed to be like. However this inspirational example does not relate directly to my topic, it is representative for my own position within the discipline and the way I look at certain things.

To introduce the topic for the research, I want to highlight a statement of Ray Lucas in which he claims that architecture is an ever-developing body of knowledge concerned with how we use space.¹ How we use space is influenced by how this space is physically designed. The topic for my research emerged from a certain interrelation that I noticed between the way architecture and the built environment influences social behavior and use of space and now in the contemporary society in which social behavior and use of space is influenced by the new digital/virtual realms like social media. Social, political and cultural activities that took place in the physical spaces, like public open spaces, are now either influenced or (partially) taken over by the new digital spaces like social media. So the interrelation lays between the two realms: the physical and digital environments. The research aims to explore potential possibilities in intersecting the physical and digital layers at the location of public spaces. The possible intersection between the physical and digital will be referred to as the ‘phygital’. The research question for this paper would then be: How can layering as an architectural method for research contribute to possible ways of intersecting the layers of physical and digital public space?

II PHYSICAL, DIGITAL, PHYGITAL

Since the aim of the design research is to propose a new future urban paradigm of public space which is situated in between the physical and digital space, the methodological research is divided in three parts: part one aims to research the physical context and part two the digital context. With the findings of part one and two, part three will explore the possibilities for actually intersecting the physical and digital and putting forward a design-proposal

The overall research is mainly theory led and has an interdisciplinary foundation, because the physical and digital layers are both also much related to social human behavior within these environments. An emic position is almost unavoidable because I find myself in a generation that grew up simultaneously with the technological developments that led to digitalized environments like social media. I want to use this emic position when building up the narrative around the graduation theme,

also to position myself within it. But as Lucas states² it will be a move between the two positions of etic and emic. Especially while setting up the theoretical framework and approaching possible outcomes for phigital spaces, probably an etic position would suit better from a designer's point of view, trying to address multiple target groups instead of putting personal preferences or experiences first.

Researching the physical context is mainly ontologically oriented and is meant to find out more about the contemporary physical public space as a type. This research was up to now carried out mainly through qualitative and dialectical literature review, where initially was looked at the general perception of public space and the 'idealized notion' of what this would be: public space like an open and inclusive stage for social interaction, political action and cultural exchange³, which may be seen as the thesis. Contrasting this idealized notion, or utopian state of public space as Carmona calls it⁴, I looked into the critiques on public space to discover the other side of the argument, which can be seen as the antithesis. Hereby, Carmona's attempt to categorize the dominant critiques on public space in literature by making a subdivision of nine types of 'pseudo public space was useful: neglected, invaded, exclusionary, consumption, privatized, segregated, insular, invented, scary and homogenized space.^{5 6} This helped to frame the complexity of the discussions about contemporary public space and led to the realization that we must not think of public space as an utopian place, but still have to recognize it's important values. Because of the naturalistic approach of this specific research the outcome is not a real thesis but was meant to describe the complexities around the discussionS. In the next steps I tried to identify contemporary urban typologies of public spaces and although there are some typologies that are generally recognized, I also concluded that every architect, urbanist or theorist basically puts forward their own perception of it, often specific to the context of their researches. This made me realize that I had to narrow down the research and maybe look for certain urban types that are already hinting on or triggering a new urban type for public space, or that can function as a prototype for a new type of public urban space. In doing so I came across Marc Auge⁷ who talks about non-places, Ray Oldenburg⁸ who talks about third-places and Alexander Garvin⁹ who talks about non-spaces that cannot be categorized within the traditional public open spaces of streets, parks and squares, but do function as one. I think that public space types like these, that cannot be categorized within the traditional ones, might be used as a prototype, an example or as a potential location for creating the intended new phigital type of urban space.

At this point part two comes in, researching more epistemologically the digital context through setting up a theoretical framework. To gather my current state-of-art literature I used keywords like physical, digital and phigital space. Also augmented reality and virtual reality seem to be relevant. The article of C. Alex de Freitas, titled as „*Changing Space: Locating Public Space at the Intersection of the Physical and Digital*”¹⁰ is really relevant and elaborates on the core of my design research. Also Alessandro Aurigi with his „*Making the Digital City*”¹¹ is stressing on this theme, just like other relevant articles that I found.^{12 13 14 15 16 17 18 19 20}

Once the theoretical framework is set up and a potential site is found with the research from part one, I can start on part three, which will be mainly emancipatory, by using layering as an architectural method, since the purpose is to bring the physical and digital layers together.

III INTERSECTING THROUGH A COLLAGE?

Layering as a methodological research paradigm in Architecture has, from my findings, not developed to a full-grown and generally recognized method yet. Although according to A.C. Schultz layering is a widely used term in the discussions of the last two centuries, she also rightly states that the term is hardly defined or examined.²¹ So that might be the explanation for the rather immature term within research methodologies. However, as an overarching term from which layering might be extruded or descended, I would put forward the methodology of collage in architectural design. This methodology seems like the precedent of layering and therefore I decided to elaborate rather on this methodology.

The use of collage as a methodology in architecture was in the early stages, in modernest times, demonstrated by architects like Ben Nicholson, Richard Meier and Le Corbusier. Although their

approaches to the use of collage differed from each other, their works unified both concept and theory within architecture. Ben Nicholson's approach is illustrated by the use of the method of collage as an apparatus that can deconstruct and reassembly objects to create or extract their incapsulated meanings. He did this by cutting out images out of building catalogs and pasting them in certain positions to create a new image, which could for example represent an elevation or floor-plan. This newly created object would then influence the architectural language of his designs. Nicholson's collages firstly transform into objects in space and after that they become (representations of) actual spaces themselves.²²

Richard Meier's approach is different, because he uses the methodology of collage to document development and process, rather than being visually representative for the architecture of his buildings. The collages exist of personal experiences like travels and therefore are never really finished and always in progress, reconstruction and transformation.²³ Therefore they function as important reminders and preservatives of his personal history, more indirectly influencing his architecture.

In contrary to that, collage thinking and making strongly influenced Le Corbusier's architecture in a more literal way. His approach is more to be described as an inherent intuitive method for conceiving and composing architectural collages, by removing objects from their original contexts and bringing them together in new settings. The intentions behind Le Corbusier's collages are functional and metaphoric and he used them in an integrated manner with his drawings and diagrams in order to search for complex new objects.²⁴

Collin Rowe first talks about collision rather than collage, where he makes the distinction between the collision of physical constructs and the further consideration of collision on a psychological and to some degree temporal lane. The 'Collision City', as he calls it, has not so much a symbolic purpose or function, but more an iconic intention.²⁵ After that he elaborates on the term of 'The Collage City' as a thesis, although he never really defines what it is exactly but rather triggers possible scenario's. Rowe identifies the composite presence in terms of collage as „*collage and the architect's conscience, collage as technique and collage as state of mind*".²⁶ He did not see collage as a formal or scientific method, but more as an art-related and experimental one: „*the provenance of the architectural objects introduced into the social collage need not to be of great consequence. It relates to taste and conviction*".²⁷

Contrasting this viewpoint of collage as a method for architectural design, Jennifer Shield sees collaging more as a synthesis and a deconstructive approach to be used for analytical purposes. She considers three ways of using collage methodology: collage as artifact, collage as a tool for analysis and design and architecture as collage. Also she recognizes collaging as a speculation instrument for investigating the potentialities of three-dimensional space in a two-dimensional medium, enabling a new notion of space, a metamorphosis into a new entity with a new meaning.²⁸

Looking at the different angles of approaching the use of collage methodology and the value of collaging in relation to the design process, one can say that the opinions are divided. This division can be categorized, from my findings, into a dichotomy: collage as a method used in a direct and indirectly manner to support the design research. In the direct way of using this method the design and the collage are visually representative for one and other and collage could be seen as a type of place-making. In the indirect way the collage technique is used rather on a supporting level for the design, having a more symbolic meaning. I think that in my case the last option would be the most valid one, since the digital layer has not a tangible material and visual appearance, but does have indirectly a (visual) effect on the use of space. Using the digital fragment in the collage in a metaphoric way could provide me with some clues. Using the collage method I could then 'cut out' the layers or fragments of the two entities, namely the physical and digital, and reassemble them into a new entity with a new meaning, enabling a new notion 'phygital' space.

IV WHAT IS 'THE PHYSICAL AND DIGITAL'?

The overall research in my specific case was slightly hard to determine, probably because the design-theme finds itself at the borders of a still very immature and newly emerging paradigm: phygital public spaces within the discipline of Architecture. Few examples already exist, although I found several cases where phygital spaces are being tested, especially in retail stores, but still they were not quite innovative in their designs. However, the difficulties in specifying the research was on the other hand also a result of not specifying the individual themes.

Therefore approaching the phygital theme through initially investigating the physical and digital layer separately seemed like a valid move. Regarding the physical layer, while conducting literature review I found myself at first really romanticizing the idealized notion of a public space and was approaching the design-research in a more traditional manner, feeling the desire to rather undermine the digitalization of society instead of embracing it. The widely discussed critiques on public spaces however made me realize that this digitalization could play an important role in the regeneration of traditional urban spaces, which is more a progressive way of thinking. It was Matthew Carmona's viewpoint that initially triggered this position, because he neither leans over to the utopian, nor the traditional approach of looking at public urban spaces, but he rather tries to 're-theorize' the notion of public space. This made me realize that this is what I was trying to do as well with the proposal of a phygital space. Subsequently this position was feeded more by the position of Alexander Garvin, who identified certain public spaces that cannot be categorized into the traditional types of streets, squares or parks, but facilitate the same functions and activities for the public realm. This made me think of the lecture addressing the theme about the concept of type and typology, where for example was questioned whether something was a type or rather a model. Although this research within the physical aspect of the theme proved to be useful with regards to positioning myself within it, still 'physical public spaces' is too undefined and therefore conducting research more specified upon certain types, such as the non-spaces, would have been proved more fruitful. The lack of a specific location for the design is also not contributing to narrowing down the research aim. Although for the 'digital spaces' I managed to find potential fruitful literature, I still have to specify what it is that I am exactly looking for to extract from this aspect.

Referring to the research question for this paper to conclude: how can layering as an architectural method for research contribute to possible ways of intersecting the layers of physical and digital public space? Firstly, I found out that not layering, but rather the methodology of collage would be the just approach. I think this method might prove very useful for my design-research, on the condition that the layers of the physical and digital are to be more narrowed down. Also, I think that an emic position can help me to do so and is eventually important in terms of 'utopian' thinking, which is the general approach in the design studio of City of the Future.

- ¹ Lucas, R., 2016, p8
- ² Lucas, R., 2016, p10
- ³ Carmona, M., 2015, p376
- ⁴ Carmona, M., 2015, p376
- ⁵ Carmona, M., 2010a
- ⁶ Carmona, M., 2010b
- ⁷ Augé, M., 2008
- ⁸ Oldenburg, R., 1999
- ⁹ Garvin, A., 2016
- ¹⁰ Freitas, A.C., 2010
- ¹¹ Aurigi, A., 2005
- ¹² Graham, S., 2004
- ¹³ Foth, M., Brynskov, M., & Ojala, T., 2015
- ¹⁴ Ishida, T., 2017
- ¹⁵ Bazzanella, L. & Roccasalva, Giuseppe & Valenti, S., 2014
- ¹⁶ Anttiroiko, Ari-Veikko & Valkama, Pekka & Bailey, Stephen, 2014
- ¹⁷ Forlano, L., 2008
- ¹⁸ De Lange, M., & Waal, M. (Eds.). (2019)
- ¹⁹ Schaffers, H., & Komninos, N., & Pallot, M., & Trousse, B. & Nilsson, M., & Oliveira, A., 2011
- ²⁰ Aurigi, A., & De Cindio, F., 2008
- ²¹ Schultz, A.C., 2015, p1
- ²² Socio, de N., 2006, p30-33
- ²³ Socio, de N., 2006, p33-34
- ²⁴ Socio, de N., 2006, p35-36
- ²⁵ Koetter, F., Rowe, C., 1978, p119
- ²⁶ Koetter, F., Rowe, C., 1978, p139
- ²⁷ Koetter, F., Rowe, C., 1978, p144-45
- ²⁸ Shields, J., 2014, p2-3

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