RECONSIDERING PUBLIC SPACE

Schiekadeblock: a new urban type of 'phygital' public space for Rotterdam Central District

Serving the public realm at the intersection of digital and physical public space

CONTENTS

ABSTRACT

Academic theories discuss often the definition of the public realm and how it is interrelated with public spaces in a city. The different takes on the idealized notions of the public realm are accompanied with different views on how public space should be designed. A shift in the public realm affects also our way of thinking about the public space. For example, Richard Sennet argues that the public realm is identified by a place, which traditionally would be bound to a physical ground, but in the contemporary society he claims that the public realm can as much be found in the cyber-space as in the physical place, because the communication technologies have radically changed the sense of place.[1] In the contemporary society, the public realm is now served and lived in virtual spaces like social media platforms, as much as they once were in streets, squares and parks. Therefore, a reconsideration of the public space as just material and physical space is needed.

FASCINATION

I started off this project by a fascination about the shift that has been going on in the last decades regarding the role of the physical built environment for the public realm, since the emergence of Internet Communication Technologies and with this the digital environments. There are a lot of theories about this phenomenon, mostly in a negative light where theorists claim that physical urban spaces get more and more neglected due to the digitalization and the (smart) technologies that have been changing the way we live, work and move drastically. And still is.

As a result I was triggered to explore ways in which the physical and digital worlds could be interrelated to each other, instead of seeing them as each other's opponents. I made the statement that there is a need for a re-consideration of public space as just physical and material space and that we, as designers of physical space, are now and certainly in the future tasked with this interesting challenge.

PART 1 | **SCOPE OF THE GRADUATION PROJECT**

The problem statement

The time has long gone when public space could simply be considered as bounded material space that was openly and freely accessible to all. In the contemporary society, the public realm is now served and lived in virtual spaces like social media platforms, as much as they once were in streets, squares and parks. The contemporary urban public spatial realm is neither physical nor digital, but an intricate and relational combination of the two. Therefore, in light of this interconnection there is a need for a (re)conceptualization of public space, both external (urban-level) and internal (building-level).

The research question

How can the physical and digital public spaces of RCD-East be interrelated to one another in order to create a new urban type of 'phygital' public space, which is able to enhance the social engagement of the public realm in this area?

The project goal

In the recent past the phenomenon of Pokemon Go has already illustrated a way in which the digital and physical spaces can be merged. The application, used on smartphones, triggered the users to explore public spaces that where marked as hotspots, in some cases equally in both worlds, physical and digital. The smartphone application even showed that it could be used to revive abandoned physical public spaces and make them attractive and inviting again through the digital. Regarding the architect's role, I would like to invert this argument and look for a way in which the physical design of a public space can invite and attract a digital layer or use, so that the physical and digital public spaces can evolve and develop along each other through time. To do so, I have to explore possible junctures in the physical spatial design, where the digital layer can be intersected or attached. In order to elaborate on a possible relationship between the physical and digital spaces, it is necessary to look for clues that both worlds have to deal with. It is generally acknowledged that the digital world has mainly offered global innovation in terms of connectivity, accessibility and adaptability. These three themes can also be investigated in architecture, particularly through their usage in the shaping of spaces. Therefore, based on these three themes, the investigation will be focusing on uncovering possibilities for a dialectical relationship between the physical and digital public places. The aim is to integrate connectivity, accessibility and adaptability through both the physical and virtual public environments in order to stimulate an integrated use that serves and contributes to the contemporary public realm.

The design-aim is to make the use of physical public space compatible with the use of virtual space, so that it is capable of evolving along with the technological developments in the near future, instead of losing its value due to the digitalization. Within this research, the virtual/digital public spaces are mainly referred to public spaces like social media that are accessible through smartphones, because smartphones enable us to be present in both the physical and virtual environments simultaneously, since the study focuses on the intersection of these environments. Also, the use of mobile phones and the accessibility to public spaces is mainly seen through the lens of the pedestrian. The term phygital stands for the synthesis of the terms physical and digital.

The design research will be approached through the lens of three themes, connectivity, accessibility and adaptability in the material/physical sense and how this can relate to or intersect in the virtual public space. As mentioned before, the public spaces, whether physical or digital, are meant to serve the public realm. For the definition of the public realm, I would like to refer to Richard Sennett who argues that the public realm is in its simplest way defined as a place where strangers meet with incomplete knowledge of one another, leading to anonymity and impersonality, which enables an environment for individual and communal development. Whether in a physical or digital space, Sennett emphasizes that the most

important fact about the public realm is the activities that are taking place in it, which occur on the base of strangers meeting one another. In this research, I would like to emphasize on this statement and investigate possible ways in which social engaging(interaction/participation) of 'strangers' can take place in phygital public spaces, approached through the three themes of connectivity, accessibility and adaptability. When the public spaces are highly connected, highly accessible and adaptive, the place is more attractive to digital inputs and is therefore more likely to evolve in an integrated manner into the future when it comes to social engagement in the physical public spaces.

The relevance of this project

Cross Domain - City of the Future. Regarding the relation between the graduation studio an my graduation topic, in a very literal sense it can be said that my theme is also a case of *cross domain*, namely the domains of the physical and digital public space. Theories about themes like 'augmented or virtual urban spaces' already emerged since the birth of ICT's(Information Communication Technologies) during the nineties and now to a lesser extent theories about phygital spaces started developing in more recent times. Yet, I could not find (much) tangible projects so far of urban types that are representing these phygital theories and therefore, in doing so through my graduation project suits well within theme of 'the city of the future'. As a result of this graduation research, a (design) suggestion will be made from my interpretation of future public space, related to the term phygtial; which hints on the intersection of physical and digital space. The relevance of this theme is touching upon more aspects in society then just spatial design, since the digitalization and virtual publicness like social media platforms are heavily influencing our social behavior within both the society and the urban fabric. Since the introduction of ICT's a lot has changed in how we live nowadays, affecting almost every discipline and the way they contribute to the society. New developments come and go in shorter time-spans and so newly created structures have to be able to adapt even faster in order to grow along with these developments. Therefore the theme is very topical and the ever-growing technological developments makes thinking about such future-scenario's not only inevitable, but also necessary.

From a larger perspective, it can be said that the project is trying to undermine the negative influences of digitalization: an increasing anonymous, impersonal and individual society. The very wide-spread opportunities that digitalization offered us and the large innovations on the grounds of connectivity, accessibility and adaptability/flexibility through digital services might have blurred the quality of being, engaging and meeting in physical places. But we must not forget that, despite the many possibilities of the digital world, in the end we will always need physical spaces. Although the virtual world seems to be very conducive to social engagement, on the contrary it can also be said that social engagement in physical form is declining. As a result of such extensive and active participation in society on social media platforms, there seems to be less and less social contact taking place in physical form, because people are becoming isolated by the use of mobile phones. Also, on one side of the argument social media is very much dominated by profiling and positioning yourself within society, but on the other side it creates an enormous amount of impersonality and anonymity when the publicness is lived from behind the screens.

In the end the discussion is not about wether the public space should be in physical or digital spaces, but it is about considering a new urban paradigm of public space that serves the public realm in both ways. Therefore intersecting the physical and digital public spaces by elaborating on the qualities and advantages of both worlds, a more balanced out interrelation will arise in order to serve the public realm at its best.

PART 2 | **THE PUBLIC REALM AND PUBLIC SPACE**
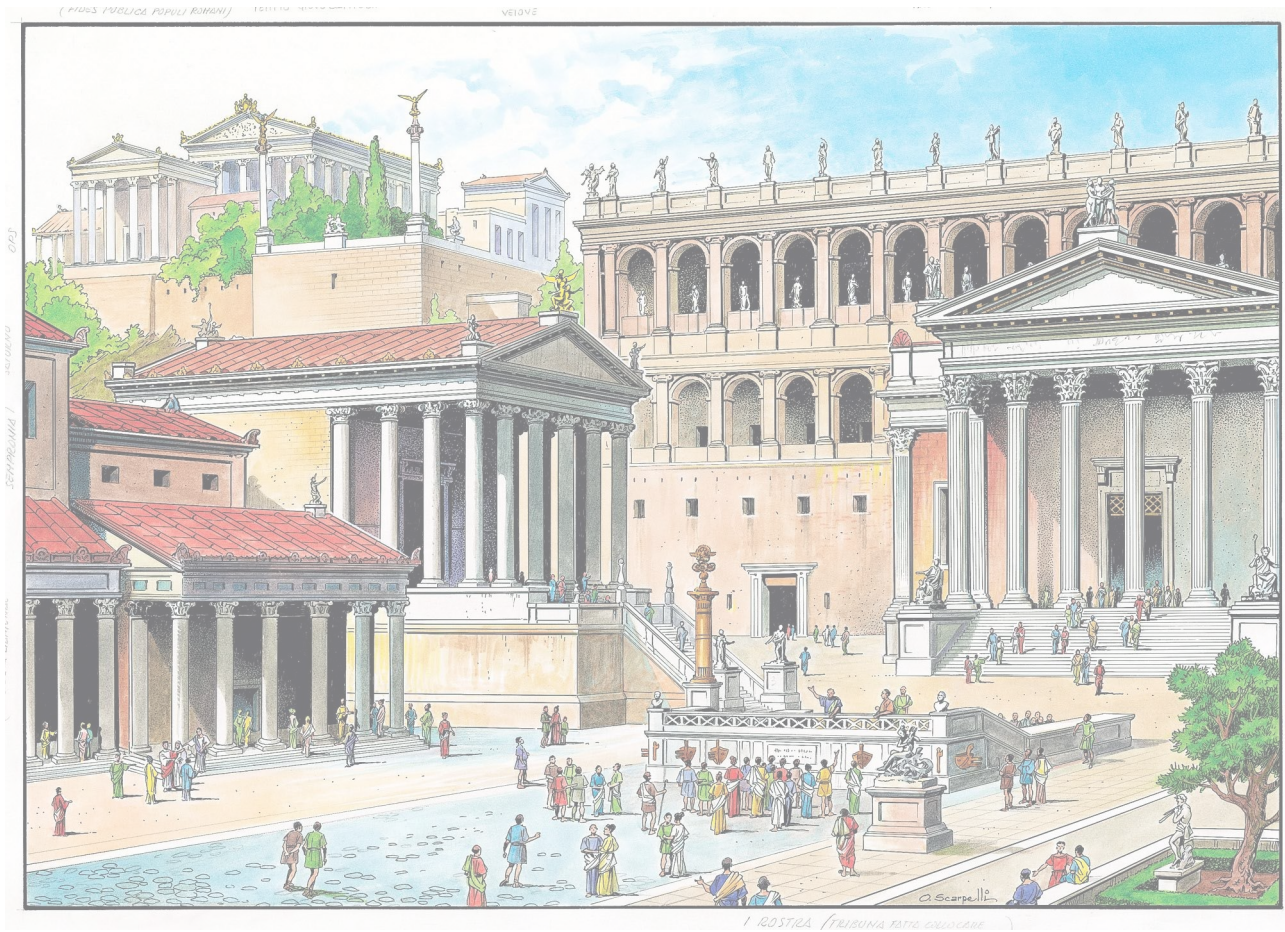
An idealized public realm and how it is related to public space

The value of public spaces within a city and its contribution to the public realm is a generally recognized and widely discussed topic. According to Lewis Mumford for instance the primary function of cities is the so said acculturation and humanization of its inhabitants.[2] According to Richard Sennett *,,the city is the instrument of impersonal life, the mold in which diversity and complexity of persons, interests, and tastes become available as social experience.''*[3] Matthew Carmona identifies a generally idealized notion of public space within the literature, which he describes as the public space as an open and inclusive stage for social interactions, political action, cultural exchange and of comfort combined with design innovation. However Carmona claims that in a lot of cases the public spaces never reach this 'utopian state', he also indicates that there are many examples, like the agora, in which they come very close to these ambitions.[4]

Whether utopian or not, the extent to which the value of these public spaces are determined is very much dependent on the relation with its audience: the public realm. As Richard Sennett puts it, the public realm is in its simplest way defined as a place where strangers meet with incomplete knowledge of one another, leading to anonymity and impersonality, which enables a milieu for individual development. As the counterpart of the public realm he opposes the private realm, which he illustrates by a family of which the individuals know each other well and in a more intimate way. Sennet argues that the public realm is identified by a place, which traditionally would be bound to a physical ground, but in the contemporary society he claims that the public realm can as much be found in the cyber-space as in the physical place, because the communication technologies have radically changed the sense of place. Whether in a physical or digital space, Sennet rather emphasizes that the most important fact about the public realm is the activities that are taking place in it, which occur on the base of strangers meeting one another and which are not

to be found in the private realm. The public realm triggers the individual participation and development in the communal entity and social order of a city.[5]

In terms of attempting to make sense of the public realm, Sennett indicates that in the modern times there has been a division between three 'schools' in doing so, of which one of the early key figures Hannah Arendt was to be accounted for the first one.[6] Her viewpoint of the public realm is best to be scribed as a rather political one. In an idealized public realm people should have an equal voice as citizens, regardless of their origin, gender, style of life or class. In this realm they could discuss and debate freely and equally and in order to do so they must distance themselves from their particular private circumstances, which cannot be allowed into the public realm.[7] Sennet argues that Arendt's idealized notion of the public realm found a particular place in town centers of cities, and states that *"she is the advocate par excellence of the urban center - the agora in ancient Athens, the Uffici piazza in medieval Florence, Trafalgar Square in modern London."* [8] Arendt's measuring of the value of urban space is linked to the density within it, since it is density that produces the freedom of anonymity in her way of thinking. However Sennett does not fully agree upon this claim, he argues that her notion of the public realm influenced urbanists to think beyond the city as solely an assemblage of local communities.[9]

The second 'school' of theorizing about the public realm can be attributed to that one of Jurgen Habermas, which is according to Sennett a broader way of thinking compared to Arendt's. Whereas Arendt has a more political approach, Habermas is less physically-orientated in terms of the public realm being bound to physical ground. In his point of view, 'the public' could as well be found in the context of media like the newspaper and public space could be defined as in fact any medium, occasion or event which enables communication between strangers. Also he is more practically-minded about people's circumstances, because he, in contrary to Arendt, emphasizes that the public realm is tied to economic, ethnic and cultural interests. Yet, Arendt and Habermas share on a certain level the same idealization, because Habermas believes that the free flow of communication in the public realm can lead to communal interests, shared understandings and common purposes. Habermas's ideal of the public realm has brought urban planners to an awareness that simply mixing people and the phenomenon of mixed-use does not automatically result in improved mutual understandings.[10] [11]

The third approach to the public realm is according to Sennett represented by his point of view, which is already elaborated on in the upper part. The main difference is that his point of departure is less political and more cultural, he claims, then that of Arendt and Habermas. The primary focus lays on how people express themselves to strangers and the public culture that comes with it. The public culture can be understood by means of for example observing customs of greeting, whether or not people feel free to communicate with strangers and what places people gather or rather not gather. According to Sennett these kinds of behavior are the main components of the public realm and in order to make a bridge between the visual and the social, architects must consider to what extent their buildings or spaces function for the people as an instrument for social expression.[12]

It seems that despite the differences between the three 'schools' of thinking, the main message is clear: the public realm finds its strength precisely in the fact that strangers meet there and that the resulting activities of this encountering ensure that both the individual and the community develops through it. In my thinking, the differences can be partially explained by the fact that the theories where developed in different times. Especially Arendt's way of thinking might have been influenced by her experiences of the Second World War, which was a complete different time and setting for the public realm and explains why she emphasizes particularly on social equality. For the same reason both Habermas and Sennett acknowledge the public realm is tied to economic, ethnic and cultural differences, instead of arguing that there should be no differences in this. Also, both Habermas and Sennett notice that the public realm is no longer so much attached to physical public spaces, but might as well take place in media, as Habermas puts it, or even in cyber-space through the new communication technologies, as Sennett argues.

Critiques on the public realm and the contemporary public space
However, the attempts in seeking for the ideal public realm and the the interrelation with public space are also accompanied with critiques on these spaces. The critiques generally claim upon either the mis-use or erosion of public spaces or public life. For instance, Sennett also noted that there had been an erosion in the public life since the nineteenth century due to capitalism and a decline in religious beliefs and thus a decline in the communal participation. He claimed that while the private realm gained more importance, the public realm was losing its significance more and more and *,,as a result of the immense fear of public life which gripped the last century, there results today a weakened sense of human will."[13]* Another example in terms of mis-use or erosion of public space, is the phenomenon during the late twentieth century where in some situations large parts of city centre squares acquired the image of empty spaces or unattractive places like traffic islands. When it comes to less use of public space, a decline in communal activities has to be marked as one of the causes, as illustrated above with Sennett's example.[14] Jere Stuart French for example also points out the decline in religious participation, as well as several other activities like trading, information spreading or sharing, recreation and protection that took place on traditional public spaces like the agora, forum or a mosque courtyard. Then he states, already in the eighties, that some of these activities are either simply outdated or now take place in other locations or spaces[15].

Already from these few examples one could sense the complexity and diversity of the discussion about the public realm and how it impacts the public space and vice versa. Matthew Carmona has been trying to categorize the different critiques on public spaces within the literature, like Sennett's viewpoint, in order to get a hold of the different takes on this matter, as shown in figure 1. According to Carmona, in general over- or under-designing the public space might be the cause of mis-use or erosion of public space, leading to certain forms of 'pseudo public spaces', as illustrated in figure 2.

Figure 1. | Table with categories of reoccurring critiques on public space, based on literature.[16]

Critique	Discussed in
Neglected space	Chatterton and Hollands 2002; Loukaitou-Sideris 1996; Roberts and Turner 2005; Trancik 1986; Tibbalds 2001; Worpole and Knox 2007; Worpole 1999
Invaded space	Buchanan 1988; Duany, Plater-Zyberk, and Speck 2000; Ford 2000; Garreau 1991; Gehl and Gemzoe 2000; Graham and Marvin 2001; Lefebvre 1991; Llewelyn-Davies 2000
Exclusionary space	Engwicht 1999; Gehl 1996; Whyte 1980, 1988; Hall and Imrie 1999; Imrie and Hall 2001; Johns 2001; Lofland 1998; Lang 1994; Malone 2002
Consumption space	Boyer 1994; Carmona et al. 2003; Hajer and Reijndorp 2001; Mattson 1999; Sorkin 1992
Privatised space	Boyer 1993; Ellin 1999; Kohn 2004; Low and Smith 2005; Loukaitou-Sideris and Banerjee 1998; Mandanipour 2003; Minton 2006; Nemeth and Schmidt 2011
Segregated space	Boddy 1992; Blakely and Snyder 1997; Bentley 1999; Low and Smith 2005; Miethe, 1995; Oc and Tiesdell 1997; Sennett 1977; Webster 2001
Insular space	Aurigi 2005; Banerjee 2001; Castells 1996; Ellin 1996; Graham and Marvin 1999; Mitchell 1995; Oldenburg, 1999; Sassen 1994
Invented space	Crang 1998; New Economics Foundation 2004; Sircus 2001; Wilson 1995; Yang 2006; Zukin 1995
Scary space	Atkinson 2003; Davies 1992; Ellickson 1996; Fyfe 1998; Jacobs 1961; Kilian 1998; Kohn 2004; Lynch and Carr 1991; Mitchell 1995; Murphy 2001; Minton 2009; Welsh and Farrington 2002
Homogenised space	Beck 1992; Boyer 1994; Bentley 1999; CABE 2007; Carmona 2001; Fainstein 2001; Goldsteen and Elliott 1994; Light and Smith 1998; Sennett 1990

Over- and under-managed and/or designed public space are each the cause and consequence of the other as Carmona states, making the distinction between publicly owned space by the public sector, 'truly' public space and private and semi-private domains. A poorly designed and insufficient managed public realm results for example in the migration of key commercial and community activities from publicly managed space to the more privately owned and highly managed exclusionary space. These kind of shifts lead to a more general and homogenized public built environment.[17]

TYPE	DESCRIPTION
Neglected space	Neglecting public space, both physically and in the face of market forces.
Invaded space	Sacrificing public space to the needs of the car, effectively allowing movement needs to usurp social needs.
Exclusionary space	Allowing physical and psychological barriers (fear of 'the other') to dominate public space design and management strategies.
Segregated space	Following the desire of affluent groups in many societies to separate from the rest of society reflecting a fear of crime and simply the desire to be exclusive.
Privatized space	Allowing public space to be privatized, with knock-on impacts on political debate and social exclusion.
Consumption space	Failing to address the relentless commodification of public space and the dangers of the financial exclusion of less prosperous segments of society.
Invented space	Condoning the spread of a placeless formula-driven entertainment space.
Scary space	Where crime, and more often fear of crime is allowed to dominate the design management and perceptions of place.
Insular space	Failing to halt a more general retreat from public space into domestic, private and virtual realms.
Homogenized space	Generally presiding over a homogenization of the public built environment in the face of the relentless forces of globalization, over-regulation and the claims culture.

Figure 2. | Table with pseudo public spaces categorized by Carmona as a result of over- or under-designing public space.[18]

From looking at the Habermas point of view, one could say that the types defined by Carmona should not matter that much anymore, since the public realm is no longer purely ground-bound anymore or is even taking place in cyber-spaces in the contemporary society according to Sennett.

So one could question to what extend the classification and critiques of urban public space types matter. On the other hand we cannot ignore the physical public spaces as an important stage for the public realm, so maybe it is more a case of reconsidering public space.

PART 3 | **RECONSIDERING PUBLIC SPACE**

Non-places, third-places and invented places

Following the critiques of the erosion of the public realm and public space, many have also attempted to either re-theorize the notion of public space, or to identify other, often homogenized 'spaces' where everyday human activities take place, other than the traditional public spaces. One of the early and renowned theories is that one of Marc Augé, in which he makes the distinction between anthropological place and non-place: *,,If a place can be defined as relational, historical and concerned with identity, then a space which cannot be defined as relational, or historical, or concerned with identity will be a non-place.''*[19] He states that an ever-increasing proportion of our lives is spent in supermarkets, airports and hotels, on motorways or in front of televisions, computers and cash machines. Augé refers to this late-capitalist phenomenon as 'super-modernity' and an invasion of the world by non-spaces, urging on the superficial level of awareness in which we would only partially and incoherently perceive this. He describes non-space as the opposite of utopia: ,,it exists and it does not contain any organic society''.[20] Also, Augé argues that the distinction between place and non-place derives from the opposition of place and space, in which the notion of space is identified by its lack of characterizations and symbolism.[21]

Another concept of public life taking place in settings which are not necessarily public spaces, is that one of Ray Oldenburg, who refers to these spaces as third places. He defines three different realms in which citizens live and should find their balance in between. The first place he describes as one's home and those that one lives with, the second place as the work-place and the third place as an inclusively sociable place. *,,Third places exist on neutral ground and serve to level their guests to a condition of social equality. Within these places, conversation is the primary activity and the major vehicle for the display and appreciation of human personality and individuality.''*[22] The so called neutral ground implies that it's occupants have no political, financial, legal or other forms of obligations to be there and therefore the third places facilitate a rather informal public life with a playful nature. Examples of third places would be environments such as cafes, clubs, bookstores, shopping malls, coffeeshops and hair salons.[23]

Tridib Banarjee elaborates further on Oldenburg's third places and claims that today (2001) successful public life is created by the combination of third-places and by the phenomenon of *'flânerie'*, which he defines, by quoting Keith Tester, as ''the activity of strolling and looking''. Banarjee argues that places like new shopping malls were by the time of his writing designed to facilitate and encourage this flânerie and 'hanging out'. He then defines places that are attempting to combine flânerie with third places as a new category, which he calls 'invented streets'. The same formula would be applied to reinvented streets and places, of which he puts Time Square in New York forward as a prominent example, where themed environments are created. Such reinvented places are often designed on the basis of metaphors and marketing rhetorics, aiming to create a public life of 'flânerie and consumerism. Whether this takes place in private or public space would not matter according to Banarjee, since he claims that the line between public and private blurs very easily, which is the complete opposite of the earlier mentioned viewpoints of Arendt, Habermas and Sennett. In addition he mentions the earlier attempts of American architects and urban planners to recreate European urban spaces in American cities. They expected that designing the space would lead to the intended and romanticized activities automatically. Banarjee names this as a type of physical determinism and claims that it did not work. He urges upon the role of the activities or functions facilitated by places rather than the physical form: *,,Not that form does not matter, but it need not be tied to formal layouts of Apollonian spaces of exclusive civic and institutional uses. The message is that the form is only a stage set that can be easily changed and embellished to accommodate celebrations, happenings, and other such ephemera''.*[24] [25]

Similar to this claim, more recently Alexander Garvin notices certain urban public places that are not necessarily to be categorized under the traditional public places like streets, squares and parks, which he claims to be the main components of the public realm. On the other hand he

also considers certain places like open air malls, skylit arcades, pedestrian walkways and subways, which are not strictly speaking streets, squares or parks but function in the exact same way for the public realm. He mentions places like The National Mall in Washington D.C. and the Galleria Vittorio Emanuelle II as examples.[26] Although Garvin does not really define these places to a certain term or definition, referring back to Augé and Oldenburg, these places could be identified as non-places as well.

Whereas Augé and Oldenburg mention the new types of public spaces in the modern era, calling them non-places or third places, which are actual physical spaces, a different theory by Setha M. Low stresses upon the non-physicality of space. According to Low social relationships are inherently spatial and the actual physical space is an instrument and dimension, subject to this sociality. In this light similarities can be noticed between Banarjee's point of view. Low builds this statement around the claim of Alberto Corsín Jiménez, in which he argues that space is no longer a category of fixed and ontological attributes, but a becoming and emergent property of social relationships. Jiménez describes space as a condition or faculty and a capacity of social relationships. Low then defines this further by saying that social relationships underlie the basis of social space, but in order to work as a medium of discussion or an analytic device, these relationships need materiality in the form of embodied space and language. She concludes by mentioning space and place as a multidimensional model which will accommodate anthropology's ethnographic needs.[27]

A need for reconsidering public space
The ideal public realm and how it is composed, is a widely discussed topic, already seen from the examples mentioned in this research. Even though the different takes on public realm according to Arendt, Habermas and Sennet diverge from each other, their main message is clear: what makes the public realm is the participation and interaction of strangers in the community, enabling personal and communal development. The public realm and the physical public space are very much interrelated and affect each other in both ways. For example, the erosion of the public realm, noticed by Sennett, could be accounted for the insular spaces in a city, identified by Carmona as a form of pseudo public space. Furthermore, the spaces serving the public realm are not so much bound to the physical spaces anymore according to Habermas and Sennet. Also Low shares this idea, by saying that space is no longer a category of fixed and ontological attributes. She then argues that the social activities taking place in it are making the space, just like Banarjee is claiming that the activtiy of *'flânarie'* is in combination with the spaces that facilitate this activity, the script for successful public life. Banarjee mentions Oldenburg's third places as such public spaces, and along with Augé's non-places these places illustrate already other types then the traditional spaces like the agora, that can accommodate the public realm.
More in general it can be concluded that, whether in a physical or non-physical environment, the ideal public realm is composed by the activities that occur in these spaces as a result of impersonal and anonymous interactions with strangers. These activities contribute to the individual and the communal developments within a society. In contemporary society, these activities do not solely occur on the physical spaces anymore, but also in the new digital spaces like social media platforms, where anonymity and impersonality have even a bigger stage. Therefore I think that we cannot ignore the importance and relevance of these new digital public spaces to the public realm. In further research, I would like to elaborate on this topic, experimenting to what extent the intersection of the physical and digital public spaces, as a reconsideration of public space, can contribute to the public realm.

PART 4 | **THE PUBLIC REALM AND DIGITAL PUBLIC SPACE**

The evolution of theories about virtual spaces since the introduction of ICTs

The early phenomenon noticed by people like Sennet, Habermas and Low, that the social activities that are forming the public realm do not solely occur in the physical spaces anymore, has now in the contemporary society come to a stage where it is widely held that the introduction of ICT's and digital spaces like social media platforms has resulted in significant changes to the organization of cities, public spaces and everyday social life. Like Sennet argued, also Freitas claims that conceptions of space and time have been radically altered by the new forms of accessibility and connectivity that are afforded by ICTs; in particular, wireless technologies, which continue to blur the boundaries between the public and private spaces of the city.[28]

Already since the 1990s literature started emerging in which was being elaborated on the ever-growing intersection of digital technologies and urban life. At the early stages of the introduction of ICT's around this time some have claimed that cyberspaces and online communications might somehow replace and take over the significance of traditional public spaces and the need for physical movements as life increasingly takes place in private spaces, electronic media and digital realms. These theories contended that virtual communities and public spaces had further contributed to the decline of physical public spaces, because the digital realms were developed as one-to-one simulations of real urban public space. Participants where able to feel engaged in society and a have sense of community, but without being exposed to the risks of the fragmented and impersonal contemporary city. Within this literature even possible scenarios where put forward of simply leaving the physical world behind and looking for ways of arranging digital environments in order to develop new utopian imaginations of cities and public spaces. For example, in the 1990s the internet was widely seen as a 'parallel universe' complete with its own virtual cities, public spaces and all desired amenities. It claimed that in cyberspace, the desirable characteristics of the physical world could be taken and combined with a revitalized urban environment – public spaces reconstructed as new and democratic spaces of digitized architecture. Nonetheless, scholars, geographers in particular, have been quick to dismiss these claims as unreasonable and utopian.[29]

The interrelations of physical and digital public space

Over the last few decades an increasingly collaborative work developed among spatial practitioners such as architects, urban planners, artists and media designers has produced a particular landscape of projects that engage information technology as a catalytic tool for expanding, augmenting and altering the public and social interactions in the physical urban space. For spatial practitioners, a series of opportunities arise from the possibility of engaging networked digital technologies as catalysts for processes that might have a strong impact on social, cultural and environmental future scenarios.

As information technology becomes pervasive, rethinking the rules for interaction between the citizen and physical urban space becomes an interesting issue. Emergent technologies have brought into question the role of the material city in representing the public realm and the collective experience of urban space. Information and matter, code and space collapse into a new system, and mediated spaces become an architectural problem. In the coming phase of this graduation project, this possible interrelation or interaction will be investigated and further elaborated on.

PART 5 | INITIAL DESIGN TOOLS AND TECHNIQUES FOR APPROACHING 'PHYGITAL' PUBLIC SPACE

Throughout the research and towards/during the design process, the aim is to filter a set of design tools to work with out of the theoretical framework and casestudies that relate to the topic of phygital public space. As mentioned earlier in order to find design possibilities for intersecting physical and digital space, I need to explore possible junctures in the physical spatial design, where the digital layer can be intersected or attached. For this reason I have determined the three domains of *CONNECTIVITY, ACCESSIBILITY and ADAPTABILITY,* because these three themes can be investigated both in architecture, particularly through their usage in the shaping of spaces, as well as in virtual spaces because these domains have led to the innovation that ICT's has brought us. Therefore, based on these three themes, the investigation will be focusing on uncovering possibilities for a dialectical relationship between the physical and digital public places. The aim is to integrate connectivity, accessibility and adaptability through both the physical and virtual public environments in order to stimulate an integrated use that serves and contributes to the contemporary public realm. Below, my initial thoughts on these domains are described.
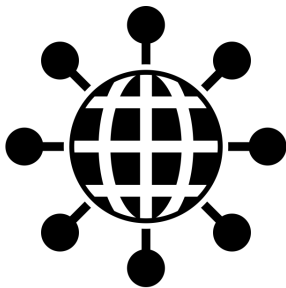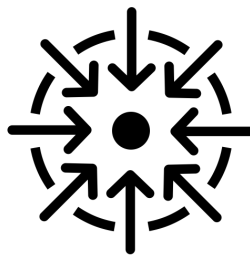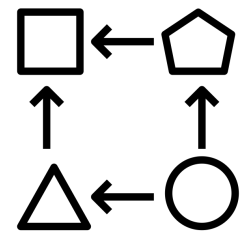
CONNECTIVITY,   *ACCESSIBILITY,*   *ADAPTABILITY*

Connectivity
Connected through the digital in the physical. New information communication technologies(ICT's) and the use of smartphones have created new routes and new forms of navigation through cities. They influence the way we move through cities. Also, the use of smartphones has created new meeting places in the city, which have to be connected to the network of public spaces as well. The public meeting spaces should be connected at all times. Some physical public meeting spaces are not well connected to the main infrastructure, or are even not known of by a latter part of the community even though they are meant to be publicly accessible. Creating an ongoing physical path that connects the public hotspots. Along this path, certain interactions with the digital connectivity are stimulated through the use of mobile phones. Through navigational applications on the mobile phone the paths are highlighted and the design of the physical paths make sure that these paths are easily recognized and accessible for the users. Specific in the location of Schiekadeblock, the yellow 'luchtsingel' is an interesting starting point to look at, which is an elevated path and connects places, at some point by even breaching through a building. Also, to connect external and internal public spaces, which are in some cases not recognizable from the external space, the connecting path and the adjacent plinths must be interrelated and become one coherent entity so that the accessibility enhanced.

Accessibility
In general, accessibility defines whether a space is public or private. Issues of connectivity and accessibility to digital devices and infrastructure are just as important as traditional debates surrounding open access to physical public spaces. Therefore, the accessibility should make clear distinctions between what's private and what's public, both in the physical design as in the virtual accessibility to these spaces.

Adaptability
The fact that there has never been an ideal one-size-fits-all public space is heavily related with the fact that the community might have communal interests and preferences, but in the end every individual within the society has more specific personal preferences and interests. So, to a certain degree, the physical public spaces might serve a broader audience, but cannot serve every individual equally well. What if, the physical public space, serves as the framework and general set-up and the space has a certain amount of adaptability/flexibility, which can be modified through the digital layer? Designing the material public space in such a way, that it would function as a framework onto which the digital layer can be integrated, offering possibilities to customize the space according to specific preferences or needs.

Collage as a methodology for intersecting physical and digital
Even-though I am not sure to what extent this still might prove useful, it is worth it to mention that in an earlier stage I researched the methodology of collage as a possible means of intersecting the physical and digital.

  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.[30]

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.[31] 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.[32]

  Collin Rowe first talks about collision rather then 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.[33] 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".[34] 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.[35]

  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-three-dimensional space in a two-dimensional medium, enabling a new notion of space, a metamorphosis into a new entity with a new meaning.[36]

  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.

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