

Xi'an and the numbers of the primary school, the division of the school district range also has great differences and randomness(table 2), the family school travel which is within the school district range only occupies a small proportion.

6 CONCLUSION AND DISCUSSION

The family school travel mode is not only the subjective choice of the family, but also the result of the spatial constraint. It is found that the school travel still owns the characteristics of parents accompany, increased distance, space and time stability, motorization and multi-frequency by surveying the build-up area urban primary school space and time travel in Xi'an. The space and time can better reflect the reasonable space distribution of the urban primary school families. This paper summarizes more than 30 kinds of school travel paths by the constraint description method, 4 kinds of space behavioral modes can be classified based on the time and space constraint. Family school travel is the choice result under the individual, family, society and urban construction environment constraints. From the perspective of school travel, These aspects are necessary for the primary school layout to follow, and there are : the urban primary school extend needs the life care place; the formed community life unit taking the urban primary school as the core will facilitate the struction of the community; organize the urban primary school and the surrounding space layout from the perspective of satisfying the family travel demands. Based on the analysis of the school travel behavior, urban primary school layout from the perspective of integration of land use and transportation, can reduce the constraintans for family travel, improve the quality of life.

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ID 1538 | WHEN TRADITIONAL AND CREATIVE INDUSTRIES BLEND: A CASE-BASED DISCUSSION OF THE IMPLICATIONS FOR URBAN DESIGN

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1 INTRODUCTION

As economic interests in an urban society develop, functionally determined zones of production become zones of transition and pose challenges to urban design as an instrument for organizing competing or contradictive spatial interests. This contribution centres on such a zone of transition, an industrial site in the Belgian city of Hasselt which is progressively enveloped by urban development. Interestingly, this area is part of a larger industrial area along the quays of the Albert Canal. This canal was developed in the 1930s to connect the Campine coal basins , the maritime port of Antwerp and the steel basin in Liège to one another (Van Acker, 2014). The Hasselt Canal Zone thus exists on the interstice between two very distinct systems: the radial-concentric pattern of the (medieval) city, characterized by two concentric ring roads; and the linear development of the Albert Canal, a national backbone for industrial and commercial development. Due to their subsequent development and saturation, these distinct systems increasingly influence each other here. Hence, the Hasselt Canal Zone demonstrates a gradual transition which includes the introduction of new programmes, creating a public and urban élan on the south bank of the Canal. This process has started in 1997, when the Muziekodroom, a local non-profit organization for

musical education, band practice and concerts, settled in a partly abandoned slaughterhouse. In the ensuing 20 years, other new users have followed by appropriating obsoleted industrial infrastructure: two shared office buildings, a college of advanced education in pop and rock music, a dance club, a repair service for electronics, and catering businesses. In branding the core zone of transition with the name Quartier Canal, this new generation of occupants manifestly propagate a cooperative and synergetic agenda. New occupants also coexist with traditional Small to Medium-sized Enterprises (SMEs), mainly light industries, building merchants and traders, which have not left the site, some still depending on the Albert Canal for transportation of building materials and petroleum products. Their interests are advocated by several public entities involved in maintenance and exploitation of the Flemish waterways, and entrepreneurship along its shores. As a consequence, very diverse spatial claims and expectations come together.

In what follows, I analyse this fragile equilibrium cultivated by diverse actors mediating between maintenance of the hybrid character and transition towards a more urban condition. The gradual, incomplete transition resulting from bottom-up initiatives, and the claims laid on the area by representatives of both industrial and creative economies render this a suitable case to expand on existing literature about urban regeneration and the role of both old and new economic pillars herein. Hence, it responds to a challenge of urban redevelopment raised by Madanipour centred on determining the performance of innovative clusters, and their part in “the wider urban society and economy” (2014, p.125). Projecting this challenge to this specific case study, it aims to establish in how far Quartier Canal is “embedded as an integral part of the local economy, establishing mutual linkages rather than hierarchical and disconnected relations” (Madanipour, 2014, p.125). It questions in what manner urban design actually manifests itself with regard to this fragile balance, and faces socio-spatial resistance.

1.1 METHODOLOGY AND STRUCTURE

The settlement of the Muziekodroom is the starting point of what in this contribution is considered as the period of transition for the Hasselt Canal Zone. This departure opens up a history of 20 years of endeavours to guide and propel transition – or to obstruct this, depending on the perspective taken. The focus of this paper is the south bank. Here lies an estate defined spatially by the figures of the Albert Canal, with a sluice to the east of the area, a bridge to the west, and the outer ring road of the city of Hasselt (figure 1). It is historically known by the name Trichterheide. Planning and design processes dating back to the completion of the Albert Canal in 1940 are included, because they explain the genesis of the urban framework at the basis of later transitions. This paper is hence primarily based upon a discursive analysis of planning documents and design proposals. Data was retrieved from the city archive of Hasselt, archives of involved planning and design firms, and from online repositories.

In addition, involved stakeholders were invited (by means of snowball sampling) to shed light on the recent history of Quartier Canal and to express their perception of planning and performance of the area. Respondents include traditional and new users of the analysed zone of transformation, as well as involved architects, urban designers and planners. With regard to the occupants, the balance of this sample is tilting towards involved representatives of the more recent creative enterprises: it proved difficult to involve the more traditional users of the industrial estate. Users were asked to explain the history of their presence in the area, as well as to articulate their evaluation of the performance of the area in terms of density, mobility, and functionality. Furthermore, they were asked to phrase their evaluation of implemented planning concepts and processes. Involved built environment experts and civil servants equally phrased their insight in developmental processes past and present.

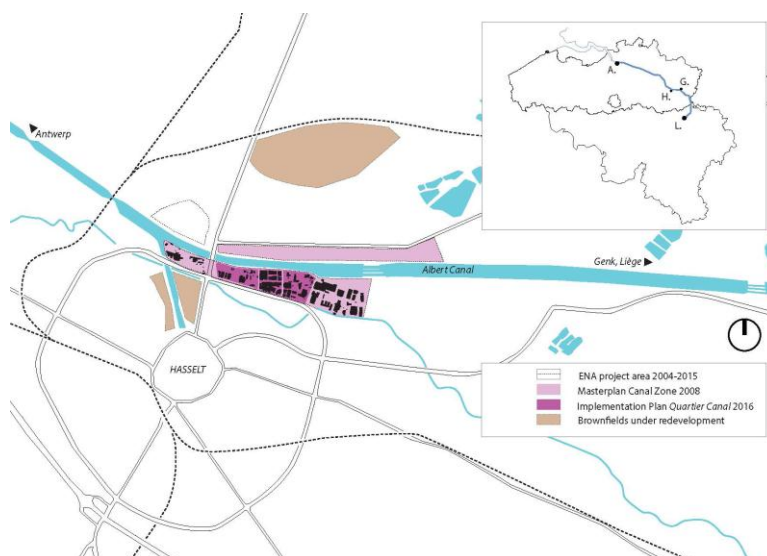


Figure 1 – The Canal Zone of Hasselt: linear and concentric figures intertwine

Hence, design arguments as well as economic and political decision making are interrelated. First, the main body of this paper synthesizes relevant economic circumstances and theoretical concepts to lay the foundation of this analysis. Secondly, the dynamics of using, planning and interpreting Quartier Canal, and by extension the urbanized area along the Albert Canal (figure 1) within the borders of the Hasselt-Genk conurbation, are discussed chronologically. The discussion extrapolates the local findings to the level of theory of urban design and redevelopment.

2 FROM TRADITIONAL TO CREATIVE INDUSTRY

This case study cannot be understood without framing the process of de- and reindustrialization of the province of Limburg, in which Hasselt is situated. Between 1966 and 1992, the seven coal mines, which had formed the provincial economic foundation in the 20th century, were gradually closed. Today, the province still has less economic resilience than the other Flemish provinces. Economic malaise has been battled by investing European subsidies in endeavours to increase labour participation, better education and economic diversification. two consecutive programmes for socio-economic restructuring were implemented, the first one between 1989-93 and the second one between 1994-98, partly funded from ESF and EFRD subsidies. Baeten et al. (1999) critically assessed the implementation of the second plan, which was characterized by fragmentation.

The Spatial Structure Plan Flanders (department RWO, 1997) selected the Albert Canal as an economic network (with the acronym ENA), which initiated a developmental trajectory to increase the economic significance of the Canal (figure 2). In 2004, the Flemish government effectively started to implement a 10-year plan for increasing industrial and transport activities along the Albert Canal (Flemish Government, 2004; Flemish Government, 2015; iris consulting et al., 2004). A "Limburg Plan" followed for the years 2006-09, which built on these ENA initiatives (Flemish Government, 2005). In addition, it emphasized strategic investments in other sectors to diversify the economic profile of the province of Limburg, stressing the opportunities of the creative economy. At that time, creative economies effectively sought and found a foothold in the Hasselt Canal Zone. Equally, prioritized investment in higher education directly affected this area. Responding to a new industrial crisis of the closure the ford Motor Company production plant in the neighbouring city of Genk, a strategic action plan for Limburg, known by the acronym SALK, was drafted for the province (Daems et al., 2013). SALK urges the traditional industry to distinguish itself based on local, sustainable and innovative production, and it highlights the significant potential the creative economy has for growth in the future.



Figure 2 – The Albert Canal between Hasselt (left) and Genk (right).

Hence, two pillars, of a creative and a more traditional industry, are drawn forward, which spatially come extremely close together in the Hasselt Canal Zone. Its developmental course testifies of influence from Richard Florida's (2002) notion of the Creative Class and of the notion of the Creative City (Landry, 2012), aiming for the stimulation of creativity as an economic driver. Evans warns that increasing examples of the implementation of growth models depending on the creative city thesis render this notion "a panacea for city and sub-regional economies" (2009, p.1005). Also, the vague definition of a creative class, which is exclusively assigned the power of creativity, has raised criticism (Markusen, 2006). Moreover, the contemporary production industry, with its innovation and smart city technology, is regaining its importance in contributing to a sustainable and circular urban model. According to the curators of the 2016 International Architecture Biennale Rotterdam (Brugmans et al., 2016), this is especially relevant for cities or regions dealing with an industrial transition.

Still, literature pertaining to the redevelopment of abandoned industrial sites demonstrates a hiatus with regard to productive urban estates where traditional users – industries, distributors and technical services – share a site with non-traditional users – creative industries and cultural institutions. Former industrial areas are exemplar of modernist dogma's and zoning practices, in response to which postmodern critiques formulate the importance of diversity as a "new orthodoxy of planning" (Fainstein, 2005). Most literature discusses former industrial sites as peri-urban transitional zones which have gradually been vacated, making room (after a certain period of vacancy) for urban programmes like service industries, arts and culture (Loures, 2015; Reicher et al., 2011; Stevens, 2015), often relating issues of heritage to urban planning and ambitious architecture (Oevermann and Mieg, 2015). Trip and Romein (2009, p.229) propose how "[e]xploiting its uniqueness could make a city's competitive advantage more sustainable, as it prevents quick imitation", and emphasize the importance of architecture and design in reinforcing local spatial characteristics. The blended use and interests proper to this case study define an arena of global interest and local intricacies (Larco, 2010), and the consequence for place-specific urban design proposals is investigated.

3 TWO INTERLACING PLANNING FIGURES

Plans for the Canal Zone dating back to 1938 already demonstrate diverse approaches to structuring urbanization between city and canal. The municipality sought to establish connection with the industrial area close to the city centre dating back to the 19th century, which became connected to the canal by an inner harbour. Its first plans for the Canal Zone also make a direct link to the centre via a boulevard, connecting to several educational institutes. Otherwise, the national Department of Bridges and Roads (Dienst Bruggen en Wegen) drew up grandiose urban development along the Canal in 1953, taking shape as a linear industrial city (Ryckewaert, 2011).

The final implementation of the ring road rather isolates the area from the city in the end. Ownership of the south banks by 1956 was divided between the Belgian state and the municipality, which is legible in the difference between urban patterns implemented. The Belgian state, represented by the department for shipping, centred on implementing a service road and rail infrastructure just east of the bridge, in support of provisioning and transshipment which would be developed there. The city architect designed an industrial estate consisting of six lots on the adjoining site. Some lots were joined during the development process (resulting in developable surfaces sized between 0,20 hectares and 1,05 hectares) and all became densely built over time. The municipality here built two generic warehouses targeting young companies. A flower mill, 20m tall, was also established along the canal in 1958. A second mill was established in the same year, more to the east. The building archive contains proof of many low-budget additions, like

offices, small garages, metal silos, and sheds, attached to the monumental industrial tower. Industrial and logistic SMEs developed the area clearly as a “backstage”. The organization into compactly built, small building blocks for which the city opted, would later form the prime foundation for its redevelopment. From 1964 onward, to the east of the municipal industrial estate, terrains were developed for industrial and commercial purposes, at lower densities and with bigger lots. On these lots, companies settled which were not dependent on the canal for transport. In 2000, the industrial zone was contracted, excluding the inner harbour which became an area for urban redevelopment. Simultaneously, to the west of Trichterheide, terrains were being developed for recreational and cultural purposes. These initiatives isolated the area from industrial networks and enveloped it with other programmes (BUUR et al., 2011b).

3.1 PIONEERING YEARS: NEW USERS ENTER THE FIELD

The 1997 Spatial Structure Plan for Flanders envisioned restructuring and intensifying existing business parks along the course of the Albert Canal, including the Hasselt Canal Zone. It had proposed to organize the spaces surrounding the Albert Canal as chambers, of which the conurbation Hasselt-Genk formed one, characterized by its urban character. At this point in time, the industrial estate Trichterheide was described in several planning documents as dilapidated because of its ageing road infrastructure, sewerage, non-existing green, and deficient parking system. It was at this time, in 1998, that the Muziekodroom started its gradual occupation of an obsolete slaughterhouse, which for several years had only served to stock old sports cars. First there was an insertion of a small concert hall and spaces for music lessons in an oversized building. An immediate problem was the fact that this function conflicted with zoning regulations, which was resolved before further colonizing the building. A lengthy legal process followed which ended in 2007 when, after facing severe protests from neighbours, the Muziekodroom was in accordance with zoning laws. Hereafter, the building exercised more influence on the public domain, as a large concert hall was constructed on the first floor, which required the placement of a significant fire escape on the side of the building (figure 3). Its effect of introducing a novel group of concert visitors initially was perceived with fear for burglary and vandalism by industrial occupants, but the Muziekodroom implemented good stewardship to prevent nuisance from its visitors to the neighbourhood.

Other entrepreneurs atypical for the industrial park followed by enrolling settlement plans in the two vacated flour mills. The tallest one was shut down in 2006 only to be repurposed within months by the architectural firm a2o, and was baptised the Silo (figure 4). The architects of a2o teamed up with a non-profit youth centre for cultural education called Villa Basta to fill in the large void at the site. The first task set by the architect was to demolish all secondary constructions not deemed fit for repurposing, opting for one clear and pronounced volume and diminishing the ‘backstage’ character of the site. What followed was organising representative openings and accesses in the former silo building, directing the “face” of the building toward the canal and to the heart of Quartier Canal. Retrofitting plans finally allow the current usage by a total of 13 companies. The terrains which were vacated were purchased by an entrepreneur in repair of electronics, who reused and expanded his warehouse on this terrain.

The smaller mill had already been repurposed in 2001 for a producer of jeans clothing, but was transformed in that period into a coworking space, under the name KAAI.16, housing about 15 companies in 2009. This building also was brought in connection with the canal by incising the brick structure with large glass planes. In 2008, a novel pop and rock academy, part of the provincial university of applied sciences, entered the stage. Its programmes were initially organized in the Muziekodroom, and after its first batch of professional bachelors graduated, the school started to occupy its own spaces within the same building.



Figure 3 – The retrofitted slaughterhouse, now a concert hall and rock academy (Hippo architecten)



Figure 4 – The retrofitted flour mill (a2o architecten)

All these “organizations and companies from the cultural, creative and innovative field” (a2o & KAAI.16, undated, p.1) settled here in vacated interiors, from which they started to exert influence on the use of public space by means of their architectural organization and because of the new audiences they attracted. There was no urban plan made for these novel activities, nor were these functions in accordance with the actual zoning regulations. As to the question why they opted to relocate to an operational industrial estate, respondents described how the process of gradual transition opened up opportunities of ample space and centrality in a dynamic location. Cultural organizations had been settled in the dispersed, isotropic urban landscape typical of Flanders, and took the chance to relocate to Hasselt where ambitious administrations sought to offer space for youth culture and innovative businesses in order to profile the provincial capital. Muziekodroom first benefitted from this central location, and ensuing organizations indicate that increasing presence of like minds and companies has been beneficial to their performance (e.g., students of the rock academy do internships at the close by cultural institutions). Architects working from Quartier Canal explained that this place outside of normality and top-down regulation, formed an attractive alternative working site compared to typical office parks which were sprouting along the outer ring road of the city. Municipal permit evaluations testify of the interest of the city to facilitate this “creative economy” in the Canal Zone (also see Arcadis, 2012), and respondents concur that the vision of the administration of the day proved essential to these dynamics.

3.2 CONSOLIDATING BOTTOM-UP EVENTS: PLANNING AND DESIGN

In response to changing functionality, the municipality took up the task to draw up a masterplan in 2008, which set as a goal to rethink the functionality of this area and its relation to the city. The implicit goal was also to negotiate a durable coexistence between traditional and new users. The Flemish urban design firm BUUR conducted research and design. They proposed three options for development of the Canal Zone: an “economic approach”, consolidating the original industrial and commercial purpose of the area; an “urban approach”, emphasizing the opportunities of its location to make an urban waterfront development; and an “integrated vision”, like option 1 stressing economic functionality, but going one step further in stimulating higher density, diversity and high-quality architecture. (BUUR et al., 2011a; 2011b).

Instead of continuing the discussion initiated in these design studies for the entire Canal Zone, the city opted to scale down to the acute issues of the south bank only. It initially sought to offer a legal basis for the cultural and creative economy and developed an implementation plan for those zones where these new users had settled. In a later stage the scope expanded to include the issues emerging due to presence both of a Seveso threshold 1 establishment, and public event locations. The complexity of expectations of roads and waterways, and the fragmented planning approach, led to the exclusion of the public domain from the planning process and product. The final plan provides guidelines for the kind of architecture which could be developed in the area, using terms as “front architecture” and “beacon” to define a level of ambition exceeding anonymous big-box architecture.

Before this plan in its final version was approved by 2016, the city was confronted with diverging interests (Arcadis and BUUR, 2015a; 2015b). On the one hand, the creative entrepreneurs and cultural organizations started to manifest their presence in the neighbourhood by branding it with the French name Quartier Canal. In a joint memorandum, entrepreneurs urge the city to acknowledge the Canal Zone as a “hybrid landscape where very diverse layers of usage are present simultaneously” and as “an area of expansion for the city of Hasselt” (a2o and KAAI.16, undated, p.1). In a strategic vision for the twin cities Hasselt and Genk, urban design firm BUUR (2013; also see Ruimte Vlaanderen, 2014) draws forward the opportunity to develop the Hasselt Canal Zone as a hinge between the city and the economic network of the Albert Canal. In this perspective, both cities possess structural elements linking them to the canal and which could make the Albert Canal one of the backbones for urbanization, and potentially include residential, economical and recreational programmes.

On the other hand, the municipality was led by advice not to hinder industrial occupation as present on the site. Government bodies such as the executive of the Flemish Waterways and Flanders Innovation & Entrepreneurship formulated such advice from their perspective on the Albert Canal as an Economic Network (Arcadis and BUUR, 2015a). In the ENA planning process, initiated in 2004, intensification of existing industrial estates along the canal is given priority, and is fitted into a vision stating that “[t]he diversity in working environments also needs to be translated into new industrial landscapes” (iris consulting et al., 2004a). The Hasselt Canal Zone is indicated as a key area for the ENA which is encapsulated by surrounding urbanization.

Furthermore, the agenda of ENA stakeholders manifests notably in their concern over what these proposals would imply for the petroleum company, and for the industrial sector as a whole (Arcadis and BUUR, 2015a). Urbanization, especially the introduction of residential purposes, would limit perspectives for this company, and this precedent was deemed by Flanders Innovation and Entrepreneurship to reflect negatively on all industrial SMEs present in the area. The executive of the Flemish Waterways in addition questioned the planning guides for new construction, wondering how industrial companies could keep up to the expectations of front architecture and (architectural) beacons. It protested against the designation of official cycling routes along the quays and towpaths, and against the idea to upgrade these quays as part of the public domain.

The result of the planning procedure was an implementation plan (RUP) which mediated between regulating the settlement of the creative companies, cultural organizations and the rock academy, and the continuation of the industrial activities which had been going on already for years without threatening their survival under the contemporary conditions. Outside these two groups, the process was occasionally interrupted by parties seeking to inscribe additional programmes into the area (for example, housing and wholesale business), in confrontation with the ambitions of the Cartier Canal Group, which frustrated the planning process. The plan did not make directive statements about the quality or character of the public domain.

3.3 EQUILIBRIUM OR STASIS? PERCEPTIONS OF USERS

While the implementation plan has facilitated the continuation of the equilibrium between new and traditional users of the Hasselt Canal Zone, concrete problems remain unresolved. The area still is indeterminate, which is also due to the priorities the city is setting for planning endeavours in other locations.

The indeterminacy coincides with lessened dynamics, in terms of the process of transition of the area. Overall, respondents share a sense of uncertainty about the direction in which the area will develop. Industrial occupants over time were concerned by the settlement of non-SMEs, and were surprised, stated the responding petroleum trader, about the support cultural institutions received from the city. He indicated how he has grown accustomed to the nature of coexistence, and learned to deal with the advantages as well as the disadvantages. From another standpoint, respondents pertaining to the creative sector lament the decreased dynamism driven by redesign of the public domain and attraction of additional players to strengthen the hybrid profile of the area. Actors in the cultural and educational sector perceived this negatively, as they have chosen wholeheartedly for a cultivated vision of an urban future of the area as a “creative site”, with which they interrelate the future ambitions of their organization. As one respondent from a cultural non-profit organization stated: “Underground is a thing that typically as a short-term effect.

After everybody knows it, the thing isn't underground anymore. Then, a comfort problem rises." The organization of the public domain, the perceived distance to the city core and the lack of parking spaces are seen as such comfort problems, which result in a limited attractiveness to cultural consumers. By organising (to some extent jointly) public events like theatre plays, concerts, bicycle drag races and temporary design & build actions, presence of the new users was felt stronger in the public domain, and the possibility of a fitting public urban space was probed (figure 5). With regard to the hybridity, respondents propose diverging arguments. The main characteristic of the area is one of "indefiniteness, [operating] under the radar, [working] bottom-up", thus formulated by the architect operating from the retrofitted flour mill. Actively engaged in the branding of Quartier Canal, he stated with regard to proposals for housing projects and a supermarket on the edges of the area: "people opportunistically interpret this [process of drawing up new plans for the area] and project programmes, to which we respond, that it has never been our ambition to do such a thing (...) The hybrid condition should remain." The director of the Muziekodroom, as the earliest pioneer of the area, acknowledges the aptitude of working self-sufficiently, as something which the site demands. He goes as far as to connect the "Rock 'n' Roll" identity of his organization to this condition. He refers to Berlin as an exemplary city where an innovative music culture thrives in retrofitted neighbourhoods (Bader & Scharenberg, 2010) and which offers an inspiring environment.

Respondents share a concern over safety of the area, because the public domain is not designed for the very diverse users passing through. Students face trucks crossing their path, and the roads attract cut-through traffic avoiding the main arteries. Concert visitors might wander off to the canal and fall in. On the other hand, industrial occupants seeking to keep the quays in use, plea for a clear separation of traffic flows. The consequence is that directors of the creative houses settled in Quartier Canal steal a glance at other developments in the wider urban environment, where actors in the cultural, technological and knowledge sectors are settled, or to the city centre. This poses a risk to the continuation of this urban experiment, as representatives in the cultural sector acknowledge the ongoing synergy as the main benefit of their presence in the area. Moving out parties is perceived as a negative game changer by those who would remain.



Figure 5 – An informal and temporary construction as a means to (re)appropriate the public domain

4 DISCUSSION AND CONCLUSION

Between the planning figures of the urban ring and the industrial Albert Canal, an experiment is being conducted of blending diverging economic and cultural interests. Early initiatives to inject the banks of the Albert Canal with a dose of creative economy were supported by local politicians and facilitated by the planning apparatus. The predominant perception among new users is that development of the area along this creative red line has come to a halt. It did so at a point where many issues related to urban design (the accessibility, the traffic safety, the quality of the public domain, the presence of a Seveso establishment close by semi-public facilities) remain unresolved and problematic to the functioning of cultural institutions and creative entrepreneurs. One of the instigators of the concept behind Quartier Canal has sold his company in a retrofitted flour mill after plans for expanding his business lost support at city hall. The faltering dynamic raises the question whether the concept of the creative city really is a panacea (Evans, 2009), one that neither fitted the persistent industrial interests materialized in this site, nor the ambitions of

a new group of users which colonized the area and faced its continued industrial usage. Based on the analysis presented in this contribution, I conclude by bringing both affirmative and negative arguments to the fore.

In a positive sense, the undefined nature allows the area to continue its manifestation as a zone of exception to the common rule, a counterweight to the very formal city centre of Hasselt – although it is questionable for how long still, given the concern over the perceived stasis among creative entrepreneurs. Its informal status invites bottom-up and temporary initiatives by its occupants to claim the streets of this hybrid industrial park. Many of the arguments in support of the settlement of new companies and organizations thrive on a shared notion of creativity which brings to mind Florida’s “creative class” discourse. The notion of creativity cultivated here is however of a higher inclusivity: creative enterprises coexist with more traditional industrial and logistic SMEs and service companies which are not typically acknowledged as “creative entrepreneurs”. Many of the occupants, across business sectors, identify with the informally organised network of Quartier Canal. There are signs of resistance against speculation and gentrification embedded in this cooperation. Moreover, in a region like Flanders, where urbanization has spread across the larger part of the territory and is best characterized as sprawl, shared usage of space is of increasing interest. The condition of living-apart-together proves a valuable demonstration of opportunities and pitfalls for a more intensive use of industrial estates.

But its resistance to continuing processes of urban development comes with very concrete problems of which traffic safety is the most pressing. The solution of connecting the university campus south of the outer ring road via a tunnel or bridge to cross the ring road to Quartier Canal is urgently needed. Alternative links between Quartier Canal and the city centre, via the towing paths and quays, have been proposed in planning and design documents as well as by local actors, but remain subordinate to the linkages in support of the Economic Network of the Albert Canal. Linkages between similar zones in the urban matrix consequentially remain too limited. It is on the level of infrastructure, that diverging interest come into collision most clearly. Diverging disciplinary frameworks and interests prevent discussion of potential interventions in the (semi-)public domain, if even on paper. Interestingly, in defending their cause, both traditional and creative industries support their viewpoint arguing for the sustainability of it: the industrial use of the waterway, for example, ensures a sustainable economic armature in relation to a transport sector offering alternatives for lorry traffic on the overburdened Belgian road network. From another perspective, creative entrepreneurs argue that new economic directions are needed in face of post-industrial developments. This condition curtails the role of a directive party (the city) to implement design concepts in response to acknowledged spatial problems.

This problem is centred on an indeterminacy between cultivating the state of exception of the area, and the resistance against developing its status and organization, thus sacrificing the origin and pole of attraction which led to the second colonisation of the site in the first place. There is a friction between the flexibility and consolidation allowed for in urban design: this affects both the interest of creative entrepreneurs in a perceived state of flux, and the freedom for traditional industries to develop their business unhindered by urban norms and standards. A spirit of DIY, Do-It-Yourself, remains present and is made tangible in the public domain, but requires a booster. While the municipality has defined its role mainly by consolidating the contemporary situation, most respondents are seeking for a clearer perspective on continued development, in order to determine their long-term ambitions on this site. Apparently, this legal consolidation is not enough to ensure sustainable coexistence of industrial, cultural and creative parties. This raises a new challenge with regard to urban design, namely to detect the common denominator for productive interaction in the public domain between involved actors, in order to start from here to bridge the gaps, and to maintain the continuity and communication lines in relation to the developmental process.

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ID 1549 | SUPERBLOCK VS. TRADITIONAL GRID IN URBAN DESIGN IN BARCELONA: INTEGRATING SUPERBLOCKS WITH EACH OTHER THROUGH WALKABLE PUBLIC GREEN AXIS

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1 INTRODUCTION

One of the most effectively working urban patterns is grid layout which has been worldwide accepted since the ancient settlements in history. Barcelona represents one of the most spectacular strict grid pattern since 1850s as a result of new demands in urban development in the city. This research will handle the grid pattern from a different perspective focusing on a transition from grid to Superblock and a simultaneous transformation in urban transport memory. Therefore, research question is to reveal what Superblock proposes in Barcelona as a change in urban transport memory. In this context, firstly, grid urban layout will be defined with its advantages and drawbacks in general. Afterwards, the historical being of Barcelona's grid structure and Superblock idea will be presented. Here the significant point will be touching upon basically the change in grid pattern and its prospective contributions on new urban transport memory. Finally, transition from grid to Superblock will be critically discussed by considering the aspect of expected transport memory reformation.