Cities as shared imaginary matrices
The case of an urban transformation project

Philipp W.A. Schnell and Camillo Spiegelfeld

Abstract
In this research project we have used drawing as a research tool to investigate imaginary perspectives on city transformation in a context of Arts Based Research. We drew over photographs of a vast urban transformation site in the periphery of Vienna and analyzed the results. Thereby, we want to highlight visual structures of perception, unearth possible imaginaries that are bound to urban transformation and create creative input for future urban planning processes. Results have shown that images of newly built structures appear visually sealed, straight lined and somewhat antiseptic, with highly ordered, rectangular forms dominating the frame. In contrast, edited images with structures from the 20th century or a mix of old and new buildings exhibited organic, chaotic forms, less clear cut, straight-lined edges and an overall dominance of organic matter in the photographs. From this we infer that a balance of organic and inorganic matter develops over time and is not omitted or forgotten in the planning process. Also, the artificial, visually sealed design and the limitation of green spaces in images of new buildings are most striking. Plants simply need time to grow, engaging newly build structures in a dialogue that can be witnessed in the different images included in this article. Also, we show that imaginations of urban planning appear to be largely based on functional forms and straight-lined facades, with a balance of natural and artificial structures mostly neglected. Drawing, however, can highlight these aesthetic principles and constitute a tool to break up encrusted, traditional imaginaries of urban planning, serving as an inspiration for urban planners and architects alike. In this context, drawing can provide a welcome tool for collaboration and aesthetic experimentation that is accessible to all parties in the planning process.

Keywords: Arts Based Research, Doodling, Drawing, Urban Studies, Urban Transformation, Mixed Methods

1 - Introduction
Authors such as Rem Koolhas (1993) or Deyan Sudijic (2016) have shown that cities are not only physical containers for social interaction constantly reconfiguring their cultural or technological foundations, they also function as a spatial matrix for projecting common and individual imaginaries. Different forms and formulations of Bacon's Idols (Bacon 2000) are therefore reflected in urban spaces as a result of personal or shared imaginations mirrored in the city. Referring to Umberto Eco (1989), the city can be interpreted as an 'open work', constantly under construction, open to interpretation and prone to continuation of a commonly shared narrative, embodied by the spatialized individual, its life-goals, personal history and possible futures (Massey 2005). Relational Aesthetics (Bourriaud 2002) could frame the city as a network of social relations that result from and are transformed by encounters with urban spaces, so that the city promotes social interaction and produces interpersonal relations that in turn transform urbanities as collaborative creative endeavors. In all cases mentioned above, the city is not only understood as a spatial container for activities, but as a multifaceted and multidimensional space for projecting and creating individual and collective futures
that are then realized in urban surroundings. Creativity as an expression of a commonly shared imaginary 'takes place' in the space of the city and is realized in its physical structures. This became especially evident since artists have been discovered as agents of urban change (Markusen and Gadwa 2010a; Debroux 2015; Manach and Pop 2017). Hence, we argue in this article that cities can be interpreted as shared imaginary matrices that reflect individuals’ perspectives on urban space as well as collectively negotiated imaginaries that guide social interaction or economic activity and are reflected in social norms and values. Shared economic principles that make the productive wheels of the city turn, can be seen as one such imaginary matrix; The principles of public health and the health care system constitute another. The city as an 'open work' suggests, nevertheless, that an infinite number of such matrices exist, which are ultimately bound to individuals, their feelings and emotions (Thrift 2004, 2008) as well as their history and life goals as mirrored in city space (Massey 2005).

In this research project we attempt to explore possible imaginations that are tied to an urban transformation site in the suburbs to Vienna, by using drawing as a creative approach to research urban spaces, their possible imaginaries and aesthetic principles. We drew over photographs of Liesing (figure 1), an area located in the southern periphery of Vienna, where an area of 730 hectares is developed in a 10 year-long transformation process that turns a formerly agriculturally, then industrially dominated area into 'Liesing Mitte', reuniting three scarcely developed district centers under a common development plan, sharply increasing housing capacity and economic activity (Stadt Wien 2020). Drawing over pictures of the transfor-
information site we want to highlight visual structures of urban transformation by juxtaposing photographs of old buildings, sites that contain both old and new buildings and newly built structures in the area, while meditating on different interpretations and imaginaries tied to the photos and the visual representations that emerged. By doing so, we want to delve into the commonly shared imaginaries and possible creative perspectives on city space and show what they can contribute to urban development from an aesthetic perspective of Arts Based Research.

2 - Conceptual notes and methodology
Barone and Eisner (2012: 13/16), two of the pioneers in the field of Arts Based Research, described its merits as follows: „[T]o the extent that an arts based research project effectively employs aesthetic dimensions in both its inquiry and representational phases, to that extent the work may provide an important public service that may be otherwise unavailable.“; „Instead of contributing to the stability of prevailing assumptions [...] reinforcing the conventional way of viewing them, the arts based researcher may persuade readers or percipients of the work (including the artist herself) to revisit the world from a different direction, seeing it through fresh eyes, and thereby calling into question a singular, orthodox point of view (POV).“

Artistic or creative strategies in research can, therefore, show how issues and problems can be framed in different terms, viewed from fresh perspectives and reformulated in artistic media, highlighting new innovative, aesthetic approaches. With respect to urban planning, authors Vivant et al. (2015), Borén and Young (2015) as well as Vivant (2018) have demonstrated how Arts Based strategies can enrich the urban development process, create awareness for aesthetic dimensions of city planning and include previously unconsidered aspects in project development. Also, Vasudevan (2020) detailed how Arts Based Research strategies are used to evaluate personal relations to places in regional planning. Gerber et al. (2020) elaborated on how Arts Based Research can promote research in the health and social sciences, while Hiltunen et al. (2020) showed how belonging can be investigated with Arts Based Research Methods. Arts Based Research seems to carry numerous benefits, when it comes to conveying emotional, imaginary or aesthetic perspectives on a particular issue at hand. Therefore, we believe that Arts Based Research can greatly contribute to the creation of new insights for urban planning, offer aesthetic approaches for development projects and foster the understanding of project planning as a creative practice. It is in this context, we put together this research project.

Consequently, doodling or drawing as a research practice may emphasize basic structures of perception, highlight recurring visual patterns, help identify shared imaginaries and create fresh perspectives on previously undisclosed aspects of urban development. We understand drawing and doodling as an artistic reformulation of visual data as mirrored in a number of photographs of the area in question. The researchers took the photographs on an on-site visit to the urban transformation area. We then classified them in three groups: 1) Areas with 'old' buildings, stemming largely from the 20th century, 2) areas with old and new buildings in close proximity/mixed, 3) areas with new developments, constructed within the last five years. The photographs included in the study were selected at random. Then we applied two doodling approaches: One approach using procreate, a drawing app for tablet computers, the other using physical drawing tools. A selection of edited photographs is depicted below in figures 2 and 3, where the left-hand column represents newly built areas, the middle column shows old and new structures mixed, and the right-hand column depicts photographs of old building stock.

3 - Results
The data created with our doodling approach can be found in this section, before we will discuss results in the next chapter.

The first series shows the doodles created in the drawing app procreate. Built structures were outlined with the digital equivalent of a gel marker. Cars and plants were outlined and filled with blue and green color respectively, so that visual structures of perception would be accentuated. The visual patterns thus produced can be analyzed in greater detail, with respect to the visual reformulation of city space in drawing.
Figure 2: Doodles of urban transformation site, Liesing, in Procreate Drawing App
Figure 3: Doodles of urban transformation site, Liesing, with physical drawing tools
From the pictures we infer that rectangular forms and plain surfaces dominate the newly constructed areas, limiting or eliminating space for nature and plants. This is on the one hand due to the short time that elapsed since construction was completed and thus the young age of plants that occupy only very little space in the pictures. In contrast to grown structures in the ‘old city’ photographs, surfaces appear to be ‘sealed’ not only physically, but also visually. The ‘sealing’ of ground in urban construction efforts, here, is accompanied by a visual sealing that also includes vertical structures, in addition to horizontal planes. Photos of old and mixed construction areas, on the other hand, are dominated by green, seemingly chaotic and organic surfaces that developed over time and are often overgrown by plants. The result is a visual symbiosis of forms that rely less on the contrast between naturally grown and built elements, but on their integration. While in the mixed site photographs green and blue surfaces seem to frame buildings, the doodles of old structures seem to ‘drown’ in green. Photographs with newly built structures appear somewhat antiseptic and highly ordered, while mixed and old structures show organic, chaotic, rhizomatic surfaces. Time also seems to play a role, which is accentuated by the juxtaposition of the three columns of pictures that represent different timespans since construction. This is further accentuated by the contrast of grown structures and planned rectangular surfaces and their shifting visual dominance in the pictures. With time plants seem to grow and overlay rectangular, built surfaces, giving way to an organic feel of street views.

The second series of drawings, depicted in figure 3, deduces a visual language that results from the juxtaposition of ground elements, including buildings, plants, cars etc., and surfaces covered by sky and clouds. By outlining the visual frames of ground structures and thus separating them from the skies, we can understand the ‘empty space’ of the sky as a signifier pointing to visual cues of perception. In detail, organic outlines in the right column appear more chiseled, fine grained, jagged and chaotic, while drawings in the middle and left columns exhibit largely rectangular, artificial, straight lined imageries of recent urban construction. This results in clearly cut forms that guide the viewers gaze in a linear fashion, often along the perspective axis, i.e. in the left hand column. In the middle and right-hand column perspective is largely omitted in the drawings as buildings or plants cover most of the frame, leaving us with little specs of blue framed by the jagged forms of treetops or the straight lines of facades. From the left to the right, outlines of buildings are getting harder to recognize, with rectangular artificial surfaces giving way to rhizomatic, organic structures of buildings combined or overlaid with plants. The second series thus offers a continuous perspective moving from straight-lined contours of freshly constructed buildings to fine grained and jagged outlines of organic material invading the straight lines of human developments. As mentioned earlier, the dimension of time seems to impact visual transformation: a dominance of straight lines and rectangular forms appears to give way to accidental, uncontrolled growth of organic material, which increases with the time passed since construction. On the other hand, organic forms are sorely lacking in the left hand columns, which begs the question, if and to which extent they were a factor in the planning process.

4 - Discussion
Comparing both sets of pictures, the contrast between organic visual structures, compared to clear-cut, planned, artificial surfaces is most obvious. In the left hand column rectangular, straight-lined shapes take up space on the ground and on the vertical plane, resulting in a visually sealed, hermetic space that is reflected in the doodles. Straight-lined, antiseptic and sober visual appearances stand in contrast to chaotic, organic, ragged and rhizomatic forms without clear separation lines or lines of flight. Perspective is often obscured by large elements of green, like the pictures in the right lower corner in figure 2 show. However, the drawings above indicate that linear and rectangular lines of vision are largely overlaid by natural and grown elements that foreground the symbiosis of built structures with nature. While this integration is (or might be imagined to be) sought also in new developments, this does not become obvious from the pictures themselves. This can be due to relatively young and therefore small plants and thus the visual omission of organic matter in the left column or the neglect and/or clustering of green spaces during planning: In one instance architects designed a central green area with a playground in the midst of newly built apartment blocks, which is not shown in the
pictures. Also the choice of photographs can be an issue, although the pattern holds for all or most of the doodles, pointing toward a serious point of contrast.

This juxtaposition also highlights aesthetic principles for the construction of city space and how it can be researched and influenced in various ways. As Vivant (2018) and Kullmann and Bouhaddou (2017) have shown, creative strategies often emphasize aesthetic dimensions of urban planning that can subsequently inform planning processes and procedures. Also, Arts Based strategies can create new sensibilities for issues and problems that have previously not been realized or acknowledged (Debroux 2015; Ikeda 2015). Finally, the inclusion of artists in urban development projects can add new perspectives and new dimensions of planning that may inspire and motivate architects (Borén and Young 2015; Vivant et al. 2015) and create unexpected, unintended, creative outcomes (Lundman 2018; Bobadilla et al. 2019). The integration of creative strategies in the construction and transformation of urban spaces can therefore serve as an inspiration and transcend the boundaries of architectural planning and the creative use of urban spaces (Markusen and Gawda 2010b; Kullmann 2015; Carrasco Castro 2019). In this respect, results from our analysis suggest that drawing can potentially inform the design process, searching for visual and aesthetic cues for city design. Also, the drawing space serves as a space for experimentation, where changes can be reversed quickly and without much cost. Finally, drawing affords the expansion of boundaries of architectural principles: It can be used to test new imaginaries against the structures of the built city and provide a basis for decision-making, when it comes to their realization.

Also and in line with the foundations of Arts Based Research, doodles are not fixed answers to a preconceived problem, but remain open to interpretation and exploration. The drawings themselves present possible solutions to potential or previously un-conceived problems. They open up an imaginary matrix of possibilities, to meditate on urban transformation and its possible implications. This matrix can then point to possible futures (Koolhas 1994), possible pasts (Augé 2012) and possible poetics of space (Bachelard 1994). Possible histories, potential future imaginaries and life courses can be built upon these images (Massey 2005) and be reflected in new constructions. The aesthetic dimension of cities as imaginary matrices can point to a re-thinking of space as an intensity of affects that may provide the basis for designing spatial surroundings according to people’s emotional needs and personal aspirations (Thrift 2004, 2008). In our case, the omission of ‘green’ in the surfaces of new developments is most striking. In future projects inhabitants of areas in questions could analyze and judge planning proposals, based on images and architectural sketches. Thus, problems and issues of concern, also from an aesthetic point of view, can be dealt with before construction starts, paving the way for a collective reasoning process that involves planners, users and political decision-makers alike. Finally, drawings can explore the potentials of urban planning and help analyze aesthetic, technologic, social or economic aspects that might not have been obvious beforehand.

In this way Arts Based Research can inspire the planning and decision-making process possibly leading to more bold, innovative and aesthetically sound decisions. In this sense, the city, or the images we create from it, become a canvas for collectively exploring and realizing a commonly shared imaginary. Also, possibilities of city planning can be investigated and negotiated in an Arts Based process based on drawing as well as various other creative media. This way artistic production can inspire interaction and discussion, potentially bringing up matters of interest that would have otherwise gone unnoticed. Moreover, the boundaries of creative urban planning can be expanded this way, broadening the horizon of planners, artists and inhabitants. Finally, the use of Arts Based strategies in urban planning highlights the fact that cities are or could be a truly collaborative endeavor that involves all of its inhabitants and users. Arts Based Research may be a way to integrate parts of society that did not have a voice before and involve them in a creative encounter with their living environment, thereby promoting equality and social inclusion. Arts Based explorations of city space, as exemplified in this research project, may be a first step in this direction. In this sense, the doodles are a research result in themselves, revealing possible imaginations that open up a space for reflection and engagement that can in turn influence architecture and urban planning.
5 - Conclusion
In this research project we have shown, how doodling or drawing can contribute to a critical assessment of visual structures of city design by highlighting patterns of perception with artistic means and creative strategies. As a result, we delved into possible imaginaries and reformulations of urban city space from a perspective of graphic art. These imaginaries can then serve as a basis for encounters with and discussions on urban planning and its effects on different social groups, thereby heightening awareness of problems and issues of concern, inspiring innovation and sharpening an aesthetic sense of planning and execution. This points towards the myriad possibilities of urban planning that, we argue, are all too often limited by pragmatism and utilitarianism in practice. Arts Based Research strategies provide an easy tool that can be used by anyone interested in the planning process so that affective, aesthetic and functional concerns can be articulated. It can therefore present a tool for social inclusion and awareness-building in the planning process.

The insights from our research project can thus inspire future planning projects and provide the conceptual basis for rethinking and opening up urban planning to the potentials of creative strategies from the field of Arts Based Research. From our perspective, and drawing on preceding literature, we find evidence in our study that urban planning and the creative part of organizing city live will greatly benefit from including artistic perspectives in the planning process. As previous research has shown (Gerber et al. 2020; Hiltunen et al. 2020; Vasudevan 2020), this can effectively impact the social, economic and ecologic footprint of the city, therefore, improving city life for inhabitants and users. We hope that this article constitutes an initial step in this direction that will inspire future researchers or urban planners to follow suit.

References


