



Moments of experience in urban design projects

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Abstract Working at a large scale, it might be easy to miss human scale sensitivity in urban design projects. While it is important to analyze macro scale characteristics, movements, flows and systems, most of these issues also have to be considered at the micro scale as they influence the immediate human experience of the environment. In an urban design studio for undergraduate students at an architecture department, a major focus is to observe, analyze and design moments that students experience on site along with large-scale systems. This process results in a scalar flux throughout the project. Another main concern for the studio is to pay attention to discreet moments and characteristics of the site and integrate them into design process to amplify and improve the character of the place.

During their first visit to the site, students acted as Flanuers and prepared conceptual pieces representing their first impressions. Later, through a more formalized and systematic observation, they recorded and analyzed conditions that had attracted their attention. Secret spaces, hidden layers, heat affects, smells, compression-and-tension, enclosures, thresholds, moments of memory, unconventional landmarks, and barriers are some of the conditions that the students noticed. Analyses of such conditions required some experimental and unconventional tools and methods of representation.

In addition to the small-scale analyses, larger scale conventional analyses were conducted and synthesis diagrams were created. Various conditions of different scales were mixed up and recombined together by the help of a game process. Resultant moments were diagrammed and became important nodes for master plan, while the overall logic of the game shaped up a vision for the site. While it is a challenge to connect design thoughts and ideas of different scales during the design process, fragmented moments were stitched together for a cohesive master plan that also addresses the macro scale concerns. This paper will present the overall process of the studio while focusing on various representation methods and strategies that were not only useful for analysis, but also had a generative role in the design process.

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Introduction

One of the biggest challenges of teaching urban design studio is to enable the students really understand the situations they create within acres of land. When dealing with sites at a scale beyond one's immediate grasp, the convention is to understand, manipulate and reconstruct that environment through a scaled down drawing. Although this method will help to understand and organize a lot of information influencing a large area, it might also result in a lack of a sense of human dimension and experience. Especially, when students deal with urban design for the first and mostly the only time during their undergraduate education, the design process can easily turn into geometric forms created on paper in the isolated studio environment and data collection can be minimized to whatever can be represented on the scaled area maps. In order to make the students understand that despite the large scale, urban design is about creating sequence of spaces, which cannot possibly be occupied simultaneously by a single person. It is not a large single area made of motives of streets and blocks. This large area under one's hands through scaled drawings cannot be perceived at once and will never be experienced at once, rather it will be a sequential experience of one street, block, plaza after another.

Although the utility of scaled aerial views is clear, its overuse can mean keeping oneself at a distance from the object of design and can be associated with Situationists' second-hand alienation, which negatively influences individuals' and societies' quality of life (Debord, 1958; Plant, 1992). Within this context, an undergraduate urban design studio at Southern Polytechnic State University focused on methods and techniques to purposefully design moments for users to experience meaningful situations in the urban environment. For this purpose students themselves were asked to experience and represent surprising and delightful moments on the site. Thus, the studio focused on sequential, fragmented, and place based studies and representations, in addition to the conventional wholesome explorations through aerial view representations.

Process

In order for students to create meaningful moments and situations in an urban environment, they need to create thoughtful links to memory and to current sense of place. Therefore site visits played a major role in this studio. Students were required to visit the site couple of times and create conceptual pieces as well as analytical recordings of their experiences. First visit resulted in a conceptual piece; and eidetic image (Corner, 1999), which represented the students' initial impression. These piece was created individually and could be anything from a painting to a three dimensional collection of found materials on the site. While their understanding and knowledge of the site deepened throughout the time, this piece reminded them what the place communicates to people during the first time encounter. Dwelling on this first impression, the student then went back and conducted a deeper and systematic analysis of special moments they identified. As they did more research into history, demographics, flows, movement, topography, urban development, precedent analysis, they made notes of important facts and moments both verbally and graphically. They also had to synthesize all these partially by the help of a game process. Among vast amount of information, the students had to prioritize and select specific observations and studies in order to use in the game. The games aimed to stimulate the students' imagination and creativity and to stir up the conditions of the site for design possibilities (Bunschoten, 2010). They also contributed to students' design inspirations both graphically and conceptually.

These games randomly associated seemingly irrelevant components of site observation such as various urban conditions or spatial characteristics on site and in selected precedents, important demographic data, relevant morphological typologies, emotions, some initial design ideas, land use, relevant social conditions, sensual experiences etc. Although the essence of the game is to create random combinations of selected elements and can be seen as a simple permutation, it has to be built materially with a goal of physical inspiration in mind. The random combinations are

then evaluated by logic and become scenarios for various moments on site by the help of graphic representations.

Due to overall methodology and logic of the games, students create fragmented moments and ideas at varying scales. Students then combine the small-scale moments of the game and analytical data to structure a scenario and a vision for a master plan. The game also advocates for a “ground up” and deductive approach rather than a “top down” and inductive approach to the design of the urban environment. Master plan becomes a collection of small moments of experience and amusement rather than a collection of lines, shapes and planes drawn on a map. In this sense, the studio sets up an exploratory and experimental discourse. The following sections will explain this pedagogical approach by presenting examples of student work.

Site

The sites for the studios were selected in Atlanta along an unused railroad, which is being revitalized. The railroad is higher mostly than the west side and presents a physical barrier for any flow across. It has been accepted as the signature project for the city and is being transformed into a green corridor connecting parks and neighborhoods. For something that has been a barrier, boundary and an isolated entity from the urban context for such a long time, the rail corridor presents a lot of learning opportunities for students. The students have to deal with its history, horizontal and vertical disconnect along and around the corridor, fragmentation in the surrounding urban land, and topographic challenges during the project.

Student Work

Three student groups are selected to present the process and representation techniques used for the process. First group focused on the loss of sense of place on the site. Walking around the site, they examined a considerable change in the sense of place among various parts of the site. Examining preserved sections they documented various types of boundaries, thresholds, sensations and emotions they liked. Afterwards, they categorized these situations and created graphic representations both in plan and section and matched them various photographic examples from the site. As a result, they had a visual catalog of selected urban conditions existed in different physical forms. They also represented some of the conditions on the map. When they designed their game, the students preferred to use these conditions, emotions and selected street names for associations. As a result of playing the game, they could assign conditions and emotions to actual places. In addition, they also decided the connection and transition between the various parts of the site. The rule for game playing was that each result should be accepted as a scenario and sketched out as an urban moment. It could be a crazy idea and seemingly conflicting, but as the students sketched it they had to rationalize some of the associations and sometimes could enhance it (Fig. 1).



Fig.1 Visual catalog analysis, map analysis, game design, and sketches of the game results

When this group designed the master plan, they designed the conditions at certain locations to inject a character to the surrounding area and influence the urban morphology. Some of these conditions included elements that had to continue and blend into the neighboring spaces.

Sometimes, there was a transitional moment neighboring a designed condition and the two conditions had to be mediated. Naturally, the street system and connections to the larger context were materialized through the use of a large-scale map. It was an iterative process, where the students had to reconcile various scales of ideas. Consequently, the group designed a large area by stitching various moments of various scales. While they had to represent the master plan in aerial view, they presented the rendered moments that gave life to the plan (Fig. 2).



Fig.2 Master plan and illustrations of urban moments via various projection techniques

Another group in the same site noticed distinct sensations and views during their first visit. Some streets felt more pleasant than the others and there were many elements layered on top of each other creating interesting views and frames. For a systematic analysis, they explored how thresholds and enclosures are created in the streetscapes and documented various conditions. They used manipulated photography and digital sketches in the plan and section to study these conditions. They also identified that the rail corridor creates distinct topographic conditions in different locations through the site. While it was leveled with the surrounding environment at some points, it was either higher or lower at others. The same was also valid for another main corridor on site, which was another major barrier to the flows perpendicular to it (Fig. 3). The sense of place on the site was very fragmented and divided by the main rail or vehicular thoroughfares. However, there were small-scale urban places hidden in the neighborhoods, which felt semi private and where the students could find physical evidence of community involvement, historic elements or visually pleasant experiences or views. They called these spots secret places and decided to replicate them to give character to blocks and areas. They also realized that some views were created by elements and configurations within small-scale urban spaces, and some others by visual connection to remote urban elements. When they designed their game, they included all the above as well as some emotions, smells, sounds and transportation options as game components.

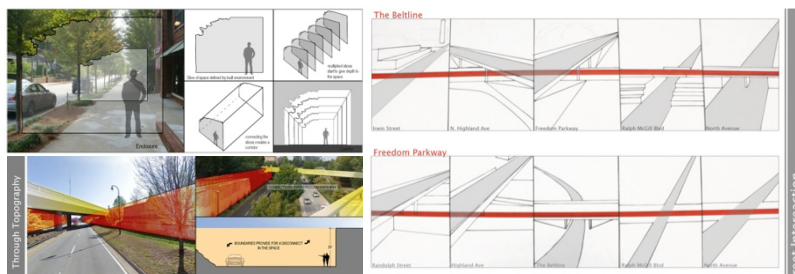


Fig. 3 Analysis of vertical and horizontal layers on the site

Their game was made of rubber bands and beads with different colors. Each band color represented a transportation mode and each bead represented one of the other game components. Using a series of wooden frames they created both vertical and horizontal layers of rubber bands carrying various colors of beads. While playing the game, they brought various bands together at various points and held them together by the help of metal sticks. Consequently, they formed various urban nodes with a combination of characteristics they would not rationally be able to put together. They also were able to experiment with various ways of connecting those nodes. When they created urban scenarios out of each result through diagrams and sketches, they rationalized or enhanced some of the combinations (Fig. 4).

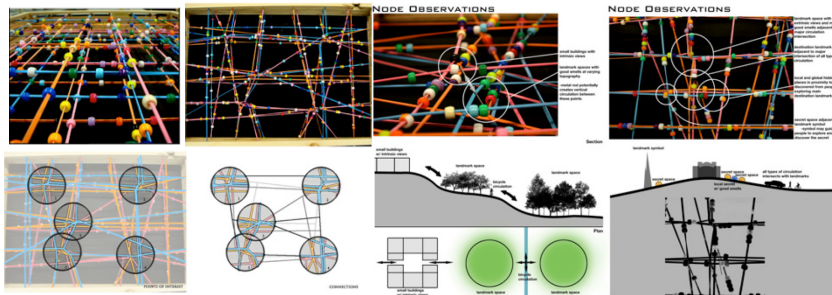


Fig. 4 Game design by colored rubber bands and beads and its nodal results

At the end, the group selected two areas of the site to develop in detail and treated them as larger nodes of the game scenarios. In addition, they designed smaller nodes within those districts in more detail. For this group, the master plan did not include block design and typologies, but just the land use assigned to various areas and blocks. Their design for couple of blocks at each district was fleshed out with renderings of ideas that made use of the topographical changes and enhanced vertical and horizontal layers of the site (Fig. 5).

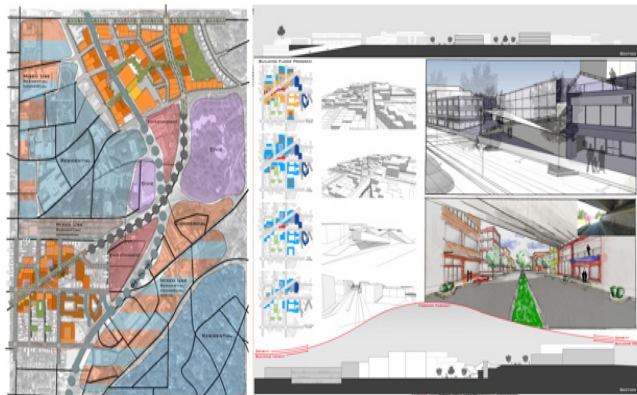


Fig. 5 Nodal design of the overall site and moments with an emphasis on vertical and horizontal layers

Another group, which worked couple of blocks north of the first two groups, were given a smaller area on one side of the railroad tracks. They looked at the site as well as its surrounding neighborhoods and once more confirmed the fragmentation and disconnection within the area. For a systematic analysis, the group chose to have cross sectional photo collage technique to represent how the area is disconnected in terms of ambiance, land use and density. They also realized a polarization between the interior and the exterior of the buildings after they studied the concentration of people throughout the site (Fig. 6).

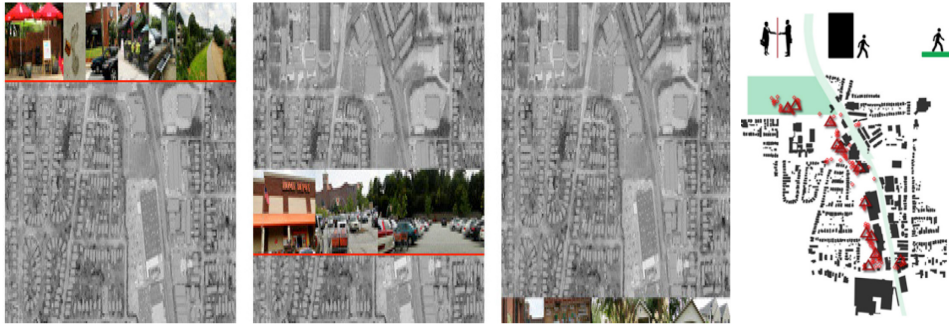


Fig. 6 Analysis of fragmentation on site through sectional photo collage and representation of concentration inside and outside of the buildings

The varying ambiances were studied through the feeling of compression and release felt walking down the streets. The group realized that the size of blocks and buildings as well as setbacks were the physical determinants of the compression and release feelings. These conditions were recorded diagrammatically through both an unfolded walking route plan and sections. The group also realized that physical fragmentation of the site was not only evident in topography, scale, materials, density in addition to the afore mentioned points, but also in sounds present on site. They explored these conditions both through smooth and abrupt changes of sound and noise through the use of sections as well as unfolded plan of a route they took through the site (Fig. 7).

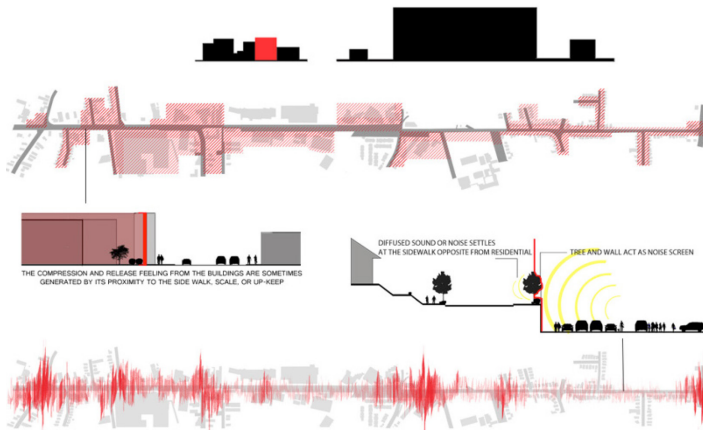


Fig. 7 Exploration of compression and release as well as sounds on the site

Through the precedents analysis, this group realized that there are urban examples which contained a continuous urban experience through street connectivity at macro scale and through connections between exterior and interior of the buildings at micro scale. Influenced especially by Savannah’s urban structure, they wanted to design the site using a block typology that changed based on the topography, land use, emotions, needs of various user groups, views, spatial ambience etc. This vision was formalized before the design of the game process and guided its formal and structural formation. Therefore, when designing the game, the students made use of the graphic representation of the vision as inspiration. They created square pieces of chipboard with varying sizes and color, and spaired them on linear pieces of chipboard. A transparent box of Plexiglas with gridded holes on its four adjacent surfaces held the linear elements parallel and perpendicular at each other at varying heights. The linear elements could be placed next and on

top of each other at different distances, so that the squares along them could be slid to different locations and create different relations to each other. The squares were hollow to allow views to be created by the squares behind, each of which representing a different condition. So, by placing the linear elements in different holes and sliding the hollow squares to different locations, the students created distinct situations bringing tangible and intangible as well as physical and experiential characteristics together. Couple of results was selected, manipulated and graphically illustrated (Fig. 8).

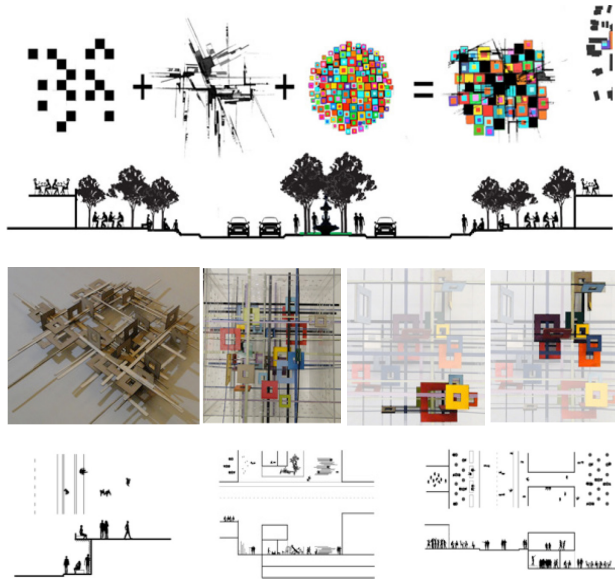


Fig. 8 Development of urban vision at multiple scales, game design and scenario illustrations

As a result the group created a master plan based on block and building typology inspired by not only conceptually and programmatically, but also formally by their analysis, vision graphics and the game design. The building typology was created based on stacked hollow and whole prisms, which were twisted or retracted at varying degrees and levels, in order to form distinct public, semi-private and private exterior spaces as extensions of the adjacent interior spaces. Enriched by various combinations of physical, programmatic and experiential characteristics, these exterior spaces were set to provide a continuous and lively urban environment. Continuing their initial representation of the analysis of the macro environment in sections, the group provided sectional cuts throughout the site with connections to the adjacent neighborhoods as well as renderings of particular moments of their design (Fig 9).

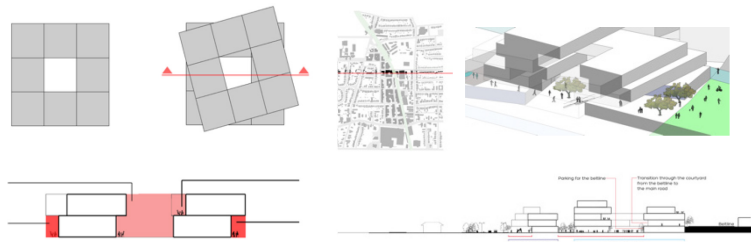


Fig. 9 Building typology and representation of the master design through maps, cross sections and renderings

The experiential approach to urban design allows students to create urban environments that they truly know how it feels like to be in that particular environment. The overall goal is to provide a methodology to create experientially rich environments as well as to avoid the alienation to the object of the study due to the large scale. While the students are encouraged to pay attention to issues as they walk through the site, which automatically points at micro scale concerns, they are also required to study the site at macro scale. The issues of the two scales usually coincide and collide and have to be responded by each scale. Realizing that urban design is not just about sweeping solutions at a large scale, but is more about individual experience at human scale, the students are engraving their master plan place by place and see the implications of small scale urban experience on the large scale decisions rather than only the vice versa. The nature of the methodology and process provides some freedom to each group of students as the vision for the site and conceptual development of their urban design are based on their own point of experience. Therefore, they are free to choose the most appropriate exploration and representation methods and tools to their prioritized urban issues. That also results in certain developments to happen at different phases for each group. For instance, one group can define its vision or design concept during the synthesis phase whereas another as a result of the game process. The game process is specifically helpful in creating thick urban environments by bringing diverse experiential, physical and programmatic elements, etc together in unexpected combinations and enrich the students' imagination. It is an additional help for students to make connections between the vast amount of analysis on distinct and seemingly unrelated characteristics and information of urban context. In some cases, it also provides graphic and physical inspiration for the student projects. It is a process that underlines the use and enhancement of local and existing pleasing characteristics when redesigning and revitalizing urban environments. These characteristics can belong to different scales, hence the game helps the students become aware of the relationship of various scales in urban design.

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