

Challenges of Temporary Ambient Design in the Context of Sustainability

Dana S. Opincariu^{*1}, Alina E. Voinea^{*2}

^{1,2} *Technical University of Cluj-Napoca, Faculty of Architecture and Urban Planning. 72-76 Observatorului Str., 400489, Cluj-Napoca, Romania*

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Abstract

The paper analyses ambient design projects for an urban space. The built context proposed is the historic centre of the city. The frame is the biannual event dedicated to architecture. The main theme is sustainability of the design and in designing. The entire experiments are looked as a Serendipity creative process, finding something else in the search for something. Beyond the basic request of the theme, the projects unravelled arbitrary aspects of the design process. The basic creative flow structure followed an objective triangle starting from three main objectives: architecture, communication and recycling. The paper grasps the arbitrariness of the creative flow in the frame of a temporary urban ambient design with recyclable materials.

Rezumat

Lucrarea analizează propunerile de amenajare ambientală ale unui spațiu urban. Contextul este centrul istoric al orașului, iar cadrul este evenimentul bianual al zilelor arhitecturii. Tema principală este sustenabilitatea în design și a procesului de creație. Întregul experiment este privit ca un proces creativ surprinzător sau întâmplător. Dincolo de cerințele de bază ale temei, proiectele dezvăluie în mod arbitrar aspecte ale procesului creator. Structura de bază este triunghiul procesului creative care urmărește trei obiective principale: arhitectură, comunicare și reciclare. Scopul lucrării este de a înțelege arhitrariul în actul creativ având ca suport un proiect de ambient în mediu urban, pentru evenimente temporare, utilizând materialele reciclabile.

Keywords: *sustainability, ambiance, architecture, communication, recycled materials.*

1. Introduction

“A quality of anthropogenic activities to take place without exhausting available resources, without destroying the environment” [1], sustainability engages material and natural surroundings, social and built environment. It is a general and above all abstract concept that addresses the time dimension: “Sustainability development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”[2]

It also addresses concrete issues of social and built development. “By 2014, the call for

^{1,2} * Corresponding author: Tel./ Fax.:

E-mail address: danaso67@yahoo.com, alina.evoinea@yahoo.com

sustainability has become common sense and is in many regions and countries part of official policy. The field of architecture and urbanism emerges in this context as a major area for intervention.”[3] Urban social sustainability implies a democratic dimension. Public space should be accessible, welcoming, an attractive frame for formal and informal get-togethers. Urban space should provide a realm for social diversity, better cohesion and tolerance by common use of the same place.[4] Built environment sustainability refers not only to the resources consumed, but also building management, maintenance, engaging the entire design process – design, built and use.

The paper addresses sustainability as wide concept that engages not only domains and practices, but also ways of thinking and acting. The concern for a better life turned the attention towards the way we design and build. The built environment plays an important role in the quality of life and environment. Hence the concern for sustainability in architecture is part of early stages of design. Moreover, is a generator of innovative design concepts. Hence, the intention of the paper is to explore sustainability as a component in design process.

2. Context

The paper follows the didactic process developed together with architecture students from Cluj-Napoca. The challenge for the 3rd year architecture students from Cluj-Napoca was to develop the ambient for temporary events of Architecture Days (ZA) organized in an urban context. In the process there was a constant communication between the organizers of the event and the students in order to meet its requirements.

The conditions of the event, **Straza**, recyclability theme, allowing specific activities to take place: exhibition, workshops and representation were the starting points for the didactic project theme.

The project addressed sustainability engaging architecture, communication and recyclability. Hence, the role of the architect, the means and process of communication, and reconsideration of natural resources are underlined. The aim of the **ambient studio** was to improve architecture students design skills in addressing sustainability, communication, ephemerality of design and ambiance temporality.

Students were grouped in twenty teams of five people. The process was divided in three main parts: exploring the context and the theme ideas, setting the concept in a class workshop, developing the design. Through all the process the teams were supported and guided by their supervisors. Beyond the didactic approach of the project, the students were also motivated to develop the project as a competition, as one of the projects was to be built in a workshop within the event.

The students were encouraged to visit the site, observe and experience the daily rhythms and routines in the area, which are important to grasp the social life of the area[6], while consolidating the team [5]. On site observations were subject to group discussions in the studio.

The location proposed is part of the historic area of the city, linking the core or the historic area with its limit, once a fortified wall (fig.1). The limits of the site are Eroilor Street and Avram Iancu Street, starting from the interior court of the Old City hall, through Emanuel Martonne Street and ending in the private garden on Avram Iancu Street. The overall concept of the ambient design, besides hosting a series of temporary events is to draw attention to the permeability and the accessibility of the urban space in Cluj-Napoca by opening a new pedestrian link in the city centre. The site is a combination of public and private spaces, accessible or inaccessible, used or unused. Gated, locked or occupied, permanent or by night, public institutions, collective housing or public spaces along the way are the subject for a temporary reconversion.



Figure 1. Intervention area in the city centre.

3. Ambiance challenges

The general theme of the studio focuses on the ambiance of the space. The students are challenged to explore the existing ambiance and to intervene imprinting a specific attitude and generating a new atmosphere. Beyond the general theme, every studio is developed around a particular idea. The design process involves a perception dimension of the reality.

3.1 Three fold perception

According to Christian Norberg-Schultz's phenomenology there are three kinds of perception related to time. The perception of the past: all the things we knew previously (memory), perception of the present: we tend to consider somebody or something as somebody/something (identification) and perception of the future, what we do (not) expect (orientation/anticipation). *“Our perception of reality is always synchronically guided by the three perceptions of time in a single act.”*[6]

The three simultaneous perception of time is common in creation process. The threefold process is triggered in creating both the urban ambiance and the objects. The ambiance context and the objects are both subjects to the three fold perception, addressing the memory of the place and of the object. On one hand the urban context is part of the historic area, has an identity and is predictable. On the other hand the means of design – have the resource memory, are identified as waste and anticipated as new resource for design.

Ambiance emerges from the interdependent relationship between the whole with its parts and between the parts with the ensemble, but is more than material and social environment, natural and cultural surrounding or circumstances. Ambiance is the experience of factors and overlapping layers

of old and new, existing and suggested, the context, the concept, the materialization of the design, all the participants in creating the reality. As the “*Uncanny*”, it unveils and veils/ orders and disorders/ un-familiarizes, and familiarizes.

Urban context is a stage for the theatre play of the temporary events. Temporary design is a scenography, both ephemeral and adaptable to the context/stage and to the event/ performance. The outcome of the ambient workshop was a serendipity phenomenon. The entire experience could be seen as fallen under the “*temptation of serendipity*”[7] or the lucky chance, the process of “*finding something else, in the search of something*”[8].

3.2 Objectives

Designing street ambiance in last semester studio had three **main objectives**: architecture, communication and recycling or reusing (fig.1). Through **architecture** the urban space was emphasized, drawing the attention to the architectural values of the space because the events were happening in the street so the urban qualities should have been observed by the people. **Communication** was addressed: - between people in order to trigger networking, socializing; - of the event towards people communicating the values of the built environment, underlining architecture matters; - as a didactic exercise: communication addressed by the didactic process in space design – personal, between students, through drawing, representation and design, and public communication through the project. **Communication** levels within the didactic design process approached in the experiment were *Self – communication* in an intimate process of creation through which the architect configures a personal vision, *Intra – communication* with the team members, *Inter – communication* with the users, the employer (client), etc.[9]

Simplifying, the ingredients involved - architecture, communication, recycling – were associated in a geometric relationship bi-dimensional that proves their interdependence (fig.2).

The main objective of the didactic project, **architecture**, related to the relationship developed between the existing and proposed elements and to the attitude towards places with significance or problematic spaces. Moreover, the binomial temporary – permanent architecture was underlined. The urban environment for temporary intervention was both a scenery and the main actor. Temporary interventions had a limited existence associated with the events. Existing places with imprinted identity received new faces. Strong or weak sides were revealed and their potential was emphasized. Despite the short physical life of the interventions, the symbolic gesture remained in the public memory upon the everlasting urban space. A non-verbal communication was established. Sustainability in an architectural context was related not only to durability and ephemerality, but mainly to the interdependence between the two.

Therefore, the second objective of the design process, **communication**, addressed not only the communication between historic architecture and new intervention, but also the transition from temporary gesture to imprinted identity. The didactic process pursued the dialog essence consisting in transmitting the message, coding-decoding, focusing on the channel as a mean of communication between the transmitter and receiver. The relation between the two was consistent at architectural and social level. Designer – public dialog was mediated by the built environment, built or virtual, permanent or temporary. In the existing – proposed dialog was mediated by human intervention, designer or public. Hence, a sustainable design process involved communication at many levels and many leveled communication.

Third objective, **recycling and reusing**, referred to materials second life given through design. The challenge was to find in used materials a new purpose. Decoding the fabric’s symbols, uses, ergonomics and coding it in a new design. Even if something is designed with a certain purpose, it

can be reinterpreted or it can embody other roles, functions, uses. The idea transmitted through this exercise was that duplicity or multiplicity of an object’s use, and enabling a cyclic reuse play important parts in sustainable design.

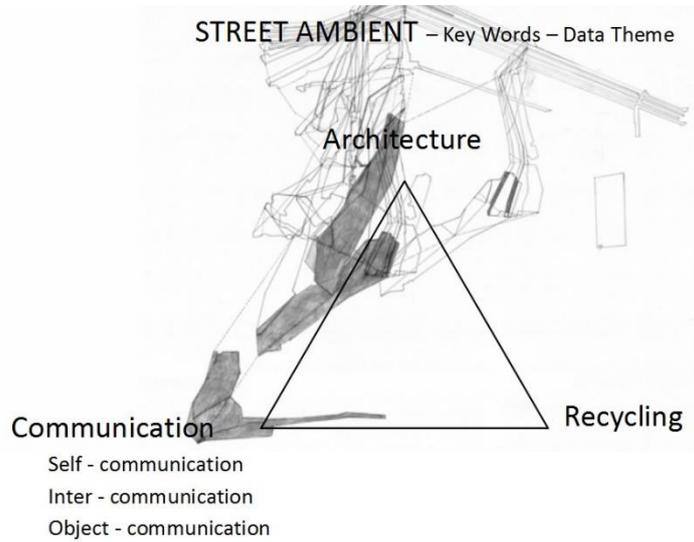


Figure 2. Main objectives.

The idea of **serendipity** “*finding something else in the search for something*” [10] reflected in the design process. Choosing a way involved a direction shift along the path. The centricity of the creative process was maintained – the objective kept the process on an orbit. Serendipity enveloped the whole experience that was often associated with lucky chance.

4. Experiments

4.1 Design process

The project’s main route followed a few basic steps addressing small – big or big – small scale sequence: conceptual phase, functional proposal for the studied area, urban furnishing layout, object design and material determination (fig.1). There were no limitations regarding the steps order in the creative process. The teams had particular evolutions.

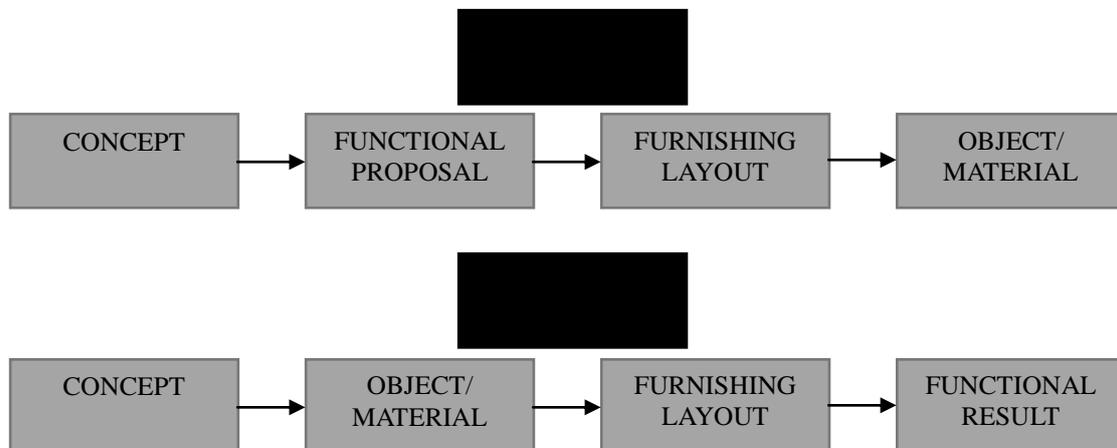


Figure 3. Project phasing.

Conceptual phase consisted in a brainstorm session developing in two phases: inside student team

(intra – communication) or individually (self – communication) and panel discussion (inter – communication). Next design phases developed in under supervision team work. Each team followed particular design routes starting with a general idea that either focused on small scale or big scale design. From this point onward there was an ascendance or decadence in scale or a tackle between scales through the project development.

4.2 Design projects

There were no premises about the interior mechanism of the organism. The outcomes of the experiment were resulting more out of accidents than of predetermined recipes. The exercise was also an experiment of scale, layout, function, form, structure and image. There was no longer a relation with the primary information transmitted and scale of the objects. There was no determinism between function and use. The capability of creativity, imagination and action of the users was claimed. The design was left to chance, for improvisation and for play. Generated spaces were adaptable, “*spaces to make and always in flux*”[11].

The **concept** of the ambient project concept focused on the message as the mean of communication incorporated. It implied the communication deix – the identity and role of the participants, the place, the time and moment. The messages preferred by students varied, being based on the main objectives – architecture, communication, recycling. Most of the ideas emphasized the attention to nature or the characteristics of the urban space. A category of projects addressed the urban ensemble, other category referred directly to objects and materials. There were also projects that focused on transmitting certain messages.

Hence, the following step - **functional** proposal developed differently. Some started small scale and expanded to big scale. Having thought the object, the students matched the objects function with the area best fitted in. In this case the urban context was considered more an exhibition hall, than a referred context. First category gradually focused from big to small scale, from urban context to furniture object. Therefore, they identified certain areas of intervention and adapted to the existing context requirements in the process.

Part of the urban tissue, the site is fragmented. Each area has a particular composition expression. The segments were perceived and thought differently under a unitary story: a public itinerary that unveils the logic of the urban landscape or an urban landscape that hosts a temporary intervention. Beyond the fragmentation of the site in a few areas, each segment was integrated in a whole.

Urban furnishing layout was linked with the predesigned objects of exhibition in some cases, matched the existing functional and volumetric characteristics of the space or with proposed temporary functions. The way scale is perceived in both cases involved the human dimensions, the relation between the people and the urban space. Scale was addressed as the link between public space use and quality, the interest in human dimension and also the link between senses, communication and dimension.[12] On the other hand, the relation with the user and the transition from small scale to big scale was emphasized.[13]

Teams tackled between **object design** and **material determination**, following the recycling or reusing objective. On one hand elaborated forms were tectonic, organic, folding, and reticular, on the other hand object forms were conditioned by materials shape. The materials proposed were plastic - reused bottles, containers; cardboard – recycled paper, wood as reused containers, pallets. Waste became an important resource addressing sustainability and environment quality. Reused, recycled materials and even waste were integrated in the design. Ways of processing the materials were non – invasive for the environment, mechanical.

Object design based on used materials that went through deconstruction or recycling processes was a challenge of form, image and structure.

Form and image as an ensemble of elements that delineate a visually signal any presence in space, the exterior aspect of the physic presence[14] become a dynamic of parts and whole, the component objects were form generators. Form not only implied qualitative properties, but allowed topological thinking, the imagination of spatial entity as an evolutionary organism exposed to progressive metamorphosis. „Art initiates with transformation [of shapeless material] and follows metamorphosis, [...] invention of new forms [...] imitating divine Creation”[15]

Structure was interpreted not only internal organization, composition of a body or system defined by form, material, dimension and arrangement of the internal elements.[16] The relation of the parts depended on the functional, compositional structure and structure of resistance. The compositional structure was volume layout guided by ratio, scale and equilibrium. Volumetric arrangement was interpreted as pattern, chromatic and technic organization. In terms of resistance, structure related to the relation between components and the whole. Object's internal organization generated the structure. Flexibility and rigidity of the materials had a direct influence on the function, form, structure of the designed object. Hence the overall image was controlled by the characteristics of the materials involved in the design.

4.3 Examples



Figure 4.



Figure 5.

This particular project (fig.4 and fig.5) - **Straza** was triggered by the recyclability sign. The sign becomes the grounding concept of the design. The first stages of design – self-communication and inter-communication (fig.4) were representative for the development of the project. Public communication (fig.5) was enabled through an orienting axonometric map that communicates to the public in a technical manner. This map also underlined the link between project steps, functional and object/material proposal, different objects being assigned to certain zones. Straza was developed combining the binomial small-big scale along the project in most phases never losing focus on the objectives of the theme.



Figure 6.



Figure 7.

The **Inside-Out** project (fig.6 and fig.7) used specific elements for interior spaces – windows, doors laid out in an exterior space without walls. The intention was to suggest the interior – exterior space relationship, the way we create artificial limits, inexistent by using elements such as the door or window, generally used to access a space. An imaginary place was generated. The students based their project on used doors and windows from the beginning exploiting the significance of this architectural elements and sketched an uncanny ambience in the urban context. The intervention purpose was to generate strange feelings of interiority to people participating in exterior spaces and to suggest space without actually building it. Inside-Out followed a particular creative process route shifting from small to big and big to small scale and had a unique approach upon the objective trio.



Figure 8.

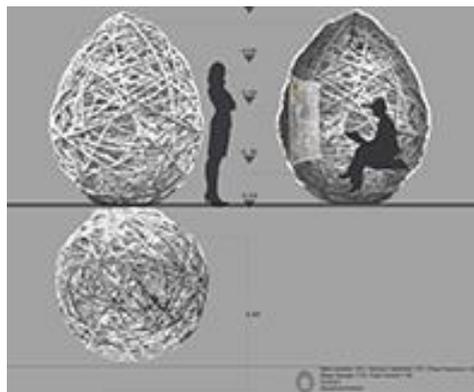


Figure 9.



Figure 10.

Another concept (fig.8-10) – **The Cocoon** referred to the natural silk cocoon idea. The project addressed the built space as the interiority of a cocoon. Furthermore it engaged the ideas of natural and recyclable. The sheltering and protecting roles of the space were emphasized. The aerial axonometric representation (fig.7) is an explanation of the route as an interface between the concept and the public. The cocoon was made of rope drenched in glue, laid on a balloon that was removed. A rigid case with a certain transparency resulted. It was associated with urban furniture that offers the possibility to rest and relax. One can observe the outside world, but also feel protected. The project meets the objective triangle in an innovative manner following the small-big scale process pattern.

5. Conclusions

Sustainable design is a challenge, an opportunity, but also a limitation. One could assert that “*the constraints of the ecological design pose a threat to architectural freedom and expression.*”[10] Hence what is the role of the architect in the context of sustainability? Mediating the relation

between environmental design and digital design by “respecting nature and seeking for the new”[10] The examples above are three different answers for the same task. They have the same starting point, the same requirements, but a different design process. Therefore the idea of serendipity is proven – one can find interesting things starting from the same point and taking different routes. All projects had the same start, but took other paths. Maintaining the concept, a cocoon was generated. Bridging it to the mental level, it transitions from universe to multiverse. Recyclability is a creative resource that generates sustainability. The use of recyclable materials with other purpose by finding use for objects that seem to have lost it is a creative process. The experiment had a ludic character. The search for resemblance between form, texture and color of objects with a specific utility and other objects with a completely different utility was part of the creative game. **Serendipity** is a new ideas generator, the **ludic** determines a well-being that is vital to creative potential and through the **recycling** process the object created becomes sustainable by receiving an use when it seemed to have lost it.

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