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Design for Ephemerality – Idiosyncrasy and Challenges

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Abstract

Lying at the intersection between architecture, art and design, ephemeral spaces are intentionally developed to exist only for a short period of time, to be destroyed or cease to exist at a given moment. The specific nature of temporary environments requires a different design approach in regard to concept development, choice of materials, constructive solutions, visual perception and spatial experience. The aim of the research is to explore the potential of ephemeral spaces for redefining the architectural boundaries and their heuristic significance for the future development of the design field. Following this objective, the factors for the proliferation of these spaces are studied and a typology in terms of their contextual ephemerality is developed. The research method is based on the structural and semiotic analysis of purposefully selected archetypal examples through which the key characteristics distinguishing ephemeral spaces from permanent ones are discovered. In conclusion, implications on how to teach design students to deal with the inherent dialectics in ephemeral spaces and how to design for ephemerality are discussed.

Keywords: Ephemeral spaces, spatial experience, design education.

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1. Introduction

Along with functionality and beauty, permanence has been one of the main values in architectural theory and practice since Vitruvian times. Although architecture has continuously evolved and many theorists have contributed with new ideas to these foundational elements (e.g., adaptable architecture: Schmidt & Austin, 2016), the ability of buildings to endure and persist through time has not been questioned. However, within the socio-cultural context of the 21st century a new spatial category breaking the stereotypes and overcoming the limitations imposed by the principles of solidity, durability and permanence draws the attention of professional circles. Lying at the intersection between architecture, art and design, this new category is complementing the traditionally considered spatial characteristics in architectural theory with one uncommon parameter—temporality.

A review of the literature reveals that previous studies mainly focus on a specific type of the wide diversity of ephemeral spaces – portable architecture (Kronenburg, 2008), urban spaces (Bishop & Williams, 2012; Heydn & Temel, 2006), exhibitions and trade show design (Leitner, 2011; Schittich, 2009), emergency housing (Charlesworth, 2014), etc. Although the distinctions between permanent spaces and spaces designed to last temporally are obvious, there is a lack of a comprehensive study addressing the specifics of ephemeral design and defining terms of reference how to design for ephemerality.

The general objective of the paper is to explore the potential of ephemeral spaces for redefining the architectural boundaries and their heuristic significance for the future development of the design field. Following this objective, the factors for the proliferation of these spaces are studied and a typology in terms of their contextual ephemerality is developed. This typology will provide the groundwork for drawing the idiosyncratic characteristics of ephemeral spaces and, respectively, to derive conclusions and develop strategies how to teach design students to deal with the inherent dialectics in ephemeral spaces.

The research method is based on structural and semiotic analysis of purposefully selected archetypal examples through which the key characteristics distinguishing ephemeral spaces from permanent ones are discovered. The paper focuses on spaces that are intentionally built to exist only for a short period of time as their temporary nature implies a different design approach in regard to concept development, choice of materials, constructive solutions, visual perception and spatial experience.

The research provides insights for both practitioners and design students by outlining current design paradigms derived on the base of the very essence of the idea of temporality. It is orientated not only towards those who work in the field of architecture and design (architects, interior designers, interaction designers, user experience designers, graphic designers, service designers, etc.) but also towards people from a variety of disciplines and backgrounds including business strategists, marketing and branding managers, sociologists, educators, and individuals interested in the creation of ephemeral environments.

2. Defining the Concept of Ephemerality

The etymological analysis of the term ephemeral shows that it is disseminated through Latin but its origin is from the Ancient Greek ephemerios – 'of, for, or during the day, living or lasting but for a day, short-lived, temporary' (from $\dot{\epsilon}\pi\dot{\iota}$ – 'on' and $\dot{\eta}\mu\dot{\epsilon}\rho\alpha$ – 'day' from Online Etymology Dictionary, available at https://www.vocabulary.com/dictionary/ephemeral). Originally it was a medical term with the specific meaning 'lasting only one day', regarding a fever or a sickness. Later, the word became more general, coming to mean 'lasting a short time', covering the life spans of plants or insects and then eventually anything that is fleeting or transitory (https://www.vocabulary.com/dictionary/ephemeral). The term is generally used to describe transient natural phenomena and creatures with evanescent

life. However, the duration of their existence cannot be captured within certain time limits so the term is indicative to everything which surrounds us, as all living things have a limited lifespan subordinate to the natural rhythm of life and even the landscape is also constantly changed under the influence of the destructive natural forces.

Architecture and design are not typically associated with ephemerality. On the contrary, people have always strived to erect buildings and manufacture products that are designed to endure and serve us for an indefinite period of time. That is why architects and designers choose solid constructions and building materials that can withstand the ravages of daily use and the impact of the elements. Having permanence as an architectural ideal, people are prejudiced against temporary spaces and architecture, considering them as being 'impertinent, transient, low-quality building, neither tuned to its purpose nor appropriate to its site' (Kronenburg, 2013).

Usually ephemerality is associated with art and temporary artistic installations. Among the best known artists for their ephemeral art are Christo and his wife Jeanne-Claude. Their installations are designed to last only temporarily but they excite great interest and attract millions of people who want to immerse into the experience and become part of the incredible event. Their latest project Floating Piers in Lake Iseo, Italy had been visited by over 1.2 million people during its 16-day-long existence in the summer of 2016 (Figure 1).

In fact, all man-made artefacts are ephemeral but some of them are perceived as permanent as they last for a longer time – e.g., outlive the typical lifespan of a human. Kronenburg notes that the earliest examples of built structures are ephemeral in nature and that these portable temporary shelters have played a crucial role for human survival. The tent, for example, which is one of the original forms of architecture, is still in active use today, taking different designs depending on the geographic features, environmental conditions and cultural traditions of those that inhabit them. Still, its essential qualities are always the same – it's portable, flexible and lightweight (Kronenburg, 2013). In the ancient world, many temporary structures were erected for different religious rituals. Bonnemaison and Macy indicate as an example the portable structure of the tabernacle of the Jews – a place of sacrifice and worship which influenced the form of the original temple and all synagogues to follow. Another fact they point is that both the Greek and the Roman temples are basically stone versions of their wooden predecessors (Bonnemaison & Macy, 2007).

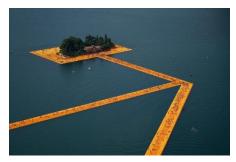




Figure 1. The Floating Piers, Lake Iseo, Italy, 2014–2016, Christo and Jeanne-Claude, photos: Wolfgang Volz,
© 2016 Christo

Although the temporary buildings have become precursors of the permanent structures in the Western world, the Eastern tradition, which values the transitory qualities of nature perfectly, celebrates this belief into architecture. Japanese view the building not as a permanent structure but as a part of the changing environment. They incorporate the idea of ephemerality in the choice of natural materials which disintegrate over time and require replacement and rebuilding. Conspicuous example of the physical manifestation of ephemerality in architecture is the Ise Shrine which is ritually reconstructed every twenty years since the seventh century (Locher, 2012).

Hence, the question arises: How the concept of ephemerality can be defined in regard to architectural space? Brian Chapel (2016) proposes the following definition: 'A class of building designed to be distinguished by impermanence, and its physical departure from the site'. This definition emphasizes the impermanence of ephemeral spaces without specifying a certain time span within which the building would exist, rather it conveys the idea that 'the architect must demonstrate a design intent that does not strive for permanence at the site, and expresses the eventual removal of the building from the site' (Chapel, 2016).

To this meaning, Souza (2016) adds the qualitative dimensions of ephemeral spaces, namely, that 'an ephemeral place is intended to have a short life, does not strive to be permanent, and recognizes its own impermanence as a potentially positive or even essential quality'. Based on these notions, the most important implications about ephemeral spaces are listed below:

- They exists for a limited time as a response to a certain necessity
- They are initially conceived and intentionally designed to be impermanent.

However, there are many examples of architectural pieces which were conceived as ephemeral but being conceptually very successful subsequently became culturally and socially so significant that they persisted to permanence. Among the most notable examples are the Eiffel tower, the Atomium in Brussels, the Space Needle in Seattle, the Geodesic dome and Habitat in Montreal – all of them landmark structures built for world expos. Beginning with London's Great Exhibition in 1851, world fairs have emerged as an international showcase of the latest advances in manufacturing, science and technology providing architects with an opportunity to implement their radical ideas in the design of the ephemeral pavilion. The popularity and success of such events is indisputable and the general public looks forward eagerly to the expo's inauguration to visit the most innovative architectural structures of the present day (Figure 2). Analogous to the short-lived natural creatures and phenomena which last only for a short period of time but have a special attraction and always leave a deep mark in our minds with their transient beauty, ephemeral spaces also bring a very rich experience as our interaction with them is so transitory. Ephemerality is something that one has to catch during its short existence, because in the next moment it just seizes to exist and remains only in the memory. 'It is the sole concentration on the here and now' (Leitner, 2011).

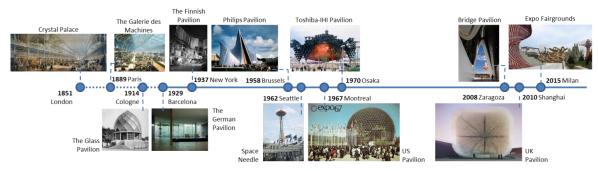


Figure 2. Timeline of influential world expo pavilions

3. Factors for Proliferation of Ephemeral Spaces

Besides the above-mentioned world expos, there are a number of other attractive events engaging visitors not only with the spectacular experience they offer but also with the purposefully built ephemeral structures. To reveal the factors for the proliferation of such experimental ephemeral spaces some of the most outstanding examples that have gained a new relevance in the design field are discussed. In response to the needs of contemporary society, the proliferation of new technologies, the development of new materials, co-creation practices and communication patterns, the scope of these

spaces has vastly expanded in recent years and added new dimensions to the potential of ephemeral spaces to change the preconceived notions of traditional architecture and design.

One of the examples is the Serpentine pavilion – an initiative, which was established in 2000 with the engagement of Zaha Hadid to build a temporary structure to host the 30th anniversary gala dinner of London's Serpentine gallery. The structure was intended to last only three days but instead it remained open for the public the entire summer, setting the beginning of an annual program which is now in its 17th year. The design is commissioned to star architects who have not built projects in the UK before. They interpret the very straightforward brief (a pavilion that has to act as a space for public programming with a café and a lecture space) into bold architectural experiments considering the social, historic and physical context of the gallery whilst extending the known boundaries expressed in the architectural language which they are renowned for (Figure 3(a)). This scheme proved to be very successful and a number of venues have already followed Serpentine's example by building their pavilions. Among them is the MPavilion in Melbourne functioning as a hub for a variety of events during the summer months (Figure 3(b)).

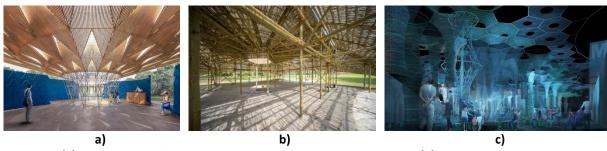


Figure 3. (a) Serpentine Pavilion, 2017, designed by Diebedo Francis Kere; (b) MPavilion, 2016, designed by Bijoy Jain and (c) Lumen – robotically knitted canopy for MoMA PS1, 2017, designed by Jenny Sabin

Unlike Serpentine and MPavilion, MoMA PS1's summer pavilion in NY invites emerging architectural talents to submit design proposals for PS1's courtyard. The objective of the project is to provide visitors with the much needed outdoor recreational area in an urban environment offering shade, seating, and water while making the best use of the pre-existing space and ecological materials. Responding to the tight budget and the requirement to create a sustainable shelter, architects experiment with recycled or biodegradable materials or materials which can be reused after the end of the program. On the other hand, though built with very simple materials the proposed structures always focus on the audience by inviting visitors to immerse in the environment, to interact and enjoy the experience (Figure 3(c)).

Another common platform involving the creation of ephemeral spaces includes all types of festivals, cultural and sporting events, markets, and other collective public events. The festival phenomenon is widespread around the globe greatly varying in theme, scale and reach – from local community festivals to mega events gathering international audience. Their significance is constantly increasing in the contemporary world as they evoke excitement, create a sense of community and influence the socio-economic growth of the region. While in some festivals, the ephemeral structures play purely functional role (e.g., a tent or a stage), others completely transform the site for the period of the event to correspond to the theme and to create the desired atmosphere. And in third, it is exactly the ephemeral structures that play a major role in creating the unique experience which the festival offers. Within the last category, falls the experimental Burning Man festival in Nevada Desert in the USA where each summer a whole temporary city pops-up. Furthermore, artists from around the world are building gigantic art-sculptures and compelling large-scale wooden temples which are ritually burned at the end of the extraordinary event (Figure 4).





Figure 4. Temple at Burning Man, 2016, photos: Galen Oakes; Tristan Savatier

Ephemeral spaces are particularly suitable for corporate purposes. Purposefully built structures can provide a number of benefits for the company – from an inexpensive venue tailored to the specific functional and aesthetic requirements, the number of attendees and the program of the celebration to an opportunity for promoting the brand within larger events (Figure 5). A separate category includes corporate presentation at trade fairs where companies showcase their latest products or services, establish the brand, hold special events and interact with their clients. In order to excel their competitors, companies are striving to build the most impressive stand functioning as a three-dimensional marketing tool or a mini flag-ship store for the duration of the fair (Figure 6).





Figure 5. Prada transformer, 2007-2009, designed by OMA





Figure 6. Brunner Stand at iSaloni, Milan, 2011, designed by Ippolito Fleitz Group

Especially interesting and fashionable nowadays are the pop-up spaces which pop up suddenly, sometimes in a completely unexpected place and quickly disappear within the next day to a few weeks. Usually, these are commercial spaces which companies use for building interest in their brand in a unique and engaging environment. This ephemeral activity is getting more and more popular taking a variety of contexts – from underground events to exhibitions, retail stores, restaurants, etc.

Last but not least, ephemeral spaces can be used for residential purposes. The temporary and mobile dwellings of prehistoric people and nomads have already been mentioned. Today, our lives are more and more subordinate to the trend of mobility which influences all aspects of our lives including the spaces we inhabit. Either provoked by the personal desire to express freedom and independence or by natural cataclysms and insecurity in the political and economic situation, mobility is a daily routine for a large number of people. So it is not accidental that mobile and emergency homes have long been object of research. There are many projects exploring various alternative solutions of the traditional home which can be quickly build at a low cost while offering maximum living comfort (Figure 7).





Figure 7. Paper emergency shelter, Haiti, 2010, designed by Shigery Ban

Based on these examples, the following factors for proliferation of ephemeral spaces can be generalized:

Ephemeral spaces offer an excellent opportunity for experimentation and speculative design.

Technological advances inevitably influence the creation of radical architectural structures including ephemeral spaces. Besides applying cutting edge technologies in their concepts, designers are using ephemeral spaces as a creative laboratory to test those technologies which are still in a process of development (Figure 8). Their relatively small scale and short-term existence allow for research and experimentation with hi-tech and previously unexplored materials and construction methods which would be too precarious and too expensive to be implemented in permanent structures (or at least at present moment). Very often, what is originally created as an innovative ephemeral space is successively transferred into practice.





Figure 8. ICD/ITKE Research pavilion built by drones, 2017, Stuttgart, Germany, photos: Burggraf/Reichert

• Ephemeral spaces are a physical manifestation of societal trends.

The inherent temporality of these spaces suggests that they can be easily forgotten if the design is unsuccessful.

To avoid this, designers apply new approaches which emphasize the dialogue between the space and the viewer. Ephemeral spaces often rely on the meaningful messages that are transmitted through every design element and the interactive engagement with the environment (Figure 9). This fully corresponds to the demands of today's digital society and further increases the need for ephemeral spaces which create unforgettable experiences, evoke emotional response and make lasting memories. Furthermore, several other social directions can be outlined that require new dimensions from modern architecture which ephemeral spaces can offer:

- i. Ephemeral spaces reflect the nomadic culture and the constant societal changes.
- ii. They solve the need for affordable and easy to assemble housing for refugees and people affected by natural disasters.
- iii. The popularity of various festivals, design weeks, cultural events and even personal celebrations requires the creation of ephemeral spaces to shape the event's venue or be a part of its program.
- iv. Ephemeral projects enable the creation of added value for certain urban areas or abandoned and underestimated regions by providing new perspectives for their use they not only stimulate local people to become partners in the design process, rediscover and identify themselves with their surroundings but also impact the beneficial economic development of the region by attracting visitors from all over the world.
- Ephemeral spaces provide a platform for creative expression of young designers.

The difficult economic situation often prevents young but talented designers to express their ideas into permanent structure. The different formats of ephemeral spaces often become the most suitable platform enabling emerging designers to unleash their creative potential and make their first independent steps in design. Thus, they gain experience and confidence to start their career and eventually to establish their names on the international design stage.

Ephemeral spaces respond to the challenges of sustainable design

Nowadays, society is increasingly aware of the importance of environmental protection. The short existence of ephemeral spaces requires careful planning of the entire life-cycle of the structure. In order to make successful projects designers have to envision how to meet the requirements for minimization of material usage, how to completely disassemble or dispose of the structure, or in general — how to apply the principle 'reduce, reuse and recycle'. Having set these goals at the beginning of the design process it is more likely that the outcome will be efficient, environmentally compatible and ecologically responsible.

• Ephemeral spaces in service of commercial purposes

Companies appreciate more and more that the quality of their branded spaces is very important for the creation of corporate image and the establishment of strong relationships with their clients. In this regard, ephemeral spaces have become a trend which proved to be very effective in bringing the brand to life, exceeding the expectations of the clients and fully immersing them in the brand message. They offer an experience of the brand in an original and exciting way which can unlock new commercial benefits for the company.

4. Typology and Characteristics of Ephemeral Spaces

As mentioned above, man-made structures are not persistent so all of them can be considered as being ephemeral to a certain extent. However, based on the idea that the temporary use is predetermined in the initial concept development the typology delineated here considers only spaces which correspond to this prerequisite. The wide variety of ephemeral spaces will be differentiated along two major lines – their temporality and spatiality.

The temporality line is derived from the definition that 'time is constituted of the complex of relations of duration and succession in the experienced order of events' (Roeckelein, 2000). As time duration of the existence of the structure is a relative notion and cannot be precisely defined the typology is based on the succession of the occurring of the ephemeral structure — as a one-off or a cyclic event. In regard to spatiality the location of the structure is considered — whether it occupies a single site or moves to different sites. The relationship between the temporal and spatial characteristics of ephemeral spaces forms four major types of spaces illustrated on the matrix in Figure 9.

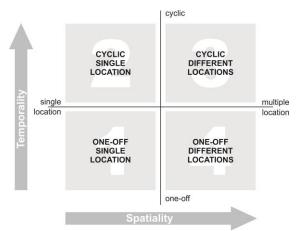


Figure 9. Matrix of the temporal-spatial characteristics of ephemeral spaces

Within the first quadrant of the matrix, 'one-off space in a single location' fall ephemeral spaces which are used only once for events such as exhibitions, personal or corporate celebrations. Often these pop-up spaces are conceived as disposable structures which will be discarded once they have fulfilled their purpose. This implies the construction to be lightweight and easy to assemble composed of cheaper materials that can be thrown away or recycled. At the same time, using materials which are inherently associated with temporality (e.g., paper, corrugated, cardboard, fabrics, etc.) can lead to the perception of the structure as being of inferior quality which can weaken and even destroy the desired emotional impact. To avoid this negative effect and to create a memorable vision of the fleeting event, the environment should feature ingenious and unexpected design including original spatial arrangement of the constituting elements, a playful design inviting visitors to explore the spatial characteristics of the structure or visual illusions challenging the perception of the visitors which inspire and entertain them.

The second type of ephemeral spaces 'cyclically repeating in a single location' can be subdivided into two subtypes. The first one includes permanent structures or a specific site where different designs or different functions are required over time. Among the examples are trade fairs, shop windows, theatre stages and multipurpose spaces specifically designed to host diverse temporary events. Particularly interesting and increasingly popular are the vacant or abandoned buildings which attract the attention of creative artists who explore their potential and bring them back to life by totally transforming them for a variety of events from dinner parties to art exhibitions, fashion shows and music performances. The greatest advantage of these unconventional locations adding to visitor experience is their unique personality and rich history narrated with the specific architectural style and exposed structural elements. The second subtype comprises ephemeral spaces which are continuously recurring in a single location. These might be pavilions built for different public events and markets or seasonal structures such as kiosks, summer sheds, ice hotels, parklets, etc. Some projects have established to such an extent that people begin to associate them with the place thus extending the boundaries of their temporality.

However, as they always appear at one and the same place in order to inspire and entertain the audience different designs are preferred. This guarantees the effect of surprise each time they are unveiled.

The third and fourth categories include structures which are conceived to be used at multiple locations. Intended either for a single event or for multiple uses, the mobility which is inherent for these spaces makes them even more challenging for the designers. One of the solutions is a structure transportable in one piece (e.g., mobile homes) and the other – a fully collapsible construction which can be easily dismantled, relocated and re-assembled on site (e.g., travelling exhibitions, emergency shelters, nomad tents, circus tents, etc.). A very popular interpretation of the fully mobile spaces in recent years is the repurposing of shipping containers turning them into functional and aesthetically pleasing branded spaces, food trucks, offices, dwellings, etc. Designers prefer them because of their ability to carry heavy loads, weather resistance, availability, low cost, and ease of transportation. Besides, their standard measurements make them perfect modular elements which can be stacked and combined into as large structures as the function necessitates. The requirements towards the collapsible structures to be easily transported and quickly assembled suggest their main characteristics - lightness and durability. Hence, the most common designs meeting these requirements include pneumatic, tensile, textile, membrane and tensegrity structures. As innovative fibres and fabrics are made using the latest computational technologies, they are not only functional and structurally sound but also stylish and aesthetically pleasing.

These four major types of ephemeral spaces can be further subdivided into more detailed categories taking into account their spatial and structural characteristics, materiality, functional program, design narrative, etc., which can be a subject of additional studies.

5. Ephemerality and Implications for Design Education

From the outlined typology and characteristics of ephemeral spaces, it becomes evident that their design should be approached in a way differing from the conventional design of permanent spaces. On the one hand, the designer has to consider the afterlife of the structure, the ease of its assembly, disassembly and transportation, the disposal and reuse of the materials used in the project, and on the other — he is supposed to impact the perceptions of the audience and convey a meaningful message delivered in the most compelling way in order to create a lasting impression of the ephemeral experience. To conceive a design concerning all these aspects, designers have to acquire specific skills. This was the main educational objective of the teaching — to develop skills which can aid students in the creation of sustainable, communicative, engaging and inspiring ephemeral spaces. For this purpose, one example epitomizing each one of the four different archetypal spaces was selected to be developed: a festival pavilion (one-off, single location), trade-fair stand design (cyclic, single location), a retail pop-up stand in a shipping container (cyclic, different locations) and a travelling exhibition (one-off, different locations). In each of these projects, the accent was put on the adaptation of the specific requirements towards the respective type and their creative interpretation in the design solution.

In the pavilion design project, special attention was paid to the functional program while the spatial organization was fully subordinate to the experience. At first, students studied the context of a festival of their choice from a variety of perspectives. They tried to uncover as much information as possible regarding the history, scale and ambience, the profile of attending people and their relationships with the space to get a deeper understanding about the opportunities and the constraints of the context of use. To offer a solution which is consistent with these requirements, students formulated a concise design challenge expressing the main objective of the project. Then to give a physical shape of the experience and meet the expectations of the target visitors they developed a scenario of the festival-goer experience, especially considering the elicited emotions and feelings during their interaction with the pavilion. This scenario was later translated in the universal language of design through the proper use of signs and symbols.

The reverse process was also tested as a means to teach student to read coded denotative and connotative meaning and, respectively, to interpret the semantic and emotional organization of the structural elements of an existing ephemeral space. To do this, they analysed the semantics of a pavilion presented at Expo 2015 in Milan or one of the Serpentine pavilions. As a result students designed pavilions for a variety of festivals exploring a number of possibilities to engage the visitors with the space – from welcoming pavilions serving as an information point to places for meetings and discussions, relaxation and contemplation, places for enjoyment and play, artistic and creative expression, education or exhibitions (Figure 10).



Figure 10. Festival pavilion design: sample slides from student presentations

The second project was more commercially oriented. It dealt with branding, visual communication and how the corporate culture can be expressed in the design of a trade-fair stand. Students explored the brand and all aspects of its identity as well as the values and principles by which the exhibiting company operates in order to design a brand-driven stand communicating the corporate message in the best possible way. All elements comprising the stand architecture and interior – functional scheme, lighting, colours, graphics, etc., had to be very carefully planned as to instantly convey this message, to distinguish the company and to make it visible in the competitive environment. Students experimented with the sculptural qualities of different materials, applied attractive patterns and colour palettes in order to create a sensual ambience immersing visitors in the brand experience (Figure 11).

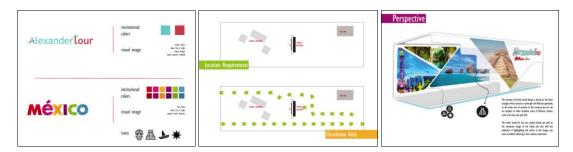


Figure 11. Trade fair stand design: sample slides from student presentations

For the third assignment shipping containers were chosen as the main building material for the design of a pop-up retail stand. The accent in this project was put on the structural characteristics of the space and the possibilities that modular design provide for the creation of thematic brand experience. Students were acquainted with the standard dimensions, the structural limitations and required reinforcements when parts or entire sidewalls of the container are removed. They tested a variety of container configurations providing flexibility of the layout to allow a variety of functional programs and scale of the project.

Another important issue which had to be considered was how to facilitate the ease of disassembly of the whole structure as it is expected to be frequently relocated to different places. The addition of supplementary elements such as roofs, sheds, platforms or stairs aided the function and improved the circulation patterns (Figure 12).

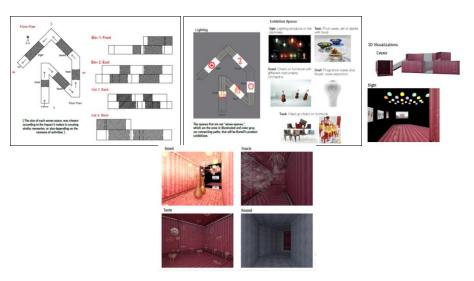


Figure 12. Pop-up stand in a shipping container: sample slides from student presentations

The goal of the last project was to design a travelling exhibition on the theme 'Smart future' that challenges the convention of contemporary galleries, offers a new visitor experience and reflects the novelty of the objects on display. Students had to promote the advancement of the high-tech solutions with simple self-sufficient display elements which are easy to transport and adapt to different spatial contexts within which the exhibition would be mounted. Besides the prerequisite to create customizable elements that would look consistent wherever the location is, students' main task was to propose a good communication strategy by developing an exhibition narrative telling a meaningful and compelling story. The overall structuring of the space had to follow this narrative in a hierarchical thematic organization while allowing flexibility and interchangeability of the design solutions. A special requirement was made with regard to materials which had to be ecologically friendly and lightweight but also enough durable to last for the life-cycle of the exhibition (Figure 13).

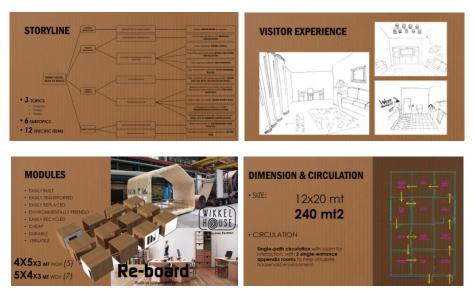


Figure 13. Exhibition design: sample slides from student presentations

The diverse range of these projects aimed to develop different skills: ability to translate conceptual ideas into tangible forms and spaces, analytical and critical thinking skills for generalization, evaluation and selection of structures and materials, developing a mind-set to apply integrative design approach for sustainable solutions, and last but not least — development of interdisciplinary and heuristic thinking.

6. Conclusion

Although existing from prehistoric times, the proliferation of ephemeral spaces in recent years is a new phenomenon emerging as a response to the increasing changes and uncertainty in every aspect of our lives. Becoming themselves catalysts for change, they cross the known boundaries and trace the path of the future development of design and architecture. The wide range of ephemeral formats unified by the preliminary conceived concept that the structures will be eventually destroyed demonstrate ground-breaking experiments with new materials and construction methods, convey meaningful messages and offer spectacular experiences establishing strong relations between people and the space. Thus, their brief life is extended for much longer time through the radical innovations they introduce and the permanent impact they have on the way we inhabit and perceive architectural space.

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