

Transformation of tent architecture hybrid into the raincoat

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Global Journal of Engineering and Technology Advances, 2022, 13(02), 019–025

Publication history: Received on 02 October 2022; revised on 07 November 2022; accepted on 10 November 2022

Article DOI: <https://doi.org/10.30574/gjeta.2022.13.2.0190>

Abstract

Tent architecture is used in disaster conditions and emergencies, but in this millennium era, it is not only a disaster condition but as a glamping tent or glamorous camping. This writing aims to produce a hybrid architecture, a prediction of the needs of Generation Z for temporary space. The research method is qualitative interpretive, shaping the architectural space interpreted as experimentation to build a wearable shelter which includes; 1). The temporal space of the Millennial generation; 2). Portable architecture; 3). Typology of portable tents; 4). The ideal tent. The result is a nomadic space intended to support the productivity and self-expression of a new generation, which heeds global concerns for health and the environment while engendering a new informality. The findings of this study are the transformation of architectural hybrids from tents to raincoats for the millennial generation.

Keywords: Tent; Raincoat; Portable; Transformation; Glamping

1. Introduction

Tent architecture is generally used for disaster conditions [1] and situations requiring a short time [2]. In this pandemic, tents are also needed to deal with the widespread COVID-19 caused by the lack of hospital supplies.

In the millennium era, the world experienced a different phenomenon; the new generations will be dominated by a different perspective and lifestyle from the previous generations. The world's young generation is expected to double to three-quarters by 2025 and represents a significant number of productive ages who will be both a potential and a challenge. Millennials are growing and maturing in the IoT information age. They have the characteristics of high self-confidence, independence, narcissism, and a different way of life. Significant changes will occur in various fields with new transformations in studying, working, shopping, and even resting. Regeneration will continue to question conventional understanding in perceiving space.

When the previous generation depended on static and stable work, The new generation refers to mobile, accessible, and multi-tasking characters. While generation X is the gateway and generation Y is the transition, generation Z will optimize local resources to create independent businesses. The freedom of the new era will be celebrated by the freedom to work, be autonomous, move, adventure, sense differently, and display one's uniqueness. Large consumption of fashion, technology, and tourism will occur to offset activities that rely on social media and digital technology. Integrated control will be carried out through the palm. Therefore, handy and user-friendly products are a priority. Multifunctional products will trend, combining specifications to accommodate fast movements and shifts.

This research aims to produce a hybrid architecture, a prediction of the needs of Generation Z for temporary space. The combination is done to produce an impermanent and new space. The qualitative interpretive method interprets

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architectural space as experimentation to build wearable shelters. A nomadic space is intended to support the productivity and self-expression of a new generation, which heeds global concerns for health and the environment while engendering a new informality.

1.1. Theoretical Approach

Millennials are generally fully connected to social media and digital technology as a timely disclosure of professional and personal inventory, even changes in their digital space [3]. The millennial generation shows a regular gradation of behavioural transformation from its predecessors, namely the transition of new values from the previous generation. While the oldest generation shows initiation towards adapting to a digital and more flexible work environment, the youngest Millennials show a substantial redefinition of image, space, and daily activities. Although Millennials prefer to separate juniors and seniors as distinct groups, they suggest independent roles as personalities or members of society, whether as adventurers, visionaries, artists, leaders, socializers, conservatives, or collaborators [4].

The global Millennial movement expects an alternative space to accommodate more functions, organizations, and systems than ever. Millennials expect an instant supply of new spaces; but are simultaneously equipped with various features such as flexibility, utility and productivity [5]. This space is expected to be easily transported, converted, reused, and recycled [6]. Mobile spaces for Millennials need to be lightweight, easy to assemble, and user-friendly, as the younger generation describes more emotional journeys and complex interactions [5]. On the other hand, the product must be provided at a very affordable price and not presented as a foreign object [7]. Millennials suggest extreme change, digitally connected environments, and personalized also customized experiences. Thus, Millennial architecture may always be ready to be mobilized to balance adolescent exploration to the extreme [3].

The COVID-19 crisis has profoundly changed consumer behaviour, and its effects are; consumers want companies to turn services into services without direct contact relationships. With the pandemic, comfortable home ownership is essential. This pandemic has undeniably changed people's lifestyles globally. The changes that have occurred have made a paradigm shift in life. The pandemic is still ongoing, or when the pandemic has ended [8, 9, 10].

This pandemic affects human attitudes toward residential design by considering health, comfort, and survival issues; this pandemic is changing how humans work and live [9]. The use of tents in health facilities in open spaces is widely seen, as well as in lodging places that provide a tent model. Making tents during a pandemic is fast and cheap, and tent materials support sustainable architecture.

These temporal spaces are easy to disassemble, pack, ship, and recycle, so many argue that this architecture is temporary and is closely related to portable architecture, so it has the potential to be developed in a sustainable future space. These temporal spaces' potential is different compared to permanent architecture. This temporal space cannot replace the stability and constancy of the permanent architecture, but it can complement and perfect the permanent architecture, resulting in a symbiotic mutualism. The architectural discourse in the previous era tends not to consider this temporal space as parallel to architecture; the reality at this time is that the combination of the two cannot be separated.

Temporal space does not appear in the present moment because its presence existed before the architecture was created. Many experts believe that temporal architecture is a primitive architecture that was moving at the time of life. The correlation between temporal architecture is related to portable architecture, especially tent architecture. This temporal space is formed because of the ability to move and be carried around. So it is often associated with the meaning of portable. The word portable in architecture is associated with mobile, temporal, ephemeral, informal, movable, transportable, light, compact, small, minimal, and high density, although this may be correlated with other fields.

The word portable was only known in the 14th century as an old French word and referred to the adjective *portatif*, which means design as a product planning process can be carried to different places. This word produces the word portability which means emphasizing the ability of the designed object. In the 15th century, the French first used the word portable, which means: can be carried, which was inspired by the Latin *portabilis*, *portare*. Although the word portable was only introduced in the 15th century, the concept of portable has been known since prehistory, especially in tent structures for the needs of moving living spaces and developing to be more complex today [11].

Portable architecture is often associated with demonstrable and transportable capabilities. As part of today's lifestyle, portable architecture is built for particular needs. Portable capabilities are planned for specific events so that space can be moved or allocated because the status of the building is not permanent. Portable architecture refers to the aspect of spatial production that considers sustainable effects, and its materials pay attention to environmental sustainability. In

reality, the use of portable architecture can be assembled and disassembled so that it can place a portable architecture that is reuse/usable (can be reused) and recycled (can be recycled) [12].

Therefore, the concept of portable architecture still has a dominant character as a space for moving and non-essential needs rather than emphasizing the potential or temporal conception as an essential space in everyday life. The potential for portable architecture in tents has proven to keep up with the times. It needs to be raised to open up new opportunities, namely as a different space, and can be essential rather than just for special needs [6]. Therefore, the primary material of the tent's fundamental elements and components needs to be investigated through typology.

2. Material and methods

Based on the common thread from the theoretical study of the research title "Transformation of Tent Architecture Hybrid into Raincoat," the details of this research method are as follows;

- The temporal space of the Millennial generation.
- Portable architecture.
- Typology of portable tents.
- The ideal tent.

3. Results and discussion

This research is to obtain a transformation from tent to raincoat in the Millennial generation; the millennial generation grows up in the IoT information age. They have the characteristics of high self-confidence, independence, narcissism, and a different way of life. Changes will occur in various fields with new transformations, one of which is transforming from a tent into a raincoat. Regeneration will continue questioning conventional thinkers in activities, including perceiving space in architecture.

3.1. The temporal space of the millennial generation

With this new phenomenon and pandemic, some researchers believe that the nomadic idea emphasizes the importance of technology and dependence on internet connection. Others may see the openness of global networks as an essential aspect of this contemporary lifestyle [13]. Apart from the sophistication and advancement of various technologies facilitated by open infrastructure, it has indeed contributed to the ease of travel [14]. The idea of a wanderer is always linked and connected with the human body. Humans are always interested in experiencing a typical environment and desire to explore new things in life that are subjectively foreign to everyday life [15].

The desire for one body may not always be related to the need to seek specific experiences or resources. However, engaging in self-exploration and self-discovery is always tempting, which can be stimulated effectively by experiencing certain places or new resources. So the need for tents is related to the Melanum era and the pandemic; it is necessary to think about a new concept according to the Millennial character.

3.2. Portable architecture

The phenomena of world architecture seek alternative spaces to solve conventional architecture's stagnation and limitations. In the previous decade, architecture was widely understood as limited, rigid, rigid, and formal; Rapid changes and dynamics require the birth of a different space to fill or complement the existing building. A different space today is a space that can accommodate change, speed, movement, and moving life [6]. This space can transform and evolve, responsive with time in regeneration [3].

This alternative space offers a different type from the general one if conventional architecture perceives it as a rigid, formal, static, and permanent space. In contrast, alternative spaces develop conditions that are temporary, dynamic, and changeable [6]. This alternative space has a character by developing a lightweight, portable architecture that can be bent, changed, carried around the world, and spread out with different conditions and situations. Portable architecture develops and can merge into the interior and exterior spaces through technology [13]. The purpose of this portable space is to fill other spatial gaps, including products for the next generation [5].

3.3. Typology of portable tents

Typology is the study of grouping by type or type. A type study is a series of classification processes arranged systematically in a single container built on the same physical characteristics. Etymologically, typology comes from Greek words, namely typos (type) and logos (science), which reflect the relationship between doctrine and symbols. Therefore, typology can mean [16]:

- Science related to symbol representation, especially those related to linguistics,
- Systematic classification of physical forms based on the same characteristics,
- Classification results of similar characters,
- Classification of languages and their derivatives,
- Type and figure of writing.

Therefore, the typology is centred on specific forms, structures, and physiques. Typology is developed into a method that focuses on the physical, structural elements that make up the overall form of the room. In the case of the tent, the emphasis is on the structure and enclosure of the tent. This method compares types of tents with different structures and enclosures; to find patterns, common threads, and unique characters. By comparing, this book looks for research opportunities and gaps in the form of transformations and gaps in the formation of different spaces as other forms of tents as portable architecture.

Typology was developed to focus on physical, structural elements that make up the overall spatial form. In the case of tents, the emphasis is on the structure and scope of the tent. This typological method compares different types of tents with their structure and scope so that patterns of common threads and unique characters are found. By comparing, this research looks for opportunities and gaps in the form of transformations and different forms of space from other forms of tents as portable architecture.

This categorization and selection process summarizes the general tent typology, so it is divided into:

- Type of tent based on shape: ridge/frame/wedge, dome, tunnel, geodesic, cabin, and pyramid.
- Tent with multi-function/multi-member: multi-room tent, inflatable, and pop-up/Instant tent.
- Tent for exploration: backpacking, bivy, and hammock. Tents for lifestyle: bell tent and teepee tent.
- Tents for special needs: canopy tent, beach tent, suspended tent, and rooftop tent.

Categories refine the tent's form, structure, and function so that users can quickly identify the advantages and disadvantages offered by each type.

3.4. The ideal tent

Tent architecture in the Millennium era is an early embodiment of the character of the millennial generation with a mindset and way of working supported by advances in information technology. So this is what causes changes and shifts in all orders of life. Millennial life tends to be mobile, flexible, multi-tasking, and instant. Architectural tents with the concept of glamping maximize natural potential optimally indoors and outdoors. So the tent architecture supports it as a sustainable building (Figure 1).



Figure 1 Tents support sustainable architecture

The dome type is the most commonly used. The general dimensions are 140 Cm x 205 Cm x 100 Cm (Figure 2). Overall, the tent is dome-shaped and constructed with two flexible structures that criss-cross each other to form a shelter. The two structures bend and anchor at four locked floor points. The structure can be located outside or inside the tent, thus potentially forming more than one layer of the enclosure. The advantages are that it is relatively cheap, easy to build and store, lightweight, small in size, and has good headroom. The disadvantage is that it is less stable in windy or rainy weather conditions and does not have a small veranda.

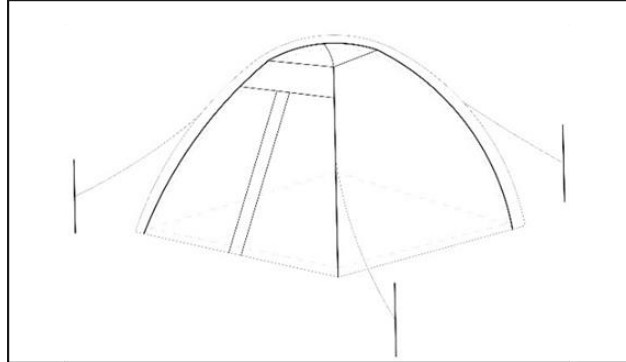


Figure 2 Dome Tent

The pyramid type is the simplest type of awning and consists of only a central post to resist pulling in various directions (Figure 3). The general dimensions are 120 Cm x 220 Cm x 100 Cm and multiples. The main strength of the structure depends on the central pillar, so the bigger the tent, the more unstable the structure will be. Generally, these tents are made of thick canvas and a solid central pole. The advantages are that it is effortless to build, and the modern version is very light and stable in bad weather. The drawback is a little vertical space.

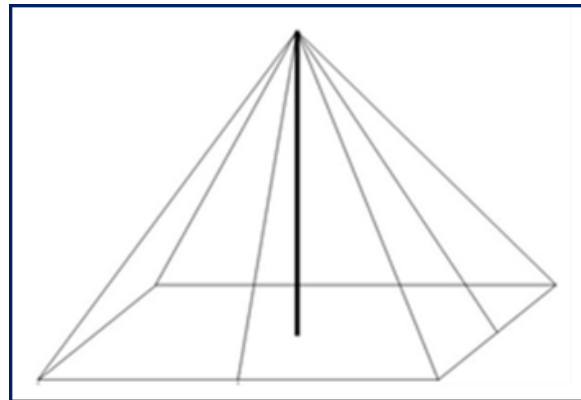


Figure 3 Pyramid Tent

Tent architecture should be designed with multi-function, not only as a tent. However, it can be used for raincoats and stored practically, compactly and easily carried around. The architectural space of the tent is interpreted as an experimentation of wearable shelter. A nomadic space is intended to support the productivity and self-expression of a new generation, which gives birth to a new informality, namely the transformation of tent architecture into raincoats (Figure 4).



Figure 4 Transformation of a Tent into a Raincoat

4. Conclusion

The embodiment of tent architecture for lodging with the concept of glamping or glamorous camping, in addition to glamping lodging, there are other facilities such as places to gather, barbeques, restaurants, sports, weddings, and other outdoor activities. All outdoor activities can be enjoyed during the day, and at night, especially at night; the lighting users are very liked by the millennial group.

The architectural hybrid transformation from tent to raincoat for millennials, bringing free-spirited life and more freedom to millennial society. Tent architecture should be designed with multiple functions, namely not only as a tent but can be used for raincoats and stored practically, compactly, and easily carried around, as the findings of this study in the fashion architecture field group (Figure 4).

Compliance with ethical standards

Acknowledgments

The authors would like to thank RISTEK-BRIN (Kementerian Riset dan Teknologi/Badan Riset dan Inovasi Nasional) Indonesia, who funded this research; LPPM (Lembaga Penelitian dan Pengabdian Kepada Masyarakat) Universitas Tarumanagara, and also the editor, and reviewers for their valuable suggestions.

Disclosure of conflict of interest

The Authors confirm that the content of this manuscript has no conflict of interest.

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