Considering Sidewalls as an Architectural Ground: Parasitic Architecture Approaches in Design Studio

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Abstract: Approaches mimicking nature constitute a biopolitical specific area in architecture. Today, what is called parasitic architecture is also accepted as one of these biopolitical approaches. Parasitic architecture follows the path of parasitism in nature in terms of biomimicry. And parasitism is accepted as one of the symbiotic lifeforms, others being commensalism and mutualism. They all consist of the biological relationship between distinct organisms where parasitism specially defines duality between a harming parasite and a vulnerable host. Talking in architectural terms, here the parasitism defines an additional structure that can only exist via clinging to a preexisting one. These clinging mechanisms or reflexes can be listed as "sticking", "climbing", "holding", "fixing", etc.

This study aims to evaluate the architectural parasitism phenomena as a case study for the design studio. As known, the design studio is the backbone of architectural education, which is carried on with unique themes each semester. Hence, such a theme was programmed in Istanbul Topkapı University, Interior Architecture and Environmental Design department in the 2021-2022 Spring Semester, to handle the surrounding idle walls in an ad hoc way as hosting structures for parasitic design ideas of the students. As a result of the works, the idle walls were converted into fruitful public backgrounds for creating a large variety of design ideas with distinct functions and structures as well.

Keywords: Design studio, Parasitic design, Parasitism, Biomimicry, Adhocism

Introduction:

"place" term has always comprehended within grounded concepts that identify themselves with earthly notions. According to Deviren (2001), this is the very point it differs from the concept of "space" for space has the opportunity of being nongrounded or abstracted. However, approaches that examine the terms of space and place in certain dualities such as Contextualism, regionalism, or Genius Loci basis of Norberg-Schulz (Norberg-Schulz, 1980), the common

ground of these approaches show themselves in certain levels of comprehension as below.

- The notion of longing purposes that the space will remain in the same place forever.
- The notion of harmony of space and place on certain datums is based on the possibilities of built-environment.
- The notion of bureaucratic approach towards spatial design strategies on certain hierarchy.

- Ownership discussions are based on the notion of belonging to certain locations.

However mentioned approaches had carried on their authorities, especially in early Modernist tendencies, non-physical spatial approaches create opposite grounds for alternative entities of space. These new points of view create a large-scale level on a phenomenological level from existential discussions to non-spatiality, mobility, and nomadism in architecture which either can define certain levels comprehension or can be encountered in various combinations in contemporary architecture. Thus, we must admit that this permeability between these terms creates fruitful grounds for experiencing architecture in genuine discourses of nomadism.

Method:

The archi-bio-political method which firstly mentioned by Bertalanffy (1928). This approach takes a significant role in many interdisciplinary studies in Architecture by gaining an "archi-bio-political" vision (Şentürk, 2013). These studies suggest that biological systems can be a reference for multidisciplinary research areas, General System Theory he put forward began to be used as the reference point for socio-cultural and even political surveys by researchers like Lauhmann (1989). Regarding this point of view, this paper takes its motivation from an archi-bio-political approach and aims to carry basic principles of parasitic notions of biology to the architectural discussion by its organization dynamics. Talking about the organizational system, parasitic approaches creates a level of comprehending design issues by creating design solutions for idle areas of the city. The

flexibility and adaptation ability of parasitic design also gains an Ad hoc notion rather than following bureaucratic steps towards design.

Discussion is based on pointing out the common sense of Ad hoc notions of parasitic architecture by literature research. While literature discussion creates the ground for Adhocratic design principles of parasitic architecture, an experimental design studio for Idle sidewalls located in Galata-İstanbul allows examining parasitic design approach towards giving new functions for non-sense surfaces of urban aesthetics.

Scope:

Possibilities based on location are the main discussion area of this paper which will be discussed under the topics of space notions in nomadism, parasitism, and adhocism.

Nomadism in Space Notion

While nomadism in architecture takes its motivation from being mobile, the etymology of the term "mobility" depends on moving. However modernist approaches show great interest in contexts depending on certain spaces, we encounter steps of getting free from the place in various examples during history. Firstly, the experiment of the Dymaxion Pavilion of Fuller suggests a mobile form of the house that consists of prefabricated elements achieved via air transportation in the early Industrial Revolution (Sönmez, 2004), (Figure 1). On the other hand, Archigram is one of the most known fantasies of breaking free from depending on certain spaces in the 1960s architectural world (Sönmez, 2004). Sometimes origin of this fantasy depends on the basic motivation of breaking free from a sense of

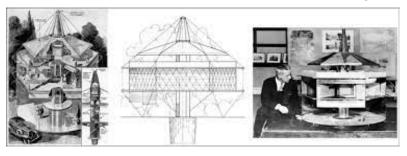


Figure 1: Dymaxion Pavilion of Fuller (Firat, 2006)

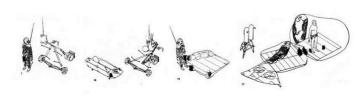




Figure 2: Nomadistic Life-Kit designed by Michael Webb and walking city Archigram designed by Ron Heroon (Fırat, 2006)

belonging which would help society to develop a sense of obvious happiness away from doctrinal discourses of architectural context depending on the place. Thus, Nomadistic Life-Kit designed by Michael Webb, and the walking city Archigram designed by Ron Heroon, give utopic experiences of a non-owned land by being mobile (Figure 2).

Both approaches build a stance against regionalist and contextualist examinations as well as the Genius-Loci discourse of Norberg-Schulz (1980). The main ground of this stance can be explored as a new type of manifestation which refuses the bureaucratic hierarchy of Modernism developed on certain rules to follow. Making the building free from space gives opportunities for eliminating regional codes from design issues and creates a free universe for the design itself (Zerzan, 2004).

Parasitism in Architectural Approaches

Kronenburg (1998) defines mobile architecture as a moving building. However, the term mobility developed by non-locational approaches based on movement, contemporary approaches in architecture shows various levels of mobility beyond being merely dependent on moving. As Fırat mentions that every structure which arises against rigid relation between building and place can be countered as mobile

including any temporary from pneumatic structures (Figure 3) to prefabricated structures (Figure 4) (Firat, 2006). This new point of view gives insight into mobile architecture and a sense of nomadism as well as using instant opportunities in design approaches towards Parasitic architecture relates space. nomadism in the context of the "loss of space" idea of Norber-Schulz (1988), which offers the idea of alienating the place. When Deleuze (1968) also claims that alienating to place means alienating to reality itself, nomadistic approaches can easily comprehend as defining new codes away from the reality of the place as well as changing the position of movement.



Figure 3: Pneumatic parasitic structure clinging to air conditioning system of an existing structure (URL-1)



Figure 4: A living unit articulating billboards in Belgium (Yorgancıoğlu & Seyman Güray, 2018)

Here the discussion of parasitism finds its proper place in the name of nomadism by creating new codes in certain places. Biologically, parasitism is one of the symbiotic life forms while symbiosis means "living together" as a host and guest (Yorgancıoğlu & Güray, 2018). Contemporary research on the bio-politics of architecture creates a new vision carrying biological definitions architectural comprehension. When Foucault (1986) defines a level of understanding which claims that everything related to living creatures became "bio-politic", Şentürk (2013) defines "archi-bio-politics" as an interdisciplinary approach based on building relationships between the concepts of living creatures and the meaning of biological effects on architectural reflections. Hence, talking about symbiotic definitions in biological forms can bring new readings in understanding humans, places, and architecture.

According to symbiotic relationships mutualism defines the relationship between the host and guest when both creatures benefit from the relationship while commensalism defines this relationship as one of the sides of the benefits of the relationship as the other is not affected at all What makes a structure parasitic is this condition is the fact the "guest" benefits from the other while the "host" is harmed. Hence, Myburg (2014) suggests carrying the term into architectural discourse when a temporary building which can be defined as a nomad builds up its existence by benefiting a host building that has already taken its place in

a certain context. Adapting to the host's conditions, benefiting from its structure, and creating a brand new aesthetic discourse gain an invasive attitude in this type of nomadistic structure (McDaniel, 2008). Here the host is already self-sufficient while the unexpected nomad guest depends on the host building structurally by imposing burdens on it (Figures 3-4).

While flexibility and temporality are the notions of nomadism, surprising adaptability brings out a new side of the parasitic attitude. This attitude is explained as "utilizing idle terms" and developing its architectural meaning as attractive terms (Yorgancioğlu & Güray, 2018). Hence, transforming an idle space into an attractive context is the main concept of parasitic architecture which offers urban aesthetics new dimensions of possibilities of idle areas. Using instant conditions, offering new and unexpected codes, and struggling with instant conditions brings out a non-bureaucratic attitude which can be discussed under the rhetoric of Adhocism towards design.

Ad hoc Notions of Parasitic Architecture

While temporariness of space brings flexibility to rigid relationships between design and place, this can be comprehended as the very notion of the Ad hoc approach for its improvisational approach towards current situations. Adhocism is simply defined as a strategy for finding specific solutions for certain problems in the most simple, effective, creative, and economical ways (Jencks & Silver, 1972). The

art of answering design problems in an Ad hoc way creates a ground for temporary solutions depending mostly on planned improvisation. The etymology of the term "Ad hoc" origins from the saying "for-this" in Latin languages and references a specific level of problemsolving strategy which cannot be generalized or 2000). Nonetheless, standardized (Hays, notions of Adhocism are seen to be defined as a social form of the organization against bureaucracy until the early ages of late modernism. Ad hoc design strategies were mentioned on academic platforms firstly by Charles Jencks and Nathan Silver in their book "Adhocism: The Case for Improvisation" (Jencks & Silver, 1972) (Figure 5).





Figure 5: Madonna of The Future by Charles Jencks, 1968 and Dining Chair by Nathan Silver, 1968 (Erdil Polat, 2017)

According to Jencks and Silver (1972), the saying Adhocism is taking a post-industrial material that ran out of order, combining it with new materials, and giving it a brand new

mission surprisingly inappropriate for its creation. The tension between old and new and electricity to the exciting feeling of the surprising function of the material; is the key to creating a language based on surprise. Surely, this new language is the main concentration area of the storyteller side of postmodernism by mentioning "Normal is boring". While Ad hoc design offers a surprisingly striking solution through its odd language of aesthetics by using an ordinary material in an extraordinary style, it has created its own motto as "Normal is the new weird" and uses the norms as the elements for achieving weirdness. (Figure 5). Talking about spatial experiences, primary examples of Ad hoc design organization can be examined in early-hippie settlements of the 1960s such as Drop-City in North Colorado, an experimental settlement built in 1965. This experimental settlement which created spaces out of nonfunctional post-industrial materials are used by a group for a couple of years until they decided to end the experiment of Ad hoc living. Their notion of Ad hoc settlement shows nomad attitudes as well as non-belonging codes towards the place which show us the rich spatial aesthetics and usage of post-industrial materials that had gone out of order and have been given new usage values later. The attitude of the settlement constitutes of domes made with nonfunctional materials creates a level of consciousness both nomad and flexible which is implied based on planned improvisation and ecological sustainability (Figure 6).





Figure 6: Drop-City by Clark Richert, 1965-1973 and a solar panel for Drop-City by Clark Richert, 1967 (Erdil Polat, 2017)

Here, adaptability and flexibility become a common ground for parasitic architecture and Adhocism in the bridge between a notion of nomadism and an improvisational design approach. While parasitic architecture is a guest for a certain host, Ad hoc design is the guest for current situations in unexpected and surprising ways. However, this main common ground can be handled as the direct connection between Adhocism and parasitism based on the designthinking styles of both approaches, examples of this multi-layered condition manifest themselves by the notion of "using inappropriate" or idle places for "unexpected functions" by post-industrial materials given a surprisingly new function. These examples are mostly based on using post-industrial materials such as containers in a parasitic approach by using current occasions in an Ad hoc way (Figure 7)

It is possible to take parasitic approaches as an interference option valued by an ad hoc approach towards the idle occasions of urban space. This vision gives parasitic architecture the characteristic of an interdisciplinary context that must be handled in an understanding of urban aesthetics. At this point, Lupo and Postiglione (2009) remind us that every parasitic architecture creates new codes in urban aesthetics which are not been discussed or valued before. Thus, being an unexpected

guest to the host place starts another discussion based on renewed urban aesthetics with rearranged possibilities of idle urban spaces.

The Condition of Idle Sidewalls: A Ground for Parasitic Design

When studies point out that idle spaces are commonly the places that are considered to be a part of urban culture. This point of view makes it necessary to examine idle urban places in social and urban texture. Yorgancioğlu and Seyman Güray claims two main contexts for that purpose social context and urban context (2018). While social context includes a space recognition observed by urban people in the name of the usage of urban place, urban context creates datums that can be discussed under urban aesthetics.

In this study, when the chosen ground is considered as the idle facades of the buildings, these two contexts mentioned above find themselves a proper representation area both socially and aesthetically studied within the urban texture.

Idle sidewalls, which are born by a necessity of function, generally unconsidered conclusions of instant conditions of the building program. However, they are beloved by early modernist approaches as the perfect results of perfectly smooth surfaces. As time goes by, we encounter



Figure 7: Urban Rigger, floating student housing by Big Bjarke Ingels Group, Copenhagen (URL-2)

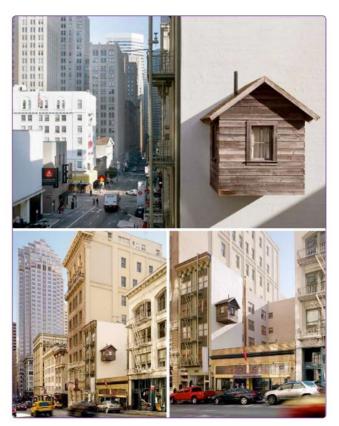


Figure 8: A small sized structure clinging on an idle façade (Yorgancıoğlu & Seyman Güray, 2018)



Figure 9: A parasitic structure clinging to two opposite idle façades (Yorgancıoğlu & Seyman Güray, 2018)

the fact that they became a surface for advertising by post-industrial tendencies that evaluate every hallow scope as an opportunity for consumption culture (Figure 8, Figure 9). As well as advertisements, they give space for two-dimensional arts and crafts from time to time by urban artists.

By taking inspiration from these examples below, the design studio is concentrated on creating parasitic solutions for idle sidewalls in selected areas of İstanbul, which will be examined under the topic of the experimental report of the studio.



Figure 10: Map given to students (authors' own work)

Case Study:

Building on the idle walls and their possibilities mentioned, a design studio for third-year students concentrated on creating functional solutions for sidewalls in the selected streets around Golden Horn, İstanbul, was programmed in İstanbul Topkapı University, Interior Architecture and Environmental Design department in 2021-2022 Spring Semester. In the first course week, students were shown the movie Sidewalls (2011) and a parasitic

architecture presentation. And they were asked to determine suitable idle sidewalls around the Golden Horn, where the campus the course was given is also located, from the selected area given in the following map (Figure 10). The selected region is known for its historical references. Nowadays, the mentioned area is functionalized by residences and small businesses, as well as shops, hotels, and restaurants.

After examining the social tendencies of the region, available idle sidewalls are pointed out and photographed by the students. In the second course week, the instructors have chosen the eight most suitable sidewalls (to be evaluated in the design studio semester) from the student presentations. Available sidewalls are then numbered and redistributed to each student maintaining an equal number of students individually studying each wall (Figure 11).

Available numbered sidewalls are selected by students. After creating the common ground in nomadism, parasitism, and adhocism, the students are asked to study their idea of parasitic architecture for their walls. The main criteria for the design were to build up an idea that meets a

specific need of the urban life (in the immediate local surrounding) while consisting of ad hoc design sense by using post-industrial materials that ran out of order. In other words, the function of the to be designed building was also free of choice as well as the structure. This scope needed to be examined by surveys made on the street including determination of the needs according to the expectations of local people and urban life. As a characteristic of parasitic architecture, studies needed to offer new and unexpected codes for the idle spaces of the street while integrating parasitic notions into the walls. At the end of the semester, the most successful design for each wall was determined by the instructors (Table 1).

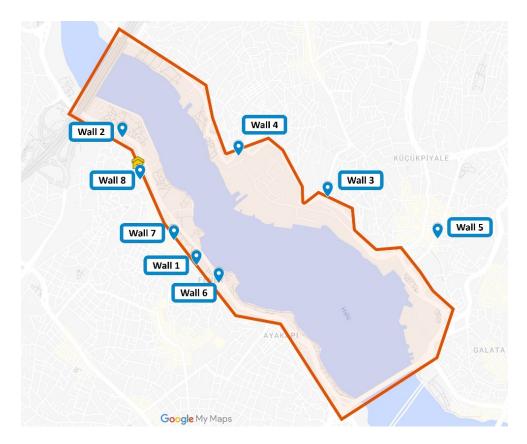


Figure 11: Locations of the selected sidewalls on the given map (authors' own work)

Table 1: Original walls and student projects

Wall Number	Original Situation	Student Project
1		
2		
3	HE III (CPU)	
4		
5		

Journal of Design Studio v:4 n:1 July 2022



The main selection criteria for the successful projects were as follows: to be designed in a parasitic way along with the mainstream architectural needs, to be shaped in a vertical order clinging on the sidewall, and not to conduct building loads directly to the ground (which is also a parasitic approach criterion), to have suitable reasoning in between the concept and the design.

Conclusion:

Nomadism in architecture has always been an alternative option for the design that refuses doctrinal values of discourses based on certain regional codes. Hence, various nomadistic design approaches can be seen during the history of architecture from Dymaxion Pavilion to Archigram. However, changing views of points develop variational ideas on nomadism which can offer new codes and still be nomad by remaining in the same place. This discussion unifies with archi-bio-political studies which claim to explain biological mechanisms' working principles in architecture. While parasitism represents an avant-garde approach

based on these notions, refusing bureaucratic steps during the process gives the design inspiration for behaving ad hoc already. Discussion among these tendencies shows a common ground for studying parasitic architecture as a nomadistic form of ad hoc design approach. Clarifying this common ground gave inspiration for the design studio to handle idle sidewalls in an adhocratic concept for creating functional solutions in parasitic notions.

Hence, selected idle surfaces of sidewalls on the streets around the Golden Horn created the ground for such an experience. Students created their own idea by observing the functional needs of the street as well as current possibilities of immediate conditions according to the ad hoc design process. Although sidewalls are commonly seen as a surface for advertisements or two-dimensional decorative arts, results of the design studio show that parasitic approaches towards idle sidewalls create new codes by re-arranging the surface with unexpected functions. This surprising side

of the design examines the relationship between urban space and people experiencing the ambiance of the street. Experiencing functional space options expresses the social context of idle spaces and makes both architects and users think about the possibilities of idle surfaces of sidewalls as a part of urban aesthetics in everyday life.

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