

### GRID ARCHITECTURE, PLANNING AND DESIGN JOURNAL GRID MIMARLIK, PLANLAMA VE TASARIM DERGISI

Vol. 6, No. 2, 2023, 725-744 / Cilt 6, Sayı 2, 2023, 725-744 / DOI: 10.37246/grid.1211258

## Towards an interconnected reading method: Temporality of an architectural lexicon

Türkan Oya EKMEKCİ GERONYMAKİS<sup>1</sup>, ORCID: 0000-0002-7175-1325 Ayşe ŞENTÜRER<sup>2</sup>, ORCID: 0000-0002-5299-1390

#### Abstract

The conception of time evolves from absolute towards more ambiguous in light of different scientific approaches. It becomes questionable to explain all physical phenomena with a single definition of time. Temporality in architecture can be studied in different dimensions; nevertheless, it is mainly considered in relation with the concepts of space and time. This article aims to focus on specifically temporality of an openended research approach in architecture. It introduces an interconnected reading method and explicates the research layers and their relations through an architectural lexicon. Therefore, it deciphers an on-going PhD research called *Architectural Lexicon on Void*, which seeks to contribute to building a new architectural vocabulary. Based on the approach of interconnectivity, it interprets the lexicon as a means of "reading" and "understanding" the concept of void in architecture.

In order to discuss temporality, the article touches the idea of openness by Eco and Deleuze, together with Bergson's idea of *duration*. It considers temporality of this research process as an open whole which consists of multiple durations and studies the research layers within this frame.

#### Keywords

Duration; Temporality; Interconnectivity; Architectural lexicon; Architectural research

#### **Article Information**

Received: 28.11.2022 Received in Revised Form: 19.04.2023 Accepted: 27.05.2023

Available Online: 17.07.2023

#### Article Category

Research Article

### Highlights

- Comprehension of different temporalities can manifest different ways of thinking in architectural research, which consists of creative and complex processes.
- Interconnectivity can inspire an open-ended research approach.
- Lexicon can contribute to a conceptual reading method as a means for "understanding".

#### Contact

1. Architectural Design Programme, Graduate School, Istanbul Technical University, Istanbul, Turkiye

ekmekcit@itu.edu.tr

2. Department of Architecture, Istanbul Technical University, Istanbul, Turkiye

senturer@itu.edu.tr

Ekmekci Geronymakis, T. O. & Şentürer, A. (2023). Towards an interconnected reading method: Temporality of an architectural lexicon. *GRID Architecture, Planning and Design Journal*, 6(2), 725-744.



### GRID ARCHITECTURE, PLANNING AND DESIGN JOURNAL GRID MIMARLIK, PLANLAMA VE TASARIM DERGISI

Vol. 6, No. 2, 2023, 725-744 / Cilt 6, Sayı 2, 2023, 725-744 / DOI: 10.37246/grid.1211258

### Bağlantısal bir okuma yöntemine doğru: Bir mimari sözlüğün zamansallığı üzerine

Türkan Oya EKMEKCİ GERONYMAKİS<sup>1</sup>, ORCID: 0000-0002-7175-1325 Ayşe ŞENTÜRER<sup>2</sup>, ORCID: 0000-0002-5299-1390

### Anahtar Sözcükler

Süre; Zamansallık; Bağlantısallık; Mimari sözlük; Mimari araştırma

### Öz

Farklı bilimsel yaklaşımların ışığında zaman kavramı mutlak olandan belirsiz olana doğru evrilir. Böylece bütün fizik fenomenlerini tek bir zaman tanımı ile açıklamaya çalışmak tartışmalı hale gelir. Mimarlıkta zamansallık farklı boyutlarda ele alınabilir; ancak genelde mekan ve zaman kavramları ilişkisi çerçevesinde düşünülür. Bu makale zamansallığa açık uçlu bir mimari araştırma bağlamında odaklanmayı hedefler. Bağlantısal bir okuma yöntemi sunarak araştırmanın katmanlarını ve ilişkilerini bir mimari sözlük girişimi üzerinden açıklar. Bu bağlamda, yeni bir mimarlık dağarcığı geliştirmeye katkı sağlamayı amaçlayan ve halen devam eden bir doktora araştırması olan *Başluk Üzerine Mimari Sözlük* çalışmasını inceler. Bağlantısallık yaklaşımından hareketle bu sözlüğü, mimarlıkta boşluk kavramını "okuma" ve "anlama" aracı olarak ele alır.

Makale, zamansallığı tartışmak için Bergson'un *süre* kavramıyla birlikte Eco ve Deleuze'ün açıklık üzerine fikirlerine değinir. Bu araştırma sürecinin zamansallığına çoklu sürelerden oluşan açık bir bütün olarak yaklaşır ve araştırmanın katmanlarını bu çerçevede yorumlar.

### Öne Çıkanlar

- Farklı zamansallıkları kavramak, yaratıcı ve karmaşık süreçleri içeren mimari araştırmada farklı düşünme biçimlerini ortaya koyabilir.
- Bağlantısallık açık uçlu araştırma yaklaşımlarına ilham verebilir.
- Bir "anlama" aracı olarak sözlük, kavramsal bir okuma yöntemine katkı sağlayabilir.

#### Makale Bilgileri

Alındı: 28.11.2022 Revizyon Kabul Tarihi: 19.04.2023 Kabul Edildi: 27.05.2023 Erişilebilir:

17.07.2023

### Makale Kategorisi

Araştırma Makalesi

#### İletişim

1. Mimari Tasarım Doktora Programı, Lisansüstü Eğitim Enstitüsü, İstanbul Teknik Üniversitesi, İstanbul, Türkiye

ekmekcit@itu.edu.tr

2. Mimarlık Bölümü, İstanbul Teknik Üniversitesi, İstanbul, Türkiye

senturer@itu.edu.tr



## **INTRODUCTION**

Instead of a linear conception of time, an open-ended research process requires comprehension of different temporalities, where past, present and future co-exist. Temporality in architecture is mainly addressed through the relation of space and time. On the other hand, it may inspire a non-chronological and open-ended reading approach for architectural research. The idea of discussing temporality within this point of view originates in an ongoing study of generating a mental lexicon for architecture.

This article examines temporality in an open-ended research approach by illustrating an interconnected lexicon as a reading method. It focuses on two interrelated aspects. First part is theorising an open-ended research approach in lights of temporality by discussing *duration* and openness together with mental lexicon process. Second is deciphering the research layers of *Architectural Lexicon on Void*<sup>1</sup> as a reading method in light of these ideas. In this way, it aims to contribute to the architectural research field by introducing an interconnected lexicon as a reading method beyond a descriptive dictionary or a chronological mapping of the concept of void. The difficulty of understanding such ambiguous concept brings the necessity of a different reading approach with it. Ever-changing meanings of concepts can embrace the potential of openness in a reading process rather than basing the research on solid grounds. Additionally, the attempt to theorise this open-ended research process can inspire not only architectural researches but also researches from other disciplines in a broader sense.

The urge to discuss the concept of void arises from the need to criticise the limitation of the common tendency of comprehending architecture as a solid product. On the contrary, this reading is positioned in a viewpoint where empty simply does not refer to the opposite of full. The initial idea of making a lexicon on void originates in the insight that comprehension of the concept of void in architecture has a limited frame. This intangible concept with multilayered meanings leads to an in-depth reading method, an interconnected lexicon for architecture, which is used as a tool for exploring temporal meanings. The lexicon evolves with every new "encounter" during the research process and reveals the hidden concepts within different relational possibilities. In this way, it becomes a means for reinterpreting architecture, which is mainly represented by building, the constant solidity.

Making of a lexicon is not an objective and a descriptive process, but a subjective and open-ended one. According to Eco (1962, 2016), "reading" process itself introduces a kind of "openness". As

<sup>&</sup>lt;sup>1</sup> The Lexicon on Void, produced as part of an ongoing PhD research, was exhibited at *RSD10 Relating Systems Thinking and Design Symposium* at TU Delft in November 2021 (Ekmekci Geronymakis, 2021). The open-ended lexicon can be followed via the website: https://www.lexicononvoid.org/



long as a work is ambiguous, it is open to numerous interpretations (p.74). Rather than fixed definitions of the concepts, lexicon serves as a reading method consisting openness of everchanging relational meanings. Here, the emphasis is on the potentials of "becomings" and the ambiguity of "temporal" meanings in the architectural lexicon. Thus, "reading" the concept of void in architecture is considered as a means of "understanding" and "interpretation", which embraces "becomings"<sup>2</sup>. The "becoming" of this lexicon relates to the temporality in lights of the conception of *duration*, borrowed from Bergson and improved by Deleuze. Bergson (1910, 2013; 2002) explains his idea of duration as where the past and the present are shaped into a whole together. They are not separate but united within a continuous change. In relation with this research approach, it is interpreted that *duration* enables different interconnections co-existing in an open whole. Meanings of the concepts shift by time depending on the ever-changing relations established in the lexicon, which gives it the feature of openness.

The research process as an open whole constitutes different research layers in state of flux. These layers named as "main concept", "encounters", "secondary concepts" and "mediators", are intertwined as a form of an interconnected lexicon on the contrary to a linear reading. During the research process, every "encounter", related to the main concept, dwells in a "moment". The moments of encounters recalling the "memories" expand relationally while adding "secondary concepts" to the lexicon. "Mediators" create interconnectivities among the concepts in the lexicon, which embraces temporal meanings. The moments of casual encountering introduce new relational concepts, in other words meanings, to the lexicon. Temporality of the lexicon can be traced via the specific research layers such as "encounters" and "mediators", which will be explained thoroughly in the final section of the article. Here, the concept of duration reflects on the "mediators", which are interconnections of multi-layered meanings in the lexicon, by means of *multiplicity*<sup>3</sup> and co-existence. Additionally, mental lexicon process, which gives the inspiration for the nature of the lexicon, will be discussed via "memory" within the relation of the past and present.

## **DURATION AND OPENNESS**

An open research process can be comprehended as a whole which consists of divergent durations. Here, lexicon is considered as an open whole which provides a method for relational reading. In order to achieve this, conception of *duration* and openness becomes a significant inspiration for this research.

<sup>&</sup>lt;sup>2</sup> Being ambiguous and "open" for different "readings" is mentioned here in relation with Eco's (1962/2016) ideas. Additionally, we relate "reading" with Gadamer's (1975/2006) emphasis on "understanding" and

<sup>&</sup>quot;interpretation", together with Deleuze's (1990/2013) discussions on "concept" and "thought" as becomings. These ideas are related by means of the potentials of possible relationalities, which occur in *duration*, as it can be traced throughout the article.

<sup>&</sup>lt;sup>3</sup> Deleuze defines Bergson's work as "the constitution of a logic of multiplicities" at his book where he discusses the types of different multiplicities (*multiplicité*). "Bergson moves toward a distinction between two major types of multiplicities, the one discrete or discontinuous, the other continuous, the one spatial and the other temporal, the one actual, the other virtual." (Deleuze, 1966/1988, p. 117). At this article, we did not prefer to mention these different multiplicities in detail in order to avoid losing the main focus of our discussion. However, we refer to multiplicity of duration, which is a *continuum* as Bergson mentions, and it is different than "multiple".



### Vol. 6, No. 2, 2023, 725-744 / Cilt 6, Sayı 2, 2023, 725-744 / DOI: 10.37246/grid.1211258

Besides Eco (1962, 2016), Deleuze (1990, 2013) also interprets openness as a feature of artworks, specifically in the field of cinema which introduces the time-image. According to him, the whole, which has the nature of time, is not close but constantly open. The open whole, in other words time, emanates from different "becomings" and "temporalities" (Colebrook, 2002, p. 40). He develops his discussions around Bergson's ideas on duration. It is a continuous and heterogeneous becoming in transition and transformation. It is a kind of multiplicity (multiplicité) which can be divided by only transforming its nature. Thus, Time as an open whole comprises the co-existences of different durations. Duration has the potential of revealing other durations, which are not sequential but simultaneously flowing in the co-existence of multiplicities (Deleuze, 1966, 2005). Through time-image, time is not considered as linking one movement to the other linearly. Instead, as a unified whole, it creates movements, differences and becomings itself (Colebrook, 2002). At his book Cinema 2, Deleuze (1985, 1989) emphasises the time-image as a "temporal structure" in a non-chronological order of past, present and future, where a specific event may occur in different levels of duration (p.xii). "Each movement has its own duration, each event its own unfolding. These durations, though, are never simply isolated or self-contained but always both intersect with other durations" (Grosz, 1997, p. 19.14). These ideas give insight to comprehend temporality of an open research process and its features such as being non-chronological and coexisting different durations.

Additionally, Eco (1962, 2016) mentions open work as a whole, whose structure is not a form as object but a system of relations in-between different levels. According to him, the probability of openness occurs in a field of relationality (pp.55, 91). Here, at this lexicon as an open whole, the power of becoming and mutual re-transformation of durations can be traced in "interconnections". Neuroscience studies introduce interconnected systems not only as a scientific approach but also as a holistic viewpoint. Brain connectivity researches notably indicate an in-depth comprehension of interconnected systems. While emphasising interconnectivity as an emerging scientific approach, Kılıç (2019a) mentions brain connectome<sup>4</sup> projects as the main source of inspiration. Mapping brain connectome reveals the emphasis on relational networks rather than the sum of neurons in brain structure. Neural patterns in brain seemingly introduce diverse potentials of interconnectivity. Brain contains numerous probability networks, which comprise "temporal" patterns in constant change within any "moment". This complex network forms an interconnected whole which is composed of ever-changing relations in-between neurons rather than particular qualities of them. In other words, it is possible to describe interconnectivity as an open-ended unity, which constitutes countless relational probabilities.

Interconnectivity gives the idea on how to structure the lexicon as an open whole which involves different durations. In addition to this, the nature of mental lexicon process can unfold the co-existence of past and present via memory.

<sup>&</sup>lt;sup>4</sup> "Connectome" unfolds a means to understand the system of brain by relational mapping. The term refers to illustrating brain network by using both the elements and their connections. It forms an inclusive connectivity map of neurons in order to decode the brain structure (Sporns, 2012, p. 30).



## MENTAL LEXICON AND MEMORY

Stemming from understanding the concept of void in architecture, the research evolves into projecting an interconnected lexicon as a reading method. The challenging question here is how to achieve an open-ended vocabulary for architecture. In fact, the open-ended process of adding and dropping words can be naturally seen in one's mental lexicon. Although there are different approaches about how mental lexicon processes words, Elman (2004) criticises the common conception of mental lexicon as passive word storage (p.301). The emphasis is not on which words are involved in the mental lexicon; but rather, within which relations they exist. It constitutes an ever-changing process, which depends on one's usage of specific words in different contexts.

Mental lexicon can contribute to generating an architectural vocabulary via interconnecting the concepts borrowed from different "encounters" during the research process of lexicon on void. By different relations between concepts, new concepts can be added whilst old ones are dropped just like the process of learning vocabulary. Within this point of view, temporality of a mental lexicon can have close relation with "memory". Bergson (1939, 2007) emphasises the transition of memory, which recalls the before and the after by the perception of multiple moments in duration (p.167). Memory emerges and vanishes into the continuously reshaping present (Bergson, 2002, p. 205). During the research process, there are moments of encounters that recall related concepts which were collected in the past and incorporated into the lexicon. New concepts are added by changing their relations constantly in the present, and the whole itself. Deleuze (1966, 1988) discusses duration by referring to memory while explaining the relation between past, present, and future. In his study on Bergson, he mentions that memory coexists in the present as duration simultaneously extends to the past and to future (p.118). Connotations in memory reveal similarity between past and present while forming a "contiguity" that regenerates the whole. Thus, the past is not something happened and over, rather it still "coexists with itself as present" (Deleuze, 1964, 2000, pp. 56, 58)<sup>5</sup>.

In this sense, an architectural mental lexicon can evoke mental space. In his book *Spatial Intelligence*, Leon van Schaik (2008) mentions "mental space", where eidetic recalls, memories, feelings, senses, and journeys are collected. He relates different mental spaces of designers with "translation". According to him, translation does not simply refer to literal meanings of words in specific languages but it means obtaining unfamiliar perceptions (p.42). Therefore, it is possible to translate things within the probabilities of translator's mental space; just like speaking a language within the capacity of one's mental lexicon. Hence, meaning of a concept can differ according to the translation or the translator. Gadamer (1975, 2006) associates translation with "the process of understanding" and interpretation, which involves different relational possibilities (pp.388, 399). Translation can be considered as a way of interpretation and understanding, which incorporates

<sup>&</sup>lt;sup>5</sup> Deleuze (1964/2000) associates ideas of Bergson with Proust's in the sense of memory. He discusses memory in detail as *voluntary* and *involuntary* memory in the book *Proust and Signs. "Voluntary* memory proceeds from an actual present to a present that 'has been', to something that was present and is so no longer... this memory does not apprehend the past directly; it recomposes it with different *presents*" (p.57). "Involuntary memory seems to be based first of all upon the resemblance between two sensations, between two moments... it seems that it contains a volume of duration that extends it through two moments at once" (p.59).



relational encounters into the mental lexicon. Accidental encounters expand the moment via memories re-occurring as present. Mental lexicon process is open to new meanings by interconnections. By embodying multiple durations, it provides possibilities for relational interpretation and understanding for architecture. The attempt at this interconnected lexicon contributes to collecting architectural probabilities in relation to the main issue: the conception of void (Figure 1). Although it is structured around this main concept, this reading approach can be utilised for any other concept in order to provide different "translations" in architecture.

interconnectivity \*Kiliç, 2019 mental space<sup>\*van Schaik, 2008</sup> .... \*Eco,1962 mental lexicon openness\*\*Deleuze,1990 understanding & architectural interpretation \*Gadamer, 1975 translation ..... possibilities ..... ..... memory -reshaping the present Û present 44 of connection c Past& \*Bergson, 1910, 1939 duration \*\* Deleuze, 1966, 1985 <mediators> moments. <encounters>

Figure 1 - Key ideas of the study in relation with temporality.

## AN INTERCONNECTED READING ON VOID

In the lights of these discussions, openness of a research process is comprehended as a whole, which consists of multiplicity of diverse durations by its nature. Mental lexicon process evolves from the moments of encountering and memories interrelating past-present-future. Lexicon on void, as part of an ongoing research process, is developed as a method for reading and understanding void via the ideas mentioned above. It seeks to contribute to a *repertoire* which provides different translations for architecture. Openness and multiplicity of durations are embodied through interconnections in the lexicon. In this section of the article, the layers of the lexicon, in other words the research layers itself, and evolution of the research process will be explained thoroughly<sup>6</sup>.

<sup>&</sup>lt;sup>6</sup>We would like to remind that the content of the lexicon does not have a direct relation with the temporality but the concept of void. The examples or the concepts from the lexicon which will be mentioned under this section



### Vol. 6, No. 2, 2023, 725-744 / Cilt 6, Sayı 2, 2023, 725-744 / DOI: 10.37246/grid.1211258

The insufficiency of defining void as merely the opposite of full prompts the research process to create an open-ended lexicon on this concept. Instead of separation, unity of empty and full is discussed in a holistic way by interpreting both as different states of void. Thanks to the multi-layered meanings, the reading of the concept of void in architecture expands this lexicon beyond basic lexical meanings borrowed from the language. However, the challenging issue here is how to form the lexicon in a non-linear and ever-changing way. It should provide an interconnected and open system just like a mental lexicon. Additionally, it should be structured according to the relations between concepts rather than listing and defining the concepts independently in a linear order like a dictionary. Moreover, these relations should be open to constant changes. In order to provide an ever-changing lexicon, a complex mapping software<sup>7</sup> is used. The lexicon is published via a website where it is constantly being updated (Ekmekci Geronymakis, 2021-present). Readers can click on each concept, label or group to zoom in and out while exploring different relational frames in the same lexicon (Figure 2). The open-ended research approach and outcome appear in this interconnected lexicon as an unfinished whole.

Different layers of this research are defined as follows: *main concept, different states of the concept, encounters, secondary concepts,* and *mediators.* Within the frame of temporality, the research layer "encounters" is interpreted in relation with "memory" and "moment" whilst "mediators" with the potentials of "duration".



Figure 2 - Video showing the ever-changing relations in the lexicon (Ekmekci Geronymakis, 2022).

were not intended to be chosen within the frame of temporalities. However, we read the research layers and approach via this subject throughout the article.

<sup>&</sup>lt;sup>7</sup> With this mapping programme, it is possible to link each node (concept) within different hierarchical relationship. Not only the nodes but also the links can be named or described, which provides more emphasis on the relations rather than a mapping by only linking the concepts. Besides, visual images and additional texts can be added as part of this lexicon. It is also possible to create different layers by labelling or grouping them in a connected integrity. Here, the complex mapping software is used as a tool which reveals interconnections, some clusters of concepts and different layers. Any other tool can be used within the same approach. However, the challenging issue here is defining the relations between concepts as lines. If it is possible to represent these relations as fields rather than lines, we can read interconnectivities better. In order to avoid this problem, we tried to describe the links at some points and formed interconnected layers in the mapping named as "mediators".



### Main Concept: Void

The interconnected reading starts with a main concept and builds a mental lexicon in relation with this concept. As stated previously, the concept of "void" is chosen as main concept for this specific research. While researching the meaning of void at the beginning of this process, it is realised that this concept is used within a limited frame in architecture. The discussions on void are either focused on urban voids, which refer to empty or vacant sites without construction, or defining empty space enclosed by built elements. Although architecture evokes constructing something "solid" and "full" at first glance, "void" closely associates with architectural space. The concept of void, lexically meaning "completely empty space" (Oxford University, 2021, Definition 1), has different connotations which accompany ambiguous meanings. Embracing the ambiguity of void unfolds the necessity for openness in this research process.

A "concept" has close relation with "understanding" since it constitutes contents of thoughts. Mentioning a concept naturally brings along all meanings related to it (Burge, 1993, p. 310). Hence, the collection of related concepts in the lexicon can implement different ways of thinking beyond the aim to define meanings. Gadamer (1975, 2006) explains interpretation of concepts as a constant formation process. In his words, understanding is being "interwoven with concepts" (p.404). Thus, concepts do not only possess word meanings but also ideas and thoughts. According to Deleuze, a concept generates thoughts as becomings (Colebrook, 2002). However, the production of a concept is not possible without a relational matter (Zabunyan, 2006, p. 40). In other words, concepts as means for understanding are created only if there is a relational situation. As mentioned before, interconnectivity indicates that everything possesses a meaning only within the network it exists, in other words the relation it has (Kılıç, 2019b). Hence, comprehension of a word requires the knowledge of its relations with other words (Elman, 2004). In this way, this research is embodied in an ever-changing vocabulary, namely a mental lexicon, with temporal meanings dwelling in interconnections. The relational concepts gather in the lexicon during the process of understanding the main concept "void" and exploring new ways of "thinking" for architecture.

### Different States of the Concept: Synonyms and Antonyms

Lexical meaning of the main concept "void" demonstrates that there are plenty of words used as synonyms, such as *gap, empty, empty space, space, blank, void, vacant, vacuum, lacuna, hiatus, hole, and cavity* (Oxford University, 2021, Definition 1). Even though void refers to spatial emptiness in a broader sense, these concepts can all connote "an empty space". However, synonyms and antonyms have subtle nuances which can reveal different states of void. Here, these words are used to explore distinct features of the main concept and this research layer is named as "different states of void".

Understanding the concept of void not only includes researching lexical meanings, but also comprehensions from different disciplines such as philosophy and physics. Readings on architectural space, evolution of void in physics, conceptions in philosophy and etymological derivations accumulate different states of void in one relational layer. This research layer comprises some selection of concepts which connote void such as *emptiness, vacancy, blank, gap* and *fullness*. Although "full" simply means "having no empty space" (Oxford University, 2021, Definition 1), it is closely associated with void and considered as a state of void in this research. Different states



of the main concept can be extended with more synonyms and antonyms, which indicate different aspects of it.

### **Encounters and Secondary Concepts**

In parallel to researching different meanings of the main concept, encounters are collected from diverse disciplines. "Encounters on void" are the examples, mainly from the field of architecture and art, as well as literature and physics; which represent void or adopt the concept as a core idea. This research layer introduces new comprehensions of the main concept from different contexts while enriching the architectural vocabulary.

The word "encounter" denotes "an unexpected or casual meeting with someone or something" (Oxford University, 2021, Definition 1). Deleuze emphasises rencontre which is not any encounter but rather a special one. This rare rencontre becomes inexhaustible which arouses one's passion and can be named as an événement. The événement is exceptional but still casual, only if one is sensitive enough for the clues of the encounter (Lapoujade, 2006, pp. 15, 16). Hence, it is important to be open to the clues of such encounter which stimulates an événement. In this research, the clues for encounters on void appear in relationalities. Specific moment of encounter can evoke former relational concepts in the lexicon, which do not only belong to the past but also reoccur in the present. In this way, encounters introduce new concepts by re-establishing the existing interconnections between them. By referring to Bergson's ideas, Deleuze (1966, 1988) explains that every moment has the tendency to expand into a "continuum" to be reborn instantaneously and constantly (pp. 86, 87); in fact, each moment of encounter transforms the way of becoming itself (Colebrook, 2002, p. 37). In this sense, a moment of encountering does not only recall the memories from the past but also it has the power to regenerate the present and becoming of the whole. In the beginning of the research process, encounters on the concept of void were researched via associated different states of void which are the synonyms and antonyms of the main concept as mentioned above. Later on, deciphering each encounter revealed some new relational concepts. These are "secondary concepts" which do not directly connote the concept of void like different states of void; rather, designate different means to create void. Perhaps, not every encounter during the research process but the specific ones which add the secondary concepts to the lexicon have the potential of rencontre, as Deleuze names. Thus, the moments of encountering decipher new interconnections which reform the before and the after just like the multiple moments in duration.

As an example of the encounters and the way they process the lexicon, *The Church of Light* building designed by Tadao Ando can be mentioned here. The architect shapes the main design idea around void. An empty cross on the *blank* concrete wall becomes distinctive in this building. However, representation of void is not limited to the absence or blankness of material. Actually, the light going through the empty cross defines the void by "shaping the darkness" (Baek, 2010, p. 8), in other words by creating the shadow. This can be the spatial representation of the Japanese word *Ma*, meaning "the light of the sun shining through the gap in the gate" (Snodgrass, 2004, p. 65). It creates a *gap* for the sunlight to seep into the void. It becomes an intermediary space, connecting inside and outside, light and dark, providing an opening as a form of void. This encounter is



connected to the states of void: *blank* and *gap*, and introduces the secondary concepts such as *shadow*, *ma*, *in-between* and *absence* in the lexicon which is formed as a relational mapping (Figure 3).

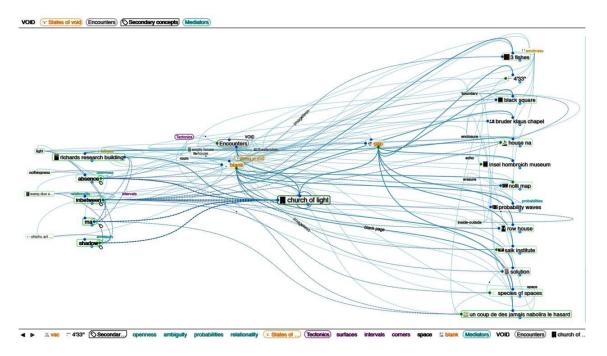


Figure 3 - Relational state of a specific encounter: The Church of Light (Ekmekci Geronymakis, 2021-present).

In *The Church of Light* example, the phases in-between light and dark defines the void. This encounter is also connected to another one in the lexicon, which is *Richards Medical Research Laboratories* designed by Louis Kahn. By considering light as an essential element for architecture, Kahn mentions that the space is created by different states of light (Erzen, 2017, p. 296). Thus, light and dark are not the only two definite states like empty and full. At this building, Kahn designs a *gap* at the corners of the walls as a kind of *pause*. Gap as an intermediate space breaks the continuity and later reunites the before and the after (Snodgrass, 2004). Here, he uses *light* as a tectonic element for joining the walls (Maulden, 1986) and the corners actually become *full* with light. Kahn also emphasises the threshold *in-between* light and silence. According to him, silence is in fact not that silent (Kahn, 2003, 2017, p. 34). He emphasises this relation as when the light surrounds every "corner" of a place, *silence* takes over the space (Erzen, 2017, p. 296-297). In this sense, his silence is not *blank* but full. At this example, Kahn creates *silence* at the corners by breaking the continuance of a wall and leaves a *blank* corner, by giving a *pause*, creating a *gap* which is *full* with the existence of *light*. This specific encounter in the lexicon is connected to *gap*, *blank* and *fullness* as different states of void and *light, silence, pause* and *in-between* as secondary concepts (Figure 4).



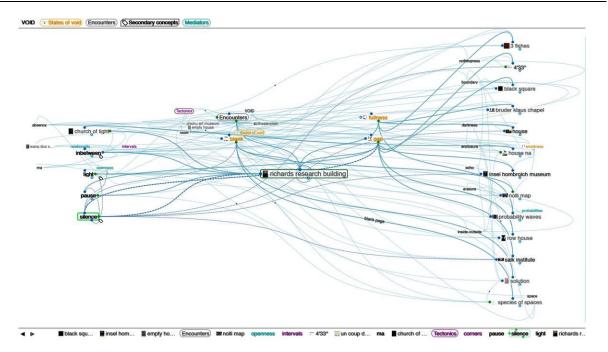


Figure 4 - Relational state of a specific encounter: Richards Medical Research Laboratories (Ekmekci Geronymakis, 2021-present).

Encounters introduce new secondary concepts and the architectural vocabulary expands. These concepts are not directly connected to the main concept in the lexicon; rather, they are the hidden concepts which can be related to the creation of void. Encounters on void enrich the vocabulary similar to a person encountering a new word or a familiar word within a new context, and adding it to his mental lexicon in relation with other words.

### Mediators

Different states of void, encounters and secondary concepts are assembled within a conceptual relationship in the lexicon. The complex mapping is used as a tool to explore these relations. However; at first place, the representation of relations seemed to be limited to simply linking the concepts with lines. In order to understand the interconnections in the lexicon sufficiently, it becomes more important to read the relations as layers rather than lines. Beyond categorisation, revealing these relations in the complex lexicon requires another research layer which might show interrelations. That would be the "mediators" and they can be comprehended in relation with *duration*. Discussing this research process via temporality inspires a different reading approach from a chronological mapping. Since the idea is to provide an open research process, categorisation of concepts may limit the possible relational meanings in the lexicon. As mentioned before, openness resides in ever-changing relations in the lexicon. Instead of a linear research process, an open whole stemming from interconnections embraces temporality of multiple durations and this is embodied in mediators.

Each research layer constitutes a relational frame while specific elements (concepts or encounters) from each layer form connections with each other. At this digital mapping, it is possible to see different relational frames by clicking on each concept or layer and zooming in and out in the



lexicon. However, the lexicon was aimed to be used as a reading tool rather than a conceptual mapping. The need for a research layer revealing the interconnections emerged at this point. While establishing the lexicon via mapping, some concepts such as *openness*, *probabilities*, *ambiguity* and *relationality* distinguished from other concepts. These concepts serve to characterise void instead of exemplifying meanings of void like different states do; or referring to the creation of void like secondary concepts do (Figure 5). They are in relation with more than one secondary concept and different states of void connects to a mediator whilst this mediator is linked to certain secondary concepts. They intermediate to understand unseen features of void by establishing interconnections in the whole reading.

Mediators become the main understanding means of the research, which holds different layers together by forming interconnected layers in the lexicon. Each mediator has an intermediary role providing specific reading frame in the lexicon. This intermediary role is not passive but an essential part of the ever-changing lexicon. Beyond defining the meaning of specific concepts, the lexicon becomes a method to understand the concepts relationally; and mediators serve as a means of establishing meaningful interconnections and "translations". While discussing meanings of words, Elman (2004) emphasises that words are "clues to meanings" rather than containing meanings themselves. He perceives the word as "operator", not as "operand" (p.301). From a similar perspective, a mediator does not provide meanings by itself, but clues to meaningful interconnectivities. In this sense, they differentiate from other research layers in the lexicon (Figure 6). Whilst the research continues, they can appear and disappear by changing the interrelations between concepts. They bear a resemblance to duration by means of coexisting and intersecting with each other while transforming the whole continuously. Bergson (2002) mentions duration as continuation of the past and present while emphasising the feature of memory connecting two separate moments. Within the frame of mental lexicon, "encounters" can be considered as "moments" which are connected by memory. Besides, it is possible to approach "mediators" as a state of being in-between, an interval for ever-changing interpretations. According to Gadamer (1975, 2006) there are different ways of understanding the same thing. He associates the possibility of understanding with the possibility of "mediating interpretations" (p.399). Thus, mediators provide interconnections between all research layers in the lexicon and provide openness for possible translations of the concept of void in architecture.



VOID States of void (Encounters) Secondary concepts (Mediators)

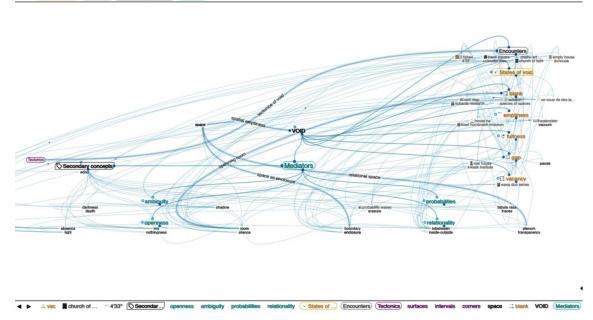


Figure 5 - A section showing the mediators from the Architectural Lexicon on Void (Ekmekci Geronymakis, 2021-present).

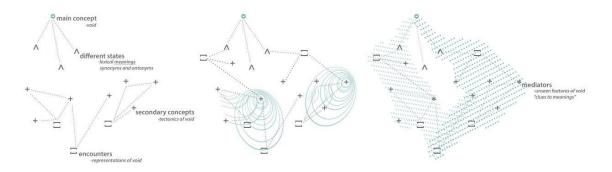


Figure 6 - Evolution of the research layers.

## CONCLUSION AND FURTHER DISCUSSIONS

The idea of an architectural lexicon emanated from the attempt to understand the concept of void in order to explore new architectural approaches. It is not achieved by endeavouring to include all architectural ideas related to void; instead, by a conceptual reading which may also feed from different disciplines. New architectural approaches can be discovered by new relational readings without descriptive borders or categorisations of existing ideas. This is the point where an open research process becomes essential for a different reading method in this architectural research. Thus, encounters during the research process can re-establish the meanings of the same concepts collected in the lexicon. It is an open and continuous process which has no start or end but a main concept and relational concepts changing with every *rencontre*. Therefore, this attempt evolved into



an interconnected reading method with the aim of enriching the architectural *repertoire*. In this way, it can contribute to both architectural theory and practice by supporting a relational vocabulary.

From this point of view, the article initiates an open-ended research approach with the inspiration of mental lexicon process. Additionally, time as an open whole, which constitutes multiplicity of diverse durations, provides insight into the multi-layered research process. Temporality of this research process can be traced in the ideas of *duration* and "openness". During the research process, "encounters" occur in different moments. Memory connects these moments in the continuity of duration and each encounter transforms a "becoming". The idea of duration associates with the "mediators", interconnecting research layers in the lexicon, by means of co-existence and multiplicity that continuously change the whole. Theorising this architectural research process within the frame of temporality manifests the potential of an open-ended process. It contributes to the architectural theory via presenting an interconnected reading approach beyond a linear research process. Here, lexicon is not proposed as a passive storage of concepts but as an interconnected reading process of ever-changing meanings. This research indicates that a lexicon can become as a means for understanding concepts instead of describing them.

While structuring the lexicon, interconnectivity gives valuable insights into the idea of "openness" and possibility of multiple durations. Seemingly, an interconnected unity is an open whole which provides different relational probabilities. In the light of human brain studies, neuroscience becomes influential to understand the features of interconnectivity. This interconnected structure is intrinsically similar to processing a new vocabulary and establishing conceptual relations. Thus, concepts can embody new relational meanings differing from basic lexical meanings. This study has a contribution to the field of architecture by means of enriching architectural connotations and exploring hidden concepts. Each researcher or architect can develop different mental lexicon, or mental space, via the same method resulting in different interconnections. This supports conceptual thinking in architectural design *repertoire* as well as in research field.

Lexicon as a reading method is generated through different research layers. The first layer is "main concept", which is the concept of void in this example. Meanings of concepts and their relations, including synonyms and antonyms, constitute another layer which is "different states of the concept". Instead of forming a series of exemplars, the "encounters" on void add "secondary concepts" to the lexicon, which enable comprehension of how void is created. Whilst the main concept generates different states, encounters manifest secondary concepts. Each encounter is in relation with specific different states and secondary concepts. Some concepts which differentiated from secondary concepts, seem to characterise void rather than being part of its states. "Mediators" as hidden concepts which reveal the unseen features of the main concept void, provide interconnections between different research layers (Figure 7). Thus, this study differs from a conceptual mapping or imitation of mapping a mental lexicon and it becomes a reading which is open for different interpretations, in other words "translations". Interconnected lexicon on void reveals the importance of hidden concepts and mediators in this reading approach. Besides providing different understandings for the concept of void in architecture, it is possible to employ this approach for reading any other main concepts including other research fields.



For further studies, the content of the interconnected lexicon on void can be enriched while adding different research layers. In this study, a digital mapping programme is used as a tool without the aim of representing the final product of the lexicon. The issue of representation can be an extension of this research since it is not included to the main issue of this article. In this sense, togetherness of verbal and visual contents can be discussed within the frame of architectural representation. Additionally, the way of representing the mediators in the lexicon can be improved in order to emphasise the interconnected layers.



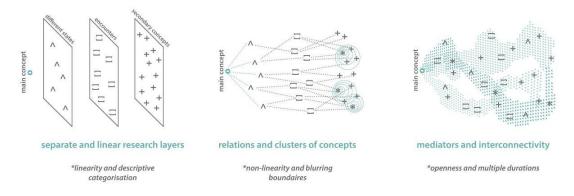


Figure 7 - Research approach and temporalities.

Deleuze (1966, 1988) ends his discussion on Bergson with these words: "To continue Bergson's project today, means for example to constitute a metaphysical image of thought corresponding to the new lines, openings, traces, leaps, dynamisms, discovered by a molecular biology of the brain: new linkings and re-linkings in thought" (p.117). Perhaps, he foresaw the potentials of Bergson's *duration* hidden in interconnections, which would later be introduced by brain studies. In this research process, reading the concept of void which is intangible and open for ever-changing meanings, could only be achieved via interconnectivity. In fact, an open-ended research process can only be possible within the multiplicity of durations. In other words, it is the interconnectivity which re-enables becomings in the continuity of durations.



## Acknowledgements

The authors would like to thank Professor Semra Aydınlı and Associate Professor Funda Uz, who provided valuable comments and insights to the PhD study which forms the essence of this article; and also to the reviewers and editors for their constructive comments.

## **Conflict of Interest Statement**

There is no conflict of interest for conducting the research and/or for the preparation of the article.

## **Financial Statement**

No financial support was received for conducting the research and preparation of the article.

### **Ethical Statement**

All procedures followed were in accordance with the ethical standards.

## Copyright Statement for Intellectual and Artistic Works

All images in this article were created by the author Türkan Oya EKMEKCİ GERONYMAKİS. All rights reserved.

## **Author Contribution Statement**

A. Idea, Concept	B. Study Design, Methodology	C. Literature Review
D. Supervision	E. Material, Resource Supply	F. Data Collection, Processing
G. Analyses, Interpretation	H. Writing Text	I. Critical Review

**AUTHOR 1:** A/ B/ C/ E/ F/ G/ H. **AUTHOR 2:** D/ I.



### REFERENCES

- Baek, J. (2010). Emptiness and empty cross: Tadao Ando's Church of Light. Center: Architecture & Design in America, 15, 1-14.
- Bergson, H. (2002). Duration and simultaneity. In K. Ansell Pearson, & J. Mullarkey (Eds.), *Henri Bergson: Key writings* (pp. 203-219). Continuum.
- Bergson, H. (2007). Madde ve bellek. (I. Ergüden, Trans.) Dost. (Original work published 1939).
- Bergson, H. (2013). *Time and free will: An essay on the immediate data of consciousness*. Routledge. (Original work published 1910).
- Burge, T. (1993). Concepts, definitions, and meaning. *Metaphilosophy, 24*(4), 309-325. https://doi.org/10.1111/j.1467-9973.1993.tb00198.x.
- Colebrook, C. (2002). Gilles Deleuze. Routledge.
- Deleuze, G. (1988). *Bergsonism*. (H. Tomlinson, & B. Habberjam, Trans.) Zone Books. (Original work published 1966).
- Deleuze, G. (1989). *Cinema 2: The Time-Image*. (H. Tomlinson, & R. Galeta, Trans.) University of Minnesota Press. (Original work published 1985).
- Deleuze, G. (2000). *Proust and Signs.* (R. Howard, Trans.) University of Minnesota Press. (Original work published 1964).
- Deleuze, G. (2005). Bergsonculuk. (H. Yücefer, Trans.) Otonom. (Original work published 1966).
- Deleuze, G. (2013). Müzakereler. (I. Uysal, Trans.) Norgunk. (Original work published 1990).
- Eco, U. (2016). Açık yapıt (3rd ed.). (T. Esmer, Trans.) Can. (Original work published 1962).
- Ekmekci Geronymakis, T. O. (2021). *Designing an interconnected lexicon on void to support an open-ended architectural vocabulary*. Retrieved from RSD10 Relating Systems Thinking and Design Symposium: https://rsdsymposium.org/designing-an-interconnected-lexicon-on-void-tosupport-an-open-ended-architectural-vocabulary/.
- Ekmekci Geronymakis, T. O. (2021-present). Architectural lexicon on void: An experiment on designing an interconnected reading method [Digital lexicon]. https://www.lexicononvoid.org/.
- Ekmekci Geronymakis, T. O. (2022, May 17). Architectural lexicon on void- Exploring different layers [Video]. https://youtu.be/oa8lf5mqMHQ.
- Elman, J. L. (2004). An alternative view of the mental lexicon. *Trends in Cognitive Sciences*, 8(7), 301-306. https://doi.org/10.1016/j.tics.2004.05.003.
- Erzen, J. N. (2017). Derin Önceliklerin ve Tinselin Mimarı Louis I. Kahn. In N. M. Cengizkan (Ed.), *Louis Kahn'a Yeni/Den Bakış* = Re/Framing Louis Kahn (pp. 285-328). Pera Müzesi.
- Gadamer, H. G. (2006). *Truth and method* (2nd ed.). (J. Weinshei, & D. G. Marshall, Trans.) Continuum. (Original work published 1975).



- Grosz, E. (1997). The future of space: Toward an architecture of invention. ANY: Architecture New York, 19/20, 19.12-19.15.
- Kahn, L. (2017). Silence and Light. In N. M. Cengizkan (Ed.), *Louis Kahn'a Yeni/Den Bakış* = Re/Framing Louis Kahn (pp. 33-52). Pera Müzesi. (Original work published 2003).
- Kılıç, T. (2019a). A brain inspired view of life: The scientific, social and cultural implications of interconnectivity and complexity. 2019 IEEE 18th International Conference on Cognitive Informatics & Cognitive Computing (ICCI\*CC), (pp. 97-102). https://doi.org/10.1109/ICCICC46617.2019.9146063.
- Kılıç, T. (2019b, November 30). Yeni Bilim ve Kültürün Kaynağı: Bağlantısal Bütünsellik [Seminar video]. Youtube. https://www.youtube.com/watch?v=rLu2zXWvAX8
- Lapoujade, D. (2006). Deleuze'ün başkaldıran yapısalcılığı/ Le structuralisme dissident de Deleuze. In A. Akay (Ed.), *Gilles Deleuze için/ Pour Gilles Deleuze* (pp. 15-37). Akbank Sanat.
- Maulden, R. (1986). *Tectonics in architecture: from the physical to the meta-physical* [Master's thesis, MIT]. Retrieved from DSpace@MIT: http://dspace.mit.edu/handle/1721.1/78804.
- Oxford University. (2021). Encounter (noun). In *Lexico.com dictionary*. Retrieved May 16, 2022, from https://www.lexico.com/definition/encounter.
- Oxford University. (2021). Full. In *Lexico.com dictionary*. Retrieved May 16, 2022, from https://www.lexico.com/definition/full.
- Oxford University. (2021). Void (noun). In *Lexico.com dictionary*. Retrieved May 10, 2022, from https://www.lexico.com/definition/void.
- Snodgrass, A. (2004). Thinking through the gap: The space of Japanese architecture. *Architectural Theory Review*, 9(2), 65-85. https://doi.org/10.1080/13264820409478518.
- Sporns, O. (2012). Discovering the human connectome. The MIT Press.
- Van Schaik, L. (2008). Spatial intelligence: New futures for architecture. John Wiley & Sons.
- Zabunyan, D. (2006). Deleuze, sinema ve "felsefi üçlem"/ Deleuze, le cinéma et la "trinité philosophique". In A. Akay (Ed.), *Gilles Deleuze için/ Pour Gilles Deleuze* (pp. 39-45). Akbank Sanat.



# **BIOGRAPHIES OF THE AUTHORS**

### Türkan Oya EKMEKCİ GERONYMAKİS

Türkan Oya Ekmekci Geronymakis is a PhD candidate at Istanbul Technical University (ITU), Architectural Design Programme. She obtained her master's degree from the same university with her dissertation titled "Architecture as an Intermediate Ground". Besides her bachelor's degree in architecture at ITU, she studied philosophy at Anadolu University Open Education Undergraduate Programme. During her education, she participated in academic exchange programmes at University of Politecnico di Milano and Université Catholique de Louvain. Her researches focus on architectural theory, conceptual thinking and interdisciplinary studies. Besides her academic studies, she coordinates different workshops on representation techniques and conceptual thinking in architecture. She gives lectures at architecture and interior architecture departments of different universities in Istanbul, Turkey.

### Ayşe ŞENTÜRER

Ayşe Şentürer is a professor of architecture at the Istanbul Technical University (ITU), Faculty of Architecture, Department of Architecture. She completed her undergraduate, graduate and doctorate degrees at ITU. She gives courses concentrating on theory, design and criticism including architectural theory, design theory, representation, and aesthetics. She conducts researches at the intersections of these fields. She also participated in numerous conferences, panels, and exhibitions. By invitation, she has run architectural design studios, participated juries in various schools in different countries such as Cincinnati DAAP, Harvard GSD, New School: Parsons School of Design, AA, Westminster Univ., Brandenburg TU-Cottbus, Lisbon University, Marne-la-Vallée, RMIT University, Tokyo University, Chinese University of HK, and Eastern Mediterranean University. She also has numerous articles on architecture, architectural, urban and rural design, and education.