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The Ouroborus Serpent - The memory in architecture: from the uterine size of the primordial home and the birth of the architectural creation to the object memories

Abstract

The architecture's memory is the primordial soup to the creative act of architectural design. We intend to demonstrate that the architect uses a "drawer of the stored", standing on "manufactured" or "living" channels and whose creation is not spontaneous, but the result of life experiences and experiences of their consciousness of the reality, intrinsic to his intellectual maturity. In this regard, examples and communication paradigms are presented in the creative process - from the idea embodiment - until the evolution of these two time marks, and which are shown changeable and subject to external and more complex readings, in addition to the shift on communication of these processes by the architects and designers. In summary, in this article those issues will be considered with analysis of visions and proposals of the architects Álvaro Siza Vieira and Oscar Niemeyer and their works, Keywords: Memory, Architecture, Oscar Niemeyer, Siza Vieira, Creative process, design

Introduction

Memory is the capacity to retain, store and evoke information in the shape of recollections. The Human memory is vast and, to an extent, infinite, contagious and vital for the moment's awareness, direction and life.

On the other hand, this concept of memory is highly subjective, as its selectivity and specificity aren't exactly implied. These theoretical parameters allows to corroborate that memory storage requires an interpretive synthesis of past experiences that, through the use of neural plastic capacity, the brain adapts structure to context and thereby serving as support to memory functioning, advocating for the idea that the memory's plastic capacity works as an interface between personal experiences, emotion and personality of the individual himself.

The image in memory and the being's identity

That is the experience that allows for data collection in the memorisation process and the construction of stronger and enduring tissues in time. But life is a constant and ever changing flow, whereas the memory, as an isolated concept, is characterized by the fact's stagnation (Muga 2005, p. 70). The object's time of subsistence, from the real and current fact, to the development of cohesive mnemonic tissues is crucial: the object has a perennial subsistence in the narrow field of attention (Muga 2005, p. 13). Therefore, the importance of the image of a particular event arises, or rather, the reflection of the fact in the memory and mind. The Image of Jean Paul Sartre is clearly explicit regarding the use of the white sheet of paper metaphor, where the author successively rotates his body losing any visual contact with the object. The paper sheet is present, it exists, and it is possible to be aware of its characteristics. But when lost from the field of view, it annihilates itself, ceasing to be and exist, not being allowed to enjoy its presence. Therefore, it now exists in a new way, even if it is the same sheet of paper (who retains the same identity), but it is now an image and no longer an object (Sartre 2008).

With this metaphor, the image went from real, if one could say so, to a condition of absence of reality and presence of a fleeting and oneiric image: it is a representation in the memory itself, of the sheet of paper, its smell, grammage, colour, that is, its existence condition only translates to its character and identity (Jorge 2007, p. 70).

The memory, or rather, the collection of information acquired and stored from experiences, which one might call *primordial soup*, is the motto of building an identity and a sense of being. Gorjão Jorge refers to this idea, creating an important emphasis between *perception* and *idealized mentalization* and reinforces the fact that a conceptual matter isn't a spontaneous product of the mind, but a personal configuration, sense of the images of the outside world, and thereby allowing to catalogue the experiences in the memory by the image supports that exist a priori, "From the most lowland and phenomenal perception to the purest of idealised

mentalization" (Jorge 2007, p. 12). It is therefore established the undeniable connection of the being to the world (past and present) (Beaudry 2002, p. 53) and the principle of a trunk full of rich, vivid and kinetic memories.

Man builds, over time, a collection of images, memories and thoughts that form his life's experiential "wallet" that he will use as a driving force to his external and even internal knowledge through memorization and expression (Jorge 2007, p. 71). This wallet, archive or intellectual baggage, in the metaphorical ability to record, store and process of cerebral activities: is the Man's personal ballot when encountering problems or situations of his external environment His responsiveness depends on his intimate knowledge (Ribot 2000, p. 14), proportionally to his ability to question his own knowledge and reason to be.

The ways to build up a memory trunk

Based on the analysis of a chronological line of memory seizing, two possible ways to form and enrich the memory trunk emerge: the vivid memory and the fabricated memory. The first refers to the live yourself interaction of the being with reality, the world that surrounds it, depending on the real and total in loco presence, not lived by images or artifices (Jorge 2007, p. 43). Thus, the living memory will be a result of sensitive memories, of direct experiences "from the reality that we know, because we witnessed it physically, through our presence, the memory recorded in loco with a personal intensity" (Faria 2007, p. 139). On the other hand, reality is full of representations of existence itself, when authentic presence isn't possible, forcing the being to assimilate memories from images (or memories) formulated by someone else - subject, therefore, to a slow and indirect process (Faria 2007, p. 140). There are the fabricated memories, borrowed or second-handed. Lobato de Faria considers that fabricated memory is an ordered set of memories built from transmitted memories. She also refers that part of the being are memories vertically transmitted by the family and social group that lend their own memories and life experiences, filled with emotion, that will contaminate those exposed to them, who will then carry and replicate of those same memories leading to a snow ball effect. Both memories living and fabricated - are primordial in the use of memory in architecture, as will be discussed hellow.

Active conscious memories and active unconscious memories

Regarding the memory usage process (recall), the author uses the concepts of active conscious memories and active unconscious memories. The first one is, in summary, the pure water source of imagination itself (Dantas 2007, pp. 44-45), (Siza Vieira 1998, p. 10) and (Ribot 2000 p. 10), like a reference to an event in the memories that the man holds, or knows exist. In a broad sense, it is the memory that he remembers,

from which he can exert a *recovery* power and use that memory in a direct and targeted way. However, the memory might not always be accessible or susceptible to be used in a free and direct way: the subconscious stores (and can even process) parts of the memory. This memory has a free configuration, isn't organised and normally refers to torn tissues from other memories or *indirect appropriation "from which the mind draws to imagine, to which we call active conscious memory and the memory or memories that emerge involuntarily from an underground and unconscious selection process of the mind, that it used to imagine, that is, the "memory that is impossible to recall", that we will call active unconscious memory" (Faria 2007, p. 124).*

In this unconscious world, there is always a latent memory, that is, that ascends to the conscious, normally, through dreams or irrational impulse. The dream has an important character in memory, since it is where the diverse fragments merge through spontaneous and unknown connections, creating tissues with infinite and unrepeatable (Faria 2007, p. 123). This way, the dream, the imagination and all the unconscious processes of disjoint tissue junction are metaphorically ascended to the conscious, responsible for the appropriateness of these memories in processes of apprehension of reality, where the "lie" transforms into "truth" because it is consciously plausible.

It becomes therefore easier to understand that thought depends on the memory, both by the language and knowledge of the events. It is even possible to establish a rule of proportion between memory and event, since knowledge is formed by episodic memories (Muga 2005, p. 80), direct from experience, and language itself (semantic memory) enables man to question and formulate new knowledge, that is, intelligence and creative imagination. It is also one of the reasons that dreams are such an irrational premonition of *common places*, where characters more or less known, or even intelligible, act on a stage built from recognized scenes and landscapes and with a strong sentimental and even symbolic connotation. Memory tallies up with both present and explored by personal experimentation architectures.

The importance of the memory to the architect

"When I think about architecture, images come into my mind. Many of these images are connected with my training and work as an architect. They contain the professional knowledge about architecture that I have gathered over the years. Some of the other images have to do with my childhood" (Zumthor 2006, p. 9)

Through the flow of history in time, successive approximations and distancing are visible in the relationship between architects and their memory. Since the classic Marcus Vitruvius Pollio (century I d.C.) who stated in the first pages of his architecture treaty that the architect should know a little about each of the numerous branches of knowledge (Vitruvius 2013).

The architect would therefore be the carrier of a wide range of knowledge, not only

about architecture and the art of building, but about the world that he inhabits and surrounds him. In order to produce architecture, the same author advocated that the architect should know, in a coherent way, other fields of knowledge, so that his mind could establish an invariable norm of continuous production of interrogations and an emotion for the profession that would allow him to have the will to search for answers. The architect should experience the architecture, in a total way, from a point of view that no one else could enjoy: he perceives right from the conception to the experience of the architecture piece, that is, from its innards to someone's experiences. And doesn't only operate in his time, but on someone else's time, in the time of other architecture pieces, techniques and histories.

The architect – and his work – incorporate a living condition, sometimes even utopic, to those who provide it and to those that enjoy it, both from fruition and usufruct1. The architect has to possess a rich, concise and highly detailed trunk of memories, based upon his own experiences and memories, as well as other peoples' memories, both collective and individual. At the conscious level, as previously discussed, he works starting from a memory of experiences lived by himself, a priori, by being present, both from architecture and life.

The personal presence of the architect in already existing architectures and cities binds his education with the object, where the magnetic field of memories, sensations and feeling (emotions) intertwines with his previous memories.

This field of action is the vivid memory, that is, the presence of the object's spectator. When this object ceases to be real or present, all that remains are memories and recollections. The object, perennial or timeless, is the memory that one has of it, but always adding a something more: the memory of the object is more complex, personal and extensive that the object itself.

It might not be present, but the memory makes it everlasting.

The wealth "richness" built by the architect: the "saved ones drawer"

The architect's memory trunk depends on his investment, on his own will to fertilize previous ideas with new experiences. The architect becomes a "sponge" of knowledge, memories, of visions not so casuistic, but emotional. Eduarda Lobato de Faria assigns to this architects luggage the worthy name of "the wealth built", that survives through knowledge and that feeds on it and, consequentially, depending on the architect's investment (Faria 2007, p. 94).

But this wealth has a guiding vector, with a defined direction and well circled: the creative process in architecture, or rather, the architect's capacity to bring forth an

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Note the distinction between these two concepts: the Latin "fruitus" which indicates observation, abstract and personal aesthetic delectation, and also the derivation "usufruitus" which involves the use, the utilization of the object beyond pure aesthetics, as it applies in both architecture and design.

idea and make it concrete, immediate and as the best answer to a specific problem. Imagination is the biggest consumer of memories in the whole creative process, feeding on them to establish creative connections between memories and stimuli, ideas and perceptions. As Gregotti argues, the imagination is an engine that feeds on memories, internal record of the subject, placing these recollections towards a justification or project-oriented requirement, with all of its complexity, and using a depuration to synthesize them in a simple and concrete reality (Siza Vieira 1998, p. 10).

This memory, organized in the image of archive files, trunks, or any other metaphor, constitutes the architect's knowledge, that is, the architect's mind configured to build, to the representative sedimentation on an object, from which many other objects and realities that, by ceasing to be present, transform themselves into memories: these memories, imagined, resurrect in a new object, with another meaning, context or presence – the architecture. Lobato Faria sums this idea of wealth built, from the being's dynamics to the actual idea's accomplishment, with the emphasis on the direct and proportional relationship between the knowledge's sedimentation and the favoring of the discovering mind.

Therefore, this memory is objective, conscious and direct and with ramifications to the unconscious, working it as a transmutation engine of memories and knowledge (Faria 2007, p. 99).

The memory of the primordial house as a fuse of architecture

But no memory is as strong and important to architecture as the first memories of itself, that will *inhabit*, if prolixity is allowed, the creator of space being, light and shadows: the one that will work in order to transmit a feeling to someone that will enjoy, directly or indirectly, an architecture. We can regard, then, the feeling's fuse, of emotion, as an entity that conditions the attention to the memory production. But the memories that are first transmitted are the ones lived as experiences since the first minutes of live. These memories of transition of interior spaces (the uterus, as the biggest possible interior) to spaces created by Man – the first houses, smells, sounds, the first spatial feelings and everything that accompanies.

The primordial house

The primordial house² is the space where the subject experiences for the first time the strong experience of inhabiting a space, even as a passive element and appropriator of an architecture, configurative of his "habitational" memory,

² Analogy accordance with the primitive hut, either version of Violet-Le-Duc, Vitruvius and Blondel, node, wreath and fire.

functioning and archetype.

The primordial house is the first center of reference (Neves 1999) that Man, upon birth and going from the object scale to the space scale, seizes the material surroundings where he exists. The primordial house is, besides the first shelter95, the first protective space – therefore, the one that makes life possible – a world of discovery and appropriation of feelings, since the sensorial stimulus to the capacity of formulating any coherent judgment, the space where the first relationships with architecture happen. The centrality of the primordial house is, in foreground, his first reference point and the child acquires the power to expand the centrality to other spaces visited and inhabited by him and, with his growth, these centers are expanded to other architectures. These centers are privileged places of action, of existence, as the beginning of a complex plot of knowledge and appropriation of the environment and the world (Muga 2005, p. 87).

This centrality of space as a horizon conditioned by the first senses, grows with the development of the being (Spagnolo 1998, p. viii), both by the *spatial disorientation* he will feel in moments of transition between spaces, or rather, from reference elements like the knowledge enrichment of the space it inhabits and, therefore, appropriates has his own. Gorjão Jorge demonstrates that these memories of the primordial house will feed future memories and ways to accommodate the space in the being himself, until he allows an existence and to modulate his space, winning his own place from the space,

Therefore, it is with the primordial concept oh architecture transmitted by the primordial house (or home, rather) that the being will interpret and judge any architectural form (Spagnolo 1998, p. 27).

These memories will be the cradle to the being's capacity to understand and inhabit the space, creating his own relationships, judgment, being the owner of information that he will use in his life's construction, inside and out of these four walls. When he builds them, these walls are already impregnated worth memories chained to his life. It is Peter Zumthor that says:

"When I design a building, I frequently find myself sinking into old, half-forgotten memories, and then I try to recollect what the remembered architectural situation was really like, what it had meant to me at the time, and I try to think how it could help me now to revive that vibrant atmosphere pervaded by the simple presence of things, in which everything had its own specific place and form." (Zumthor 2006, p. 10)

The genuine innovation, the invention

From all of these analysis, and through the power and crucial importance of memory in the construction of the being's identity, his existence in the world and in his creative process in architecture, the question raised by Gorjão Jorge is of extreme

importance: "But, if so, how can we explain any genuine innovation? Through what we could call sudden revelations (and, in here, revelation would assume his deepest meaning) that would emerge from nothing, just like a miracle, raised for example by demonic or divine entities and graciously made available to our mind? (Jorge 2007, pp. 14-15)

The sudden revelation, the creationism's creative act or spontaneous generation, starts from the idea that memories, in foreground, wouldn't' have any meaning or nexus of existence. They would, therefore be considered, in extremis, irrelevant to the creative process. The study, the pertinent doubts, the stored memories and all of the being's knowledge wouldn't have any relevance to an idea's creation for it would be born out of nothing. What would then be its meaning, his quality as a knowledge and enrichment of the being?

André Malraux states, "every invention is an answer and (...) analysis, the approximations don't bring the invention, but trigger it" (Faria 2007, p. 147). This would be the first denial.

The memory is operative and crucial in the context of creation

Due to the Man's personal and collective ambivalence in his life, the connection between the inside and outside world is characterized and allowed through the use of memory as a capacity to record experiences. The outside world to the being, having a real dimension, is figured by the existential and palpable existence of an object. The inner world, as was explained, is characterized by a virtual presence, representative of something exterior – the image.

The image survives the memory and the "mnesic" processed by the brain's neurophysiology, that adapts the same reality and cognitive systems present in the man's structure. Therefore, it is a represented reality, fictitious, subjective and conditioned to the previous experiences. The object's subsistence, a reality, architecture, is a cocktail of emotions and direction of the experience, direct or indirect, towards the inner and outer truth of the individual. Only through memory is there a feeling of presence and absence, since it is a means of transportation between what is real and imaginary, the image and the experience.

The memory is, therefore, the essence of life, limited to a time (being time a reminiscent dimension, it is the only reference point to memory itself), to a space, and to a thinking being and aware of the world that surrounds him. These experiences, praised by sensibility and perception are saved as memory tissues, and will allow an understanding of the information and a transformation of raw materials into knowledge through internal interrogation. But the memory is fixed, perennial and static, contradicting life's constant dynamism: it doesn't lose, therefore, his own changeable character, even by itself. Reality doesn't exist in memories, but it is an alienated condition by the memory tissues, imagination and by the memories' own conscience.

It should be noted that memories aren't archived as if they were some sort of information's source storage capacity. There has to be a selection process, both in the first stage (capture), where the excitability for the memorization is conditioned by the degree of emotionality aimed towards the object, just like in coding, where there as to be a condition of symbiotic relationship between the internal and external systems of the brain and the experienced personality, that is, experienced by the individual. This way, it s clear that the amount of memorable experience is directly proportional to the level of emotional connotation towards the object, since the subject can have a higher degree of intelligibility, and that the act itself of remembering and memorizing suffers a selective process that depends on the amount of knowledge held by the individual in his mind – more knowledge implies a bigger internal questioning of the coding systems (Faria 2007, p. 336). In the end, broadening horizons is only possible when the being is aware of his own limits.

The architect is an individual capable of thinking and metabolize ideas, since he spends his lifetime building a system of personal memories, unique and particular, in order to build a system capable of providing experiences to other individuals, leaving his mark in a territory, a time and a space. His work – the architecture – is a result of a defined creative process, limited and very personal. This creator of architectures is a singular being, since he will express his experiences into architectural works that will withstand the trials of time, in constructions that support a living condition. The architect builds a trunk of memories in order to express, through transferal and projection, an architectural world.

Therefore, the architect possesses, as a great professional tool, an individual memory dependent on the investment of experiences he goes through, configured by the capacity to selecting them in a rational way: his dataset is as big as his investment degree, is effort and attention as well as his degree of intellectual ripeness. He thinks about his memories – the pillars of his creation. "In an empty mind, the possibilities to conceive architecture are necessarily null".

The architect has, therefore, two fundamental types of memory. The active *conscious memory*, from which he has "memory" and meaning, and an *active unconscious memory*, free of configuration, with an apparent clutter and completely fragmented – it is the memory from which one doesn't have knowledge of cause and existence. These memories are strong influences in the creative process.

The constant source of these two memories is fed by two main ways to conquer experiences that endure as memories when the object is no longer present. There two ways to furnish the memory trunk, or the savings drawer, are *fabricated* and *living* (Faria 2007) memories. These built memories, by the being targeted by a specific vector of interest, depend mainly on the presence and absence character of the object.

The living memory is probably the most important for the architect: it is the memory of the primordial house, his *womb-home*, of his first center of references that provide the action of knowing and exploring the spaces, before recognizing them and that allows a first and important judgment of the architecture itself, where he develops an

archetype.

"The Oscar's curves are close relatives to the curves that close themselves, invoking the beauty of Plato's circles of geometry (...) of the serpent biting its tail. They are the prelude of their own professional trajectory, where he finds himself in the last stage, like a return to his origins".

Starting from this condition, elements like genetics and "doppelganger" (imaginary figure that accompanies him, hand in hand, to the world of fantasy, of the free and unusual forms, responsible for his "architectural spectacle"³, that is, the one that loads the *genetic trunk*, the drawing as a record of childhood and through life, the mockup (a consequent selectivity through mandatory materialization), the force of ideology (through the communist manifestation, present in the great public buildings with specific spaces – balconies – destined to popular and free access, like those in Brasilia at the National Congress and in the Three Powers' Square), the place (MAC, Niterói with the access ramp as an inverted viewpoint), the interaction with Lucio Costa and Le Corbusier and his memories of the houses he inhabited. All of this, in summary, are some of the many examples of the manifestation of the architects memory in their architectural works.

Memories in/out/about architecture: Álvaro Siza Vieira and Oscar Niemeyer

The architect lives from his intuition before problems, the *casuistry* capacity of creation, of an almost divine act, spontaneous – Oscar Niemeyer lives from free creation, pure, as he himself calls it. But Niemeyer explains – or defends, in some cases – the pure creation through genetics and heritability, through freedom, through sentimentalism, through nature and repetition.

The memories are deposited, *rock-over-rock*, in the walls and ruins that mark the presence of traces of memories in a specific place. It is over this tissue that Siza operates a living, explosive fragmentation, as if one wanted to portray a memory in a temporal axis, or inventing ruins when the wounds aren't enough. It is an architecture that reinvents itself.

"The projecting process, at the beginning, is almost hazy".

Another great example is the architect Álvaro Siza Vieira, where a use of a strict appropriation can be referenced when he clearly uses direct elements of other architects on his project and architectural works. Alvar Aalto's influences can be referenced particularly at the Maison Carré (Paris, 1959) in the wavy wooden ceilings and the white plastering at the Tea House in Boa Nova (Leça da Palmeira, 1958-63), as well as the skylights of the Viipuri Library (Vyborg, Russia, 1927 to 1935) also by

³ Term widely used, not casuistically, by Le Corbusier.

Aalto, appropriated by the architect for the design of the the conical zenital skylights at the University of Aveiro's Central Library's last floor's vaulted ceiling (Aveiro, 1988-95).

The most notorious cases are the appropriation of the Dr. Avelino Duarte's Residence's roofing (Ovar, 1981-85), to which Álvaro Siza admits being, with is amusing sense of humor, a copy: "I have read numerous interpretations to this last floor's shape, covered in zinc. Some say that I copied it from Adolf Loos, which is true (laughs), others say it reminisces the old attic houses, that the roofing isn't horizontal and other few interpretations I heard... And all of them are true!". At his house there is also a reference to the attic, as a reserved and distant element (just like the attic of old mansions, places of discovery and memories291. Even William Curtis states that Siza has his very own handwriting, which lives from the influences he has picked up over time.

In the active unconscious memories' case, it is possible to find various references to projectual attitudes. In the case of the Setúbal's E. S., the architect himself explains this episode using his own words: "I have planned, for example, a school in Setúbal, just a few dozen kilometers from the extraordinary sanctuary of Cabo Espichel, that I know very well. Someone noticed the very obvious influence of the sanctuary in the school and I repeatedly became aware of this: it was true in many points, including the proportions. These were influences that manifested subconsciously and that make their way into the project without ever noticing.

The attitudes of "active ruin vs reinvented ruin" could also be explored", that's the case of Alcino Cardoso's house (Moledo do Minho, 1971-73) where Siza still projected over living ruins (in this case, the new interventions penetrate into the ruins), but there is the need to, in a later intervention, to build a pool as a mark of a reinvented ruin: the pool was designed as a reinvented ruin, from memories of Minho's landscapes. It works as a regulating and relational element with the new and the old that surrounds it, like a middleman or a sum of the elements and languages. The pool also symbolizes the final moment wherein the existing ruins aren't safe enough, but there is a need to incorporate an imagistic, felt, in order to finish the project's metaphorical and mnemonic feeling.

Siza lives the ruin to remember. Álvaro invents the ruin so that it won't be forgotten. And fragments so that both the memory and the forgetfulness are important. They are architecture and with it becomes possible to talk with time. Siza looks for Saramago's caos, his order to deconstruct.

The creative process of each architect is hard to be explored given its huge ramifications and *own personality*. But memory haunts, suddenly, this more rational attitude, in order to feed it with evidence (or remnants) of other ideas' fuses and other ways of thinking. The active unconscious memory takes by storm this line of thought, in an oneiric way, aiming to restructure, centrifugally, a set of lost mnemonic tissues, disjointed, creating an infinite roster of new interpretations of apparently forgotten facts. Both architects refer to this unconscious as important and, sometimes, decisive in their creative process.

Ruskin says that memory is an expression of feeling and the architect is a story teller that manages the memory in order to express it though the materiality of a construction, in all of its meaning, as a language in an object. And he goes even beyond, by stating that without architecture there is no memory. This way, the architecture is an interpreted illustration of other memories, though the architect's memory, that is forever present (in a complete way, or through ruin), as a crease in time, like a future memory. It is an Ourobus' serpent that bites its own tail: the active, constant and mutable memory. The absence of memory is the absence of architecture, both in conception and in its own recognition – the connection between a past (even if invented) and a future (the aging, "patinne", ripening). The architecture generates memories and is a memory itself, that is, it is the expression of facts and feelings through metaphorization of the past and through the pile of memories of the architect himself and a segregation of memories a posteriori through presence and experiences356.

The invention or pure creation, as one might deduct, doesn't in fact exist. There is no creative process based upon nothing (or in the unconsciousness of nothing), where a new idea arises from a mind devoid of memories. There is no invention, but a reminiscence of previous data, of an unsolved problem. Malraux refers the imitation358, that involves the passion and possession that the architect induces from the architectures he knows. This lived or fabricated data, of conscious or unconscious survival, foment the savings drawer, to which the architect resorts to in order to fabricate his architectural works. Architecture is mental, individual, impassioned and with a purpose. A cumulative memory of many others, "alive" from many others, and present for those to come.

"Physically, we inhabit a space, but sentimentally, we are inhabited by a memory. Memory that is from a space and a time, memory within which we live, as an island between two seas: one we say past, another we say future. We can navigate the recent past thanks to the personal memory that preserved the memory of their routes sea, but the remote to navigate the sea past the memories we will have to use the ones time accumulated, memories of a continuously transformed space, as elusive as the time by itself."

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