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SPEAKER

Material experimentation in Peter Zumthor's creative process: Research design through material inquiry

Abstract

Material experimentation in Peter Zumthor's creative process seeks to explain the different materials experimentations present in the creative process of Peter Zumthor which lead him to the final work of architecture, resulting in his atmospheres. Experimentation processes are mainly characteristic of *avant-garde* architectures that develop new forms of thought in architecture design, however mainly through form paradigms and models. Nonetheless, Zumthor has been inquiring and creating experimental processes through material composition, rooted in the work of land-artists such as Joseph Beuys or Mario Merz, that imply the overall design of the final work of architecture. The present paper explain several experimental processes present in a series of Peter Zumthor's works, with an important focus to the design process of the Serpentine Summer Pavilion during 2011, one of the works the author has accompanied Zumthor during its process of creation during her PhD research.

Keywords: Expressive matter, material experimentation, Peter Zumthor, atmosphere, Joseph Beuys, James Turrell

Peter Zumthor is, essentially, an experimental architect. We affirm it in this precise and assertive way, because voices of disagreement will immediately be heard, or even, of incomprehension. Experimentation, in architecture, appears to be reserved to vanguard movements, like Russian Constructivism or singular architects, to which traces of genius are attributed, like Frederick Kiesler or Buckminster Fuller, and based, in most these examples, in visionary ideas translated and concretised in previously inexistent shapes and models, capable of transforming not only the daily living of space, as the very future of the communities. With the passing of time, the aura of a(n) (im)possible future resists, equally, around those works of architecture (we call them works, notwithstanding many having not been built) and, however, past and lost (the incompleteness and faded hope lament will always hover over myths). In Peter Zumthor, it is not recognise that quality of vanguard and that designation would be countered by himself in the time he claims for his work. Time in Zumthor's work is a constant immutable present, along which the work gets to know itself, in its multiple metamorphosis, from the vague image of unformed and vague contours, the Memory-image or the Sensation-image¹, to the inhabited space or the interval of intensive body-space, inseparable from the composition, of the expressive matter. To Zumthor, there is, only, the work of architecture. And the very representations, he resorts to, are different degrees of experimentation, always about matter,² as the

¹ "Sensation-image" and "Memory-image" are two concepts created by the author (in her PhD thesis) to designate the image that gives birth to each one of Peter Zumthor's works of architecture. The architect describes this image - which is different from project to project nevertheless sometimes receiving proprieties and qualities from other works - as having vague contours coming out of memories, sensations, pieces of materials, poems, works of art and other elements. This image is extremely important during Zumthor's creative process, because it holds previously the sensations that Zumthor pursue as well as a collective memory which is common to each person and comes from our common ground, as the architect believes. As for example, in the Serpentine Summer Pavilion is the memory of a *hortus conclusus* as an enclosed garden that comes within this initial image (and Zumthor says that, in this particular case, it's the memory of all gardens, of gardens that he even don't know).

² Zumthor is very clear when it comes to the different project phases and to his work as an architect. An architect, for him, is the one whom builds and everything that an architect does until the very moment of construction is to get the closer as possible to the built space, as for that every single representation is, in fact, a space in its own right. The representations only

models of his works testify, with the exception of the watercolours, which apparently remit to an embryonic state of the process through the unformed and vague blurs of colour, when they correspond to a time suspended in the work itself, the one Zumthor keeps to himself when all the elements of the work seem to already be defined and he may, finally, draw and paint. The experimentation never ends in the watercolour, but it crystallises, undoubtedly, determinate properties of the work, which are immutable. There is, almost always, in his watercolours, an implicit defined work and, in that moment, the initial image, which Zumthor seeks in each work, does not now have vague and unformed contours, but a body.

Notwithstanding an apparent incomprehension of our initial statement, we may, still, consider two characteristics, capable of dissolving that strangeness, which bring Zumthor's work closer to a work of vanguard. In his work, the arduous task of resistance (different, however, from the resistance of time) claims, as in all the vanguard movements, a people yet to come (and which, in Zumthor's work, is recognised in the timelessness of the work), essential trait of the work of art, which, in turn, remits to the second characteristic, the proximity of Zumthor's work to artistic fluxes, namely to artists that work on chance and concrete physical matter. Zumthor gets consciously closer to artists like Joseph Beuys, Mario Merz, Louise Bourgeois, Meret Oppenheim, than to architects, although we may recognise in his work a clear influence (albeit being a dissimulated presence, since he never admits or refers to it) by Adolf Loos or Sigurd Lewerentz, whose works, in a more discrete way however, result directly from a thorough work on matter (more than on form).

The process of experimentation, in Peter Zumthor, is inseparable from the work of sensation. The sensation, or the composition of sensations, which Zumthor denominates Atmosphere, is what the work creates through its unique composition. Le Corbusier, for example, faced with the difficulty in expressing this invisible and impalpable matter, which he denominated of effects and actions of the work upon the landscape, remembering his experience at the Acropolis in Athens, nicknamed it the "ineffable space", when, in reality, he describes the effects of sensation - to be noted, still, that the sensation is, always, the being of the sensitive, apprehended through our nervous system and its faculties, through the sensibility or sensible perception and intuition. Zumthor creates with his own artifices, means and instruments and donates the work a composite of sensations, which comes to sustain by itself, in an

matter to him, if they allow him to solve the problems and, consequently, help him to move forward through the work of architecture.

autonomous and independent way, as the architect wants and seeks, similarly to the indifferent surface which he finds in the poems of William Carlos Williams where the words are signs of power (and not symbols or messages) and live in the poem in a free way, independently of meanings and significations, where the force of the poem advents from the consistency of the autonomous block of sensations, of how it sustains and apprehends eternity. Something the most doubtful of architects, of architecture possibly still being a work of art, Adolf Loos, recognised as its final quality: the capacity of the work of art affecting each one of us will disappear, solely, when the heart of the last of men stops beating. What does it consist of, then, the work of sensation in Zumthor or, in other words, where and how is that experimentation developed to attain the autonomous and free sensation in the work? Experimentation is, in fact, the only possible way, because it obligates a work of constant challenge and setup, of regulation, at times, millimetric, like Lewerentz who insisted in imperceptible torsions in his perfect square, for the real space to be understood as one, undistorted, of rigorous proportions, notwithstanding being an illusion, a sensation created by the architect.

We depart from the example of a work we accompanied through the process of creation, composition and construction: the Serpentine Gallery Summer Pavilion, in Kensington Gardens in London, during the Summer of 2013. In the beginning, is the image and even if it isn't present from the first instant a new project imposes itself, Zumthor searches and awaits it, for it is only that which will guide him through the plane of composition of his work. At times, this image suffers alterations during the creative process, consequence of its own undefined contours, which will become more concrete, through the clarity that the work starts to acquire by itself and informing all its elements. Because, from the beginning, the image is a block of sensations or, as Zumthor says, "it is strong enough to survive"⁴. The image is, since its apparition, a

³ The author went on a "research residence" (name that she attributes to the time spent in Peter Zumthor's studio during her PhD research, similar to an artistic residence), during which she has accompanied the creative process of the Serpentine Gallery Summer Pavilion among other projects. Nevertheless, since the Serpentine Summer Pavilion's process occurred along a short period of time, a very rare example in Peter Zumthor's body of work, it was possible to the author to be present at the several moments, since the embryonic phase to the opening of the pavilion in London, during June of 2011.

⁴ Zumthor says, in fact, that the image doesn't have fixed contours, that is vague and comes from his memories, referring sometimes to memories yet inexistent which opens the memory-image to a time yet to come, that is the time of the eternal return and not of the past. We thus

Sensation-image. This moment is determinant in Zumthor's process, for it will launch him in that never-ending search and constant experimentation up to the exact moment when the work builds and edifices the sensation or sensations, that the image bears, where they are, still and only, lines and impressions, for as himself reveals, the image is not the image of an objective reality, it is not nitid, it doesn't have clear, nor defined, contours. Sensations, in the Sensation-image, advent from pieces of memories, more or less faraway, many from his childhood, pieces of colours and materials, excerpts from poems, melodies, sounds, among other elements which, sometimes, he claims not to even know or which he is not conscious of, remaining, in the image, under a principle of unconsciousness...

The relation between memory and sensation, in Zumthor's work, is extremely complex and it is only when he tries to explain what he does to get to that moment in his work, when the sensation becomes autonomous and manages to reach any one of us, that we understand, then, that the memory, which he evokes, may only be a memory autonomous from his own perceptions and affections. The memory is only a sensation extracted from his memories, capable of surviving independently of the life stories of Zumthor (it never is a biographic memory even if it refers to a certain moment in his life). In this sense, it is relevant that the architect sometimes evokes memories of experiences he never had, but which enter the plane of composition with the

understand that the image (to survive and precipitate the work of architecture, guiding Zumthor through its plane of composition) can only be in itself a bloc of sensations that the work of architecture will, in the end, eternalise. "I get a strong image at the beginning, and from there lots of things will flow right... The beginning should be rich enough as an image to develop a relationship between use and place. And there'll be something exciting and strong also. At the beginning there is never a complete image and then in the process, the image changes with the rules and there are maybe a pattern, but there is also a basic core, which stays. There's something, which was there at the beginning, which was strong enough to survive. Many times, usually during the process, when the image is not clear and many things change, but at the beginning I don't know what will change. I cannot say that this is the order I find. It can't be thought, it is not possible to do in an intellectual way, as an intellectual decision. I have an idea and then we can go to see how this will work, and we make models and it continues; right, not right, good, bad, perhaps, and so on. But this is not about talking; this is about looking and feeling, and afterwards feeling. This is the process. So when I listen to authors, writers, they always say they start a novel and the novel starts to become alive and begins to write itself, and following logic they didn't know. This is the process. Because everybody who has produced something can create a feeling of this process", Zumthor, Peter (2009). "The enigma of Peter Zumthor". *Fourth Door Review*, Number 8, p. 46.

evocative power of a memory. On the other hand, Zumthor states to immerse in himself to his depths, to what he names the common ground of individuality, to find that sensation which is related to anyone. He believes it is in that end that the human condition is found, what unites us all, where the different memories may reunite in an image, which then finds its resonance in each one of us, as if, independently of each one's experiences, there was in their bosom a minute experience common to all. The set of memories forms, to Zumthor, a collective memory, the common ground of life we all share⁵, where the sensation resides, as well: "The deeper we immerse ourselves in individuality, the more common, deeply and typically human a sensation becomes. A thing that is situated deeply is shared by all"⁶. What Zumthor finds and considers as the end is, undoubtedly, the immense field of pre-individualities, the pure matter defined, uniquely, by intensities (the intense matter). This discovery is, in fact, inseparable from the precious flight of immersing in oneself, to the common ground of all things, but which is only possible when Zumthor parts with his own individuality, contrary to what he, apparently, affirms. Curiously, this movement will have its correlation, in Zumthor's creative process, in the depuration of form⁷. The idea of something being capable of concentrating and containing a life in itself, which relates to that unformed and common ground, is only possible, to Zumthor, in the void. It is the void that contains the life, therefore the architect will only be able to draw the limits of that void, transforming life in expressive matter, which delimits it, absorbing and containing it in its limits⁸.

⁵ In an interview when being asked about the role of memories in his creative process, Zumthor replies: "This is not a big mystery. We are all part of life and we absorb life. If we never had consciousness of what we experience and what we see, what we feel, we would not be human beings. This is the basic thing that we have. We have an experience. From there I decide. I don't take a decision through abstract concepts. If there's an abstract concept, I try to translate it immediately in my mind into a physical form so that I can somehow feel it with my body, soul and emotions somehow. The architecture I'm looking for doesn't stay on paper as a concept. Therefore in my mind I always imagine my projects being part of the physical world", Zumthor, Peter (2011). "Peter Zumthor interview by Francesco Garutti". *Klat*, Issue 05, p. 135.

⁶ Zumthor, Peter (2004). "Conversazioni con Peter Zumthor". Interview by Barbara Stec for *Casabella*, 719, p. 91.

⁷ Zumthor has worked twice with Louise Bourgeois and, curiously, shared with her the idea that the pure form (if right) affects directly the nervous system. Both pursue this clarity of form to obtain a maximum impact.

⁸ There are several authors who consider that Zumthor's work consists mainly in the creation of interior spaces, intimate ones, concentrated with dense atmospheres, independently of their

By drawing the temporary Summer pavilion of the Serpentine Gallery, Zumthor remits that first image of a hortus conclusus (following his idea of creating an enclosed garden within another garden) to the memories of all other gardens he had seen and all those he hadn't yet seen. What could easily be interpreted as a nostalgic absence or an utopian reference to the gardens of Eden or the suspended gardens of Babylon, Zumthor refers uniquely to the evocative power a garden has in the composition of the work: a space of contemplation and concentration, enclosed and composed of flowers and vegetation, moisture and odour, the plants own movements, subtle and imperceptible, the sounds the wind makes and all the others it brings... The sensation, which Zumthor will pursue, is, exactly, the contemplation (and, as an exceptional measure, forced Serpentine Gallery to withdraw the cafeteria from the program, anything which could perturb the pure contemplation of the garden), which comes from a specific type of hortus conclusus: a hortus contemplationis (known during the Middle Ages as a garden of reflection, which depicted the hierarchy of the Universe with God as its centre, usually a space surrounded by a gallery and with the sky for a ceiling). How does a space, through its composition - through its form, through its scale, through its interior spaces and its sequences, through its materials, through its light, among all the other elements that participate in the composition - induce, in one who inhabits or visits it, a sensation of contemplation? How does it make us want to sit, be, wait for time and contemplate, understand the living matter of which that garden is composed?

After the image of a hortus conclusus, the precise and clear form, as Zumthor always desires, appeared in the specific case of this work. The form, notwithstanding at times appearing right in the beginning with the image, is always secondary, to Zumthor, but it does not stop, because of that, obeying certain criteria, which become common in the various works of the architect and demonstrates how experimentation is always born of the search for the atmosphere, for the composite of sensations

form, its austerity and proportions, that are sometimes even monumental. In the introduction text of the Kunsthhaus Bregenz exhibition flyer, Hans-Joachim Müller writes: "With Peter Zumthor one finds oneself in spaces that really do want to be interior spaces, that signal where the world ends, that do not use large glazed facades to pretend that inside and outside are one except for the temperature difference. These walls are much more than just walls of a building, they have their own hermetic quality for which there is no comparison in contemporary architecture. But one feel at home and safe". Müller, Hans-Joachim (2007) *Kunsthhaus Bregenz* [ONLINE] Available at: http://kunsthhaus-bregenz.at/ehtml/aus_zumthor.htm. [Accessed 16 December 07].

and not for the search of an eccentric or new form as it has, nowadays, provenance, in most cases, in extremely complex computational models. "Driving along the Eisack Valley in South Tyrol makes me deliciously happy because I see beautiful self-contained objects everywhere: a monastery, a village, a castle, a little shed on a meadow. I love how sharp and pointed these small and large monuments are. And even when they are gigantic, like fortresses on their cliffs, they do not disturb the landscape, they celebrate it. How they manage to do that seems to be their secret. But there is one thing that strikes me: many of these architectural objects that fuse with the landscape make a powerful or at least distinctive impression. Basically a large object - a church, a castle, a compact village, a dam - always looks comparably small in a mountain landscape. It doesn't outshine its surroundings; it brings out the grandeurs of the landscape. I can imagine that it is still possible today for someone to place a substantial piece of architecture in the Alps in the right place with the right content that would make the landscape resonate. Admittedly, designers who want to do that, and can, are a rarity. (...) Nonetheless, the path to follow is obvious: I must try to let an appreciation of the landscape swell inside me if I want to create a new place of concentration"⁹.

In Zumthor, we cannot dissociate the form, which he insists to be clear and precise, from the landscape, as we cannot do it from the atmosphere as well. Maybe Zumthor deciphers this enigma, when he likes to think especially in the dissociation between exterior and interior. This does not come from a desire to build a small Pandora box, notwithstanding that the mystery and the ritual of discovery of the several spaces are important elements in the composition in several of his works, but from the intensification of sensation in the perception of atmosphere (and Zumthor closes in on, in this idea, Loos, as well). The tension, generated between exterior and interior, is composed, differently, from work to work, however, two ideas always remain: the exterior form is clear and precise, notwithstanding the complexity of its composition (mainly, materially) and the interior is the difference itself. In no work, is there a simple reversal. In some, a continuity of the form exists, but the interior affirms the difference through the atmosphere and, in these examples, the interior form, the limit constructed from the empty space, becomes inseparable of the exterior, because the atmosphere was composed, precisely, from the exterior, as happens in all works where the light is the principal matter of composition (and, consequently, the open-

⁹ Zumthor, Peter (2010). "Architecture and Landscape". Text consulted in Peter Zumthor's studio during the author's research residence.

ings created are an important part of the composition of the work), as in Kolumba museum or in the several houses, where it is the path of the light, what transports our desire through the several spaces revealing the differences in the light and in the shadow. In other works, the exterior form is a box which contains another box inside itself. In these, the atmosphere contracts the sensations of the composition from this second wrapping or, at most, of the composition of the membrane between exterior and interior. Despite it all, the difference, the true interval, is still constructed by the atmosphere. The simplicity and the precision of form only make the relationships between exterior and interior yet more complex, so that the form, despite being for some authors a “forceful form”¹⁰ (expression where is nevertheless implicit the relation between form and material which thus must be understood as the force or the powerful effect of a work that emanates from its own power), the form, by itself, reveals very little of the block of sensations the work concentrates.

¹⁰ The expression “forceful form” comes from a talk about swiss architecture by Martin Steinmann and Jacques Lucan. Steinmann defends it when Peter Zumthor’s work comes to his mind and to the conversation: “M.S. - (...) What determines a simple form is not its simplicity or the purity of its ‘shapes that satisfy our senses’ as Le Corbusier would have said. No, what is at stake in the notion of ‘forceful form’ is the effect conveyed by a building’s outward shape. Take Sogn Benedetg chapel by Peter Zumthor (1985-1988), which is a building that graphically illustrates the relation between form and material. The old church was destroyed in an avalanche, so the architect left the stone ruins and used another material - timber - for the new chapel. In so doing he wasn’t trying to create a symbol of rural life, but rather to engrave the ruin in the memory of the local inhabitants and at the same time use a material that would allow him to envelope the chapel in a curved shape. To be a bit more precise, Zumthor clad the building in strips of larch which weather over time; so the chapel gradually changes from grey to rusty brown, depending on how sunny, windy or rainy it is, thereby heightening the effect of volume. Subsequently, materiality is inextricably linked with form here; it underscores the effect of form. And the form enables the material to ‘represent itself’ rather than representing something else, such as the notion of rural life. J.L. - It’s no longer an issue of knowing how those strips of larch are fastened to the structure - whether they’re nailed or whatever. The ‘forceful form’, which bears phenomenological overtones, goes beyond pure composition and sophisticated articulation; rather, it takes on a value that aims at unity. M.S. - What’s important is effect, and this prevails over any kind of meaning, i.e. before the form becomes a symbol - which will happen anyway, as Roland Barthes has noted. The chapel has a powerful effect. It stands tall on a sloping meadow, like a body, emanating an aura that makes it a ‘forceful form’”. Steinmann, Martin and Lucan, Jacques (2001). “Obsessions: conversation between Jacques Lucan and Martin Steinmann”. *Matière d’Art: Architecture contemporaine en Suisse*, pp. 16-17.

In the Serpentine Gallery pavilion, the form corresponds to a blind parallelepiped volume in the midst of the Kensington Gardens, where Zumthor insisted, unsuccessfully, to remove the iron railings that separate it from the adjoining gardens, for the pavilion emerge as an unique moment of the marking of a place (it wasn't meant to achieve any fluidity or continuity of the spaces of the gardens, as had happened with the pavilion by Sanaa, for example, but a clear mark in the landscape similarly to the buildings in the Tyrol valley). The volume says nothing about the interior and, from some angles, equates to a black wall, delimiting a space, still undiscovered, between the gardens and the Serpentine's main gallery (this idea is very clear in the first models of the set). Notwithstanding the simplicity of the form, resulting from an initial schematic sketch, Zumthor was interested in working the membrane, once more, that makes the passage between exterior and interior. Curiously, it is on this pavilion that Zumthor constructs, most faithfully, the Loosian space of the double inhabitable wall, where it lives the mostly abstract expression possible, the indifferent surface, which would allow him to isolate and cloister the sounds from the exterior, nullify the contamination of the adjoining space (leaving the city outside) and concentrate, intensify, the majestic space of the garden, the interior of the volume which, not disclosed from the exterior, is, in turn, an exterior space, open to the sky (the perfect definition of an enclosed garden). In the interior-exterior, the clouds would pass, the wind would be heard whirling, the sounds of the city now most diffused, all the while, the rain would fall some days, as in the works of James Turrell, that the sensation-image or the memory-image has brought Zumthor, as well. "Au-delà du 'paysage' (...), ce à quoi l'oeuvre cherche à se rattacher, fonctionnellement, c'est à la nature perçue à une tout autre échelle, aux caprices de l'atmosphère terrestre, au cosmos et à ses mouvements immuables"¹¹.

James Turrell acquires a vulcano in the Arizona desert, where he builds his light observatory, a work of art in constant exhibition and metamorphosis. As Colette Garraud explains: "Une série de chambres au toit ouvert, les skyplaces, sur le flanc du cône, permettent d'observer, selon leur orientation, les événements célestes. Un tunnel semi-circulaire traverse la paroi en partant du bas. 'Pendant toute la durée du parcours à l'intérieur de ce boyau, on ne perçoit que la lumière dont on se rapproche peu à peu/Sous certaines conditions de lunaison, le coucher de lune le plus méridional, le

¹¹ Garraud, Colette (1994). *L'idée de nature dans l'art contemporain*. Paris: Flammarion, p. 34. In this excerpt, the author is referring to a trace of the work of Robert Morris which is also common to James Turrell's work, as she confirms it immediately afterwards.

disque de notre satellite se trouve exactement dans l'alignement du tunnel. (...) Au sortir du tunnel, le contraste entre le confinement de l'espace que l'on quitte et l'ouverture qui s'annonce est si vif que l'on éprouve la sensation d'avoir à traverser la membrane tendue du ciel' "12. In the end, looking at the built Serpentine pavilion, we can, easily, understand how this image the work of Turrell was always present in Zumthor's process of composition and the reason he forced himself to successive trials and experimentations to get to this pure moment of contemplation and sensorial experience very close to the sensing spaces and skyplaces of Turrell. We don't find strange, as well, that the initial sketches evoke the Bruder Klaus Kappelle in the path that the inhabitant-visitant should describe, imposing a sinuous movement to the body, a labyrinthine torsion, until arriving at the revealing and unexpected moment of the garden. In this moment, the form was defined, the angle of the roof, along all its perimeter, fixed and the volume would rise in concrete, contrasting with the strong and lively colours of the flowers in tones of red, orange and blue, which Zumthor had found in the colour gardens of Hadspen, studying, thoroughly, plant by plant, flower by flower, in each of the possible colours of Nature. The colour as substance and element of composition, as he, certainly, had learned from Joseph Beuys. The gardens, around that time, started playing the role of inhabitants in Zumthor's works, mainly from his house-office in Haldenstein, in which he worked with his gardener and old friend. For him, until recently, the gardens were part of the free Nature surrounding the buildings where they participated very little in the architectural decisions and rarely entered the plane of composition of the work as a determinant element and even less as an unstable inhabitant which reveals invisible and occult faces, unthinkable and unpredictable forms, tone impossible to recreate artificially... The seasons of the year and the successive changes, each one brings, have always inspired Zumthor, who frames many of his works in lectures from the name of the season where the most intense work occurs, as if those works received from the seasons of the year its atmospheric and immaterial qualities. It would fall, on him, undoubtedly, to materialise them and erect a composite of sensations where its resonances would make themselves be felt. It was not, uniquely, about drawing a space of contemplation, as it was about composing a saturated garden, that garden of its Memory-image, which would hold that power evocative of Nature and the Cosmos (and, once more, the work of Turrell contributes to the very orientation through the image and the plane of composition).

¹² Garraud, Collette cit Gintz, Claude (1994), *Op. Cit.*, p. 36.

At this moment, two questions impose themselves which will throw the architect on its long and relentless process of experimentation (notwithstanding the very short duration of this work imposed by the stipulated time): how to create that path from the exterior to the interior, which one guessed to be of preparation and annihilation of the preceding sensations (and the path would be similar to the path through the tunnel in Turrell's Roden Crater, with a minimal and weak light with provenance, indirectly, from the open sky above the garden) and how to create a garden capable of waking in each inhabitant-visitant the visceral memory of the whole of Nature (the colours, the forms, the subtle movements, the slow apprehended action of time, however, in the plants and flowers metamorphosis...)?

The creation of the atmosphere, which Zumthor always wishes for, is inseparable from the transformation of the materials into expressive matter. But what does this metamorphosis mean, which leads a material to abandon its natural qualities (the material as it exists in nature) to become an expressive composition, a matter which contains and expresses a sensation? Zumthor knows well this demand of the composite of sensations: "I take a certain amount of oak and a different amount of tufa, and then add something else: three grams of silver, a key - anything else you'd like?" "Materials react with one another and have their radiance, so that the material composition gives rise to something unique. Material is endless. Take a stone: you can saw it, grind it, drill into it, split it, or polish it - it will become a different thing each time. Then take tiny amounts of the same stone, or huge amounts, and it will turn into something else again. Then hold it up to the light - different again. There are a thousand different possibilities in one material alone. This is the kind of work I love, and the longer I do it the more mysterious it seems to become"¹³.

This moment is very important to Zumthor, because he defends and insists that the work of architecture is material. It is a concrete and actual space, which must contain the being in itself of space and make visible this existence, its own life, through the materials that make the forces and sensations, which populate the work of architecture, precisely, visible. The magic of the real happens through matter. "The material presence of things una piece of architecture, its frame (...) has a sensual effect on me. And that is what I would call the first and the greatest secret of architecture, that it collects different things in the world, different materials, and combines them to create a space like this"¹⁴. And, nevertheless, he recognises equally that not all material

¹³ Zumthor, Peter (2006). *Atmospheres*. Basel: Birkhäuser, pp. 23-25.

¹⁴ *Ibidem*, p. 23.

is poetic¹⁵. The material only becomes poetry under the architect's creation. This compels to a long experimentation on each material, each junction of material, to the saturation of each atom, of each particle of the material, for it to metamorphose, finally, into poetry. Architecture is, in fact, concrete matter: it appears in the precise moment that the material becomes expressive matter¹⁶. And the poetry, in turn, possesses a physical matter: colours, sounds, stone, water, mountain... "Mountain, stone, water, building in stone, building with stone, building into the mountain - our attempts to give this chain of words an architectural interpretation, to translate into architecture their meanings and sensuousness, guided our design for the building and step by step gave it form",¹⁷ as he said about the baths in Vals.

For this reason, we think of expressive matters (or matters of expression) and not, simply, in materials, because architecture only contains a block of sensations, when the material becomes expressive matter and the architect becomes material (the process of becoming always implies a double capture). Then, we think of materials, in Zumthor's work, as a vast set of elements such as stone, concrete, glass, but also colours, temperatures, vegetation, flowers, water and the very human body, that receptacle of images and memories, sensations and instincts. All is material, all en-

¹⁵ "I try to use materials like this [like the *Arte Povera* artists]. I believe that they assume a poetic quality in the context of an architectural object, although only if the architect is able to generate a meaningful situation for them, since materials in themselves are not poetic", Zumthor, Peter (1998). "A Way of Looking at Things". *Thinking Architecture*. Basel: Birkhäuser, p. 10.

¹⁶ It's not only the question if architecture is or not art that enlightens the discussion around architecture's proper matter and if in Zumthor we find a wise response exactly through the material that transforms itself into matter of expression through the composition created by the architect, Herzog & De Meuron, who affirm that architecture is not art but still has some qualities that approach it to some visual arts, affirm that architecture's matter survives in the immaterial (which is strange when they pose the question as if true also for art when art is exactly defined by the sensations that exist through material composition and not through meanings or symbols): "The reality of architecture is not built architecture: an architecture creates its own reality outside the state of built or unbuilt and is comparable to the autonomous reality of a painting and a sculpture. The reality that we mean is therefore not what has really built, the tactile, the material. Of course we love all things tangible, but only in the context of the whole (architectural) work. We love their spiritual qualities, their immaterial value", Herzog & De Meuron *apud* Ursprung, Philip (Ed.) (2005). *Natural History*. Baden: Lars Müller Publishers, p. 29.

¹⁷ Zumthor, Peter (1998). *Peter Zumthor Works: Building and Projects 1979-1997*. Basel, Boston, Berlin: Birkhäuser, p. 156.

ters the plane of composition to create an intensive space, while the space contracts and diffuses the qualities of its composing elements: its atmosphere.

Despite all, it is important to signal the moment when the material appears in the composition of the work, without being necessary to define it temporally, as for example, questioning if the image, which guides Zumthor through the plane of composition, brings with it, from there on, sensations given by a certain material, when the architect himself recognises that, in some works, the material was present since the beginning of the project. We'd prefer to think that the sensation, which the image reveals, launches the architect in a relentless search for the material and for the composition, which allows, exactly, to elevate the work to the maximum intensity of the composite of sensations. Of course that, at times, material and sensation meld, because the sensation needs the material to exist (Deleuze & Guattari even say that the sensation lives only while its material support exists) and, if the material doesn't contain a sensation, it cannot become poetry. It is in his becoming matter that Zumthor is, also, truly, singular, in whom we recognise the work of Joseph Beuys or of several artists of Arte Povera or of Land Art, whose works privilege physical materials, which gain a new force, not through the invention, for example, of a new colour, but for the arrangement or composition. It is the composition which makes visible the expressive elements of the work.

The material becomes expressive matter through the artist creation, but he enters the plane of the material, becoming molecule, to extract his singularity. Following the wood grain and deterring, for a moment, in its dark knots which seem to launch our vision into a whirlwind of sensations. The works where Zumthor invents a, totally, new composition from a common material, are many. Zumthor talks about the sensibility that is necessary to understand the different materials and, above all, of the care we should keep for them. This care, which is present since the first look at the landscape, a more attentive look still, concentrated on the singular traces, which start to emerge where the look settles, prolonging in the materials. The same love appears there: trying to follow the material, feel the weight, the temperature, the colour or the thousand colours it reflects, how it reflects the light or absorbs it, listen to it, understand where its lines go through, to what limit it can get. The new composition appears, naturally, effortlessly in the process of becoming. Zumthor enters the plane of the material, follows it and answers it. Many times, the specialists proclaim Zumthor's momentary madness and the impossibility of such a construction. Probably, if Zumthor didn't know how to become rock, become water, become molecule, he wouldn't be able to attain that limit, which belongs only to the material, so much so it escapes the technical knowledge (it will be, afterwards, the technique to get to him).

In the Bregenz museum, for example, “the work process was similar to the activity of an artist, maybe one like Joseph Beuys, who liked the material. When you like a material and you approach it sincerely because you like it, you treat it adequately well, with tenderness. To us, glass was such a material. And it was for glass that we looked for a masterly, albeit common way of use. Without creating that affected language, but rather decoding the simple principles. It was clear to us that you can’t make holes in glass if you treat it with sincerity, that you always see all the rims, that it should not be stressed or pressed on. This is an example. With this intention comes inventiveness. Then you say to yourself: this is possible! There has never been a glass elevation without punching holes in glass, but this must be possible because it seems natural!”¹⁸ Zumthor’s singularity, in the use of materials, seems to come from what the architect himself believes, of feeling the material. But this feeling is much more than handling the material, feeling its weight or listening to the sound it emits and resonates, measuring its temperature, when this analysis the scientist is also able to make and, probably, in a much more exact and precise way, but would he, truly, feel the material? What is this feel, if not the becoming material of the architect? And what does it consist of, this becoming, becoming stone, becoming wood, becoming water, becoming molecule?

The becoming doesn’t correspond to a comprehension of the material in front of us. We may understand it from all its angles, decompose it in the different molecules, look at it microscopically, that we don’t become. Up to this moment, apparently it was all that Zumthor said about the use of materials: its dedication deposited in a delicate care, trying to follow the natural composition and structure of the material, understand it through the matter it is composed of, living up to its existence as a substance and avoid creating a symbolic or affective language (we may remember, once more, how much of memory is sensation). Following the matter signifies, contrarily, pursuing the lines of escape which capture a sensation which may be composed, worked in a totally different and new compost. Similarly, finding the notable or singular points of a material implies a molecular perception, which does not have, however, to do with an enlarged image of the corporeal structure of the material, equivalent to the image of a texture resulting from the lens of a microscope, but an

¹⁸ Zumthor, Peter (2004). “Conversazioni con Peter Zumthor”. Interview by Barbara Stec for *Casabella*, 719, pp. 91-92. About the experts, Zumthor confides in this same interview: “I think that contractors trust me or begin to trust me after some time and they know that I can feel the material and I don’t want anything impossible, even if it seems so at the beginning”, *Ibidem*.

intensive map of the material, where we signal the dissonances, the changes in texture or in colour, which are imperceptible, but give the material, precisely, a body, body which is sensation. They are not traces, they are not characteristics. The intensity is born of a difference, between lines, between changes of colour, between textures, between grooves. It is in that interval that the vision of the architect is placed, allowing him to extract from the material its expressive element to create a new composition.

Only in this way we may think, as well, how the decision in the visits to the works, during its construction processes, are so determinant, reminding us of the insistence of Loos in defining, practically, all of the elements in that moment, as for example, the exact height of the wood panelling or the placement of the marble pieces. Over these, we find another example in Mies van der Rohe, who appreciated, like Loos, the singular texture of the block of marble, when sectioned in a determinate way, with strange formless patterns of multiple colours appearing. It is the combination of the texture, the different colours, the way it is applied, the limits of the covering, what Loos controls with enormous precision, because he puts himself, exactly, where Zumthor does, as well, in the limit of sensation, in the maximum intensity he extracts from the material. From the limit on, the sensation fades, weakens or, even, disappears. Sustaining this moment is the big task of the material. There will be materials which manage it better than others, maybe that's why there is preference for certain materials in detriment of others and we might talk of a certain repetition. Repetition, however, must be understood as the difference in itself.

The Serpentine pavilion began by being in apparent concrete, composing a wanted innocuous surface to let the beautiful and colourful flowers proliferate through the space. However, apparent concrete didn't satisfy the conditions of an ephemeral construction, which, at the end of Summer, would travel to any other place. Zumthor, as well, did not want foundations or, at best, the minimal necessary for a certain holding of the pavilion, being driven by a new hypothesis, which brought yet another memory of the place, and solved the constructive question of self-sustainability, which seemed to be, naturally, solved with English brick. By changing the material of the exterior volume, the flowers and the colours of the garden were, equally, changed, evoking, still, the colours of the Hadspen gardens, appeared now in more subtle tones, ocre, browns and roses, as Zumthor had painted them in a watercolour. The watercolours, as we referred already, appear, uniquely, when the architect presages that his composition corresponds to the envisioned sensation: the marking of lines, colours, and the vague blurs of the watercolour correspond to an image of already sharp contours and, in the watercolour of the Serpentine pavilion, the tones came

from the emanated particles and diffused by light and by the brick composition, similarly to the light-brick of Kolumba.

Most authors underline this brick as a Zumthor invention, referring to its size and its colour which facilitate the contiguity of the walls off the preexisting ruins and the new museum, its placement, a whole constructive system designed from this new unit, the intervals or empty spaces between bricks, which filter and quantify the light... But for what reason is the Kolumba brick, which became inseparable from its name, so important in this work and in Zumthor's work? The Kolumba museum is inseparable from the expression of the brick, because it is the brick what gives expression to the light which, in turn, allows the perception of the space of the museum's ruins. The light, in this space, is inseparable from the brickwork: its colour, its dimensions, its pattern. The brick becomes light and the light brings in its particles the colour and the expression of the brick (they are inseparable). The colour, the dimensions, the intervals, everything melds in the creation of a light-brick. The answers, which these elements - colour, dimensions, intervals - give the problems of a practical or technical order, are not, in themselves, sufficient for the creation of this light-brick. This depends on the conjunction of all these elements and of an experimentation carefully conducted by Zumthor¹⁹. Zumthor, in his roles as a maestro, orchestrates (as he likes to say) the various elements, experimenting and composing the space, according to its expression.

The self-sustainability of the Serpentine pavilion in English brick, which Zumthor, similarly to the Kunsthhaus in Bregenz, pretended to equate to that constructive sys-

¹⁹ Zumthor remembers the example of the *Kunsthhaus* in Bregenz: "People were not at all sure about the Bregenz *Kunsthhaus*, with its technique of concrete interior and steel façade, and which took four years of work. I had to convince many, many people over the years. They said, 'It's impossible to do because this and that has never been done, you're crazy' ". In Kolumba, it was similar: "People told me that I was making a terrible mistake. 'Everybody knows this is not possible, using brick in this way'", Zumthor, Peter (2009). "The enigma of Peter Zumthor". *Fourth Door Review*, Number 8, p. 47. We should although notice that in these examples relevantly it is not the question of innovation in a certain way of use a material, but how the research for a matter of expression and composition of sensations lead Zumthor to create new techniques and uses for common materials. As Deleuze & Guattari say: "On ne passe d'un matériau à un autre, comme du violon au piano, du pinceau à la brosse, de l'huile au pastel, que pour autant que le composé de sensations l'exige. Et si fort qu'un artiste s'intéresse à la science, jamais un composé de sensations ne se confondra avec les 'mélanges' du matériau que la science détermine dans des états de choses", Deleuze, Gilles & Guattari, Félix (1991). *Qu'est-ce que la philosophie?* Paris: Les Éditions de Minuit, pp. 157-158.

tem dispensing, consequently, any structural element in concrete or other material, forced, however, once again, to a change of material. Technique allows, in fact, controlling the material and to elevate it to a determinate power or intensity, but, by itself, does not create a block of sensations, which, solely, the composition of the architect may. The engineers concluded they would be able to build the pavilion in brick with that self-sustaining structure, guaranteeing, even, the angle of the roof, which had caused all the technical and constructive problems in this option. But the problem with the material, in Zumthor's plane of composition, is in the opposite side of technique, in chance. Many authors refer how much Zumthor inherited, from his father, the ability to build artifacts, putting him in a long (Swiss) tradition of "know-how" and executing with precision and craftsmanship, while the problem with the material appears so much more interesting if we consider it before the technique.

There is no doubt Zumthor advances, sometimes, in the plane of composition through the technique (as he says himself: intention brings invention), but it seems to us there is a singular relationship between chance and expressive matter. To Zumthor, chance is close to a composition determined, uniquely, by material, when it affirms the own objectivity of the material and does not use meanings, signs or symbols, only its physical properties and those of the gesture (and he gives the example of the artist Robert Rauschenberg, who squeezed the paint out of the tubes and let chance determine form, or of the poet Gertrude Stein²⁰, who used words as raw material, instead of treating them by their meanings). Afterwards, what he denominates as subjective in the composition, what activates thought, belongs, equally, to chance, since the quest for meaning for such a composition appears after its action: "The moment these physicalities, the traces of paint on a canvas, the sequence of words and sounds are given a visual frame of reference, the moment they are framed, exhibited or performed, we become aware of their form, we experience them as a composition, as an image. So it is possible to move from abstract concept to form without making an image in one's mind. And, initially, while in the process of producing these conceptually born artifacts, the question of meaning is not relevant. Everything occurs by chance. Everything is chance. And yet: once form and physicality are complete and experienced as a work, there is a vacuum: the question of meaning. We want to know what a work means"²¹.

²⁰ Zumthor, Peter. "Body and Image". Text consulted in Peter Zumthor's studio during the author's research residence.

²¹ *Ibidem*.

The works of art have that privilege of being able to compose pure sensations, uniquely, through the composition of expressive matters. Architecture, in most of the programs it houses, has a function, obeys norms, incorporates rigid and inflexible systems, contains a political conscience, which the architect will have to, forcibly, eliminate or dissolve, dissipating or, what great architects do, solving the functional, technical, constructive, political and social problems, so that, in the end, overcoming all that limits the freedom of pure aesthetic fruition, create a block of sensations, which depends, uniquely, of the expressive matter it is composed of. In the Serpentine pavilion, the brick didn't compose, yet, the sensation or the atmosphere which Zumthor wished for, notwithstanding the watercolour remaining as an almost nostalgic reminiscence of that composition (it is relevant that Zumthor publishes it, for example, while other, equally beautiful, are unknown to the public, because they would remit to a virtual space, which Zumthor does not want to be visible). The role of chance, which Zumthor denotes, depends on a manipulation of matter with the intuit of intensifying, evermore, the unique experience of the passage of the material to expressive matter. Curiously, in the works in which Zumthor recognises this role of chance, there is an important process of becoming. On the contrary, we may even affirm, that it is the becoming material by excellence, when the painter throws himself, together, with the painting the free movement of gravitational force and the flux of the colour particles, the fall and all the movement that unites them, indiscernibly. And a much more precise and minute control is needed to create a work of art, this way.

"When I saw how Beuys worked, which was a revelation - that Beuys was working with materials, in a way like words and sound, composing in a way with materials, as a message. It was not performed²². It was this material, this and then performed. This struck me as something new, the way you learn something but then think, it is something I always knew, being very subjective is being very objective"²³. The material brings with it the composition, or in other words, the material composes, because it is an intense physical matter, which holds the mystery of its own existence, the code of nature and the forces of the universe, what makes it singular and allows different and infinite compositions. Composing subjectively, composing with materials, equates to finding the different intensities which circulate the material, finding the

²² The composition comes from the material and not the other way around when one chooses a material to an already defined form or composition. For Beuys as well as for Zumthor, the material composes by itself.

²³ Zumthor, Peter (2009). "The enigma of Peter Zumthor". *Fourth Door Review*, Number 8, p. 51

maximum intensity a material contains. This is its “spirit”, the force which connects the material to the cosmic forces. An exchange, then, takes place, which is only possible through the architect’s composition. In turn, the architect will only be able to sustain the sensation in the atmosphere, when he elevates both potencies - space and material - to the maximum intensity, which depends on intuition, of following the energetic flow of matter and collecting the expressive elements in a plane of composition, which already contains other elements and makes other sensations pass. As Deleuze affirms, thinking about what takes or drives the thought to think and which we recover, here, to think of what drives Zumthor, or drove Beuys, to compose with materials, looking at them attentively, carrying them in the body, they bodies, but also, the bodies of the materials that fuse and construct a new body, entirely new: “Il est vrai que, sur le chemin qui mène à ce qui est à penser, tout part de la sensibilité. De l’intensif à la pensée, c’est toujours par une intensité que la pensée nous advient”²⁴. In what other way could Zumthor compose with the materials, create the right distance where the tension, between different materials, creates a sensation, which is sustained precisely in that interval, by that interval, when it could disappear, if the materials were not those or did not have those measures? For Zumthor, as for Beuys, it is through art that we may access the magic of the real and reconcile nature and culture²⁵, without nostalgia, without utopia, only through the being of the sensitive. As Beuys sings: “Mille pouvoirs s’écoulent en moi comme des torrents / quand je marche à travers le bois”²⁶.

The pavilion finally found its own expression inseparable of a unique combination of black Idenden (a polymer emulsion often used as a vapour barrier coating for pipe-work), hessian scrim and sand (on the floor). On the visit to the work, Zumthor gave

²⁴ Deleuze, Gilles (1968). *Différence et répétition*. Paris: Presses Universitaires de France, p. 188.

²⁵ “Architecture is something physical and experiential. You have to ask, how does this feel? How does this look? It’s not about being intellectually brilliant, thought it’s nice when that happens. Architecture doesn’t deal with abstract things like philosophy. Knowing what you’re doing is important, but it doesn’t start there. It starts with emotions. I feel in a line of people, not just architects, who are looking at and experiencing the world, and the more you look at it the more interesting it becomes. I have a relationship to people in other arts. We make the same investigations... looking passionately, emotionally and trying to be part of what we see”, Zumthor, Peter (2008). *Royal Academy*. “Zumthor goes to the essence of things”, <http://www.royalacademy.org.uk> [accessed 18 January 2008].

²⁶ Garraud, Colette cit. Beuys, Joseph (1994). *L’idée de nature dans l’art contemporain*, Paris: Flammarion, p. 100.

clear instructions to the workers on the quantity of Idenden that the scrim should let trespass. The black should contain the texture of the scrim (a texture much close to the one Zumthor had already rehearsed for concrete) and the surface of the scrim should dissolve in the Idenden black transforming the black into a tactile colour and the space into a haptic space. All the ideas, which the various trials rehearsed but none really fulfil, were, now, concretised: the space of annihilation of the exterior and preparation for the contemplation, the sinuous path which creates the time belonging to that space, the limit of the sensation of contemplation, which crosses the space through the Prussian blue bench and discovers the maximum intensity in the garden. All the elements were, rigorously, defined by Zumthor and controlled, equally, in site. From the wall, a life-size model of the constructive system was made, where all the procedures it implied were rehearsed: enveloping the plywood panels with scrim, contouring the acute angle of the roof slope (which gained a lintel with a semi-circular section to facilitate the bending of the canvas) and then painting several times with the black Idenden? What quantity of black? The right one, that which would stop the sensation to change its nature and the pavilion to be another.