

SEVILLA



**IDA: ADVANCED
DOCTORAL RESEARCH
IN ARCHITECTURE**

Antonio Tejedor Cabrera, Marta Molina Huelva (comp.)

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HIDDEN SPACE CARTOGRAPHY ARCHITECTURAL EXPERIMENTATION LABORATORY

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Abstract: This doctoral thesis develops a research of interest for the knowledge and interpretation of architectural fact and its practice. A relevant contribution made through the personal experience of a doctorate, based on a set of significant situations and facts, not always visible to the historiography of architecture.

The research focuses on the study and drawing of hidden space in architecture, exploring that which belongs to the realm of the invisible, the subterranean, that which floats suspended between attics and roofs.

With an untold parallax vision that substantially modifies the point of view with which we usually observe things, spaces, materials, immaterial and design logic of extraordinary possibilities for the architecture of our time are revealed and characterized. It is an essay, therefore, about the creativity in a Project, as a way and consistent response to a world and society which is changing, in need of innovation and new meanings. Personal stories, shared experiences, and references from other worlds and cultures... are presented through the reflections contained in his texts, the drawings speech, x-rays, black masks, and the suggestive photographs taken by the author in his incursions into the dark. Thus, new senses open up to the reality that surrounds us, establishing positions in our cultural panorama, and in architectural thought, particularly, that which seeks a new dimension in its project.

Key words: Hidden spaces, Thickness, Sensitive Spaces, Informal Architecture.



Fig. 1 WELBECK TUNNEL RUN, 2015. Duración: 4,03'. The author prefers not to reveal his identity.

Filmed during the summer of 2015, the camera records the furtive run of an anonymous person inside tunnel number 1. The interest of the film is in the action of exploring this space, in the emotion and the pleasure of getting lost inside.

This work understands architecture as an territory of exploration, an interior space that must be necessarily explored in order to know it.

This is a thesis built with our own experience of space: 55 explorations and a vehicle with which to wander the world. At this time we have become something more than mere inhabitants, we have become a kind of "experimenters of space". It has been fascinating to enter the bowels of architecture with the idea of recording its action.



Fig. 2 ARCUIGRAPHICS:These cartographies of the hidden space take hold of what we see, what we see at first sight, to extract from it what we do not. They scrutinize, isolate, observe, explore and alter. These cartographies awake another side to reality, one that can't be decoded by less effective eyes, fogged by the custom and routine of our glaze.

[above] The thesis object (book), opened by the chapter dedicated to the Methodologies and instruments of exploration: X-Ray. Image taken by the author, 2017. X-ray of St. Petry Church in Klippan (Sweden), S. Lewerentz, 1969. The photograph was taken in Nick Veasy's studio (London) and shows the interior of the model made by the author on the occasion of this research, 2016. These images reveal the skill and constructive ingenuity of Master Lewerentz, concealing the network of ducts and canals that run through the interior of the brick walls.

In London, in Nick Veasy's studio, we have had the opportunity to work with X-rays, to explore the interior of some objects made for this doctoral thesis. X-rays, transparencies and high sensitivity papers construct a cartography to discover unknown qualities hidden in architecture. We've worked as if we were in a laboratory in the way of constructing the document, experimenting with drawings that create a graphic narrative that explains both the thesis process and its internal context.

A laboratory of architectural experimentation in which we have manipulated liquids and compressed gases, liquefied metals and sounds.

1. A beginning. Memories of a nomad

I've always thought that when visiting a building for the first time you should delay the moment in which you access into its interior, to approach closely, to surround it without haste to get an idea of what it's like. This paused approach, these prefaces are essential and are by themselves what's most exciting. Each building offers a peculiar presence that surrounds the visitor. Although we can't predict who we are going to meet or what kinds of events await us, the degree of interest we experience towards it is already determined. The Cathedral of Seville seems almost like a gigantic animal with a life of its own, which in the first few days tried to engulf us but eventually revealed its deepest secrets.

In spring of 1989, during an Analysis of Architectural Forms course, a group of students from the School of Architecture had the opportunity to freely roam the interior of Seville's Cathedral with the difficult task of carrying out a planimetric survey of some parts of the building. For none of us was this the first time we visited it, but I remember the devastating sensation of the first day as we plunged into the gigantic space, equipped with measurement tools, abundant paper and colored pencils. We all felt very small as we faced this complex task, absolutely everyone had the unsettling sensation of being engulfed by the huge building. An infinite space that seemed to want to devour us to fatten its walls.

I liked to stroll through this place packed with history, to recreate its memory and passage of time, but above all I liked to walk aimlessly, to lose myself at random without planimetry, with the strange feeling of wandering within an infinite territory. In spite of appearances, the Cathedral's unique and fluid space encloses a multitude of impossible places, which aren't part of the usual rooms and tours, where the experiences results in an overwhelming emotion. Not a single space that I have seen or studied subsequently has left a similar sensation in me.

Little by little we began to familiarize ourselves with the building, and although we were aware of the difficulty of the task, we were accumulating drawings. The floor plans and sections that we were slowly creating offered us some security and were useful tools to represent the dimensions of its space but insufficient to gather the spatial sensations that we had discovered in our aimless wanders. We decided to allow ourselves to get carried away and explore, beside from the usual paths, the treasures that the building kept jealously hidden. Almost by chance we was collecting a completely different planimetry, some drawings complementary to the floor plans and sections that we were elaborating, and which showed unusual relations, impossible topographies, limitless places, plus smells, sounds and sensations.

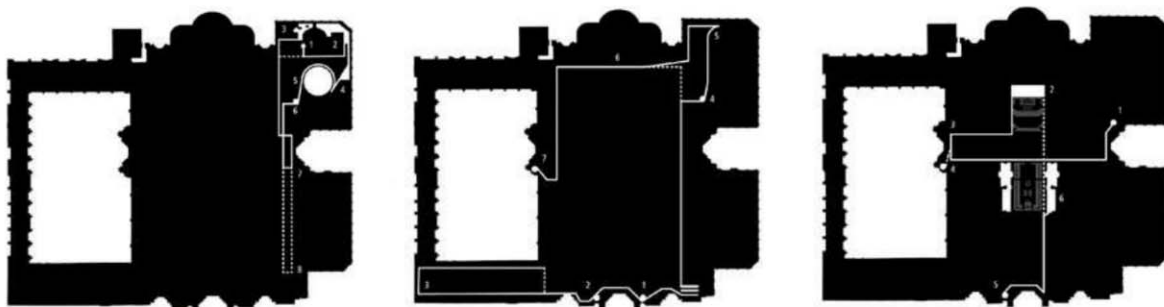


Fig. 3 Explorations in the Cathedral of Seville, 2015. Unpublished cartography elaborated by the author on the occasion of this research, from the workbook elaborated in spring of 1989. Drawing without eyes: the white line, our movements trajectory during the immersions, making way into a dense, black and blinding shadow.

(from left to right): Day 2, Thursday 09.03.89, Space oddments. Originating the drawings of the stairway built by Hernán Ruiz in one of the interstices with the chapter house. Length: 352,65m. Duration: 1h 30'.

Day 3 (Friday 10.03.89).

Vertical crack in facade and lower clerestory. It originates the DMF object created on the occasion of this investigation:

The wall as a crack. Territory of vertical experimentation. Length: 525,20m. Duration: 2h 45'.

Day 4 (Thursday 16.03.89). Winds and Upper Clerestory Superior. It gives rise to one of the tactile cartographies (Figure 4).

One afternoon, after our day's work, we discovered that the thick wall we had scratched on our drawing as a homogeneous mass was actually a porous wall. The skin had become a space with depth, and most importantly, into a place. We had entered a new reality, complementary to the space we were drawing, but essential to understand the complexity of the building. A small hole in the exterior of one of the enclosures, probably as a wall sample to analyze its state of conservation, gave us access to the interior of the wall from the roof. I remember that feeling of instant blindness, accompanied by eternal moments of immobility with both hands clinging to the wall's interior, balancing our breathing until we adapted to this new space's conditions: darkness, a cold and intense air, accompanied by an unforgettable sound of depth and emptiness. I remember that we stayed like this for several minutes until our pupils adapted to the internal light and glimpsed the space like a

strange substance that flowed between the oscillating topography of the inner wall faces. Each day, before entering through that hole, we would write our name on the stone with white chalk, next to the date and our entry hour.

These cartographies of the unseen, neatly recopied for this research, provide us with a good example of the ability of this type of drawing to reveal the qualities of a global or ergonomic space, we refer to the spaces where a human can be, from the interior of a wall to a palace room. These new Cartographies of the Cathedral of Seville try to draw partial itineraries that include both the nave of the cathedral and complementary spaces such as: air chambers, furniture interiors (choir and altarpiece) or passages between the vaults, granting the building with the quality of a compact matter, represented with a black shadow. The drawings reveal a sequence of lines, points and recognizable architectural spaces. Maintaining as an initial emptiness, without matter, the "Patio de los Naranjos" of the old Major Mosque of Seville, each drawing identifies an itinerary. We could say that with our movement and our gaze we built a different building formed by flowing materials, air currents, candle smoke, the smell of humidity, luminous penumbra; all of this is what makes these drawings possible and comparing them to the other drawings that had been commissioned, show the ability of these hidden substances, primary and continuous to create different interpretations, and therefore new transformations.

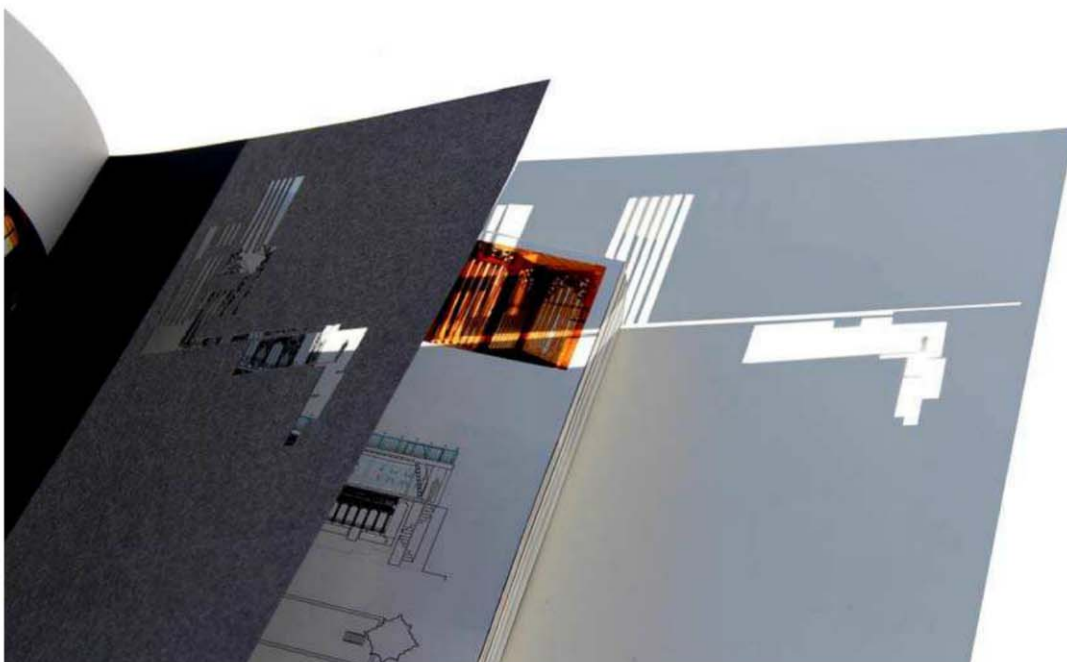


Fig. 4 The thesis object (book) opened on the chapter "A beginning. Memories of a Nomad ". Drawings by a hand that has replaced a pencil for a sharp scalpel. These cartographies suggest more than they represent, they propose an action, favor the reader's interaction with them. Opening the book reveals a shadow which spreads over the table.

2. A starting hypothesis. Black spaces.

"Things do not present themselves entirely, since nature loves to hide," said Heraclitus of Ephesus, which immediately establishes substantial differences between the tangible, the visible, the enlightened, the existent, what we know, which in Greek is referred to as *aletheia*, and the latent - the hidden, the obscure, the other, what's beyond, and therefore what we don't know and fear. The reality we seem to observe as one, a coherent and structured whole which is in fact dual and fragmented, a conglomeration of two substances, as if, when we wandering through the world, we only saw a part of it, white shadows on a black background.

Our view of the world, is no longer that all contemplated by the Greeks when space had not yet been dissected. This research suggests the hypothesis that if there's a space, it is made up of two substances, one visible - the represented or visible space- and another that we have agreed to call hidden, complementary to the first and is characterized by the fact that it serves it, by the generosity with which it helps to define architecture's main rooms. This research's purpose is not exactly the space, but rather its complementary: the hidden space. Not so much space as a unique and smooth substance, indefinable and uncertain, but the complementary space that is added to the visible space to make it coherent and structured; the sum of the hidden space and the visible space embraces the whole space. The hidden space is not only the one that discretizes and differentiates - shapes - the

visible space, but has become a new substance, fantastic and illusory, with which we can build a new reality that shapes contemporary space.

This reflection suggests us to observe the world with new eyes, to educate our eyes and leave aside the conventional division of space into differentiated boundaries and to argue that space as a whole is made up simply of free areas for human occupation, that alternate, or interspersed with nodes and inaccessible strips hidden from a fictitious substance formed by spaces, cables, conduits, matter, densities and events. We are facing a new way of understanding contemporary space, a new space formed by infinite layers of information between which we move from one stratum to another, crossing thresholds, aware that this technical-scientific development has multiplied the limits by which we must go through. A kind of conceptual zebra or dazzle painting, in which the experience of the black stripes provides a stimulus of overwhelming intensity. A new view of the world in a dual and complete way, which will lead us to understand that visible space isn't possible without the hidden space, in the same way that action is not understood without the pause, a memory without oblivion, nor sound without silence.

This will be our goal, to create a new vision with which to reveal the arguments of an architecture that day by day is reframed under the keys that hide these beautiful places. Black spaces patiently collected over time, not knowing why, guided by the collector's chance, for the pleasure and curiosity to get lost in them, and now placed on our work table they are shown as a stimulating architectural substance. Using Maria Zambrano's words to summarize this beautiful encounter: "there is no pursuit, expectations, scheduling or longings; this negative space simply occurs and the surprise it generates in its unexpected appearance huge, and often overwhelming.

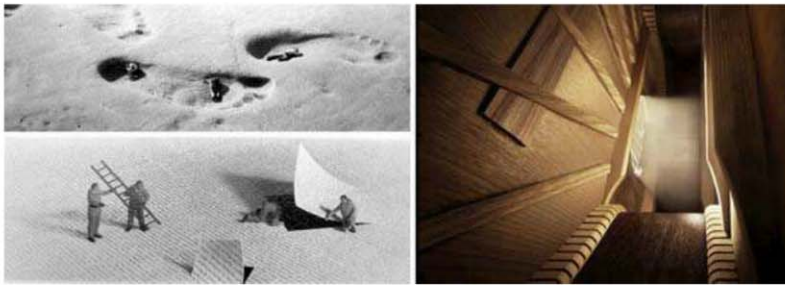


Fig. 5 (left) The look of Chema de Luelmo who rummages in the quotidian in search of new territories. (right) Found Architecture. Advertising campaign for the Chamber Orchestra of the Berlin Philharmonic, 2012. Interior of a violin. Photographers: Mierswa-Kluska.

3. Exploration Methodology and Instruments: section, x-ray, casting

As architect and explorer of architecture I consider myself a dilettante, in the same way a group of English architects and art enthusiasts were baptized as "société dei dilettanti", that is to say I feel guided by the curiosity and interest built for years by the discovery of certain spaces. Over time I have learned that a small door in a wall of any building can often lead to the discovery of an unusual and unexpected space.

The places that have led me to understand the concept of architectural space, those that have shown me the soul of its space and the true luxury of architecture are those that have not been described by their exterior, those that have not shown themselves and which require a certain exploration, those which remain silent and in the dark, because the light they receive is timid, dense and filtered. Maybe this personal assessment of hidden space is due to a certain attitude found during my childhood and when accessing into their interiors It always comes accompanied by a comforting sensation. My color blindness has led me to learn that when one of our senses is weakened, others ignite with intelligence leading us to a state of superior attention. These places require the activation of all of them, turning off some to accentuate the others. Blindness has accompanied us in many of them, forcing us to learn new ways of moving through space; touch, hearing or smell have often become the eyes with which I guide myself in these immersions, becoming ways of perception which are more objective and scientific than the vision itself. It has been fascinating to try to draw, not by what is seen but by what is smelled or touched.

I must I have found a certain difficulty in finding buildings in which to make these inoculations. An arduous and exciting task, which has always required a certain amount of persuasion with which to write introduction letters - often written in several languages - with which to enter spaces closed to the public and removed from the visible world. Stimulating work, great efforts and enormous rewards that

are now put into this work. Leonardo Da Vinci counted the vast impediments of the Church and the general public's opposition to the dissections that led him to make his experiments with the few bodies of convicted criminals. Rachel Whiteread was slow to locate the spaces where she would make her castings, it is said that the search for a house declared in ruins for House lasted more than two years. It took us almost one to get the necessary permission to access the hidden spaces of the Church of St. Petry in Klippan and 156 emails to get into the Casa Da Música. In Welbeck the fear that someone could break into the abbey's property through the underground tunnels, has forced us to partially publish our work to preserve the privacy of its owner. So locating and getting permits to roam around these spaces has been a slow and difficult task. No one who has had maps or information about them has been willing to disclose it, because their property may be more vulnerable from these disquieting places.

"Exploration Methodology and Instrumental" analyzes some of the techniques that are available to explore these spaces: the section, the X-rays and casting. When we explore a building, the variety of tools and artifacts, as well as the violence of the artifices used for this purpose suggest, by association of ideas, surgical instruments, so the inspection and diagnosis of these key points is necessary.



Fig. 6 (left) Welbeck Estate, UK. Tunnels. On the sectioned model of one of the tunnels, made with transparent methacrylate sheets, different light have been tested. Objects made by the author, 2016 (centre) With Nick Veasy in Radar Studio Bunker, Archigraphics, London, 2015 (right) The sound of shadows. Church of St. Petry in Klippan. Casting made by the author with printed paraffin, 2012.

4. Disorientation maps. General Chuck Yeager

After World War II, the United States was driven by a spiral of self-indulgence, not so much because they won the war, but because they had carried out the vast technological achievement that made the Manhattan project possible, followed by the creation of the huge and savage product known as the atomic bomb. There was a pilot whose combat skills and maneuverability became legendary during the war, to the point that some considered him to be a supernatural being. Chuck Yeager was chosen to head the supersonic secret and by October 1947, at the age of 24, he had broken the insurmountable barrier by contradicting the conventional advice and wisdom of many physicists.

General Chuck Yeager never managed to fly beyond the atmospheric limit, but it is unquestionable that he made the journey to do so much easier. No one knew this beautiful winged boundary better than him; he gave way to the most promising air navigation panorama, even spatial; testing things that seemed unattainable, soon came true. Yeager routinely made his students rise above the atmosphere's first boundary - 24,360 meters - to make them get a taste of the external, the other side of space, the real space as the General used to say. A part of space where the sky turns black and silent but in which the molecular structure of the air still maintains the aerodynamic lift force.

For Yeager, space was composed by two substances, one white and luminous, the other black and silent. Yeager's technique was to puncture these black spaces with his plane, to immerse himself in these event-filled thresholds at the edge of its envelope. Unexplored territories in which day after day he sent its students for their free buoyancy; black spaces in which it was possible to learn slow and deep deployments and accelerations. This space discovered by Yeager was used as an experimental laboratory; where time stood still, a region that favored invention and practice of new combat techniques. This research goes into these spaces with the same attitude of exploration and research, testing new thresholds with which to create contemporary architecture.

What most pilots don't understand, says Yeager, is that "within this black space, controlling the accelerator, controls time. Privileged places in which time isn't just another magnitude, it's a magnitude by which the rest unfold, a substance adjacent to anything, which pressures all limits, sets every threshold, opens up to any transformation.

Yeager taught generations of pilots how to fly and how to be effective in the air, using risky dives

through the black substance. The strange density of that black air, the prevailing silence and unusual values of gravity, benefited the creation and testing of new flight techniques, allowing the student to experience things that in the other world weren't possible; suddenly the ceiling of the sky had become an immense plain open to imagination.

Architects like Koolhaas or Steven Holl have freed their eyes, they've forgotten the airplane, to play with their projects using these black spaces, as a way to explore new techniques with which to build the architecture that is yet to come. Steven Holl's Venice cinema proposal plunges us into a sensory space that invokes blindness as a building material; the Koolhaas proposal for the Library of France in Paris impregnates the black space with silver bromide for the optical processing of the image. But surely, if there is a space in the history of architecture that simulates that black and wild sky, it's those black rooms made by the master Sigur Lewerentz for his personal use.

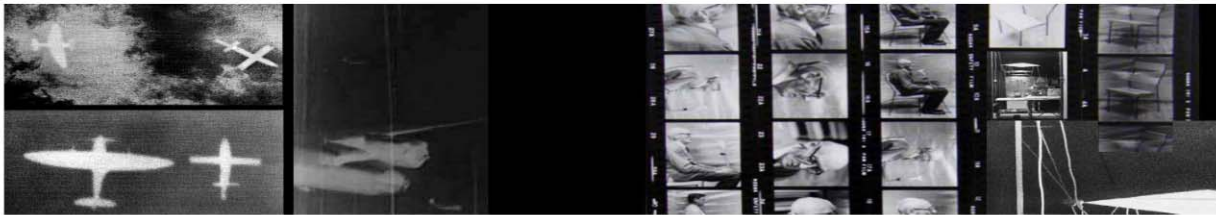


Fig. 7 Black rooms (left) Flight formations, 1947. (right), Lewerentz, Ahseim y Nyberg, Black Box, Lund, 1973. The last years of his life and the master continues to study darkness in his laboratory, 1947.

5. Exploration 048_Oct 2015. Underground Welbeck. 5th Duke of Portland (1800-1879)

During the weeks that we were consulting the preserved archives of Welbeck Estate in the Manuscripts and Special Collections Section of Nottingham University, I believe to have discovered a disconcerting and unique character; little known of in spite of everything written about him, with a history perhaps deformed by his own myth. The life of the 5th Duke of Portland is the story of an obsession to find a spot of absolute stillness, a place free of worry, somewhere to feel safe. Perhaps there he found, in that space unfolded from the visible world, the strength to overcome his difficulty, to understand the scale of space; the way in which others establish relations of similarity, distance or proximity to oneself.

Underground Welbeck is a story about the fear of loving and being loved, but it's also a reflection of how things happen in an architectural space, and those that occur over time. Space and time are unfolded and folded into themselves, to build this fascinating scenery in which his own life is represented.

John William Cavendish-Scott-Bentinck, fifth Duke of Portland, transformed his home into an extension of his own personality and behaviour. Even at the risk of transmitting information that may be frivolous, we've tried to show a certain attitude of exceptionality in his way of life. At Welbeck Estate, personality and architecture are intertwined, obsession and engineering, showing the indelible mark of its owner. It is a tailor-made set, full of objects and strategies that can't be generalized. His home and by extension his estate, became an authentic laboratory of architectural experimentation in which to leave his own non-transferable mark. He turned his estate into a gigantic invisibility mechanism, transformed his property into a double city, visible and constructed with materials from earth's crust and installed into the landscape. Unfolded and inverted, hidden in a lower strata, becoming part of a submerged world, immaterial and invisible. The Duke used an extensive repertoire of tactics and hidden spaces, technical solutions of disguise surely learnt from his love for opera.

Welbeck Estate is unveiled as a constructed scenery, a magical ritual of approach and invisibility that turns fantasy into reality. This is a mysterious city, as a top hat or a theater stage, in which dreams and secrets overlap to create an indivisible part of everyday reality. Seeing this city in action is a fascinating experience, attending with naturalness and emotion to unexplainable situations, things never seen before that defies all logic. The way the duke made possible, for example, the dream of owning simultaneously in the same house several of different styles and time periods, concentric and hidden in their interstices; or better yet, different houses that converge into one. The result has been that of an architecture communicated by temporary spaces, labyrinths and corridors, which as in the real transported man allow us to decide at any moment the desired occupation.



Fig. 8 (left) Underground Welbeck, túnel nº 1. It's the longest tunnel (2 km). Connecting the old Riding School to the South Lodge, 1870. (right) An action: Fluoroscopy. Unpublished cartography created with transparent methacrylate, a syringe and contrast liquid. Duración 1'58". Object and video created by the author.

6. Exploración 053_Nov 2012. El sonido de las sombras. Sigurd Lewerentz (1885-1975)

Lewerentz squatting on the ground working on the inner skin of St. Peter's Church in Klippan (Figure 9). The photograph reveals the one by one placement of each brick. Just by these photograph we see, with his back facing towards us, he's absorbed in his task, enjoying the rules of this fun game, navigating in his strategy as the work progresses, day by day.

Let us turn our eyes back to the photograph and look at the duct that timidly appears next to the wall. What is hidden behind the image invokes mystery, the secret that it keeps. Something happens in the bowels of this mysterious place. A mechanism of steel filaments circulate inside the leaves of the thick wall. Finished tubes build an ingenious natural ventilation system, a wonderful wind instrument that Lewerentz blows for us with the soft air of the Skane prairie. This space waits patiently for a breeze, it remains latent waiting in the dark for air to breathe life to him.

With punctuality we arrived at our appointment. Eivor and Ñ were waiting in the entrance. Eivor De La Cueva is a kind and calm lady, affectionate and attractive, with short and groomed hair, not too pale skin and an elegant appearance, her perfectly knotted raincoat protects her from the rain, it has stopped raining although the air is still humid and very cold, she delicately unfolds her collar and slowly turns off her cigarette before greeting us. Ñ shakes our hands tightly, black trousers, suspenders and a simple white shirt with a collar and long sleeves. Rough and compact looking, Ñ seems to have taken Klippan's shape, just as the mountain is shaped by who lies on it. The language and its gaze maintain a certain distance between us; with rhythmic cadence he plays around with a bunch of keys while we talk to Eivor. Ñ is Klippan's master, connoisseur of the treasure he keeps and who will mark the times and method during our visit. I insist to Eivor that I am very interested in accessing the technical galleries that are hidden in the subsoil and to pass under the sanctuary in search of something that we still do not know. When she translates my request Ñ smiles without answering and proceeds resolutely towards the inner street to start the tour.

Ñ knows the place well and with his index finger points on the map a specific point, that's where it seems he wants to take us. Now the sound is very different, noise has become a rumor and the beats have given way to a delicate and constant whistle. Ñ stops at the confluence of two tunnels, at a crossroad between two narrow roads, and with his hands he suggests to feel on our cheeks the speed of space, to notice the density of its particles. It is the air that circulates inside these veins, and that naturally moves and circulates the volume of air enclosed in the sanctuary. Here, standing side by side, in this tiny point of maximum intensity, blind in the depth of this immense darkness we notice how our senses are accentuated. Our ears are keen to listen, they are keen to hear, and then I could see how suddenly, in the distance, I could appreciate the chanting of the congregation. Through the chambers and cracks of this mysterious place an echo had filtered, the sound of the air was thick with the canticle of the parishioners. The ceremony had begun and N had given us this unique and indescribable moment. I will never forget, this instant, this particular and exact moment that now with the complicity of the reader we dare to unveil ...

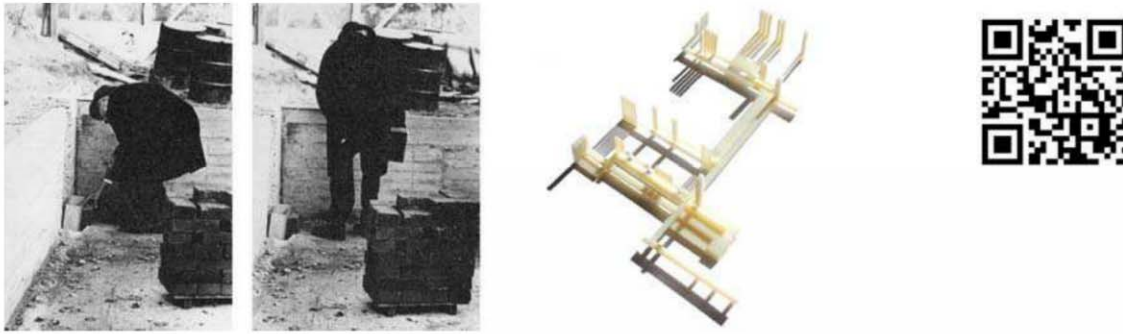


Fig. 9 St. Petry Church, Klippan, Sigurd Lewerentz, 1969.(left) Lewerentz squatting at the building site,1963.(right) Hidden wind instrument between the bricks. Unpublished model, made in paraffin by the author, 2012. QR code of the video "Microfusion. The lost wax" recorded by the author in Microger Laboratories, Seville, 2016

7. Immaterials of contemporary space, as an open conclusion.

In his *Six Proposals for the Next Millennium*, the writer Italo Calvino affirmed that "fantasy is a place where there is no Light." No better phrase to conclude this thesis, to define these spaces as laboratories for our imagination and senses, where light can't exist. This thesis suggests an idea for a time full of images: without using our eyes. Because not having eyes is like not having anything, and going blind doesn't mean not seeing, but doing so with our hands or ears, taste and smell, which is the best way to really see things. The image given to us by a young Herzog is eloquent in this sense; with the model in his hands and eyes closed, he looks at it with his tongue, he strokes it with his salivary glands. Herzog licks the object to absorb ideas for its architecture; eyes aren't enough and the architect must slurp the space to really taste it.

Deliberately shutting our eyes has led us to forget the steps that our behavior anticipated, the paths of our memory. Memories of a nomad who have opened itineraries in our work with which to inhabit intermediate and hidden places, full of life and surprises. When you perceive these places, you must stop, strengthen your hands to fill yourself with sensations. To project without using eyes means to do it inwards, to recognize what's around you, as something of your own, intimate and close. That is why the emotion of finding without using your vision supposes a moment of a shared life, where you are another, where the body is suspended in that eternal black space. Moving without eyes led us to think without them, and when this happens, everything is new, everything appears for the first time, it's born and dies at that very same moment. This doctoral thesis has allowed our senses to appear; allowing the hidden space to appear, and with it, substance.

Without eyes we have discovered the articulated movement of our body in space, feeling the rhythmic and fluid elements that inhabit it. A new order that makes you discover that you can't always move without your eyes, for example when jumping over a crack, or sneaking through a hole in the wall. Without eyes doesn't mean blindly, it's rather the boundary between vision and the absence of sensory perception. A state where one can be without being at all, disorientating maps with which we have come to feel energy of hidden space, and the gods that inhabit them. Without eyes we have had to focus our attention on the nuances, on what isn't seen but is heard, smelt; we have come to feel the changes of temperature inside a wall or the stroke of the wind. Being an architect involves using our eyes this way; close them to see what is hidden.

For years, our day to day has been formed by wandering and sensorial phenomena; later we have made abstractions to elaborate cartographies (theories, drawings and objects) more or less accurate. But our first and basic source of knowledge has been the phenomena we have perceived in these interiors and in which, somehow, we will continue to be involved with. Our body, therefore, has been our tool to relate with this medium, with this spatial substance that has interacted with it, modifying our body and allowing itself to be modified. From these results undertaken with enthusiasm to the depths of these architectures, experienced through their direct perception, and instruments employed to cut, x-ray or empty, we could venture some affirmations as an epilogue to this work, which could well be the beginning of a future research.

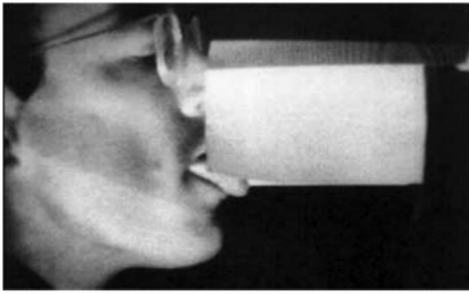


Fig. 10 Jaques Herzog licking a model. Herzog runs his tongue across the paper surface. The image is a frame of the video recorded in 1978, and was used by Luis Fernández-Galiano during the lecture given at the Fundación Juan March, Madrid, 2011, in which he affirmed in front of the photograph: what does space taste like?

"Cartographies of Hidden Space" should be understood as an Architectural Project, an intellectual construction, a way of seeing space, a laboratory to work with the senses. I have long been obsessed with the experience of seeing and not seeing, seduced with the idea of achieving a kind of induced blindness. I think that good architecture is one that has enveloping qualities that go beyond vision. That is why I must confess that this work is aimed at showing some places that have moved me and to magnify blindness as the ideal state to reach a phenomenological rooted architecture.

Therefore, as a means of knowledge and a project mechanism, these processes of formal configuration, along with a methodologically adequate development in terms of referents and objectives, place this work fully into the processes of research and innovation that society and the university demand from their researchers. The research is not limited to the mere presentation of the models, but creatively activates them, resulting in knowledge of experience which is filed, through the international agreements of investigation: *Underground Welbeck* (University of Nottingham, Welbeck Estate Corporation, LTD, University of Seville, UW, 002356 / 2016-2020), *Imaginary Sound Paths* (Fundacion Casa Da Musica, University of Seville, 2016) and *Breathing with Space* (St. Petry Kyrka, Klippans Turistbyå, 2016-2018).

Perhaps, time can rebuild the intimacy of the unveiled.

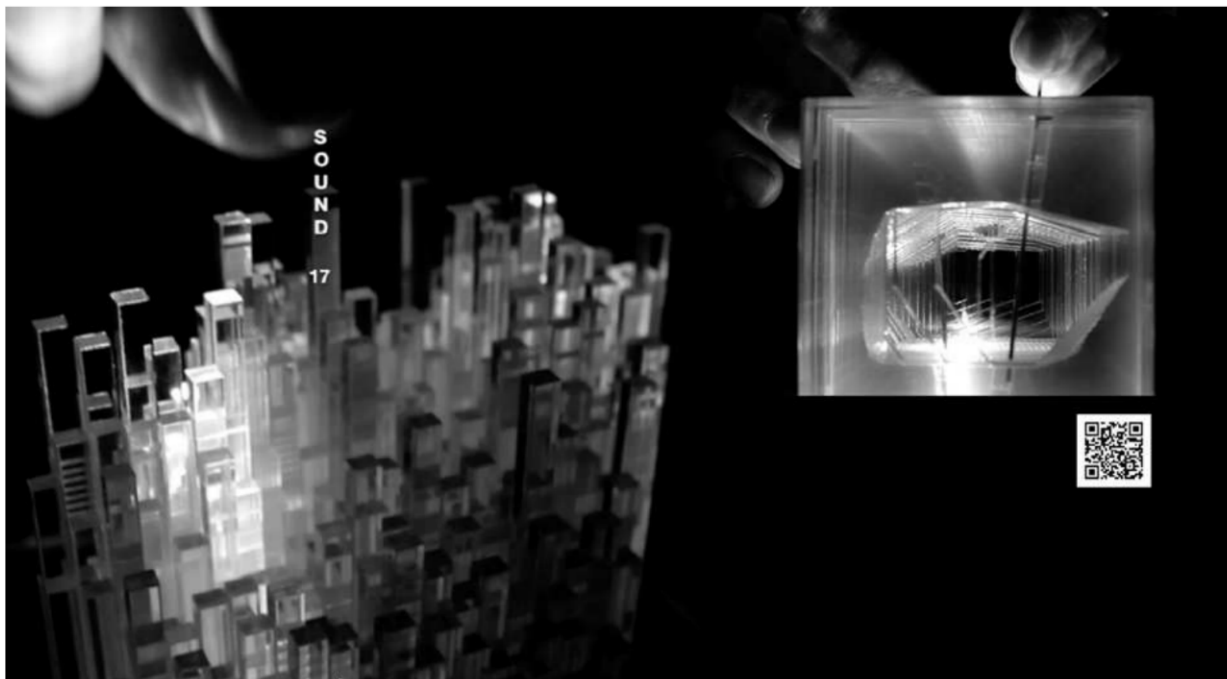


Fig. 11 House of Music. Imaginary soundtracks. Oporto, 2016-2020. Dir .: Tomás García. As a conclusion I would like to teach in an unprecedented way in this congress, the object that served as a conclusion to this doctoral thesis. This is the exploration carried out at the Casa Da Musica in Oporto, in spring of 2015. I remember that moment well, we waited in the lobby for Ernesto Costa, Stage Manager. After a brief explanation of my work and again justifying our interest in wandering around the hidden spaces of the building, Ernesto said: "It would be a good walk to follow this pillar to get to know the ins and outs of this House."

We had invented a new exploration technique: spatial acupuncture. At the end of our visit, I promised him i would make a model of the building in which we could nail needles to collect data, enter our own information to then extract them and analyze its contents. This is the magic of this object, the fantasy of this sound landscape. The pillars have become acoustic specimens, witnesses of the hidden space. Needles with which to extract sounds through this kind of spatial acupuncture. Using this cartography of Hidden Space for the Casa Da Musica, as an open conclusion of our work.

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