

# Pandemic and Lockdown Through the Eyes of an Architect

Marta Miret Rodríguez

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*Pandemia y confinamiento mirado por los ojos de una arquitecta*

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Dedicated to my brother Lucas Isidoro and the beautiful memories I cherish in my heart, especially our study abroad travels.

*Para siempre; For ever; Für immer.*

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## PREFACE

When Marta asked me to write the preface to her book, I didn't know what to say, because I knew nothing about it —it was a total surprise. For me, it was an honour as well as a great responsibility.

I thought that perhaps I couldn't be objective, but, after reading it twice, I realised that I actually *could* write about it, because Marta is not only my daughter: she is an architect like myself. And we've always been very honest in critiquing each other's work.

The book expresses the feelings of a young architect within the context of a pandemic and the turbulence it has created for us all.

Marta has always instilled an unusual human touch into her architecture and her everyday dealings.

In this book, she describes various pandemics in history in relation to architecture and urban planning. It is an enjoyable, easy to read, and also educational work that reflects the curiosity of an architect during the lockdown, and her questions and answers from the essence of architecture.

She manages —and this is not easy to do— to link the pandemic to architecture with a subtle, deep, global focus and the human touch acquired during her retreat.

It is my hope and wish that these turbulent times will soon end, and that the vaccine that we're all anxiously awaiting will allow us to return to normalcy. But, after

reading this book, I'm not so sure anymore.

As architects, we must ask ourselves questions about the future.

Carlos Miret Bernal, Architect.

## INTRODUCTION

In this book, I will take you on a personal journey through my confinement and how I've experienced the COVID-19 pandemic, as a search to understand the present and obtain answers for the future, while contributing to it as an architect.

I will describe the great pandemics that have ravaged the world from a scientific standpoint. Throughout this study, I have found water, sanitation, and urban planning to be common denominators underlying their development and their aftermaths. This is why I subsequently take a historical tour through architecture and urban planning.

Studying history is the only way to understand the present and obtain answers for the future.

I will then make a philosophical enquiry into the meaning of space and architecture, and attempt to initiate an internal debate in search of answers.

As an annex, I include some of my works that somehow express my feelings about architecture when I create for the enjoyment and well-being of others.

LOCKDOWN





1. View from “Glas eraikuntza” Edificio de viviendas de Miret Architects.  
Nov. 2018 ©Marta Miret.



2. View from “Glas eraikuntza” Miret Arquitectos Apartment building.  
April 2020 © Nora Tejido Miret

01 y 02 are the synthesis and antithesis of de The Holland *Playgrounds*

"If cities are not meant for children, they are not meant for citizens either.  
If they are not meant for citizens – ourselves – they are not cities" Jacoba  
Mulder - Aldo van Eyck.

I am a young architect... or perhaps not so young anymore. And I was forced to experience the lockdown caused by the coronavirus. Since patient zero appeared in Wuhan, contagion triggered a worldwide pandemic and the WHO (World Health Organisation) instilled a high level of uncertainty into us. I had to go through the lockdown alone, as my partner was in England. And, like many other couples, we had to postpone our wedding and share our life through a screen.

To me, and I imagine that to many others as well, this has been a life lesson: watching the news everyday, seeing hospital workers express fear of the unknown, and keeping track of the statistics of infections and deaths. I felt knocked out. Being an inveterate traveler, I couldn't assimilate the high number of deaths caused by this health crisis. It was as if one or two jumbo jets crashed everyday —tragic. Our hearts sank in the face of so much suffering, so much pain, and so much death.

When I saw physicians, nurses, and other healthcare workers under such stress to save lives, I felt great admiration and, like everybody else, I would go out to the balcony to applaud at 8 pm —they were the front-line fighters in this catastrophe. The same applies to the essential services that enabled us to live safely during the lockdown.

The lockdown was tough on everyone, but a lot tougher for those who went through it alone. Luckily, this digital era gives us windows on the world that help to relieve loneliness.

### Routine of a person confined:

First week: Catharsis. Neurosis kicked in and I left everything clean as a whistle: every cupboard, every drawer, and every surface was inspected. Marie Kondo would praise my skill. It didn't matter if I couldn't find anything after that: it was an opportunity to clean up physically as well as mentally. Moreover, I bought a TV, not without asking for advice, as it didn't seem ethical to have it brought to my house. In the end, my friends and I decided that it was ethical, and quite necessary, to have another window on the world and, hey, I felt more comfortable. I welcomed the delivery person with my mask on, gave him a good tip, and conscientiously disinfected his pandemic gift.

My clean, supertidy living room was now the centre of my universe. Everything could and should take place in that multi-purpose space.

Second week: I took the trouble to draw up a programme that I followed almost to the letter during the subsequent weeks. Mondays, yoga; Tuesdays, gymnastics; Wednesdays, zumba; Thursdays, swing dance; Fridays, international cuisine... Films, series, books, and daily video calls with my partner and my parents; a virtual beer and debate with friends on Thursdays; virtual vermouth on Saturdays... We adapted to teleworking and odd schedules, and to dress up from the waist up only. An opera kept me company during the early hours of the day: I'll always be grateful to *Metopera.org* (Metropolitan Opera in New York) for

its daily release of works (and to my mother, for teaching me how to enjoy them). And always a bedside book. The quarantine caught me with a great library worth rereading.

I still remember my first visit to the supermarket, halfway through the lockdown: a queue of twenty sad, hunched over people wearing masks and patiently waiting for thirty minutes before we could go in. At the entrance, the security woman and twenty-five signs reminded us of the rules: wearing a mask, wearing gloves, washing our hands with gel. Once inside, the loudspeakers scared us even more: the change in business hours and the priority given to healthcare workers and the elderly; they urged us to grab one, and only one, of each product, to respect the queues, and to shop hastily in solidarity with others, so that they could also shop. All at once on the first day! An abrupt encounter with reality —we were living in a dystopia. I felt like a character inside *Brave New World*, *1984*, *Years and Years*, or any dystopian, retrofuturistic film of the type I love. They weren't funny anymore, though. I swear my legs were shaking; I rushed home with my treasury-purchases and disinfected myself from head to toe.

Everyday at 8 pm, the applause. And everyday I was already exhausted by then. "It's already 8 pm, again!"

These were endearing moments that I enjoyed. We could finally see the streets full of people, although not at ground level. The social ties we created gave me comfort.



3. Cheerful girl breathes on the balcony enjoying the sun © 123RF.com



4. People clapping in the window in support of people who fight against the coronavirus © 123RF.com



5. Coronavirus Pandemic. Drawing in The Window Of The Apartment With The Inscription It Will Be Good From People Quarantined And Isolated From Society © 123RF.com



6. People at the window or balcony during Coronavirus emergency/ Chiara Cerruti © 123RF.com"

When the lockdown started, the applause took place at night: we would see each other's silhouettes and listen. As it went on, it got dark later and we slowly discovered other people's faces, which was somewhat embarrassing. I felt they were really close, and probably others felt the same way, because the applause became more timid and we stood at the balcony threshold. Later, we started clapping from the railings once again.

There were times when we all caressed and hugged one another through the applause.

It's odd how time is perceived when we're locked up: we changed seasons without even noticing. We went into lockdown wearing coats and came out of it wearing short sleeves. Like Joaquín Sabina's song, *Who Stole the Month of April from Us?*

At the end of lockdown, my partner came back from England and I really valued the love and company.

I'll tell you a bit about my readings. They included Freud's *Civilization and Its Discontents* and I even ventured into some of Lacan's seminars in order to better understand anguish. I also reread Pérez Galdós' *Fortunata y Jacinta* and enjoyed reading poetry, which is always balm for the soul and alleviates anguish. I was all too aware of what we were going through.

In addition to physical books, we must be grateful that the pandemic caught us in the digital era, with a window on the world at all levels. And I want to extend my support to culture and the arts for helping us



through this void and filling our days, my days. We should actively support them because this health crisis has brought along a serious economic and social crisis—we are all victims and we'll have to stick together and give our best.



7. View from my balcony. (Look at the man on the roof of the highest building of the street) Apr. 2020 © Marta Miret



8. View of Madrid residents and buildings, as the city moves into phase1 after the total lockdown due to Coronavirus (COVID-19). May24 2020. anky© 123RF.com

I remember walking through the deserted streets and watching their architecture, as I usually do, but in a different way. I wouldn't look at the objects; not even at how people live in, and relate to, space: I searched for remnants of life. No one on the pavement, no one in the entrance halls... The city's hustle and bustle was now located in the windows, verandas, balconies, and the privileged terraces.

I recall seeing a man standing on a ledge. I don't know how he got there... probably through a window in his tiny loft, as the only way to feel free. It was head-spinning. I literally felt his vertigo. How can it be that in the 21st century we still live in caves, in intimate Heidegger's cabins with narrow windows? We should have left all that behind long ago. Our homes provide us with shelter and safety, but they should also connect us to the world.

I perceived the value of interstitial spaces and the empathy that can arise by seeing how others use and experience architecture. And the need for a change now.

When I went out (those brief, restrained outings to buy the basics), I couldn't look in the same way as before —I looked for what was missing. I imagined another type of architecture; my imagination soared. In my uncertainty, I envisioned how architecture could be more human, how it could better comfort humankind in 2020.

Although the worldwide tragedy was always in my mind, the architect in me also came out and this made

me think about how I felt and what I could contribute.

It led me to ask myself about architecture within the new context we are in. I realised that we are at a turning point and this made me look to the future with uncertainty, but also with the hope that my fellow architects will step in and contribute their experience with courage and faith.

Human beings are gregarious: we were not born to be confined and architects are responsible for the dwellings we design for them; we are deeply involved. We were not prepared for this pandemic, and this is why it must make us reflect.



9. Crown. Public domain.



10. Group. Public domain.



11. Vacuum. Beirut, Libano. 2020 ©Bjork Marten



12. Vacuum. Santiago de Compostela. 2020©Ricardo Jato De Evan



13. Crown. May 2020 C/ Republique, Lyon. ©Julien Vir



14. Grupo. Mayo 2020 ©Morguefile





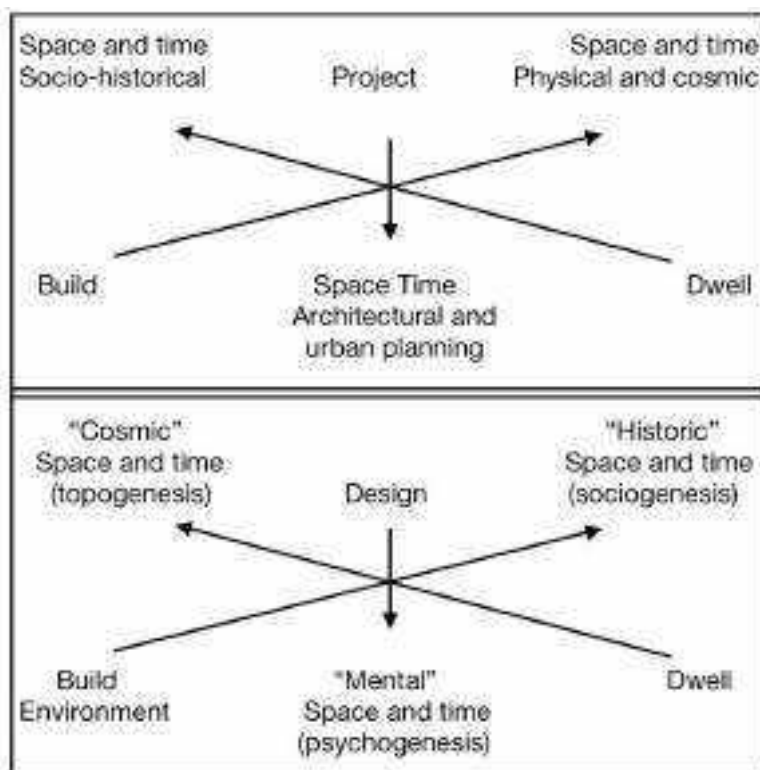
15. Group y social distance. Asia 2020 @Prasit Rodphan



16. Group y social distance. Santiago de Compostela. Junio 2020©  
Ricardo Jato De Evan.



Remember:



17 . Chronotropic structure of architecture and urban planning Diagram-  
Muntañola Thornberg, J.

The threefold Cronotopic Dimensions of Architecture that sets the context at the centre has various formulations: "Design, building, and dwelling", "Mind, land, and society", and "Project, build, and dwell". I will

develop these later on.

**^ Context and architecture...** Muntañola, Hegel, Heidegger, Mr Lobo, and my parents —they were a source of wisdom that, since I was little, taught me what physical and mental building means.

I heard on the radio that ICU doors were not airtight. How can that be? When architects envision and build hospitals, they have a duty to analyse and protect their use. We have a new context and we must devote all our efforts to facing it.

**De-escalation.** After the lockdown, came the so-called “new normal”. Many things had changed and a new set of protocols were established that went against our primary instincts: kissing, hugging, touching, creating social ties...

When the de-escalation process started, terraces opened and there was an avalanche that confirmed how gregarious we are and our primitive need to gather around a table, like if we were protecting one another around a fire. We needed to alleviate the fear and uncertainty we had experienced during the lockdown. Feeling that we were a part of a group, to the despair of expert virologists and epidemiologists. Our Mediterranean tendency to be out on the street and the agora translated into going to bars. The contradictions in human nature. We loved and hugged each other, but we didn't take care of ourselves —the new situation demanded that we keep our distance in order not to get

infected with COVID-19.

It's not easy to change our routine and our way of life in such a short period of time. We still need some time to adapt to the ways in which we can relate from now on.

Since the situation is unprecedented, the human mind is not prepared to create so many protocols for the new way of relating. It is not that easy to introject or apply them, nor for the authorities to elaborate them. It is an almost insane process. In sum, we must face trial and error, and provisional guidelines.

I'm worried to see that, in schools and other public areas, space is delimited by means of striped tape of the type used by police officers, judges, and forensic teams to mark scenes of tragedies, suicides, accidents, or crimes. It's horrible! What will be the consequences later on? How will this affect children's minds? At my old playground, there are now marked spots —if you cross them, you're in danger— and countless dehumanised protocols. I'm sure that architecture can and must do a lot in this regard.

Children may consider it a game, but how about adolescents in this digital era, who repeatedly see such symbolic signs marking actions directly related to danger?

There are other formulas for delimiting space which do not symbolise crimes.

A tragic symbolism is being added to the tragedy that we're experiencing: knowing that the others are our

enemies if they come too close —they can infect us, make us ill, even kill us.

Those tapes on the floor are not being handled tactfully: we must find a formula that does not criminalise actions, but only delimit and mark spaces.



18. Places marked. 2020. Childrens playground fenced whit tape.  
©Alexandra Segova



19. Places marked. June 2020 © Marta Miret



20. Places marked. Crime Scene. © Katarzyna Bialasiewicz

Architecture is responsible for solving this, so that provisional measures are not so tough and hostile to human beings.

This reminds me of my mother when she talks about nineteenth-century women... If nothing is wrong with them and there is no illness, why don't they walk? What worries me now is how all this is going to affect our society and how architects can tackle it at its roots. Why are we not included in the teams that generate the new protocols? We have a lot to say. We are the social group who, since the beginning of history, have worked on the relationship between humans and space.

I love architecture and I've attempted to apply a human concept to my works. During the lockdown, it made me happy to think that the architecture I had built for others would make their lives easier despite the forced isolation.

Recently, I read two articles by gurus of architecture in their eighties. I went to them looking for answers and was greatly disappointed. They believe there is nothing new to do. The only effect the pandemic had on them was to limit their movements. In other respects, they continued to actively work from their architecture macrofirms just like before... and even more productively.

"I'd never been so busy! And I had never remained in one place for so long. I stayed very well-connected. Surprisingly, the routine of competitions has continued".

I didn't find a single gentle or supportive word, and

definitely no effort to search for a new form of urban planning or new dwellings... like they claimed in the 1970s. They once were critical, activist architects. Nowadays, like in so many macrofirms, they've become the CEOs of companies that can represent anything, but, considering their discourse, definitely not architecture.

They belong to the negationist camp. Whoever says that a pandemic does not produce changes is lying; fear and anguish always leave traces, and it is cowardly to think that they do not. They are negationists who deny reality. This is not the first pandemic to ravage the planet and decimate humankind. And, as the WHO states, COVID-19 is a pandemic. When the vaccine is available, we'll go back to the cinema, but it would be insensitive not to empathise with the pain this pandemic has brought along: a health, economic, and social crisis.

When the vaccine is available, we'll go back to the cinema, but it would be insensitive not to empathise with the pain this pandemic has brought along: a health, economic, and social crisis.

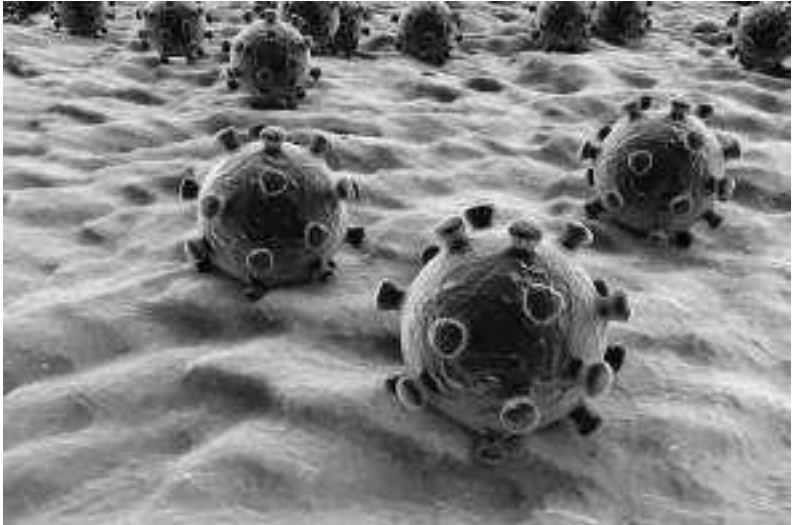
Architects must become aware. We must leave our inclination towards the narcissistic object choice behind. I wish to contribute to a human, caring architecture. I appeal to architects to change their gaze and always keep in mind who we are building dwellings for.

For me, this has been a vital experience.

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Dedicated to my brother, who was also taken away by a pandemic. And to all those who lived and died during the current one; to all the elderly people who experienced science fiction situations and should not have been left to die alone.





21. Microscopic view of coronavirus on the surface of airway alveoli, the model of the virus that causes SARS and MERS, Middle East respiratory syndrome, realistic image of microbe, microorganism ©Kateryna Kon



22. ICU (Intensive Care Unit) ©Richard Catabay/Unsplash

## PANDEMIC

On 11 March 2020, the WHO (World Health Organisation) declared the disease caused by the coronavirus, COVID-19, a pandemic.

Throughout history, there have been many pandemics that have ravaged the planet and decimated humankind.

In the face of tragedy, every pandemic has led human beings to make advances in science, medicine, and all fields of knowledge.

I will list the pandemics that have caused the greatest mortality in the planet:

**Smallpox** (3rd century BC – 1979): 500 million deaths.

“Disease caused by the variola virus. Acute infection with exanthematous fever and pustular eruptions on the skin and mucous membranes.”

Throughout history, there were outbreaks all over the world, which expanded along with conquests, migrations, and the opening of new trade routes.

Its origin is unknown, but signs have been found in mummies from the 3rd century BC in China and Hindustan; by the 7th century AD, it was already

endemic in Asia Minor. There is evidence that it was being treated in China and India in the 12th century, and in Syria and Egypt since the 10th. The expansion of the Roman Empire introduced it into Europe, where there were numerous deadly outbreaks throughout the centuries.

In Europe, it was especially devastating during the 17th century, when around 400,000 people died every year, which decimated the population.

In the 16th century, the arrival of the conquerors propagated the disease throughout America.

In the 20th century, 300 million people died from smallpox worldwide, more than the sum of those killed in the First and Second World Wars.

Edward Jenner, an English physician who is called "the father of immunology", discovered the smallpox vaccine in 1796.

Jenner was a rural doctor in Gloucestershire and, during his regular visits to farms in the area, he noticed a connection between the cowpox that affected cattle and the immunity that milkmaids had developed. He discovered that, if he infected a human being with a cowpox pustule transmitted to another human being, the former became protected against smallpox for life.

In 1798, he published his research, where he coined the term *vaccine*, from the Latin *vacca* (cow).

Francisco Javier Balmis Berenguer was one of the directors of the Royal Philanthropic Vaccine Expedition,

which took the vaccine to America and saved millions of lives. The new vaccine did not last long enough to make the maritime journey to America, so it was taken by twenty-two saviour children who acted as human carriers.

The 1803-1806 Balmis Expedition was the first humanitarian mission in history.

“On 30 November 1803, the 22 children, their supervisor, Isabel Sendales Gómez, and a dozen physicians and nurses led by Balmis left the port of A Coruña for the New World aboard the corvette *María Pita*.”

“The mission took the vaccine to the Canary Islands, Venezuela, Colombia, Ecuador, Peru, New Spain, the Philippines, and China.”

On the way back to Spain, Balmis convinced the British authorities of the island of Saint Helena (1806) to let him vaccinate the population.

The discoverer of the smallpox vaccine, Edward Jenner, wrote the following about the expedition:

“I don’t think the annals of History will ever record a bigger or more noble example of philanthropy than this one.”

In 1979, the World Health Organisation declared smallpox eradicated.



23. Smallpox patient 1910. Public domain.



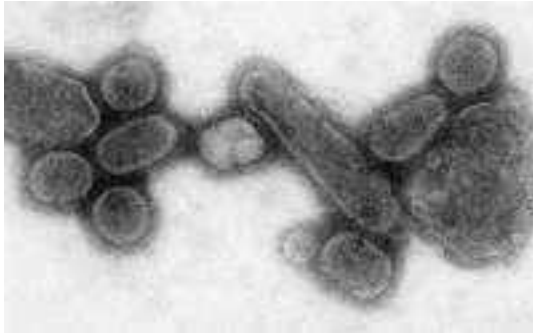
24. Smallpox patient 1910. Public domain.



25. Jenner giving the first vaccine to the child James Phipps. Public domain



26. "La corbeta María Pita" sailing from La Coruña en 1803. Public domain.



27. Influenza virus. ©Cynthia Goldsmith Centers for Disease Control and Prevention's Public Health Image Library (PHIL)



28. Cholera the great stench. Public domain





29. Practical guide for health. © Rodrigo Atrteaga.



30. Oakland's municipal auditorium converted into a makeshift hospital in 1918. ©Edward A. digital copy. From the Joseph R. Knowland collection at the Oakland History Room, Oakland Public Library.

**Measles:** 200 million deaths.

The first references to measles date back to the 6th century BC, but the disease was not fully described until the 9th century AD, when it was distinguished from smallpox.

Al-Razi (860-932), a Persian physician, alchemist, and philosopher, wrote *On Smallpox and Measles*, the first book to describe both diseases as being different.

In 1757, physician Francis Home proved that measles was caused by an infectious agent found in the patients' blood.

In 1954, virologists John F. Enders and Thomas C. Peebles isolated the measles virus in Boston, Massachusetts.

"It is an infectious disease caused by a virus. It easily spreads from person to person and causes a skin rash with red spots. This rash usually starts on the head and goes down to the rest of the body."

In 1998, the World Health Assembly set the objective to eliminate endemic measles from the European continent by 2007 in order to certify its elimination before 2010. In 2007, Japan became a nest of measles, with a record number of cases. In an attempt to contain the outbreak, numerous universities and other institutions in the country closed down. In the 1990s, American governments, jointly with the Pan American Health Organization, launched a plan to eradicate the three diseases known as MMR —measles, mumps, and rubella— from the region. Endemic measles has been

eradicated from North, Central, and South America. The last endemic case in the region was reported on 12 November 2002. In 2016, the American continent was the first, and so far the only one, that had eliminated the disease. However, outbreaks imported from other regions in the world continue to occur. (The anti-vaccine movement is doing a lot of harm, since it has caused new outbreaks).

The **misnamed Spanish flu** (1918-1919).

“Influenza A virus of the subtype H1N1.”

This was one of the first global pandemics and it caused the death of around 70 or 100 million people. A virulent strain of the influenza virus quickly spread throughout the world.



31. Spanish flu. Family in Dublin (California) en 1918. ©Dublin Heritage Park & Museum.



32. Flu sXIX. Public domain.

It started during World War I and no one wanted to warn about this terrible flu. It is called the Spanish flu because Spain was the first country to admit this epidemic that swept the world.

“Traditionally, patient zero has been located in the United States, more specifically in Haskell County, in April 1918, and, sometime during that summer, the virus underwent a mutation or set of mutations that made it a lethal infectious agent. The first confirmed case of the mutation was reported on 22 August 1918 in Brest, the French port city through which half of the United States troops supporting the Allied powers entered Europe during World War I.”

“The first effective studies began in 1931 and, in the 1940s, the United States army developed the first inactivated vaccines to be approved against the flu, which were used in World War II.”



33. Spanish Flu. An extraordinary Official Gazette of the Province of Burgos (España) was published. 1918

In 1918, the following notice was published in the Extraordinary Official Gazette of the Province of Burgos (Spain):

*... Since, despite the specifications of this Civil Government in the notice included in the Gazette on the 25th of this month, some towns have committed the negligence of celebrating local festivities, which has led to a quick spread of the epidemic among the neighbourhood, thereby creating distressing situations in such towns, I reiterate, to those who are still not convinced of the serious danger that this entails, the need to strictly abstain from celebrating such festivities or gatherings... Consequently, I am determined to severely punish, as has already been done in some cases, those who do not comply with this provision.*

*Moreover, I remind you that the infection spreads through the small droplets of saliva expelled by people talking, coughing, etc. when they are inhaled by those around them... Consequently, you should abstain from remaining in closed, poorly ventilated facilities where many people come together, such as taverns, cafés, etc. House cleaning should be taken to the extreme. Bedroom windows should be kept open all day and those areas where people remain during the day should be ventilated often. You should remain outdoors as long as possible, since fresh air, water, and light are the best disinfectants. You should keep your mouths clean and, in one word, follow the Doctor's advice and disregard ignorant people who invite you to drink alcohol or*



*smoke tobacco as preventive remedies, since currently their effects are more noxious than ever.*

*Burgos, 4 October 1918. The Governor, Andrés Alonso López.*

**Bubonic plague** (541 – 750): 25-100 million deaths.

“This is an infection caused by the bacterium *Yersinia pestis*. These bacteria are primarily found in rats and the flies that feed on them. Humans and other animals can contract the plague when bitten by these animals. It causes inflammation of the tonsils, adenoids, spleen, and thymus. Symptoms include fever, pain, chills, and tender lymph nodes.”

It began in the Bizantine Empire and later spread to other regions in Europe, Asia, and Africa. It killed 25% of the world’s inhabitants.

It is the first pandemic in this list to be caused by bacteria rather than viruses.

**Black death** (1346 – 53): 75-200 million deaths.

It arrived in Europe from Asia, on ships travelling the trade routes. It was one of the worst pandemics in history, killing almost one-third of the European population.

It is probably the most well-known because of its association with the Middle Ages. It propagated all over Europe in 1346.

European cities were infested with fleas and rats, which were the carriers, and dirt and overcrowding contributed to a quick expansion of the disease.

**Cholera** (460 BC – 1817-1899).

“This is an acute infectious, contagious intestinal disease, caused by serotypes O1 and O139 of the bacterium *Vibrio cholerae*, which causes a secretory diarrhoea characterised by abundant watery, pale, milky stool, similar to the water used to wash rice, with a high content of sodium, bicarbonate, and potassium, and a limited amount of proteins.”

The first references appear in texts dating from 460-377 BC. It was considered a pandemic six times between 1817 and 1899. Currently, it is still endemic in many countries. In the 19th century, it caused 50-100 million deaths. The bacteria are easily transmitted through contaminated water. Therefore, treating the water eliminates them.

#### **HIV (since 1977).**

“The human immunodeficiency virus (HIV) is a lentivirus (a genus of the retrovirus family) that causes infection by VIH.”

Thirty-two million people died. This pandemic was very puzzling, since all those who became infected died. Its viral origin was unknown. The disease blocks the body's defences and, since these are not functioning, any infection can become deadly. The first case was reported in Los Angeles in 1977. It was not the most contagious pandemic, as contagion was by intravenous route or sexual transmission. However, it was a very painful one, because those affected were stigmatised and treated like outcasts. It is amazing that

this happened in the 20th century! It became common for those infected to be fired from their jobs, they couldn't enter countries like the USA... The disease was heavily stigmatised.

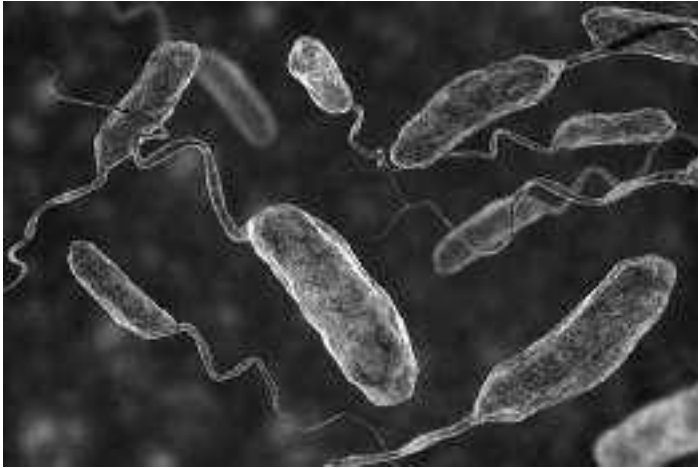
Currently, it is considered to be a chronic disease, but no vaccine has been discovered against it. In 2017, the WHO reported that 21 million people were receiving antiretroviral therapy around the world.

There were other diseases, such as tuberculosis and typhus, that caused many deaths in the planet, whereas other, more recent ones, such as SARS, influenza A, and Ebola, were contained more quickly.

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34. Black Death. Public domain.



35. Cholera disease. *Vibrio cholerae* bacteria, 3D illustration. Bacterium which causes cholera disease and is transmitted by contaminated water  
©Kateryna Kon

**COVID-19** is caused by a virus belonging to the coronavirus family, like SARS and CoV-2. The receptors are bats, and these spread it to humans. COVID-19 is highly contagious, as it is spread by the droplets we exhale. The fact that many patients are asymptomatic, but still infectious, explains why it is spreading at such a speed. The disease has a high mortality rate among elderly people and those with previous pathologies. As of September 2020, four million people have been infected and almost one million have died. We are in the 21st century and science and governments are working against the clock to curb its expansion and obtain a vaccine. It seems that it will not take very long. And this is what we're all waiting for, so that the nightmare may end. We must be patient and listen to the experts, put our trust in science, and follow the established protocols. Confine ourselves, keep safety distances, wear masks, use hydroalcoholic gel... If we protect ourselves, we will be protecting others. This is how we can express empathy during this difficult situation.

The succession of global pandemics and diseases has led to significant advances in civilisation. Different types of institutions have been established in order to control pandemics. They have contributed to the evolution of science, politics, technology, philosophy, etc. We can now detect viruses, we have discovered vaccines... We have created municipal, national, and international organisations... We have promulgated

laws, planned new cities...

I cannot list the most significant advances in every area, since I am not an expert, but I can talk about the milestones that have marked architecture. Architecture, urban planning, habitability, and salubrity have been active elements in the containment or reduction of some pandemics.

The questions I'm asking myself relate not only to spaces, but also to the importance of sanitation systems, which Romans and Arabs paid considerable attention to. In this chapter, I will include a historical section on their evolution.

Focusing on the present, I will attempt to objectively analyse the importance of canalisation and sanitation plans. I hear in the news that significant advances are being made in the analysis of faecal water to trace infection rates, and thus help to control the pandemic, based on backward tracing: faecal water is analysed in different neighbourhoods in order to determine the infection rate in the area.

In regards to urban planning, we must change our mentality: public space (streets, squares, parks, playgrounds) and also private space (buildings, including the so very valuable terraces) must be made more human. In schools, spaces must be treated differently —this pandemic has shown that there are simply not enough classrooms. The entire system is failing. I mentioned the value of terraces. And, since I previously critiqued the gurus of architecture, I will also engage in self-criticism, with humility: I do not want to

shine; what I would like is to have brilliant ideas for others, so that cities are infused with humanity. During the misnamed Spanish flu, many people left the cities for the country; one hundred years later, the same is happening all over again: people have fled big cities in terror. Now we will not do as John Nash in London, with his design of Regent Street. What would Karl Marx say seeing that we have still not evolved in 2020?

Architecture is for everyone. It was disturbing to hear about the new outbreak in Aragón: migrant farm workers in the Delicias district, living in overcrowded conditions, with up to ten people in one flat. How come this was not addressed before? It is essential to create salubrious dwellings —we should have learnt this from other pandemics. These workers are youngsters who need the money to eat or send to their families; their least concern is the pandemic and they should not be criminalised for it. We should have anticipated this. We are not alien to this crisis. Healthcare workers fulfil their duties. We had the responsibility to actively warn about it. It has caused what we knew it could cause. We are responsible.

The different pandemics in history not only made science advance: they also changed urban planning and architecture, because the context had changed.

Architecture is not alien to all of this. It is time for deep reflection.

The importance of infrastructures in urban planning



is not limited to the water supply: the evolution of sanitation systems shows their big influence on the lives of citizens and on their habits.

Below, I will provide a historical reading of urban planning in relation to sanitation.

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## URBANISM AND PANDEMICS

The birth of cities has always been associated with riverbeds. Water is essential for life. Life and civilisations have grown around it. As we developed and evolved, we created more complex cities and better urban planning. Throughout history, some cities have collapsed and others have been abandoned. We have not always responded to historical advances in such a way as to evolve more intelligently. In regards to the evolution linked to pandemics, there is a concealed element in urban planning that we have not sufficiently taken into account and which has evolved in parallel with them —sanitation systems. The treatment of sewage water is just as important as drinking water.

*Sanitation system: Set of facilities and services that make it possible to safely eliminate urine and faeces. / Set of facilities in charge of collecting, transporting, and evacuating wastewater from buildings and cities.*

**The Babylonian Empire** developed the first hydraulic systems designed to transport clean water (i.e. channel clean water) in 2000 BC and built the first cesspits or cesspools, which were simple holes dug in the ground where urine and faeces were concealed. They would soon extend to most settlements, with separate channels for clean and sewage water.

1000 BC: The first buildings with latrines connected to the streets' sewerage system appeared.

In general, these channels flowed into the cesspits or directly into the rivers.

The difficulties grew exponentially: the complexity and dimensions increased, and cities and rivers became systematically contaminated, thereby increasing the propagation of diseases until the first pandemics associated with insalubrity emerged.

In **Ancient Greece**, the cities' waste was recycled, and black water was used as a fertiliser in agriculture. In some cities, the sewerage system flowed into disposal sites in the outskirts, from where the sewage was transported to the fields.

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36. Public latrines. Éfeso. ©Carlos Miret



**37. Sicilia. © Marta Miret**



**38. Tunnel of a 25 km Roman aqueduct built in the 1st century near Albarracín ©Diego Delso**



39. Urban distribution depot in Nîmes, France. The circular section pipes leave from a central reservoir, fed by a square section aqueduct.  
©Przemysław Sakrajda



40. Roman provincial aqueduct, Segovia. ©Bernard Gagnon



41. Cistern and canalisation system, the courtyard of the orange trees. Sevilla. © Marta Miret



42. Canalisation system, the courtyard of the orange trees. Sevilla. © Marta Miret



43. Paris sewerage system ©Francisco De Casa Gonzalez



In the **Roman Empire**, sanitation systems continued to evolve. The first regulations were established and canalisation systems were improved by means of large-scale works designed to separate “clean”, black, and grey water. Unclean, uncontaminated water from rain and drainpipes was collected and reused. Homes had the obligation to hook up to the sewerage system and it was prohibited to throw excrements into the streets.

They built public baths, thermal baths, and latrines with complex systems for the channelling and recycling of grey water. But their concept of hygiene was still far removed from ours and germs were unknown. Black water was avoided due to its bad odour, not because there was an awareness of its insalubrity, and it ended up in the rivers untreated.

The **Middle Ages** brought about a regression: prior advances were not applied and infections, such as cholera, proliferated.

Some big cities of Roman origin, like Paris (*Lutecia*), London (*Londinium*), or Zaragoza (*Caesar Augusta*), preserved a part of the Roman sewerage system. But it was useless in the face of their excessive, unplanned, chaotic growth. Cesspits proliferated in cities and buildings, without any sanitation structures, and throwing waste into the streets and rivers became generalised. Cities were infested with rats and fleas, and the plague rapidly propagated.

While this was the situation in Europe during this dark period, some cities of Arabic origin already had advanced, complex systems designed to independently channel the three types of water. See the ancient Madinat Qurtuba (Córdoba).

During the **Renaissance**, the revolution in the arts and sciences exacerbated social differences such that, while huge palaces and large avenues were built, and the industrial revolution led to advances in many fields, cities became more densely populated, insalubrious, and fetid, with people living in overcrowded conditions.

Sanitation systems did not develop in parallel with the growth of cities: the channelling of black and grey water was not expanded. Cesspits proliferated under every building—they quickly became saturated and often overflowed. There were still no solid hygiene regulations. It was permitted to defecate on the streets and throw waste from the homes into the rivers and streets. Many sewers were just open ditches that flowed directly into the rivers.

The significant advances in hydraulics made during this period were applied to the collection and distribution of water, but not to sanitation.

Let's take London during the Victorian era as an example: cholera and typhus decimated the city's population prior to the establishment of public health infrastructures. Some districts had very high population

densities and, in others, people and animals co-habitated.

During the 1851 International Exhibition, toilets for public use were installed in Hyde Park. “The precursors of modern toilets were used in the most affluent houses in the capital: invented by John Harrington, they used water from a tank for the latrine and carried the waste to a cesspit. However, the objective was to eliminate the unpleasant odour of chamber pots in the bedrooms; the close connection between dirt and disease was not clear until the mid-19th century.”

John Nash designed Regent Street, which connected Marylebone Park and Carlton House, as a *cordon sanitaire* that separated the Mayfair rich from the Soho workers. And this *cordon sanitaire* “worked” in 1854, when a terrible infectious outbreak ravaged the Soho without affecting the adjacent neighbourhoods. The cholera outbreak devastated only the poor, insalubrious area, while respecting the prosperous one. An infected cesspit contaminated the water and the disease expanded. Physician John Snow, who had devoted his life to the study of epidemics, “[d]emonstrated that cholera was caused by the consumption of water contaminated with faecal matter when he confirmed that cases of the disease accumulated in those areas where the water consumed was contaminated with faeces”; “he advised the community to turn off the water pump, and this led to a decrease in cases”.

During the second half of the 19th century, French

chemist, physicist, mathematician, and bacteriologist Louis Pasteur “definitively refuted the theory of spontaneous generation and developed the germ theory to explain infectious diseases. This initiated the so-called ‘Golden Age of Microbiology’”.



44. Victorian London. British Library. Public domain



45. Victorian London. British Library. Public domain



46. London map 1667. British Library. Public domain



47. Victorian London. "Oxford Arms", the first building that Marks began to document and that started the path of London society. British Library. Public domain



48. Regent Street proposal, published 1813, titled "PLAN, presented to the House of Commons, of a STREET proposed from CHARING CROSS to PORTLAND PLACE, leading to the Crown Estate in Marylebone Park". Architect John Nash (1752–1835). Public domain.



49. Regent Street 1942. Public domain.



50. Nueva York Industrial sXIX. Public domain



From the 19th century onward, new institutions were created and legislation was promulgated in line with these advances. Countries began to enact new regulations to preserve hygiene in the cities. They limited the construction of cesspits, built watertight septic tanks, prohibited all types of spills on the streets, timidly initiated recycling, etc.

In the late 19th century, advances in microbiology began to be applied to the treatment of wastewater and, subsequently, water treatment plants were installed in the cities.

**Rationalism** brought about order and planning —a new, salubrious urban planning that encompassed all prior knowledge. Model cities were created. The new architects (Haussmann, Cerdá, Le Corbusier, Behrens, etc.) became involved in urban development and planned out entire cities. These were very prolific years, during which new models were developed by applying innovative ideas to establish new, more ethical relations between citizens and their cities. The focus of urban planning was now on hygiene and the cities' inhabitants.

New urban plans were laid out in the most important cities in the world.

1811: Commissioners' Plan for New York, designed for Manhattan, which was to grow forming a perfect grid. The plan was intended to "distribute the streets in such a way as to become integrated for the public good

and, more specifically, promote public health”.

1860: Cerdá Plan, designed to renovate and expand the city of Barcelona.

1852 to 1870: Haussmann in Paris.

1882: Arturo Soria’s Linear City Project in Madrid.

And a long list of new approaches that would shape and modernise the new 19th-century cities.



51. Plan Cerdà, Barcelona.



52. Zaragoza siglo XVIII



53. General Urban Planning Plan of Zaragoza. 2008



54. Paris s.XVIII



55. Madrid 1860



56. Londres central H Waters 1832

We can classify them into five urban planning models:

- 1) Reconstruction of cities (London and Hamburg).
- 2) Planning for future growth (Manhattan and Barcelona).
- 3) Surgery on existing densely populated cities (large avenues, Haussmann-Paris, Barcelona's historic centre).
- 4) Generation of new cities starting from a specific urban plan (Curitiba or Brasilia in South America).
- 5) Theoretical plans for ideal cities (Howard's 1898 garden city project or Tony Garnier's 1917 industrial city project).

Universities began to explore a new architecture, and urban planning and dwellings that were dignified, human, ethical, and hygienic. Technology and the advances in knowledge arising from the industrial revolution led to numerous studies on the city.

We can understand the new radical ideas on housing in the *Five Points Towards a New Architecture* proposed by Le Corbusier in 1926:

- 1) Elevating buildings from the ground by means of pilotis, the *Dom-ino* structure, which would separate the dwellings from the streets and their insalubrity, far from the cesspits, and cover them with a new poetics. This

would allow for permeability and using the ground level for citizens and cars, that product of the post-industrial revolution that fills up our streets (e.g. Villa Savoye).

2) Healthy common spaces would be included in residential buildings: nurseries, gyms (cult of health and the body was at its peak, and universities promoted outdoor gymnastics). The roofs would also have a common use as garden terraces, which would give the free space occupied by the building back to the city and provide the neighbours with a healthy space for leisure and play (*Unité d'Habitation*).

3) The free plan and new technological advances: concrete liberated the floor plan and facilitated the investigation and design of new distributions in accordance not only to structure, but also to the values of hygiene and health (e.g. the modular Villa Tugendhat).

The modulator appeared as a new measurement symbol. It meant that the time had come for human beings to be the centre and the measure of the city. He designed the Petit Cabanon, as the minimal healthy housing unit.

4) The free façade: As in the case of the floor plan, the new structural typologies liberated the façade from its load-bearing function, which paved the way for free compositions, a new treatment of solids and voids, and new inside-outside relationships.

5) The continuous ribbon window: As a result of point 4, he created windows that covered the entire width of

the façade, thereby enhancing the inside-outside relationship, providing more exposure to sunlight and better ventilation of interior spaces, and modifying the relationship between inhabitants and their cities.

In 1919, Walter Gropius founded the **Bauhaus**, a university for architecture, design, handicrafts, and art. It was the breeding ground for all these ideas and offered a genuinely radical, international, optimistic view of the future despite the confusion, instability, and conservatism that prevailed in the wake of World War I. Clear statements such as: Strip the buildings in order to democratise housing. The triad: form, function, and context. Or simply: a culture of the people for the people.

Their studies included outdoor gymnastics classes and personal hygiene was given much attention. The classical cult of body-and-mind was relaunched.

The concept of philosophy as mental hygiene also led to the development of studies on the relationship between cities and residents.

Hannes Meyer, professor of architecture at the Bauhaus, on the Dessau building: "It ensured that the Federal School was the result of a scientific analysis of human needs".

Gropius: "The crux of the matter is that nowadays it is impossible to reform a part of everything; we must call everything into question: our way of life, children's education, gymnastics, and so on, *ad infinitum*".

“Building is designing life processes.”





57. Villa Savoye ©Rory Hyde from Wikimedia Commons



58. Neue Nationalgalerie 1968- Mies van der Rohe. Berlin 2002 © Marta Miret



**59. Mock-up 1.1 of the Petit Cabanon de Le Corbusier, Barcelona 2002©  
Marta Miret**



**60. Mock-up interior view 1.1 de le Petit Cabanon de Le Corbusier,  
Barcelona 2002© Marta Miret**



61. Unité de Habitation, Le Corbusier, Berlín. 2002 © Marta Miret



62. Modulator. Unité de Habitation, Le Corbusier, Berlín. 2002 © Marta Miret



63. Roof, Unité de Habitation. Le Corbusier ©vincent desjardins



64. Bauhaus, Dessau 2020 © Marta Miret



65. Bauhaus, Dessau 2020 © Marta Miret



66. Bauhaus, Dessau 2020 © Marta Miret



67. Bauhaus, Dessau 2020 © Marta Miret

Time went by and the economy and other interests have triumphed over the most important priorities when thinking up the evolution of cities...





Sometimes there are no words to express the impossible and the only way I've found to write about the void is by circumventing it.



## SPACE AND ARCHITECTURE

Space – Architecture: the relationship that common sense establishes between them has not always been dominant. Architecture did not enter into an essential relationship with space until the Modern Movement. Prior to that, it was defined as a constructive quality, as mass, as something subjected to gravity.

We can now define Architecture as a constructive practice: one that is constructed and constructs utilitarian spaces. Therefore, it has an instrumental character and an aesthetic or symbolic value. It is not merely geometry.

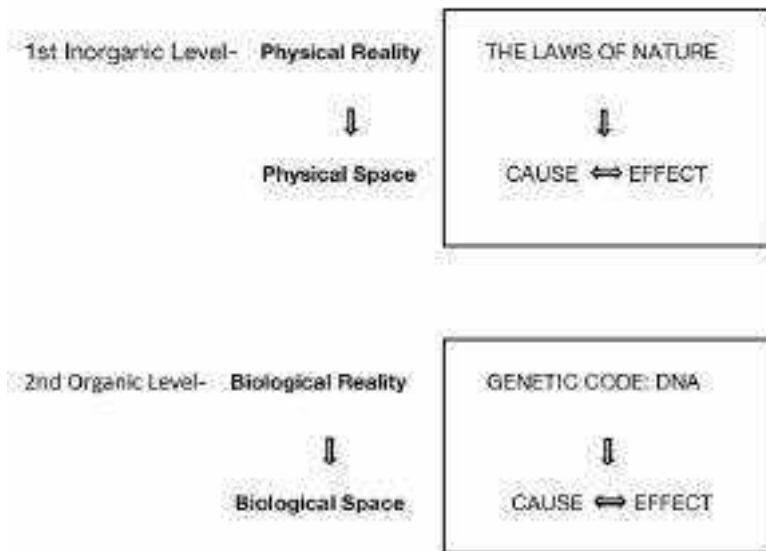
Is there a specificity of space, considered as architectural space? Or is there only psychic, mathematical, metaphysical space? Is there a previous space on which architecture is placed?

If our common sense (38-year-old, 21st-century, cosmopolitan female architect from Zaragoza) tells us that architecture creates spaces, in order to create architecture we must understand what space is —the meaning attached to the word, to that sign in our subconscious—, as well as analyse the relationship between inhabitants (we are inhabitants of) and space; i.e. how we exist in the space created by us.

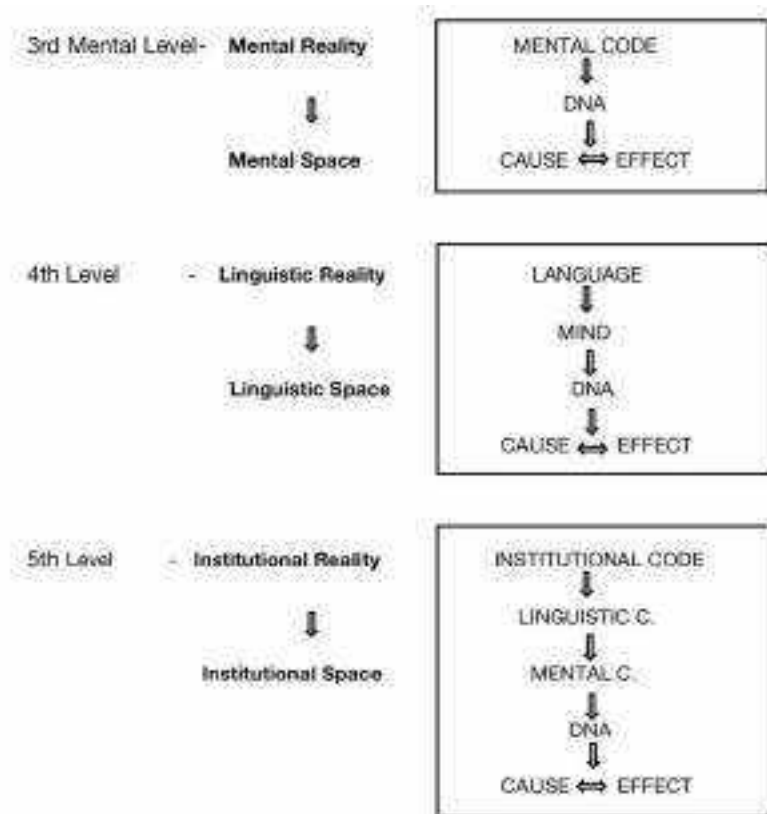
“Man not only gazes at the world; if that were so, the world would be a stupid, senseless place. Man is an inhabitant of the world” (Kant).

Analysis of the **space** on which we act:

**Reality** (that of human beings endowed with common sense) has different levels. We describe it through cause-effect relationships —“if something happens, it produces an effect”— and establish differentiations by means of codes and interpretation.

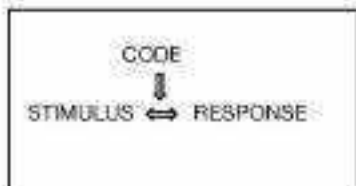


68. 1st and 2nd level of reality through a structure of sign and meaning

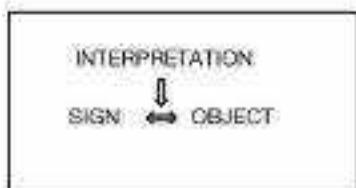


69. 3rd to 5th level of reality through a structure of sign and meaning

Distinguimos 5 niveles de realidad a través de una estructura de signo y significación.



CONCRETE STRUCTURE



ABSTRACT STRUCTURE

70. Structures of: code and interpretation

We take this triadic relationship to be a genuine non-degenerate relationship. It describes our existential space, which is created by the set of codes.

We name our reality through this relationship in which none of the three elements exist in and of themselves. Similarly, the World does not exist without the Mind, and vice versa —there is an intrinsic relationship between theory and practice, which converge into a single reality. We describe our practical reality in a theoretical manner.



71. dialogical relationship: world mind.

WORLD-MIND	-----	MIND-WORLD
KNOWLEDGE	-----	ACTION
THEORY	-----	PRACTICE

The first level of reality is physical reality, particles, and force fields. This first level is the one where we find things; namely, the inorganic, whose only code is determined by the general laws of nature.

The second level, in which the code linking stimulus and response is somewhat more complex, is the organic level, biological reality. Its code is composed of the genetic code, DNA, and it endows organisms with reproductive capacity.

The third level is occupied by the animal world. Its main characteristic is that, in addition to the genetically transmitted DNA code, a mental code is also at work—animals are capable of accumulating experience that influences the stimulus-response relationship. This is mental reality: by definition, the mind, that which enters into a relationship with the world. Animals are capable of addressing the world. This is where the important world/mind relationship appears. Every mental organism must build experience from scratch. Only the genetic code is reproduced: the mental code is plastic—it varies, becomes complex, and is learnt.

The fourth level corresponds to what differentiates humans from animals—language. This is linguistic reality: “Man is an animal that possesses language” (Aristotle). In this fourth level, in addition to the genetic code and the mental code, there is a linguistic code at play.

The fifth level is that of institutional reality, which adds institutional codes, made up of culture, customs or habits, and the conventions established by society to



the linguistic code. There is no linguistic being that is not also institutional. The exception is the “noble savage” experiment, on which our current concrete world is based and according to which we are the children of a laboratory character —linguistic, non-institutional beings. I.e. the belief in original sin is replaced by the idea that man is naturally good, but institutions corrupt him. Man is no longer a wolf to man: by nature, we are innocent and have good feelings.

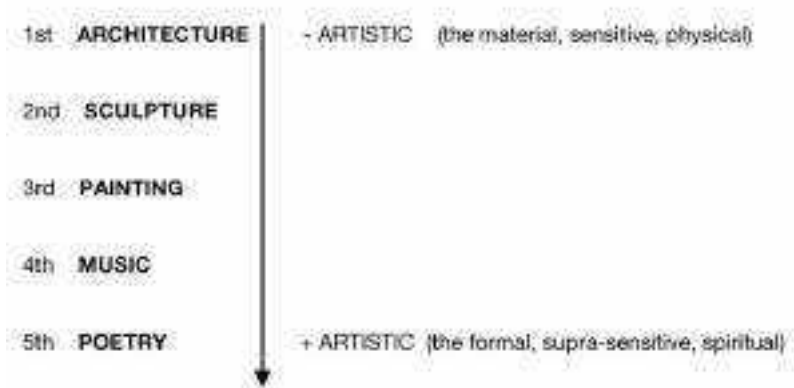
Each level of reality has its corresponding space; namely: physical reality – physical space, biological reality – biological space, mental reality – mental space, linguistic reality – linguistic space, etc.

We could say that spaces are opened up by a series of signs or, more generically, that the mind-world relationship is what opens them up. In any event, architecture must be in all those spaces: it is more complex than mere physical space and, moreover, composed of signs. **Heidegger: “Building, Dwelling, Thinking” [“Bauen, Wohnen, Denken”].**

The Modern Movement definitively shaped the relationship between architecture and space, overcoming the previous dominance of mass. In Greece, the mythical origin of the city during the construction of the wall of Thebes: *While Zethus piled up stones, Amphiaras played the lyre.* Therefore, architecture is more than mere construction: harmony and order come into play. To what extent is architecture simply useful and to what extent is it a sign?

Hegel describes art as a progression from the material to the ideal.

### Synchronic system of the arts:



72. Diagram: Synchronic system of the arts.

Architecture would be the least “artistic” art due to its high degree of materiality. He defines sculpture as the expression of an idea. It is not functional and forms an organic unit in which each part has a meaning in relation to the whole, unlike architecture, which is functional and inorganic. However, both arts converge in regards to light—their light is the light of the world. They are presence, not representation. As for painting, it has its own light—it is a representation of space. Music is not material, but rather an event in time. Finally, poetry is the most artistic, and therefore

spiritual, of all, because it is made of language, which is the furthest removed from the material.

### **Diachronic system of the arts:**

Hegel proposes a historical development of art, according to which each historical stage is marked by one art.

1st symbolic stage of Art. THE OBELISK - ARCHITECTURE



2nd classical stage. THE PERIPTERAL TEMPLE - SCULPTURE



3rd Christian Romantic stage THE GOTHIC OGIVE - PAINTING /  
MUSIC



73. Diagram: Diachronic system of the arts.

How does Hegel conceive the role of architecture in this series? During the symbolic stage of art, expression does not reach the content; instead, there is an essential fetishism: “The lion as a presence of strength” replaces the content. An exterior, inorganic space is built. It is the space of the world illuminated by the sun. The obelisk marks space; it establishes a “here” and a “there”. Space is no longer wild and unknown—humans mark a world and build their spaces inside it.

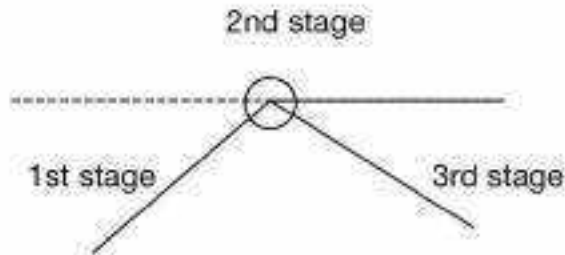
In classical Greek architecture, there is an ambiguous space: it is both a space in the world and a space sequestered from it, perhaps a balance between interior and exterior. To the contrary, Christian Romantic architecture creates a closed space, sequestered from the world. It is a space for the soul—light is the only element of the world that penetrates into it.

During the 2nd stage, architecture fulfils a destiny for the first time: it becomes functional (temples are for the gods). It is not expression of the content; it is utility of the content. During the 3rd stage, the Christian Romantic temple is used to bring the community together. It separates a kingdom of the Holy Spirit completely isolated from the exterior. Therefore, truth is a matter of the soul; everything else is worthless. Truth is supra-sensitive; it is not from this world.

Consequently, it is in Greece where we find the perfect balance between the sensitive and the supra-sensitive. Hence the endless desire to return to the Greek paradise. The history of the Western world is a

history of *renaissances*, of the repetition of an original model.

CONTENT

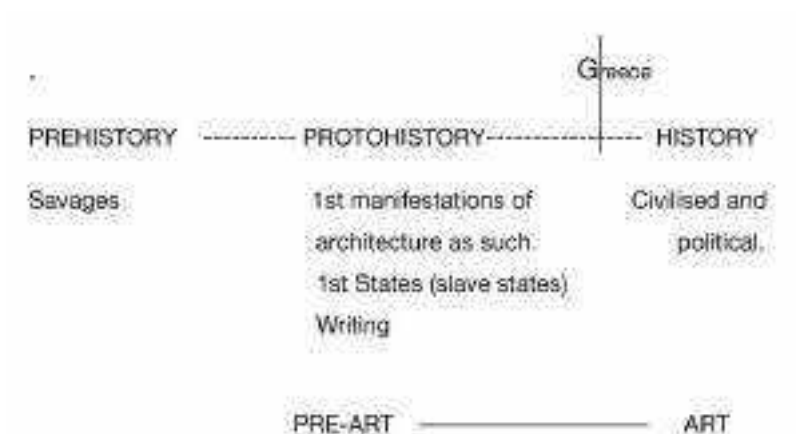


EXPRESSION

74. Diagram: Relationship between content and expression in the three stages of architecture.

But we do not find the point at which content and human expression converge. The reason is that it is a point and, therefore, has no dimensions.

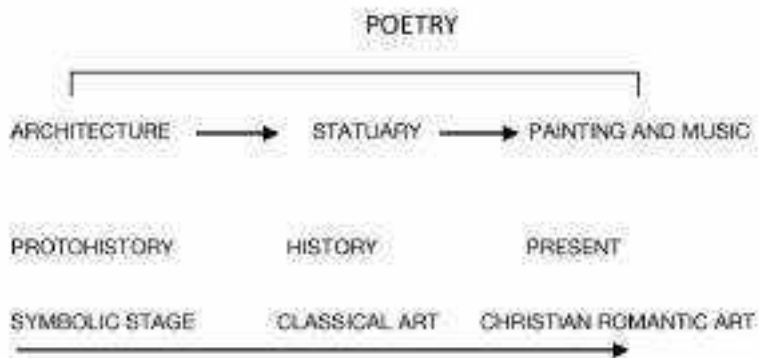
Prior to the first symbolic stage, during the prehistoric period, there was pre-art, a beginning of art.



75. Diagram of the appearance of art and architecture.

Hegel does not mark out any art after the Gothic, whereas Gideon provides a chronology until the Modern Movement. Without going into subsequent developments, we may state that before art there was pre-art. However, we cannot pinpoint the passage from non-art to art. Prior to history, Hegel defines a prehistory and a protohistory: prehistory encompasses the Paleolithic and Neolithic periods, with savage human beings, whereas protohistory marks the beginning of history. Mesopotamia, Egypt, and China were the first civilisations to create states, whether civilian or divine. There was a change in human groups, as they were no longer based on blood ties. The first architectural forms appeared, which had a calendrical character. The primeval in humans, the domestication of time and space. The first writings. There was pre-art during a period when humans had still not separated themselves from nature. In prehistory, divine figures were animals; in protohistory, there was a mixture of animals and humans. It was not until the Greek period that humans completely dissociated themselves from nature and represented themselves.

Relationship between content and expression in art.



76. Diagram: Relationship between content and expression in art.



Now that we have a general overview of art history and have traced the evolution of architecture, we can analyse more in depth the specificity of spaces in architecture, with special emphasis on semiotics. **Our linguistic game leads to the domestication of space and time.** The “here” and the “there” that emerge with early architecture —the stake— are not geographical accidents, but a network that we superimpose on the world. By means of linguistic space, we mark institutional spaces and times.

Linguistic space: the game board of I, you, s/he.

## **Main institutional spaces**

### **1- The stake**

templum-temple-contemplate

### **2- The temple. Tem(p) cut delimit**

tempus-time (ordered, calendrical time)

The temple does not refer to something built, but to something marked, delimited. It is a mark on the land that makes it sacred. A sacred enclosure is a place where sacrifices are performed —and sacrifice involves abandoning, leaving something outside, setting a limit on the natural surroundings. Radical discontinuity.

The act of delimiting is a sacrifice; not all space is consumable.

Fundamental architecture is a sacred activity: it involves setting a limit. Therefore, it is also a spatial-temporal domestication of the world, which is what characterises humankind. It emerges as linguistic space is shaped and becomes more complex as institutional space becomes a complex structure and, consciously or unconsciously, carries history in memory, transformed into signs that may have lost their meaning but still have a significance.

Architecture is a general reflection of society and, thus, allows us to read the relationship between humans, the world, and themselves during any given historical period.

And now what?

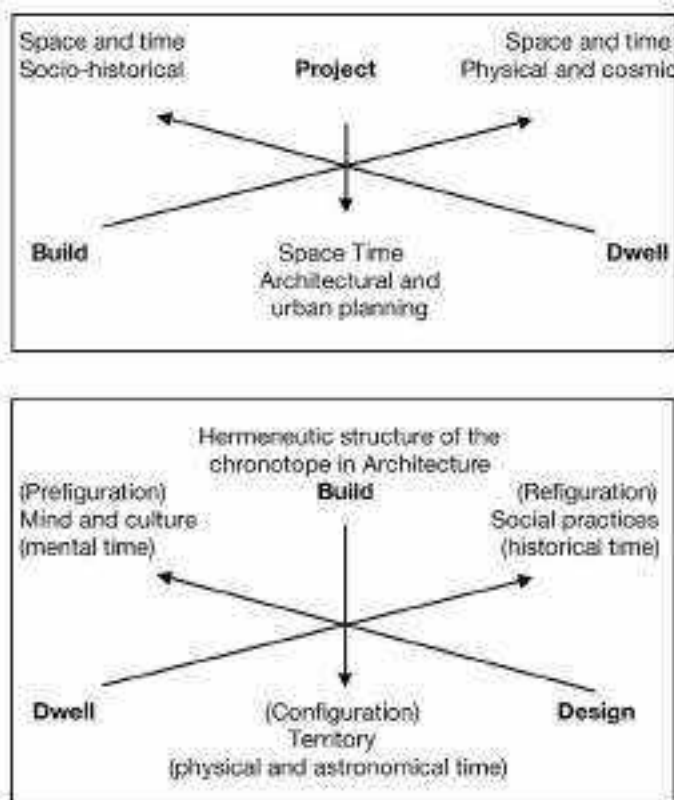
Let's simplify all this in a triadic diagram, my favourite summary of what architecture is. Now that we know what space is, **what is architecture?**

### **Design, building, and dwelling.**

From Vitruvius to Heidegger, architecture has had three basic dimensions.

Namely:

**ARCHITECTURE: mind – land – society**

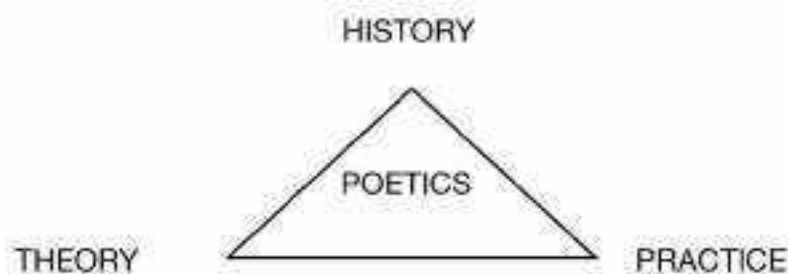
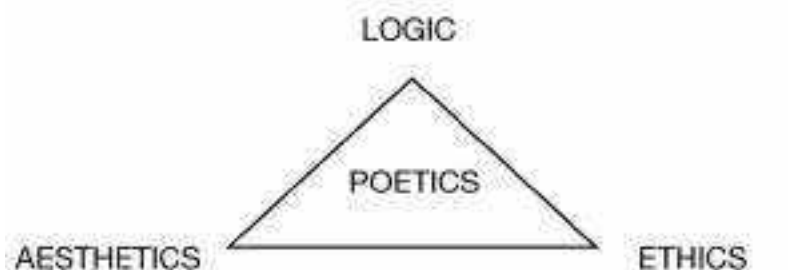


77. Chronotopic structure of architecture and urban planning Diagrams-  
Muntañola Thornberg, J. Architectonics: Mind, Land Society) A New  
Architecture for Better Enviroment.

The center of this threefold logic always being Architecture and Context.

Since now we are in a completely new context, architecture must adapt. This is a clear turning point, a new zero point. And, like in the 19th century, we can and must rethink architecture and urban planning in order to contextualise them within current needs.

Beware! Architects are no longer in a position to plan cities; they have been reduced to participating in egomaniac skyscraper competitions. We are failing.



78. Poetic diagrams. J. Muntañola





Agile changes and in-depth study are required in order to design the new, post-COVID-19 era.

After analysing the necessary changes arising from abrupt changes of context, of whatever type, I have become aware of a beautiful common denominator. Prior to overall changes in the way of building, there are always changes in USE—and this will now be key. This is what happened in relation to smallpox or tuberculosis: before changing to a new architecture, existing schools and hospitals changed. The same spaces became new places. Now, too, there must be a planned transitional period. Classes should be conducted on the street or in parks, and the ill taken out to breathe fresh air on terraces, before new schools with large windows that provide ventilation and sunlight, and new, more hygienic hospitals are built.

Human beings have a great ability to adapt and what we create must also have this ability.

We must remember that architecture is not only the object built, but the way in which it is inhabited.

After spending months thinking about the solutions that architecture can offer, I see clearly. It must involve different levels of use within each city.

As architects, we must conceive cities as having different layers of use, modifying as little as possible during stage 1. We must be present, co-ordinate, and

pressure so that every general city plan includes different use plans for different situations in life, adapting the cities to their context and anticipating future ones.

What superimposed uses are defined as of today?

Differential programme: *Day – night*.

Transportation services, for example, take this casuistry into account.

When programming dwellings, we usually separate living rooms from bedrooms, and we could even modify them to include mobile elements and thus adapt the different uses to the hour of the day and the activities being performed.

As in the Tugendhat or Schroeder Houses, and many others without a proper name.

*Working days and holidays*. It is great that, in some cities, avenues are opened to the public on Sundays, transformed into green lanes where families can ride their bikes and play sports or games in areas where public space had been lost to cars, before we re-design the city according to what common sense determines to be habitable; i.e. the same place being modified for different uses.

Or the way in which squares around city halls are modified for Christmas, summer festivals, etc. The space doesn't change, but it becomes a different place. What a great capacity!

Right now I can't remember when polyvalent spaces

became so important: in schools —with new polyvalent classrooms— and co-working offices —with large multi-functional spaces.

Today we must include new inputs: how we can make specific changes during pandemics; living plans that redefine the city according to layers of use; viable plans. We are not in a physical war. We do not have a *tabula rasa* on which to rebuild the cities. Instead, the way cities are used and lived must be redefined in a sensible manner.

If we consider common sense and the current context, we can state that humankind is moving towards a more sustainable, ecological, social world. Architecture is not on the margins. On the contrary, we have a lot to say and we cannot remain silent as a result of speculative, Epicurean interests.



## ANNEX

As an annex, I include some of my works that somehow express my feelings about architecture when I create for the enjoyment and well-being of others.

" Wir leben zumeist in geschlossenen Räumen. Diese bilden das Milieu, aus dem unsre Kultur herauswächst. Unsre Kultur ist gewissermaßen ein Produkt unsrer Architektur. Wollen wir unsre Kultur auf ein höheres Niveau bringen, so sind wir wohl oder übel gezwungen, unsre Architektur umzuwandeln. Und dieses wird uns nur dann möglich sein, wenn wir den Räumen, in denen wir leben, das Geschlossene nehmen. Das aber können wir nur durch Einführung der Glasarchitektur, die das Sonnenlicht und das Licht des Mondes und der Sterne nicht nur durch ein paar Fenster in die Räume läßt—sondern gleich durch möglichst viele Wände, die ganz aus Glas sind—aus farbigen Gläsern. Das neue Milieu, das wir uns dadurch schaffen, muß uns eine neue Kultur bringen"

*Glasarchitektur,*

Paul Scheerbart, 1914.

*"We live for the most part in closed rooms. These form the environment from which our culture grows. Our culture is to a certain extent the product of our architecture. If we want our culture to rise to a higher level, we are obliged, for better or for worse, to change our architecture. And this only becomes possible if we take away the closed character from the rooms in which we live. We can only do that by introducing glass architecture, which lets in the light of the sun, the moon, and the stars, nor merely through a few windows, but through every possible wall, which will be made entirely of glass—of coloured glass. The new environment, which we thus create, must bring us a new culture. "*

*Glasarchitecture,*

Paul Scheerbart, 1914.

"if cities are not meant for children, they are not meant for citizens either. If they are not meant for citizens—ourselves— they are not cities"

"Whatever space and time mean, place and occasion mean more."

*The Child, the City and the Artist*

Aldo Van Eyck (1918-1999).

“Nous sommes quelques-uns à avoir voulu attenter aux choses, créer en nous des espaces à la vie, des espaces qui n'étaient pas et ne semblaient pas devoir trouver place dans l'espace.”

*Le Pèse-Nerfs,*  
Antonin Artaud, 1927.

*"We are, at this time, a few, the ones determined to attempt against things, to create in us spaces for life, spaces that did not exist, nor seemed to have to find a place in space."*

*The Nerve Scale,*  
Antonin Artaud, 1927.



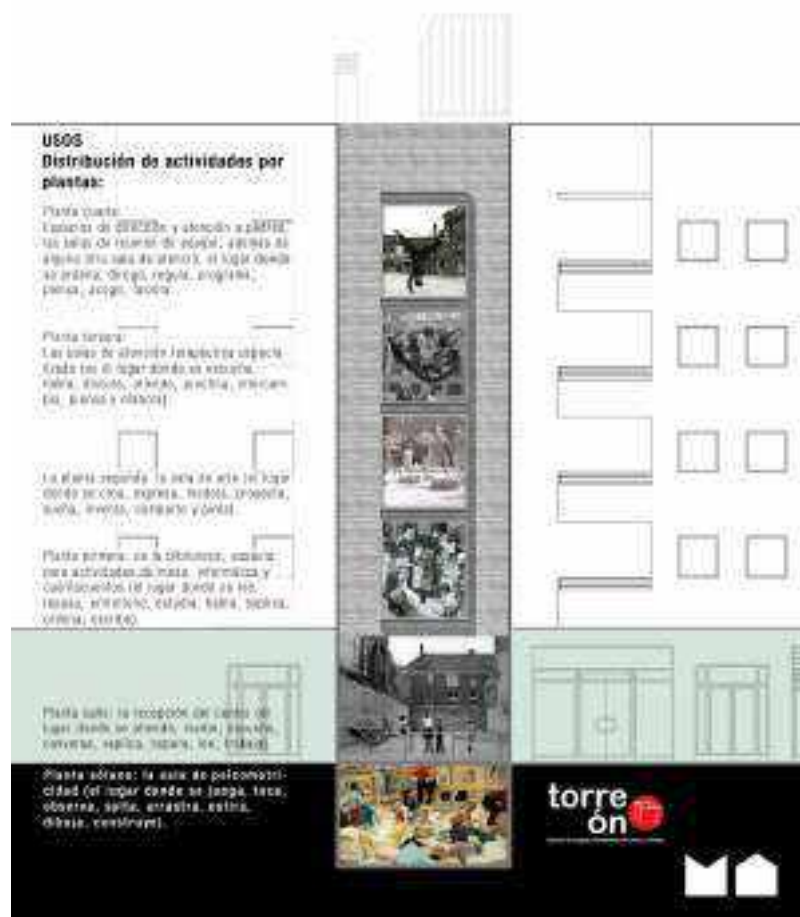
Place of welcome and treatment for children and families.

Town house building “El Torreón”, 14 Pamplona Escudero Street, 2009-2014.

“El Torreón” is a space designed for the comprehensive care of children and their families. It is intended to be a place of: enjoyment, training, and assistance for children; guidance, reflection, and support for families; study, debate, and development of new modes of care for professionals.



79. Fachada del "Torreón" Centro de integración infantil. 2011© Marta Miret



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83. Vista interior del patio del "Torreón". 2011© Marta Miret



**84. Vista interior del patio del "Torreón". 2011© Marta Miret**

Co-operative residential building.

“Glas Eraikuntza”, 14-unit co-operative residential building with grade A Energy Efficiency, located in the heart of Ametzola, an emerging neighbourhood in Bilbao.

Address: 12 Jaén Kalea Street, Bilbao.

2011-2014

After complying with all the regulations; meeting the desires of fourteen families who each wanted the house of their dreams inside a single building; providing common spaces in order to develop a true community (of the type designed by Le Corbusier); obtaining the best qualities for all the construction details and finishes, with current technologies and maximum energy efficiency; contextualising the building within its time and place, and covering it with our own poetics; the result was:



85. "Glas Eraikuntza" Vista desde calle Jaén 2014© Marta Miret



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The Italian journal considered to be one of the world's most prestigious in building analysis and which addresses not only design, but also meaning within the city, published a collection of books entitled *Architetture e interni urbani*.

*Abitare*, *Corriere de la Sera*, and the Polytechnic University of Milan conducted a study on architecture and urban planning in thirty cities around the world, including Bilbao. Among this list of buildings designed by the most prestigious architects in the world, I was selected for the “Glas Ertakuntza” building, which I designed with the Miret Arquitectos firm. I am grateful to my father Carlos Miret (architect) for his ability to allow me to freely design such a beautiful building with the latest advances in current technology.

The selected architects and studios include some of the most prestigious in the world: Arata Isozaki, Álvaro Siza, Rafael Moneo, Philippe Starck, Pelli Clarke, Gehry Partners, Norman Foster, Javier Manterola, Idom.

Funeral home - chapel of rest.

Brea de Aragón, 2010-2014

A gathering place in which to say farewell to the town's residents. A place that provides the necessary respect and solemnity for farewells, as well as comfort for grieving families and friends.





Installation art, as a Poetic Action.

Amézola, Bilbao, 2016.

I used colour, a continuous layer of fuchsia pink plastic paint (180 liters), to cover the entire building in order to “sacralise” space in the classical mode: delimiting space, sacrificing it.

A poetic action prior to the imminent demolition of an old industrial building that had not been used for years. It was located in an industrial district that is being transformed to become integrated within the living city.

The purpose was to “Humanise the neighbourhood” with smiles and culture. This action had many ingredients: a bit of Wright and Guggenheim’s early work in New York; Bilbao, its love for art and urban planning; myself; activism, because the woman also exists and women architects too. It also has bits of you, you who live, stroll, and have the capacity for surprise...

It was an ephemeral work: the demolition ended in the spring of 2020, during the pandemic. We are currently building the new homes, which will become a living part of the neighbourhood.







Water and growth.

Ravine fountain. Rehabilitation of public space and municipal fountain in Brea de Aragón. 2011.





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## ABOUT THE AUTHOR



**Marta Miret Rodríguez,**  
1981, Zaragoza.

Daughter of Carlos Miret Bernal, architect, and María Milagros Rodríguez Valdonedo, psychoanalyst.

I received my Bachelor's and Master's Degrees in Architecture from the Higher Technical School of Architecture in Barcelona (ETSAB) at the Polytechnic University of Catalonia (UPC), with a specialisation entitled Critical Approach to Architecture from the Cultural and Historical Environment. Project "Albinyana, a Catalan Village", a rehabilitation project of a village, regenerating their activity using the new decentralisation offered by the digital era. Classified as Project of Interest in the National Archive of Catalonia (ANC).

I am registered with the Official Professional Association of Architects of Aragón (COAA) and the Basque-Navarre Official Professional Association of Architects (COAVN).

Multilingual: English, German, Catalan, and Spanish. I can get by in French and Italian. And I understand, read, and love Galician, my mother's mother tongue, thanks to the beautiful tales and stories she told me in this language.

Eight years of piano lessons.

I started working at my father's architecture firm when I was halfway through my studies, although my first site visit took place when I was 6 years old.

I contributed to the book *Así nació: Expo Zaragoza 2008* [How It Was Born: Expo Zaragoza 2008], and was also in charge of the design and layout.

I have spent long periods of time in England (London), Germany (Berlin), and Italy (Milan), for study or work reasons.

During all these years I have successfully completed over fifty projects. At the end of the book, I include an annex with the most relevant ones.

One of my projects was highlighted by the Polytechnic University of Milan as a work of interest in the city of Bilbao.

My job as Retail Project Manager with HMY, which I combine with my work at Miret Arquitectos, is turning out to be a very interesting experience, as it has allowed me to lead a great team of professionals and work all over Europe.

For professional and cultural reasons, I have travelled to the biggest cities in the world, in America, Europe, Asia, and Northern Africa: Buenos Aires, Bogotá, New York, St. Petersburg, Moscow, Cairo, Istanbul, and almost all the European capitals. This has enriched my gaze as an architect and given me a broad perspective on the evolution of architecture.

This is one of my mottos: The more information you have, the more resources to create good architecture or, at least, a more human architecture in line with the times.

My passion for architecture, culture, the arts and humanities, literature, film, philosophy, sociology, and anthropology, fields which have enhanced my profession, has guided me through this pandemic.

Hence my desire to write this book.





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