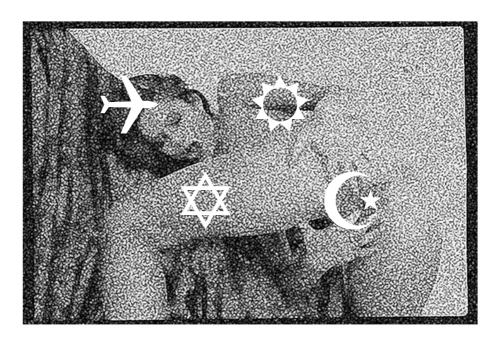


نسيم

marseille • venezia



## introduction

#### **Experiencing Highlights of Architecture**

# Palladio | Le Corbusier | Scarpa 15th Venice Architecture Biennale and much more

The uniqueness of the oeuvres of Palladio, Le Corbusier and Scarpa result not only from the architects distinctive choice of materials, spatial dimensions, use of light and qualities of the surrounding landscapes, but should also be seen in light of their in-depth knowledge of history, humanity, philosophy, mathematics, craftsmanship and parallel art forms, such as music, literature, and the visual and performing arts. Their rich and multi-layered oeuvres are not bound to architecture alone. but also relates to other fields and scales of designing space, including urbanism, interior design, presenting art works inside their buildings and implicit craftsmanship. All three architects (although non of them were schooled as architects) were able to convince their clients and the world around them, expressing themselves in clear spoken language as well as in persuasive writings and spoken explanations. For all three of those architects, humanity and the human body was a very important subject to design for. Not only according to the proportions and beauty of the human body, but also taking the use and movement of people in their buildings as a very important factor to design with.

In the following pieces composed by the first and second year students of Inter-Architecture and two pupils from DesignLab and the Faculty of Architecture of the TU Delft, focus on three different topics in relation to the three different architects - Palladio, Le Corbusier and Carlo Scarpa - whose buildings have a central role in the excursion. Each group of student studied one of the themes, namely proportions, structure and organisation of space in the floor plans and details and materials for one of the architects.

The excursion will end in Venice, visiting the 15th Biennale of Achitecture, curated by Alejandro Aravena, a biennale that focuses on humanity in relation to present day architecture.

Vibeke Gieskes, teacher of 'Theory and History of Architecture'



# program

### Tuesday October 11

Meeting at Meeting point in the Hallway of the Trainstation at Schiphol (Installation of red/white blocks)

Departure from Schiphol Airport 09.30

Arrival time at Marseille

#### 14 00

Visiting the Unité d'Habitation of Le Corbusier (Boulevard Michelet 280)

Visiting projects of Shipping MuCEM Ricciotti (Esplanade du J4 du MuCEM 1), Vieux Port Pavilion Foster (Quais des Belges 29), Les Docks Castaldi (Place de la Joliette 10), Boeri's Villa Mediterrannee (12-19hrs open, Esplanade du J4, Marseille), Company Hadid (Quai Arenc 4, Marseille),

#### 00.00

Hostel Vertigo - Marseille, 38 Rue Fort Notre Dame

### Wednesday October 12

#### 08.30

Departure from Hostel Vertigo

Visiting the Villa de Noailles, Hyeres, architect: Mallet-Stevens

Departure to Roquebrune-Cap-Martin

#### 13.30

Visiting Le Cabanon Le Corbusier/Villa E-1027 Eileen Gray/ Grave Le Corbusier

#### 17.00

Food break

#### 18.00

Departure towards Vicenza

#### 22.00

Arrival at Ostello Olimpico Vicenza, Viale Antonio Giuriolo 9

### Thursday October 13

#### 09.00

Visit Teatro Olimpico, Palladio Museum

Departure to Basilica de Monte Berico, passing the Villa Rotonda.

#### 13.00

Departure to Villa Emo

#### 14.00

Visiting Villa Emo

#### 15.00

Departure to San Vito D'Altivole (Via Del Cimitero)

Arrival Brion Cemetery of Carlo Scarpa

#### 17.00

Departure to Venice

#### 18.00

Arrival Venice Airport: taking the boat to the Giardini

#### 19.00

Arrival time at the apartments of Giovanni Sponza at the Via Giuseppe Garibaldi, our home for 3 days

#### Friday October 14

#### 10.00

Visiting the Biennale

#### Saturday October 15

#### 10.00

Visiting the Biennale

#### 15.00

Visiting the Fondazione Querini Stampalia. Scarpa

#### 17.00

Visiting the Olivetti Store, Scarpa

#### 20.00

Collective Dinner

### Sunday October 16

#### 10.00

Visiting the Fondacio dei Tedeschi, OMA

#### 12.00

Free program (but still to see: Gallerie dell'Accademia, Palazzo Fortuny, Exhibition work Zaha Hadid at Palazzo Franchetti, etc)

Departure to airport by bus from Piazzale

#### 19.00

Flight back to Schiphol Airport

#### 21.05

Arrival at Schiphol Airport

# villa noailles

#### Mallet-Stevens

#### An immobile ocean liner

The villa Noailles features as one of the very first modernist style buildings constructed in France. Designed in December 1923 and inhabited from January 1925, the original villa was built for Charles and Marie-Laure de Noailles by the architect Rob Mallet-Stevens and exhibits the founding tenets of the rationalist movement: practicality, a purification of decorative features, roofs, terraces, light, hygiene... The extensions, which continued right up until 1933, along with the exceptional development of the surrounding property (courtyard and gardens), turned a modest holiday home into a true 1800m2, immobile ocean liner: fifteen master bedrooms all with en-suite bathrooms, a swimming pool, a squash court, a hairdressing salon, a resident gym instructor, etc. Features such as the clocks, which are all controlled by a central system, the retracting bay-windows and the mirrored windows, all contribute to the modernity of the site. A heliotropic house, overlooking the bay of Hyères, the villa Noailles celebrated a new lifestyle which favoured body and nature. The interior decoration called upon an impressive list of prominent figures: Louis Barillet for the stain glass windows, Pierre Chareau, Eileen Gray, Djo-Bourgeois, and Francis Jourdain for the furniture, Gabriel Guévrékian for the cubist garden, and Mondrian, Henri Laurens, Jacques Lipchitz, Constantin Brancusi, and Alberto Giacometti for the art works.

#### Patrons of modern art

Charles and Marie-Laure de Noailles, both from prestigious families, were married in 1923. Art collectors and enthusiasts of modernism, following the commission of their villa they became shrewd patrons of the arts, admiring all that was new and risky. They were responsible for any number of discoveries or significant influences in the work of the artists they sponsored: whether it was painting (Salvador Dali). sculpture (Lipchitz, Giacometti), music (francis Poulenc, Igor Markevitch), or interior design (Chareau, Jean-Michel Frank). They were also cinema enthusiasts and financed three masterpieces: in 1929, Man Ray's surrealist film, which was filmed in the villa, "Les Mystères du Château du Dé", in 1930 Jean Cocteau's first film, "Le Sang d'un Poète", and Luis Buñuel and Salvador Dali's second film, "L'Âge d'Or". This latter work provoked a terrible scandal and was censured for the next fifty years. Charles de Noailles, who was passionate about flowers and was president of the French Horticultural Society. as well as being the author of a significant book on the flora of the Mediterranean, spent his later years dedicated towards the improvement and maintenance of his gardens at Hyères. Grasse

6 and Fontainebleau. Marie-Laure, whilst at first shy, after the scandal of "L'Âge d'Or" she became an eccentric socialite whose intelligence and causticity made her all the rage in artistic circles. Under the name of Marie Laure, she too became a painter and poet. She is fondly remembered by many of the local people in Hyères.

#### The architect

Robert Mallet Stevens (called "Rob" 1886-1945) was a graduate of the Ecole Spéciale d'Architecture, a famed institution renowned for its rationalist pedagogy. He was influenced very early on by the Austrian group of interior designers and architects of the Wiener Werkstate, who married artistic sensitivity with exacting design. His work as a designer, his talent as a theoretician, and his projects resulted in him being lauded in the intellectual circles of Paris around 1910. After the First World War his designs for film sets established his reputation. Following his work on the villa Noailles and his involvement at the International Exposition of Modern Industrial and Decorative Arts, he received a number of commissions (Paul Poiret's house in Mézv. the casino in St Jean de Luz). In 1927, in Paris' 16th district, he inaugurated a street which he had both conceived and which bore his own name. At this same time, his furniture and designs (for the Magasins Bally) stood out due to their elegance and modernity. As a talent spotter who enjoyed collaborating with other artists and was curious towards foreign movements, he appropriately became the founder of the Union of Modern Artists in 1929. This group put forward a transversal approach to the problematics of construction and interior design. In 1932 Paul Cavrois, an industrialist from the north of France, offered him the opportunity to design a large residence in Croix. Mallet-Stevens was also responsible for the interior of this domestic masterpiece. equipped with the most modern of fittings. Today, though it lies in ruin, the villa Cavrois has recently been bought by the French state. After a design for a remarkable fire station in Paris (1935). Mallet-Stevens conceived a series of important pavilions for the 1937 international exhibition of Paris. He emigrated to the United States in 1939, where he died in 1945 after an operation. Often misunderstood, he slowly fell into obscurity. Rediscovered at the end of the 1970s, he is now considered as one of the most important architects of the interwar period.

#### Restoration

The villa Noailles suffered rapidly from the experimental nature of its construction, in particular that of the waterproofing of the terrace roofs. Furthermore, from as early as the 1950s, the villa, which had become Marie-Laure de Noailles summer residence, gradually lost its initial appearance. On her death, in 1970, the furniture and art works were shared amongst her heirs. Charles de Noailles thus offered that the town of Hyères buy the entirety of the property. The

municipality of Bénard, recognising the building's heritage importance, acquired it in 1973 and opened the grounds to the public. The Villa Noailles was then bounced from one project to the next, and almost fell into a state of abandonment, despite being listed on the Supplementary Inventory of Historic Monuments in 1975. Starting in 1986, a restoration project was initiated under the influence of mayor Ritondale's council and Jack Lang's government department for culture and heritage. Restoration work started in the original building in 1989 where, as early as 1990, exhibitions were held: Noailles and the Modernists, Alix Gres, The Russian Ballets, Karl Lagerfeld... In 1996, the Association of the International Festival of Fashion Arts in Hyères was given the responsibility for managing events at the villa, and thus became the Association Villa Noailles - FIAMH. The association proposed a return to the Noailles' traditions of discovering and supporting young artists. Consequently, the association participates in their projects, helps them to produce their pieces, puts them in contact with one another etc.. One component of this annual cultural programme is devoted to the history of 20th Century art. A second phase of restoration and conversion started in 1997 with the sports rooms (pool room, gymnasium, squash courts) and was completed in the summer of 2003. Since 2007 four bedrooms have been converted in order to receive resident artists, the result of commissions placed with the designers François Azambourg, Florence Doléac, David Dubois and the Bless. The association and its events as a whole unite the four partners interested in its cultural influence: the French State, the Region, the Department, the Town, and since 2003 the Agglomeration Community of Toulon Provence Méditerranée. It is under the administrative supervision of this last entity that the villa Noailles has been placed, and thus it now figures alongside other major cultural installations of the Toulon area: Châteauvallon, the Opera house in Toulon, or the Villa Tamaris...





# proportions

#### Le Corbusier

Le Corbusier presented in 1948 a measurement system based and inspired on the golden section and Leonardo da Vinci Vitruvio man. It is usually called Le Modulor and was intended to be used as the basis of all architecture.

Modulor is one dimensional and proportional system, developed for building construction and architecture.

The dimensions of the Modulor is based on the the golden section, Leonardo da Vincis Vitruvioman and the human dimensions. More specifically dimensions of a 183 cm long human mail figure in different positions, based on everyday activities. The obtained measurements was then added to the high-end graphics, three-dimensional framework and modules for different types of buildings. The idea was then that architects and engineers could use these dimensions to create "human architecture" with built in harmony. Le Corbusier was already one of the leading architects at the time of publication of Le Modulor so the expectations were therefore high. The success did not materialize, Critics argued that the system was too arbitrary and lacked foundation in the science and reality.

Below you can see examples of the system Le modules and how Le Corbusier practiced the system in his architecture.

#### Theories of Proportion:

#### a. Golden section

The Greeks have found out that nature uses a proportion law called Golden section (and Fibonacci Series), which produces things that look pleasing to us. Golden Section is basically described as the law of beautiful proportions. According to this law, two quantities are said to be in the golden section (I) if the ratio of the sum of the quantities to the larger quantity is equal to the ratio of the larger quantity to the smaller one.

Examples are found in Nature; used in Art and Architecture, example are in the Pantheon, Notre Dam, Paris and the UN building among others.

#### b. Regulating lines

The lines that indicate the common alignment of elements are called regulating lines. They are used to control the proportion and placement of elements in architecture. They reassure the perception of order and fix the fundamental geometry of work. Le Corbusier was a famous supporter of regulating lines and called them as the inevitable element of architecture and the necessity for order. He argued that great architecture of the past has been guided by these regulating lines and these lines, starting at significant areas of the main volumes, could be used to rationalise the placement of features in buildings. Examples found in Le Corbusier's Villa Garches, Villas La Roche-Jeanneret and Palladio's Villa Foscari.

#### c. Classical orders

Classical order is one of the ancient styles of classical architecture, distinguished by its proportions and characteristic details, and mostly by the type of column employed. It is a way of proportioning the elements. Three ancient orders of architecture—the Doric, lonic, and Corinthian—originated in Greece.

#### d. Renaissance theories

The architects of the Renaissance, believing that their buildings had to belong to a higher order, returned to the Greek mathematical system of proportions. Just as Greeks thought music to be the geometry translated in sound, the Renaissance architects thought that architecture was mathematics translated into spatial units. They applied the proportioning system developed by Pythagoras (which was based on musical scale), and developed a progression of ratios that formed the basis of their architecture.

Examples Palladio's Villa Barbaro and Villa Capra (or Villa Rotunda).

#### e. Modulor

The famous architect Le Corbusier also worked with human proportions and Golden Section. He has developed a theory of proportion and dimensioning system, named Modulor that is based on Golden Section and human proportions. He had formed the proportions of human body according to Fibonacci series and accepted the average human height as 183 cm (He found out that height also according to Fibonacci Series). Used in Unite d'Habitation Residential Block in Marseilles, France.

#### f. Ken

Ken is the Japanese unit of measure. It originally designated the interval between two columns and it was standardised later for residential architecture. Ken was used as the absolute measurement for the construction of buildings and as an aesthetic module that ordered the structure, materials and space of Japanese architecture. Together with ken, another module also affected the design of Japanese spaces, which was the tatami (or the traditional Japanese floor mat). Tatami was originally proportioned to accommodate two persons sitting or one person sleeping. The smaller side of a tatami was equal to the size(s) of ken and two kens equaled the length of a tatami. The Japanese inner spaces were formed according to ken modules and the placement of tatamis. The size of a room was designated by the number of tatamis.

#### g. Anthropometry

Anthropometry refers to the size and proportions of the human body. Anthropometric proportioning methods search for the functional dimensions for the human body. They say that forms and spaces in architecture are either containers or extensions of the human body and therefore they should be designed according to its dimensions.

#### MAN: DIMENSIONS AND SPACE REQUIREMENTS

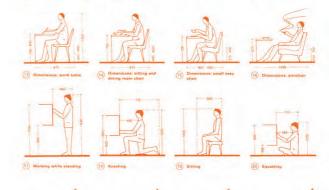
**Body measurements** 

### Examples:

1. Architects' Data (German: Bauer wurfslehre), also simply known as the Neufert, is a reference pook for spatial requirements in building design and site/planning. First published in 1936 by Ernst Neufert, its 30 German editions and translations into 17 languages have sold over 500,000 copies. The first English version was published in 1970.

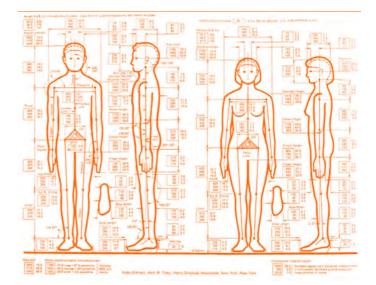
2. Designing for People. In 1955, Henry Dreyfuss wrote Designing for People. A window into Dreyfuss's career as an industrial designer, the book illustrated his ethical and aesthetic principles, included design case studies, many anecdotes, and an explanation of his "Joe" and "Josephine" anthropometric charts.





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# proportions

#### Palladio

#### Palladianism

Palladian architecture is a European style of architecture derived from and inspired by the

designs of the Venetian architect Andrea Palladio (1508 – 1580). The architect was influenced by Vitruve and designed in the period when Italy was known for it's major archievements in all kinds of arts as well as architecture and science which we now call the Italian Renaissance.

Palladio would often model his villa elevations on Roman temple facades. The temple influence, often in a cruciform design, later became a trademark of his work. The proportions of each room within the villa were calculated on simple mathematical ratios like 3:4 and 4:5, and the different rooms within the house were interrelated by these ratios. Earlier architects had used these formulas for balancing a single symmetrical façade, however Palladio's designs related to the whole villa.

In his architectural treatise, Palladio tries to explain the impact of these proportions on the human unconscious "The proportions of voices are harmony to the ears, so those of measurement are harmony to the eyes. Such harmonies often like without anyone knowing why, except researchers of causality of things."

"There are seven types of room that are the most beautiful and well proportioned and turn out better: they can be made circular, though these are rare; or square; or their length will equal the diagonal of the square of the breadth; or a square and a third; or a square and a half; or a square and two-thirds; or two squares."

#### **Proportions**

According to his architectural treatise, Palladio indentifies seven main proportions.

Compare these with Pythagoras's musical scale above The exception is the incommensurable proportion of the side of the square to its diagonal, or

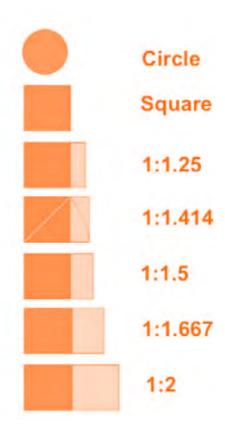
 ${\bf 1}$  : square root of 2. (This proportion often occurs in both architecture and painting)

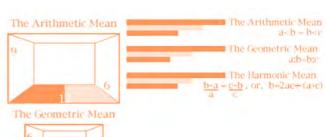
When Palladio goes on to talk about the generation of the height of rooms, he elucidates three

types of proportion which are traditionally thought to have been discovered by Pythagoras:

#### Buildings by Andrea Palladio

Villa Barbao Villa Capra, La Rotonda Basilica Palladiana Church of San Giorgio Maggiore Il Redentore Teatro Olimpico







# proportions

#### Scarpa

Carlo Scarpa's work is based on an understandment of the human being as a "Homo Viator" (the man as an experiencer), for him the human figure is both the subject that produces the building and the starting object from which the building is made.

Trough his drawings he uses human representations that communicate both the human behaviour and the specifications required by the project. The way men experience architecture and how they interact with it was really important for Scarpa, he evaluated the users before complying to the technicalities, for him the human body is elemental in the understanding of architectural creation.

For Scarpa architecture is undoubtedly a woman, his architecture, like his figures of woman, is a continuous research into a tangible beauty, a poetic image that resembles the real beauty of the female body with it's imperfections. For him beauty is the "imperfect" symmetry of the human face, the details that make it special, the small things of the body constantly regulate Scarpa's planning.

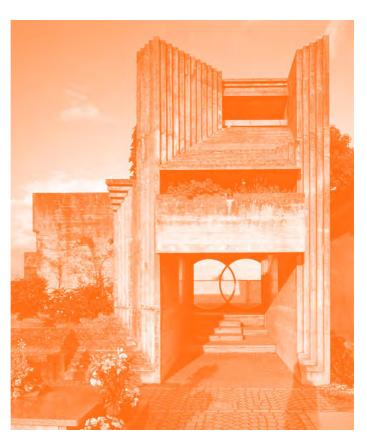
Trough his work he takes the human body as the "symetrical" base on which the proportions of the building are born. He reinterpreted the Vitruvian man, the outstretched body of the youth becomes de origin of the geometry, the square and circle responds to the body, and not the other way around.

The body as a reality becomes the basis of architectural facticity, its actions and thoughts determine - trough material and logical contiguity - the configuration of the constructive elements

#### "Learning-by-doing" by John Dewey

For Carlo Scarpa it was importent the way people experience his architecture and how they interact with it.

How is it possible to experience and interact with Carlo Scarpa's architecture without beeing on the exact place?





## detail and material

#### Le Corbusier

You employ stone, wood and concrete, and with these materials you build houses and palaces; that is construction. Ingenuity is at work.

But suddenly you touch my heart, you do me good, I am happy and I say: "This is beautiful." That is Architecture. Art enters in. My house is practical. I thank you, as I might thank Railway engineers of the Telephone service. You have not touched my heart.

But suppose that walls rise towards heaven in such a ways that I am moved. I perceive your intentions. Your mood has been gentle, brutal, charming or noble. The stones you have erected tell me so. You fix me tot the place and my eyes regard it. They behold something, which expresses a thought. A thought, which reveals itself without word or sound, but solely by means of shapes, which stand in a certain relationship to one another. These shapes are such that they are clearly revealed in light. The relationships between them have not necessarily any reference to what is practical or descriptive. They are a mathematical creation of your mind. They are the language of Architecture. By the use of inert materials and starting from conditions more or less utilitarian, you have established certain relationships, which have aroused my emotions. This is Architecture.'

The text above, Forward a new architecture, is Le Corbusier applying Architecture into poetry. Le Corbusier had true meaningful affections with the material he used in his architecture.

#### Unité d'Habitation

In 1915 Le Corbusier in collaboration with Max Dubois designed the Dom-ino House. The dom-ino house was the outcome of a study on a search of affordable and fabricated materials. The research was needed to solve to huge short on houses after the destruction of WOII.

Le Corbusier's use of concrete finds its roots in his plan libre, where it is important to have a free plan on each house. Which is made possible by the strong concrete rows that carry the ceiling of the house.

The use of concrete gave Le Corbusier the possibility to combine the age of the machine with classical architecture. After WOII Le Corbusier had to criticise his opinion about the love for the machine after he had seen the destruction that came along with the age of the machine.

During the post war period Le Corbusier started to understand the meaningful potential of concrete. Le Corbusier turned to the more tactile expressivity of concrete.

The Unité d'Habitation is constructed from reinforced betonbrut concrete, rough cast concrete, which was the least costly in post-war Europe. However it could also be interpreted as materialistic implementation aimed at characterising the state of life after war, rough, worn, unforgiving.

Another example of Le Corbusier's expressivity in his Architecture is the symbolical stone that Le Corbusier used to refer his building to his mathematical composition to form the pure base of his buildings.

In the Unité d'Habitation Le Corbusier putted a stone in the middle of the site. This stone embodies every length, every height, every widt and the volume of the measurements of the building. While the master of concrete did not use stone, the stone was to symbolise the measurements the building is based on.

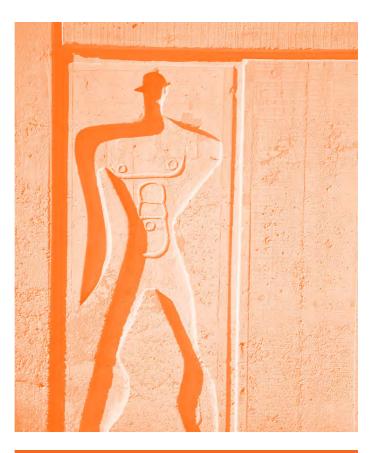
Le Corbusier had great plans about communal living and therefor one of the most interesting and importants aspects of the Unité d'Habitation is the spatial organisation of the residential units. Le Corbusier designed the units to spam from each side of the building, as well having a double height living space reducing the number of required corridors to one every three floors.

The design plan of the Unité d'Habitation also has a 24 unit hotel, laundry, bakery, butcher, salon, pharmacy, real estate and commercial offices.

The flat roof is a communal area which facilitates a sculptural ventilation stacks, children's play area, a gymnasium, nursery school, solarium, open-air theater and a running track.

#### Le Cabanon

Next to the Unité d'Habition that we will visit. we are also going to see Le Cabanon of Le Corbusier. The contrast could not be bigger of these works, while the Unité d'Habition is mainly concrete, very big and designed to make more living space in the city. The inspiration to make Le Cabanon came from cabins designed for monks, to pray, eat and sleep in. That was also the purpose of Le Cabanon for Le Corbusier, nothing more than to dream, draw and think about his architecture. It is made from prefabricated parts, the design is based on the Modulor - an anthropometric scale of proportion developed by the architect in response to the movement of the human body. The cabin contains a single 3.6 by 3.6-metre wood-lined room, with no kitchen or indoor washing facilities.





## detail and material

#### Palladio

From the first of his ' 4 books of architecture', and drawing heavily on inspiration from the writings of Vitruvius and others, Palladio sets out to explain to his readers his feelings about the choice and use of the materials timber, stone, sand, lime and metal.

Regarding timber, he outlines when and how it should be felled, and in what ways to best dry and store it.

Of stone, he distinguishes the natural (lime) from the manmade (marble and hard stone), and their varying needs with regard to extraction and storage, relating to the consequent effects of air exposure and weathers.

With sand, he outlines the 3 types; pit, river and sea sand, of which the former is deemed to be the best. As well as providing other details, he describes how the feeling of it in one's hands and the laying of it upon white clothes will also give an indication of its usefulness.

About lime, he explains from where these stones are dug (hills or rivers), and the different qualities that they have in relation to such things as how quickly or much they burn.

Regarding metal, he discusses iron, lead and copper. He talks of their different states in the earth, and their qualities and workability when fired.

He explains the uses of lead; in palaces, churches, towers, and other public edifices, etc, and copper; in public buildings, nails and cramps (to unite and tie stones together). These were likewise made of iron, but copper was felt more beneficial because of it being less subject to rust.

He also mentions that metal mixed with tin, lead and brass, makes bronze or bell-metal; often used by architects in making bases, columns, capitals, statues and such-like ornaments.

Palladio's writing was quite a beautiful read. While on the one hand being quite factual in its guidelines, it became clear, word upon word, how tenderly and intimately he regarded these different materials.

"Timber ought to be felled in autumn, or during the winter season, in the wane of the moon; for then the trees recover the vigor and solidity that in spring and summer was dispersed among their leaves and fruit."

"When fell'd, it must be laid in a proper place, where it may be shelter'd from the south sun, high winds and rain."

#### Details

Andrea Palladio would always base his structural and aesthetics choices on his knowledge of classical architecture, thoroughly learned from Vitruvius and Plinius. This ancient legacy deeply rooted in Palladio that openly writes that he would even use the vitruvian 'modulo' as unit of measurement in his designs (which corresponds to the diameter of a Doric column). As much as Vitruvius, Leon Battista Alberti would

have a huge influence on Palladio, being the first theoretician of architecture writing about the importance of a faithful model prior the construction, and that the architect should figure out the construction process by making this model. The classical legacy conjugated to an innate aesthetic taste would generate architectural pedestals, that will influence future generations of architects for centuries.

#### 'La Rotonda'

The first concern of Palladio it's the choice of the location. Villa Almerico (La Rotonda) it's built on top of a small hill, climbable through an unpaved lane, in a position that in the classic age would belong to a temple. The Villa has been designed as a countryside estate for recreational purpose, but it's plan retraces the roman pantheon; maybe Palladio is playing with the threshold between being devoted, ironic, and critical and thus he makes a Villa that stands in between a temple, a theatre and a pleasure house. Cole Campbell, palladianist british architect writes about La Rotonda: its design lets the light in the whole interior, indeed the plan it's rotated precisely 45 degrees to the north-south axis, ensuring the maximal amount of light even in winter. The rooms vary in size but the doors are geometrically aligned; the porticos are open and the stairs are circular instead of triangular. The basic section it's not new to Palladio, a staircase leading to a portico, a tall main floor and a shorter attic; the surprising element it's a squat dome laying on top of the red clay tiled roof. Even though the overall structure it's straightforward there are some details that actually make it quite complex, for example the composite molding on the exterior and the four ionic loggias, one on each side. Goethe in front of La Rotonda would even write that the architect went 'a bit too far'.



## detail and material

#### Scarpa

'A work of art makes manifest the wholeness of "Form" the symphony of the selected shapes of the elements. In the elements the joints inspire ornaments, its celebration.

The detail is the adoration of nature.'

Louis I. Kahn

Scarpa's work has always been discussed in connection with the organic continuity of the work of Frank Lloyd Wright. A recurring theme in both their work is the chain sequence of sensation a construction provokes. By applying alterations to the classical systematical approach, each part demands individual attention. Therefore when combined, rather than forming a whole, the architectural volumes dismantle it. This (new) concept was described by Wright as "The deconstruction of the Box". Scarpa adopted it, eliminating the traditional corners of rooms, but provided the dissociated surfaces with highly articulated joints.'

A second source of inspiration for Scarpa's architecture of unusual details was his close relationship to the craftsmen he worked with. The exchange of knowledge and the craft of construction became a basis from which the syntax of his architectural language developed.

The many carpenters, stone masons, glaziers, plasterers, etc., whose skills were so highly valued by the local building trade, were given a great boost in prestige as a result of the decorative innovations of Secession architecture. Their feeling for materials, their ability to combine textures, as demonstrated but her cornices, the care they look in their joints, and their clever treatment of details, all indicate a consummate skill, which an architect like Scarpa would feel impelled to use.'

Sergio Los

Sergio Los

#### Olivetti store

In the design for the Olivetti store it becomes obvious that Scarpa had a strong interest in rich (natural) materials, water, landscape and the lavers of history. The exterior of the building is made from masonry walls in which windows (with brass frames) are floating. Scarpa decided to use new materials in the facades, but with the same artisanal techniques of construction that had formed the historic city. This detailed work was possible with the close collaboration of the artisans and the succour of Carlo Scarpa. Behind these floating windows elegant wooden trays hung from the ceiling so that the typewriters of Olivetti might be displayed without obstructing the lighting or the view into the room. By designing a staircase, which is made from granite slabs, marble blocks and brass pins, as the room's focal point, Scarpa emphasizes light, space, openness and the lack of symmetry. The plinth of this staircase floats above a Murano glass shimmering mosaic-tiled floor to give the visitor the feeling of a moving surface, as if it were permanently under water.

'This Querini garden, if you have seen it, should be basically a tiny one, delicate, refined, distinctive, authentic and very, very well groomed.'

Carlo Scarpa

#### Querini Stampalia

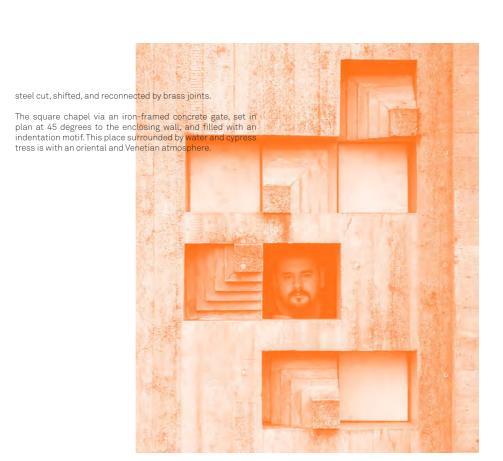
For the design of the Fondazione Querini Stampalia, Scarpa uses water as an inspiration instead of seeing it as a problem. The water from the canals flows through shallow marble spillways along the walls, so that the path becomes a catwalk. The bridge, which is made from steel, wood and brass, prefigures the interior space of the building. Without emphasizing the arches of the bridge, the visitor will be guided over a flat path, made from larch heartwood, into the entrance. After crossing the bridge the visitors find themselves standing on a marble floor, a polychrome motif by Paul Klee, which is a similarity with the mosaic-tiled floor of the Olivetti store. Something typical about Scarpa is that using materials from different regions and countries doesn't deter him. The walls in this design for example are made from marble from Rapolano, the sculptured cladding from Istrian stone, the small pool from marble from the Apulian Alps and the frame of the lamp is made from Brazilian rosewood.

#### **Brion Cemetery**

Brion Cemetery is the family tomb of Giuseppe Brion designed by Carlo Scarpa. Scarpa created the space crossing the lightness and heaviness using materials like marble, granite, onyx, copper and wood. The water flows represent a life's long journey. The entrance in front, two intertwined steel circles, look like eyes and rings. The red and blue tiles embody woman and man, alpha and omega and birth and death.

The complex includes the columned hall, pavilion, and pond to "arcosolium" (the burial arches of early Christians) and chapel. The curved arcosolium is anchored to the earth and its detailed forms are shaped with repeating the pyramidal theme. Green, blue and gold tiles are embedded in the underside surface of the arch. Under the canopy the pair of tombs is situated, made of white marble at the base with a black stone top.

On the walls of the columned hall are white cement shapes with brass coins set into the concrete. Corten steel is embedded in the concrete of the ceiling and floor, indicating the spatial change as the hallways narrows. At the narrowing point there is a glass and steel access operated by counterweights and rollers, which can be opened whereby the pavilion will be surrounded by water. In a pond, an emblem can be seen, a cruciform maze. The pavilion for the meditation covered by a wooden canopy held up with four legs of corten





# structures and organisation of space

#### Le Corbusier

As a big observer and thinker of arts Le Corbusier first started to study and observe architecture too. He only let his inner architect out after looking at enough structures, related to not only architecture. Machines and the rapidly developing industrial world fascinated him. The goal was to insert mechanism into architecture, and to create machines to live in by introducing standard elements that can be combined in different ways. The base would be a concrete framework that holds the structure together so that interior walls no longer have that function, therefore they can be arranged easily and free

In planning, he based his ideas on the study of human activities; the inter-relationship between dwelling, useful work and leisure, and human proportions. How much space do these activities actually call for and what is the most ideal way of arranging these spaces next to each other?

In one if his greatest works, the Unite D'Habitation we can see a master plan of an apartment for a family, and another master plan of a complexity in which these apartments are arranged next to each other horizontally and vertically.

Each apartment is designed on 2 levels and all of them are looking in 2 directions: East, and West. Also, every flat has a balcony which shows how important case light and shade was for the architect. The position of the building helped to drive more light into the apartments during winter, and less during summer, so temperature - which is always a problematic issue - was solved too.

This enormous almost city-size complexity later on became an enthralling template for social housing.

A not-so-opposite of the architectural giant was Le Cabanon, a holiday cottage (cabin) for the architect himself. It was the only building he designed for himself.

This cabin is based on the same ideology: 'Le Modulor' which is a human-based system of proportions that dominates the design of a primitive hut. The cabin lies on only 14 square meters, which is the minimum territory for social housing.

The design is satisfying as it is a perfect proof of the architect's essential belief that good proportions create the excellence of a building. His personal life is also a proof for the success of the design, because he used to spend his summer holidays in this genius little space for a long time.

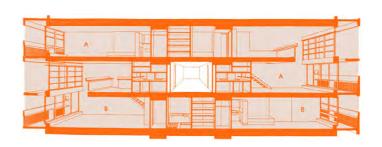
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There I was again, in the belly of the beast. The machine, in which I decided to live, was suffocating me. Every night I awoke from my night terrors to be greeted by the cold summer night breeze. Last week, last month, I don't know precisely when actually, I saw her for the last time. And even though this was, of course, my own decision, I spend my nights waking up hoping shed be there where I was hoping shed be. I have been wandering through the hallways, the corridors. They run through the long axis of the machine, it intersects itself every three floors and every three floors I hope that I will intersect her, cross her, in-between all the intersecting insects that I would and should call my neighbors. I can go days without seeing anyone really, I am afraid of seeing eye to eye with someone who doesn't experience the machine in the same way

as myself, be it someone who has been spat out by him, the machine, or be it someone who does not experience the machine at all.

I have wanted to spend some nights away from home; I have already made reservations for a hotel that's close by. However, ever since I almost drowned and the doctors told me I should get some bed rest I have been taking it a bit too literally. I though I saw you, on the bottom of the pool. I was admiring you and come to think of it, it could have been my own reflection that made me tumble into the watery abyss. I think i was admiring my own reflection, because I remind myself of you. I'm trying to remember what you were wearing that night, especially now. I'm here once again. Here in the belly of the beast. I want to distract myself by planning my next visit to the bookshop where we first met. There I go again, I wonder if it's possible not to think of you, I want to think of me only, especially now.

The spaces in which we gathered in solidarity fit perfectly into each other, finishing each other's sentences, and even though we were suffocating in a different spatial organization, I do hope I will have the chance to intersect you within one of the three axis-long corridors that function as our internal parks, roads, crossroads. If I were at a crossroad and a demon were to grant me a wish, I'd wish to be mounted to the ground, instead of being mounted to the cold air, existing only at 56 meters above the earth.





# structures and organisation of space

#### Palladio

#### Teatro Olimpico

Teatro Olimpico is a theatre in Vicenza, constructed in 1580-1585

The theatre was the is a design from the Italian Renaissance architect Andrea Palladio and was not completed until after his death. The trompe-l'œil (painting technique) onstage scenery, designed by Vincenzo Scamozzi, to give the appearance of long streets receding to a distant horizon, was installed in 1585 for the very first performance held in the theatre, and is the oldest surviving stage set still in existence. The full Roman-style scaenae frons back screen across the stage is made from wood and stucco imitating marble.

The Teatro Olimpico is one of the Renaissance oldes theatres. They still used the theatre several times a year.

Since 1994, the Teatro Olimpico, together with other Palladian buildings in and around Vicenza, has been part of the UNESCO World Heritage Site City of Vicenza and the Palladian Villas of the Veneto.

The keyword how Palladio works:

MATHEMATICS

**HUMAN FORM** 

STRUCTURES

NATURAL SURROUNDINGS

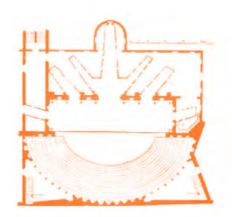
PERSPECTIVE VIEWS

#### Villa Rotonda

The Villa Almerico-Capra, more commonly known and The Villa Rotonda stands on a hilltop just outside Vicenza. Despite the fact that Palladio died before the completion of this project, it remains as one of his most celebrated buildings. This building is special because its design was not conceived as a response to developing architecture that supported a working farm, it was designed as a villa for living and entertaining. It is a completely symmetrical building with a square floor plan and four identical facades; greeting the surrounding countryside from every side. It pays homage to the world around it and boasts a simultaneous grandeur and modesty. On approach to the building there is a platform of 20 steps on each side that lead to the four porticos of the villa, a design aspect heavily utilised by Palladio in many of his designs. Whether it was to achieve visual balance in a building, to create a space that residents could utilise when enjoying the view or to grant the owner access to all parts of the building regardless of weather conditions, Palladio knew the importance of creating an inbetween space in architecture. From inside these porticos the landscape is in view but it is framed by the buildings structure. They could be read as framing devices that invite the landscape into the home that create a dialogue between everything in view. These four entrances makes the central dome on top of Villa Almerico-Capra seem logical; it acts as a revolving platform which visitors can choose any view they desire. Sunlight (and moonlight) enters the building through this dome, again acting as an invitation for the outside world. Through implementing these design elements (among many others) Palladio managed to achieve his desire to create a holistic design that communicates as an entire and complete body corresponding to the whole.

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Andrea Palladio was considered one of the greatest visionaries of the 16th century in The Republic of Venice for his modern interpretation of the classical tradition in Architecture. The inspiration for his revolutionary adaptations came from a dedication to mathematics and the beauty of the human form. He unwaveringly focused on symmetry and balance in space and on creating structures that sympathised with the natural surrounds. Through his understanding of ancient architecture and his modernistic civic pride in Italy, Palladio created a method in which refined of precise proportions could be applied to any structural design. Palladio published Quattro Libri dell'Architettura (The Four Books of Architecture) in 1570, which showcased his modern adaptation of roman building design and the corresponding mathematical regulations that he appliedto his own buildings. He was beloved by the Venetianaristocracy during his lifetime and many of the countryhomes around Vicenza and Italy remain standing as alegacy to the man that has changed humanities approach to architecture globally over the last 500 years.









# structures and organisation of space

#### Scarpa

#### Floorplans

Scarpa lived and worked in Venice for most of his life. He translated his Venetian roots by emphasizing on the use of water as a subtile guideline throughout most of his buildings. Tactile and artistic qualities of the city are translated through elaborated plans, explicit use of details and the ability to combine 'high' and 'low' materials.

During his life, his colleagues saw him as a misfit because he was not a 'real' architect -he finished his architectural studies at the academy of Fine Arts in Venice-. Besides that he did not go with the stream of contemporary architecture at the time. Where modernism cut off all the ties with the past and emphasized on the social-political properties of architecture, Scarpa was looking for morphological answers in times that had passed. A true 'homo universalis'. With a wide-ranging knowledge of materials and construction, a sensitive eye for the tiniest elements and the notion of atmosphere. Scarpa was able to execute his ideas in different scales that amplified each other. For example water gullies used as a suspension of the walkway so the visitor was forced to take his surroundings into account. Or the use of differences in height, to create a literal and mental layeredness in his designs. Details shared the same value as the use of daylight or the construction.

His way of working was dominated by drawing; plans, elevations, sections and an extensive amount of views accumulated on one paper. Probably derived from his roots as an artist he considered drawing as the most important tool an architect has. Besides that he found that it was the best way to imagine what the building would look like, it gave him the time for contemplation. Time to digest and dive into his ideas. Therefore his plans became an investigation into space, a work on its own.

#### The Brion Cemetery

The last project Scarpa saw realised was the Brion cemetry. Scarpa was commissioned by Onorina Brion to design a memorial in homage to her husband, Giuseppe Brion, dead in 1968. The family already possessed a mausoleum in the municipal cemetery of San Vito d'Altivole. In addition, an extra L-shaped piece of land of 2000 square meters was purchased in the north and east side of the existing cemetery, where a massive inclined wall made of concrete was constructed and where one of the two entrances is, with access to the road and which leads to the funeral chapel, open to the villagers, also behind these walls a bunch of eleven cypresses trees is found (The tree and the number 11 are from a great importance to the architect). The other entrance, is called by Scarpa as Propylaeum and refers to the Acropolis in Athens. Where one can find corridors, with different qualities of light and atmospheres. The way on the left side of the entrance leads to the arched and circular tombs of the Brion couple, open spaces with lawn and water basin, further one can also find where the tomb of the relatives are. On the other side, one can also find corridors, labyrinth like, this time leading to a contemplation space known as the meditation Pavilion, together with the meditation Pool. The complex was built between 1968 and 1970.

### Stampalia

In 1949, the Presidential Council of Fondazione Querini Stampalia wanted to restore big parts of their Palace located in Venice. When they decided to do so the director of foundation Manlio Dazzi immediately thought of Carlo Scarpa. Who was, especially in his younger years, very well known for restoration. Carlo Scarpa was asked to restore part of the floor and the back garden which were in terrible conditions.

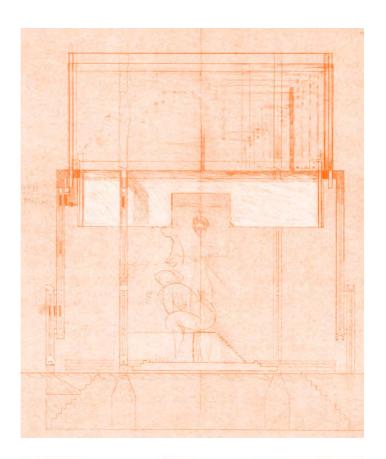
The project took about ten years to complete and Scarpa eventually got help from Giuseppe Mazzariol. Mazzariol actually didn't wanna stop there and proposed to also reconstruct the old entrance of the Palace and placing it in front of the Campiello Quern Stampalia.

What can be clearly seen that most of Scarpa restoration projects are a combination of both the old and new, creating new looking houses and spaces with still their old characteristics in it.

In this particular project water was a very big and important player. As you can see on the map it enters the Palace through the water gates along the inner walls. It is located in the garden in a big, copper basin made of concrete and mosaics with two ways streams going through some kind of labyrinth by the sides of it.

This project is basically made up out of four parts: the bridge (which at that time was the lightest and fastest arch ever made in Venice), the entrance, the portego and the garden.

In the end Carlo Scarpa managed to turn this typical Venetian courtyard into a very special scenery inspired by both Arabic and Japanese traditions.





## outro

### Introduction by Alejandro Aravena Curated by Alejandro Aravena

In his trip to South America Bruce Chatwin encountered an old lady walking the desert carrying an aluminum ladder on her shoulder. It was German archeologist Maria Reiche studying the Nazca lines. Standing on the ground, the stones did not make any sense; they were just random gravel. But from the height of the stair those stones became a bird, a jaguar, a tree or a flower.

We would like the Biennale Architettura 2016 to offer a new point of view like the one Maria Reiche has on the ladder. Given the complexity and variety of challenges that architecture has to respond to, REPORTING FROM THE FRONT will be about listening to those that were able to gain some perspective and consequently are in the position to share some knowledge and experiences with those of us standing on the ground.

We believe that the advancement of architecture is not a goal in itself but a way to improve people's quality of life. Given life ranges from very basic physical needs to the most intangible dimensions of the human condition, consequently, improving the quality of the built environment is an endeavor that has to tackle many fronts: from guaranteeing very concrete, down-to-earth living standards to interpreting and fulfilling human desires, from respecting the single individual to taking care of the common good, from efficiently hosting daily activities to expanding the frontiers of civilization.

Our curatorial proposal is twofold: on the one hand we would like to widen the range of issues to which architecture is expected to respond, adding explicitly to the cultural and artistic dimensions that already belong to our scope, those that are on the social, political, economical and environmental end of the spectrum. On the other hand, we would like to highlight the fact that architecture is called to respond to more than one dimension at the time, integrating a variety of fields instead of choosing one or another.

REPORTING FROM THE FRONT will be about sharing with a broader audience, the work of people that are scrutinizing the horizon looking for new fields of action, facing issues like segregation, inequalities, peripheries, access to sanitation, natural disasters, housing shortage, migration, informality, crime, traffic, waste, pollution and participation of communities. And simultaneously will be about presenting examples where different dimensions are synthesized, integrating the pragmatic with the existential, pertinence and boldness, creativity and common sense.

Such expansion and synthesis are not easy to achieve; they are battles that need to be fought. The always menacing scarcity of means, the ruthless constraints, the lack of time and urgencies of all kinds are a constant threat that explain why we so often fall short in delivering quality. The forces that shape the built environment are not necessarily amicable either: the greed and impatience of capital or the single mindedness and conservatism of the bureaucracy tend to produce banal, mediocre and dull built environments. These are the frontlines from which we would like different practitioners to report from, sharing success stories and exemplary cases where

architecture did, is and will make a difference.

