



PROCEEDINGS

of the workshop

ARCHITECTURE, ARCHAEOLOGY AND CONTEMPORARY CITY PLANNING

*Multi-Layered
Settlements*

*Sinan Burat, Giorgio Verdiani, Per Cornell
(Editors)*

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ARCHITECTURE, ARCHAEOLOGY AND CONTEMPORARY CITY PLANNING
Multi-Layered Settlements

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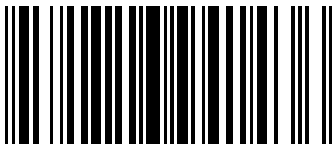
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NATURAL/HUMAN EVENTS AND URBAN TRANSFORMATION: WHEN THE ARCHITECTURAL AND NATURAL LAYERS CHEAT THE INTERPRETATION

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Abstract: When reading and interpreting an archaeological area, or an urban asset developed over an archaeological trace, all the remains, elements and evidence are seen according to the creation of the main idea developed in the mind of the archaeologist, the architect, the cultural heritage expert. But what appears in present time for the reading is the result of a long series of events, of changes happened in time, each of them creating a layer or behaviour in the way people used that place. The results of all these stratifications may produce difficulties in reading the real history of a place or may even cause misinterpretations from the people living in the nearby area (old and new, they are the so-called urban legends) or “sensational” interpretations supported by the will of building a news or promote personal theories. In the following paper, a series of archaeological, architectural and urban case studies will be analyzed. In between of them: the Ventotene Otium Villa from the Roman Age, the Rupestrian Settlements in Kapadokya, certain remains from the Roman ships of Pisa archaeological site, the façade of Palazzo Uguccioni in Firenze, the “legend” connected to certain military defensive tunnels taken for extremely long underground passages in various Towns. For each of these studies, some reflections will be done on the base of specific surveys and/or studies, in the try to define what creates the “artificial” story, and to show how specific investigations, like digital survey, thermal and geomagnetic investigations, or even simple reasonings may contribute to a correct interpretation and how, in a certain case, the popular “belief” cannot be beaten or changed by proper studies, no matter how weird it is.

Keywords: Urban Legends, Intangible Heritage, Misinterpretation, Archaeology, Popular Beliefs.

Introduction

The human environment is made of layers, even when we see a new settlement, when it is very recent, we know it is based on a soil with a specific evolution and with connection and surrounding areas with their own story. The fake idea of “empty territory: equal to nothing” is just in the mind of young newbies or lazy students, the world is now, more than ever, a system of complex, overlaying levels. And it is possible to say “more than ever” because of our increased capability in reading and interpreting it. When it comes the need to apply these processes of understanding and deductions to a historical building, to an archaeological area, or to an urban asset developed in a long time, or even over an archaeological trace, all the remains, elements and evidence are seen according to the

creation of the main idea developed in the mind of the archaeologists, the architects, the cultural heritage experts, or by teams with a mix of such professionals. What appears in front of this minds going on speculating about the past reality of things, is not always clear and easy to catch, while the reading is done on the results of long series of events, of changes happened in time, each of them creating a single layer connected to the behaviors in the way people used that place. And these behaviors influenced the evolution of the place, but they were behaviors from a specific time, defined and logical for a past context and sometimes not easily movable into the present interpretation. The results of all these stratifications may produce difficulties in reading the real history of a place or may even cause fake interpretations. In this, one misleading element may come from the natural

mutations of the territory and of the landscape, like the transformation of the vegetation, the changes in the natural water systems, or the erosion of the stones. What appears in our time is consumed, altered, or changed in such a significant way to lose the original relationship with the context. The reasons for pushing people to use and prefer certain areas or place are gone and finding them back can be a difficult exercise. In a different and sometimes even stronger way, the convictions from the people living nowadays in the nearby area may act like a tricky factor: old and new so-called “legends” or more modern “urban legends”, or even “sensational” interpretations supported by the will of building news or promote personal theories, all of them, may act in making difficult to start a correct interpretation of the events. The local beliefs may be quite hard to beat and may create curious alterations in the interpretations, it is very hard to overcome a popular illusion or a fascinating legend, and in certain cases, the popular “belief” cannot be beaten or changed by proper studies, no matter how weird it is. In the following paragraphs, a series of archaeological, architectural and urban case studies will be presented and analyzed, putting in evidence the difficulties that a layered environment may cause to understanding and resolving the information about a place, and how specific investigations, like digital survey, or even simple reasoning may contribute to reach a correct interpretation in between the stratification of events, previous readings and real transformations.

The Ventotene Otium Villa

The Mediterranean is rich in the beautiful and fascinating island, some of them, small and isolated, have a volcanic origin, robust masses of stone in between the vastness of the sea. Ventotene is a clear sample from this group, it is part of the Pontine archipelagos, it is located at about 55 kilometres from the coast between Rome and Naples. The preeminent material of the island is the Tuff, also named Volcanic Tuff, a rock made of volcanic ash. It characterizes a large geographic area. Because of its large availability and high workability (Nappi Ottaviani, 1986), in time it turned out as one of the essential construction materials for the settlements in the whole archipelagos. Ventotene increased in number and quality of its urban area during the Augustan age (44 B.C.-14

A.D.), in fact in this same period it took place the Imperial Villa Giulia realization.

The emperor Augusto made peace possible and regained its control over the Mediterranean Sea: as a consequence, many luxurious villas began to appear along the Tyrrhenian coast from Rome to Naples (Marzano 2010). The main attractions of this context were the *otium villae*, luxurious homes aimed at the rest of the body and soul. Villa Giulia was an important stop for the imperial journeys: it was set in a spot where the climate was pleasant, capturing the common feature of all the other types of maritime villas, which is a deep symbiosis with the nature of the Tyrrhenian coast, sought and obtained through the edification of panoramic terraces and pavilion deployed on multiple levels according to natural terrain conformation.

The organization of the imperial villae, especially the insular ones like Villa Giulia, was articulated in a series of pavilions and other architectural elements located in various points to exploit the scenic potential of the island's unique scenic views and portray its natural and evocative beauty (Lafon 2001).

The residential part of the villa, mostly dedicated to the *otia*, was designed on aesthetic criteria rather than functional issues while the *Domus*, another deployed pavilion, was dedicated to life-sustaining functions and the personnel living quarters (Romizzi 2001).

Other important features of these ancient constructions were the maritime quarters based both on aesthetic criteria and on economic self-sufficiency principles: ports, fish ponds and nurseries for fish farming were built in the effort of exploiting the resources of the sea (Marzano 2010). This structure was dedicated to leisure and culture. The villa also had a political function: it served as a place of confinement for the exiles of the Giulio-Claudia family, the first one was Giulia, Augusto's daughter, to whom the name of the villa is dedicated (Braccisi 2014).

The urban complex was aimed exclusively to residential purposes and included the imperial villa, the port, the fishery and a water tank to provide water reserves to the island inhabitants. Villa Giulia rises on a tuff plateau stretched out in the direction of the sea up to the extreme point of the island (300m by 100m). The original surface extension is now reduced by the erosive action of both wind and sea and due to the extraction of tufa rocks over the centuries. At the same time the



Fig. 1– Julia's Villa, Ventotene, Digital Survey of the archaeological site (Copyright: Barzacchini, 2018).

poor water resources and the extremely reduced presence of plants over the island show clearly two conditions that may alter the interpretation: 1) the amount of the ruins, testifying the original Villa are dramatically reduced by the falling of large parts of the tuff cliffs, this afflict most of all the area of the baths, making it of “not simple” interpretation. 2) the impression of a hard place to live is probably intensified by the absence of real green areas, creating a large surface beaten by the wind and arid. But this is a condition from the present days, it is possible to imagine a better overall condition in the two centuries around the year zero, with more rains and with the cistern system on the island functioning. The Villa, behind its abandon and alteration of the natural stone, is afflicted by climate change (Sabbioni, 2010).

A digital survey of the Villa remains, taking care of the main natural stone fronts, allow to read well the fragmentation of the remaining basements. The well visible trace of large blocks, detached and fallen from the cliffs witness the previous larger extension of the platform on which the Villa was developed. At the same time, this altered condition accentuates the “panoramic” aspect of the remaining spaces, the baths appear as facing the cliffs immediately with many rooms and corridors opening directly towards the sea. This condition needs a complete re-reading and this can be done starting from an accurate digital survey (Fig. 1) of the remains and going back to virtually reconstruct the original natural elements and architectures. In this way, it will be possible to bring back to a

certain consistency the use of well-consolidated knowledge about Roman Architecture, like it is, for example for the baths (Blanco Pucci, 2010) and arrive at a more certain definition of the possible aspect of the Villa (Barzacchini, 2018).

The Rupestrian Settlements in Kapadokya

When people visit Kappadokya they are in the centre of Turkey, a geographical centre, distant from the seas, on a territory of volcanic origin that over time has been excavated and eroded by natural and human actions to become an incredible and amazing landscape to any visitor's eye. The appearance of a natural environment with a “built” appearance has certainly stimulated the first inhabitants of these areas and the long line of their successors, intervening on the rock masses by digging shelters, deposits, houses, churches and entire cities (Jolivet-Lévy, 1991 and 2002). The rock has thus crumbled and weakened and the whole of the excavations, while richly defining the territory, has accentuated the degradation and natural wear of the material, collapsing and transforming interiors into facades, showing beautiful details about to dissolve: a rich sample of fleeting wonders. The patrimony of Kapadokya appears today destined to a vast loss (Andaloro, Pignatale, Verdiani, 2013), incapable of supporting the admirable tourist load, which can only be partially preserved and for this reason even more exceptional in its last phase. The long-time of rupestrian architecture is passed, the monumental

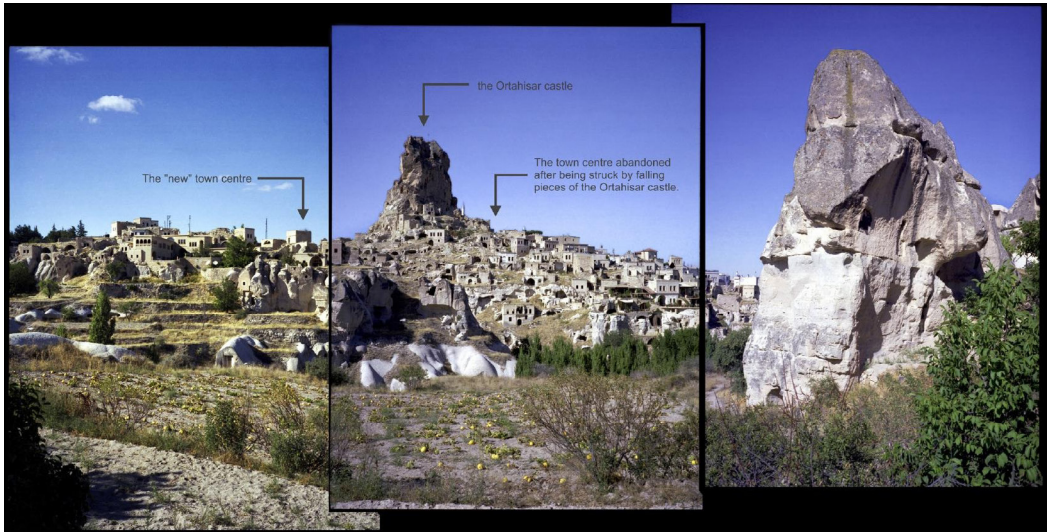


Fig. 2– Ortahisar, Kapadokya, Turkey, a useful parallel between old and contemporary urban development in rupestran environments. (Copyright: Giorgio Verdiani, 2014).

phase remains, the exceptional resonance and vision, the intersection of incredible nature and incredible choices, which in their time have certainly appeared logical and decisive.

The large archaeological sites, the vast areas rich in ruins of various types, do not necessarily indicate a single phase in which the whole area was vital and active; on the contrary, the image of the ruins can convey the impression of a system that despite having developed in a multiplicity of years has been completely used in the same period (Crescenzi, Scalzo, Verdiani, 2016).

The incredible number of rupestran churches and settlements may induce to believe about a very extended population, but at the same time, it does not demonstrate the real coexistence of such large populations, nor the simultaneous use of entire settlements.

It is credible to imagine that the progressive extension of the settlements, the part subject to degradation was simply abandoned, or “downgraded” to accessory uses, in favour of new architectures of more recent realization (Verdiani, 2013).

But the image that the place transmits, however, it is the one of a vast settlement, the long story of its development is received in a single spot, during a tourist visit, with an effect tending to leave the visitors amazed, more than guiding them to reasoning (Fig. 2).

Those who work in the reconstruction process must read and listen but must keep their logic

and interpretative capacity in alert: the most widespread belief can often contain both real elements and potentially misleading aspects.

The Roman ships of Pisa

In Pisa, in 1998, the courtyard works for the basement of a new building along the railway line brought to the discovery of an ancient harbour with the finding of numerous ships, boats (Fig. 3) and all the remains of structures and lost items/goods from an “interchange” port who probably was functional between the V century BC and the V century AD (Camilli, Setari, 2005).

The original port was a sort of exchange place between the canals, the rivers and the routes to the sea (Sedge, 2002), a part of the ancient water infrastructure characterizing the place in the ancient times, a solution common in the human/natural water landscape of the past (Gawronski et al. 2017). Such an important archaeological site took years to be properly excavated and explored, in facts it is a still-active project for the archaeological teams at work there (Beltrame, 2016).

Thus, at the very beginning of its archaeological site, the rhythm of the excavation and the discovering was extremely fast, with one finding following immediately the other, almost in a sort of race with a high level of attention from the local, national (and sometimes even international) media

about the ongoing and unusual archaeological courtyard. In the middle of this rapid and continuous process of excavation, at a certain point, there was a long-awaited moment came to its climax: a human skeleton, complete, in a pose leaving no doubts about violent death, was found. The man, fallen in the water or the mud along a very distant time, was crushed by several wood beams and to complete the dramatic scene, the skeleton of a small dog was found at a minimal distance from the human remains.

Now it is worth to say that, before analysing the details, materials, and studying with proper accuracy the whole scene, it is not possible to be sure about anything from such a scenario.

The man should be died at first, maybe falling near a dog arrived by the water in a previous moment and the beams fell on them later, completing the asset. But from the local newspaper, the day after, there was no need to investigate and analyse:

The man, "for sure" a sailor or a worker in the Roman harbour, died while trying to save his small friend (the dog) from the falling beams (Fig. 4). A whole story, quite emotive and capable of some effects ready to be told in the space of seeing what was just excavated (Amorevoli, 2000).

Thus, it should be worth of some reflections the fact that the findings in this harbour cover a time range of about one thousand years, so it is easy to imagine that all the characters of the imaginative



Fig. 3– The excavation site and one of the first ships completely excavated, about 1999. (Copyright: www.comune.pisa.it, 1999).

scene are not so easy to be found in the same instant. The dead man, the pole crushing him and the dog should be arrived in different moments creating the scene found very later by the archaeologists.

But the impressive appearance is worth to construct a story and give emphasis to hypothetical events. In the end, the site is not new to "exaggerate" with words and stories, from the desire about having some warships sunk in a commercial harbour to be named "the Pompei of the sea" trying to evoke some terrible but even fascinating disaster.

But it is not the clamour that should drive

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Resuscita dopo il naufragio marinaio di duemila anni fa

FIRENZE - Il volto dell'ignoto marinaio ha preso forma dopo mesi di lavoro certosino. Strati di plastilina sulla fronte e sulle tempie, spessori ricomposti, muscolature inserite nelle ossa del cranio. Finché i tratti sono apparsi nel calco di gesso, con la magia di una scultura dalla creta. Una faccia mediterranea, virile, di aspetto familiare, che emerge dalla storia del relitto di una nave romana, affondata nell'antico porto di Pisa nel 7 a.C., dopo oltre duemila anni. Il suo scheletro è comparso l'estate scorsa insieme a quello di un cagnolino: entrambi schiacciati sotto il carico di anfore di una nave, seppelliti nella sabbia di San Rossore, chissà dopo quale tempesta. "Resti intatti" - spiega Stefano Bruni archeologo e direttore degli scavi, per ora in corso solo su 8 delle 16 imbarcazioni rinvenute - "Tant'è che la perfetta conservazione dello scheletro ha permesso il calco, la ricostruzione della testa del marinaio e tutta una serie di ricerche e studi eccezionali". Il lavoro per dare le sembianze al teschio è stato fatto dall'équipe di Francesco Mallegni, professore di paleontologia del Dipartimento di scienze archeologiche dell'Ateneo pisano. "Utilizzando la tecnica americana di medicina legale, abbiamo giocato con gli spessori, adattati a modelli di fisionomie europee" spiega Mallegni, elencando altri volti resuscitati nel suo istituto, l'"etrusca di Colle Val D'Elsa", o l'"atteta di Taranto del V sec. a. C., oltre ad alcune mummie senesi". L'effigie dell'ignoto marinaio sarà

Fig. 4– The news of the human and dog skeletons during the excavations in Pisa, the title indicates "A two thousand years old sailorman resurrects after the shipwreck". (Copyright: La Repubblica, 2000).

archaeological investigations and in the end, there should be only hypotheses based on correct and verified facts to drive the pen in writing the final stories about the places.

Even when is nice to daydream about stories of friendship and courage in the ancient harbour.

Santa Croce, Firenze

The historical monument, especially when it arrives in our time in a complete shape, well restored, well managed and with all its parts “apparently” in the right place, even when it appears in a well coherent aspect, it is probably defined by a long and articulated sequence of interventions, with a continuous series of reconstructions, repairs and reorganizations that brought the building in our time with significant differences from its original ideation. The complex of the Santa Croce (Holy Cross) Basilica in Florence may be one of the most complete samples in demonstrating this possibility of “imperceptible” (to the most of the people) change in the built heritage.

The principal question will remain: how the transformations applied to the building are not that easy to be recognized? The gradual and progressive changes in an extended time help the effect, the materials, and their decay and consumption, the “patina” due to centuries, uniforming the surfaces made possible to misinterpret the phases, but the whole building has a long series of changes. From its settlement to the present time, the Church and the convent were altered, expanded, edited and received new elements (Bucci, 1965), thus composing an overall coherent ensemble of elements, all balanced by a common language, made of proportions and rules, some of them linked to the use of traditional materials, some other linked to practical and technical choices, but most of all defined by a sort of “respect” for the previous presences and then capable to harmonize the new parts with the elders.

The complex developed its asset starting from first settlements in the XIII and to define the main configuration of the Church with three naves and the convent in the following century (Moisé, 1845). The numerous interventions brought on continuous changes, but two parts remained unfinished until the XIXth century: the tower bell and the main façade on the square (Fig. 5). Both these meaningful elements passed through various tentative in time but never get a

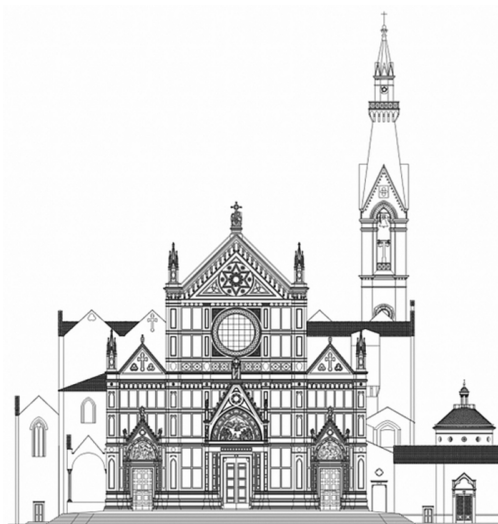


Fig. 5– The main front of Santa Croce Basilica as it appears today, with the façade by Antonio Matas and the Tower Bell by Gaetano Baccani, both from the XVIII century (Copyright: F. Tioli, G. Verdiani, 1998).



Fig. 6– The main front of Santa Croce Basilica as it may appear in the XVI century in case of completion of the Tower Bell by Francesco da Sangallo. (Copyright: F. Tioli, G. Verdiani, 1998).

completion. Between 1853 and 1863 Antonio Matas designed and realized the façade; while with a very quick courtyard the tower bell designed by Gaetano Baccani was realized from 1842 to the 1845 (Ruschi, 1986). Both these “recent” architectures are defined by a neo-gothic eclectic style. The tower bell, especially, with its height of about 78 metres appears like a strong landmark in the Florentine skyline, thus the large dimensions of the Church and the good balance between the materials and details of the side of the building and the towers, create a well-composed system,

making not immediate to recognize the tower as a later integration of this architecture. Thus, even if the present tower bell looks a coherent completion of the Church, it is far from the original asset, in time the story of the “tower bells” in Santa Croce was extremely various and unlucky (Verdiani, 2005). The original tower bell, felt on the Church during a storm in 1521, causing heavy damages and leaving poor traces, in form of replacement a simple wall with openings for the bells, a bell gable, was realized upon the apses. Probably it was considered as a provisional solution, but it was destined to be the only tower bell for about the following four centuries. In facts all the tentatives to give to Santa Croce a proper tower were somehow interrupted, one was just planned over one of the chapels, but soon abandoned after some initial works. The new large one was then designed and started by Francesco Da Sangallo, but it was left at the condition of the first base, positioned at the left side of the unfinished façade (Fig. 6). The Florentines used to name this remain “the Santa Croce Stone” and it remained in place until the new façade works in the XIX century, the realization of the Matas architecture leaves no chance for “the stone” it was completely demolished (Detti, 1997).

Even a first proposal for a new tower bell advanced in the XIX century by Ulisse Faldi was a failure, at that time Gaetano Baccani was called to give an opinion about the project and he disapproved it, even with good reason, while it was probably a too low tower to be perceived from the large square. And so, in the end, Santa Croce had the Architect for the final tower bell, Gaetano Baccani himself designed and brought on the courtyard of this significant building.

Even if the story of the tower bell was brought to completion in this way, it is clear that the long story behind it is a sort of puzzle of possibilities, each one interfering with the others and with other parts of the Church and convent. A problematic placed in between the “what if” and the possibility to better understand the dynamic and the approach to architecture in the past centuries.

Palazzo Uguccioni in Firenze

This residential urban palace (Fig. 7) was built in Florence in 1550-1559, in time it had discording various attributions: to Mariotto di Zanobi Folpi, Michelangelo Buonarroti, Andrea Palladio,



Fig. 7– The front of Palazzo Uguccioni on Piazza della Signoria square, Firenze.

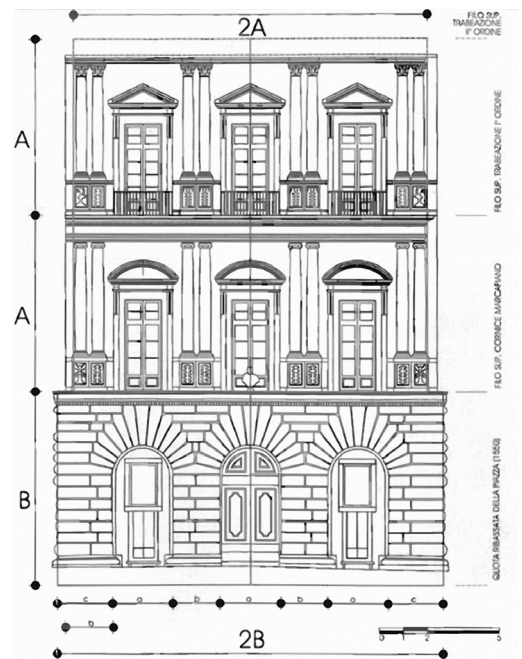


Fig. 8– Proportions and original grond level for the façade of Palazzo Uguccioni (Copyright Bianchini, Moschillo, Cambi, Verdiani, 2001).

Bartolomeo Ammannati, Raffaello da Montelupo and to Raffaello Sanzio (Fredianelli, 2007). In the uncertainty of the architectural attribution, most of the readings agree in recognizing the design of the façade about “Roman” models, defined by proportions and decoration solutions closer to the style adopted in Rome in the same period than to the Florentine approach to the subject of the urban façade (Calvani, 1984). In addition to the particular design story, the materials themselves, do not help: the use of poor quality sandstone, easy to suffer by weather effects of rain, icing,

wind, The graphical study (Fig. 8) of the front should be helpful in a better investigation of the original project, but even using a good quality survey as a base, this operation may turn out quite tricky, with some difficulties in getting correct alignment of a composition grid to the ground line of the façade. The problem is easily solved aligning the grid to the top moulding, just beneath the roof elements. The alignment of all the lines guiding the composition comes out correctly to all the other partitioning of the front, but will “sink” in the soil, for more than half a meter. This is caused by the gradual rising of the ground in the downtown, in the centre of Florence, since the XVI century, the increment in the level of the soil is estimated of about 60/70 centimetres. This rising, combined with the restorations happened in time defined a slightly reduced height of the façade, then exiting from the original composition and causing a possible misinterpretation in the reading of the original design. Such a variation is difficult to understand at first sight and needs specific research and understanding to be recognized. The rising of the soil in the most ancient parts of the town is extremely common but often is well visible because of the creation of “steps” and variation in levels between the ancient building and the contemporary floors of streets and squares. This condition is not specific for Florence only is a quite common event in all the town and cities with a long historical past, checking the variation of the urban soil is then a fundamental step before starting any analysis about the original design of a façade or the general building asset.

Certain underground mysterious tunnels...

After his imperial proclamation, Hadrian, in 118 b.C., began the building up of his extra-urban Villa. This large architecture is one of the many examples of marvellous imperial residences that started to flourish during the rule of Tiberius (27 b.C.). Construction of this size moves the issue-solving processes from the proper conditions of a building right to the urban scale, with specific problems of people and goods movement all around such a huge settlement. The choice made for the Hadrian's Villa was to try creating an articulated network of connections completely independent and almost invisible from all the area of the Villa, which was characterized by richness and luxury, this was done for two main purposes:

to avoid having a direct view on the activities of the servants and to create special spaces for walking and relaxing in the summer season for the Emperor and his court. In the Villa there are many types of connections partially or completely realized underground, some have been completely built, with the realization of a dig and then of vaults and other masonry works to integrate it to other constructions or back to the landscape, others were made simply digging tunnels into the tuff (De Angelis D'Ossat, 1973). The name used to indicate these structures is *Cryptoporticus*. The state of the knowledge about the *cryptoporticus* network in the Hadrian's Villa documents a system articulated along almost five kilometres.

The need for galleries was strictly linked to the mobility inside the Villa's area. A need which was similar to the current needs of urban mobility of people and goods. In the complex of the Hadrian's Villa, *Cryptoporticus* have very different characteristics, especially under the functional aspects. Often the function of a *cryptoporticus* changed over the years, adapting to specific needs (Verdiani, Corsaro, 2011). Generally (and often wrongly) some underground tunnels are defined *cryptoporticus*; *cryptoporticus*, in its standard definition, means a series of corridors partially buried, barrel-vaulted and lighted by small windows open on one side of the vault. Often the corridors are linked together according to a rectangular shape and are frequently placed under a peristyle. The *cryptoporticus* was generally used as a substructure, or to stabilize a steep terrain, or like a podium for other architectures. The network of underground paths of Hadrian's Villa (Fig. 9) can be classified according to some macro-categories: Classic *cryptoporticus*, for the imperial court, usually decorated.

Link *ambulacrum*: are galleries connecting the different buildings, they were usually used by the crew of the villa.

Underground carriageable roads: There is an extensive network of roads for the transport of supply and building materials.

Hypogean elements of service: Like maintenance galleries, aqueducts, depots, and so on.

Inside the Hadrian's Villa, almost every building is composed and serviced by one or more covered path, just near or even combined in the structures. Such a complex system asked a complex project, with very specific solutions, thus, with the decay of the area, the reason for

all these structures was forgotten. Now it is well known that easily stories and legend about fantastic “underground” construction took place among people. “The tunnel going from here to there”, “The conduct from the castle to the monastery”, “the secret passage”, are mere samples of a reality barely perceived in holes opening in the ground and badly read from ruins and parts of old architectures. But the people from the Medieval age were probably able to enter and visit large parts of the Cryptoporticus system, the trace was so clear that no legend about a fantastic system of tunnels was created, the tunnels were there in front of them, ready for a tour. So, during the long centuries of abandon the Villa and Hadrian were not completely forgotten, during the middle age a legend about a local Saint, “Santa Sinforosa”, took place with a strong link to explain the “underground” characteristics of the Villa in connection to Saint Sinforosa’s martyrdom. According to the main legend Hadrian sent Sinforosa, a Christian Roman woman, to death, the reason for this was the refuse of the woman to renounce to her religion. As the following punishment for his bad act, after the death of the Saint, Hadrian was persecuted by her spirit and by strong remorse. So, he decided to go living underground to hide from the sunlight and to expiate. It is possible to imagine this legend as a direct explanation of the strange and huge underground network the people from the middle age found in the Hadrian’s Villa, probably the idea of living far from light was suggestive enough to need some strong and complex legend like this one. Visiting this huge “invisible” town, it comes immediately clear where the legend found its origin.



Fig. 10 – A typical anti-mine gallery, easy to be confused with a “secret passage”, view and scheme about how it works and a scene from a historical reconstruction (Copyright Verdiani, Rodriguez-Navarro 2018).



Fig. 9– View of the Cryptoporticus under the “Fish Pool” in the Hadrian’s Villa, Tivoli, Italy. (Copyright Corsano, Verdiani, 2010).

This creates a very specific “parallel” and makes a significant difference with the most common situation of other “mysterious” underground passages... All around the world, in association with large and ancient architectures, there is the frequent presence of stories and legends about tunnels, galleries, hidden spaces, hidden treasures (Pignatale, Leonardi, 2014). The myth is sometimes linked to misinterpretations of the buildings of other structural works. Is it the case of the “anti-mines” galleries (Fig. 10), often left beneath the walls of a town or fortress to intercept the possible tentatives from an enemy about excavating a tunnel to enter the defences or damage them. The presence of these long passages may often inspire the idea of a path going somewhere, no matter how weird or unpractical is the result, the fascination over the people is often too strong. So strong that the concept of the “hidden passage” is “invincible”, no matter the accuracy, level of details, technology or competences entering and investigating the mystery, if nothing comes out, this will never be evidence of unexisting, there is only to search again and better, the passage or treasure is simply yet to be found.

Conclusions

Rereading a historical architecture in the present time requires two meaningful abstractions and a correct and extended culture mixed with a good elastic mind. The first abstraction requires to interpret the needs and the cultural environment according to the specific time in which it is under investigation, understanding, for what it is possible

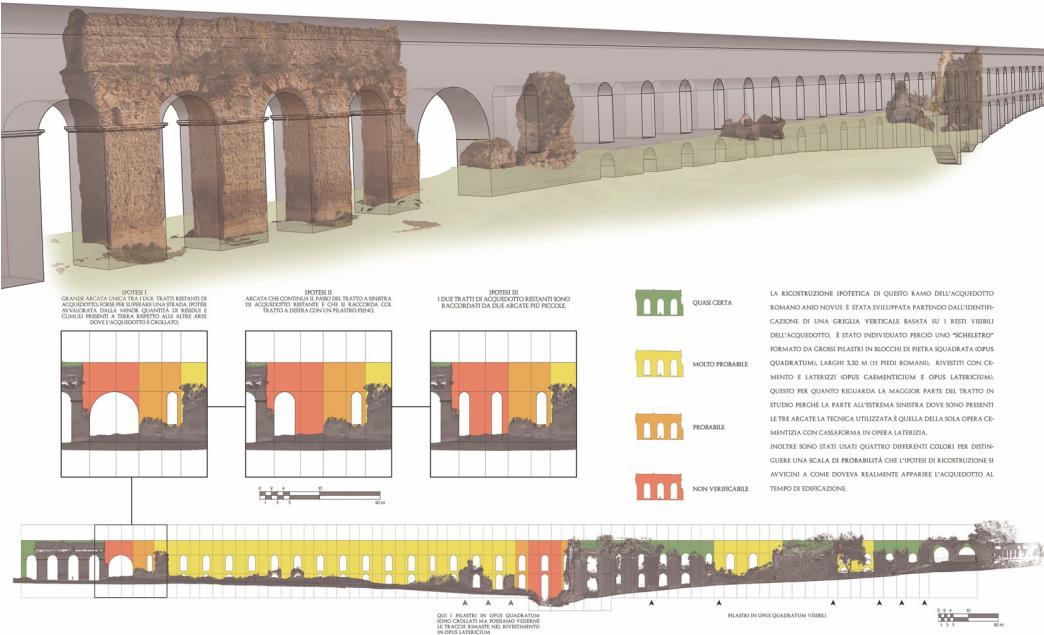


Fig. 10 – Virtual reconstruction of a part from the Anion Novus Roman Acqueduct Castelmadama, Italy, the different colours indicate the level accuracy for each reconstructed part. (Copyright Bellini, Camiz, Verdiani, 2017).

the conditions of the past conditions at the level of architectural and artistic as well as technological and practical characteristics. Having access to some information about the ancient climate and natural environment may be of extreme help. Having clear ideas about the system of questions/answers in which one architecture or an urban asset was involved is extremely important, in the example: for a fortress: "From which kind of weapons it was going to protect its soldiers?" and "Which kind of weapons were hosted in the fortress?". The second abstraction will require to remove the veil created by the local believes, the values of this condition can be a real intangible heritage, something precious and worth to keep and understand, but often the consolidation of certain ideas may play against the real correct interpretation. If one real new interpretation is needed sometimes there is the need for a sort of restart. Picking up all the evidence and removing the acquired certainties. It may take time and it may come out difficult to communicate the result. But it may be the right step forward from a previous blocked condition. And about "getting blocked" the scholar investigating on these interpretations should never be scared to

throw away the longly mumbled ideas and restart. Remaining stuck on certain dead ends sometimes is the worst condition, there is the need to find new paths and new approaches, while probably the previous solutions are not working at all. Last but not least, most of the time, finding the right questions will be more important than making efforts supporting ideas that appear correct. In this sense, when one architecture or urban sector is partially or almost totally disappeared it may of no use searching for the missing parts, one of the most intelligent strategies will be finding possible answers to the question "why the parts still in place are remained?".

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