New methods for the drawing of the *Archaeological*Forma Urbis: Bohob's research in Catania

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Abstract. Nowadays, in the centre of Catania, the several visible archaeologies seem more irrelevant objects than ancient treasures. This is due to fact they are fenced in scattered holes without any common idea. "Bohob", the group of architects we belong to, is conducting a research in order to address this burning problem by means of a two-pronged approach. On one hand, by the Drawing of the City, a large plan of Catania including all the archaeological ruins representing their integral role in the building of the city and in forcing the shape of the modern town; on the other hand, by the Minimum Projects, consisting of shrines on a citywide scale in which the ruins are enclosed as well as appearing as gems and not as temporary objects in the urban pattern. The core essence of the research is studying the relationship between the archaeology and the city via an interdisciplinary method based on the brand-new digital forms of representation; starting from considering the ancient as "active part" in the construction of the town and its little fragments as gems mounted in the urban pattern.

Keywords: City, Architecture, Archaeology.

1 Background

In Catania, a submerged city shows episodically itself to the emerged city through its ruins fenced in "holes" scattered in the city centre. The authorities' action does not take into account the extraordinary condition in which two cities overlap each other. Hence, the archaeological areas are the dramatic expression of the lack of any point of view on what these remains and these places can be for the city.

The steps followed by the authorities could be summarized as follows: Choosing a place, defining a measure, fencing in the perimeter. Those who have to found a city are faced with the same successive steps, with an abysmal difference, however, contained

entirely in the purpose of those gestures: the city is founded to *include* life into it, the archaeological area to *exclude* it. In the name of protection *tout court*, the inhabitants lose part of the vital space that until recently belonged to them. Nevertheless, the worst aspect of this appropriation of space is precisely the lack of a subject driven by the needto occupy: i.e. the absence of an "enemy" who reasonably wants to snatch part of their space from the inhabitants.

Furthermore, in the intentions of these subjects, we do not believe lays a clear desire for forced appropriation of space, if only because it would be in clear contradiction with the one principle that seems to guide their actions from time to time: *neutrality*. From the most clamorous action (such as the location of an area to be excavated) to the smallest (the assembling of fences), neutrality is the only minimum common denominator. Other aspects, such as the temporariness and reversibility of the intervention, are linked to neutrality as the only drive qualifying the choices. They tend to start from the idea that any transformation involving archaeology must be temporary. In fact, it is precisely because of this way of proceeding that the ruins in the city are isolated presences in scattered holes (*objets trouvés*). The lack of serious vision generates a relationship of indifference between the inhabitants and the ruins, in which the one is alienated from the other. The extraordinary preciousness of the archaeologies is degraded to the point of being unwanted.

Actually, looking at an excavation is highly unlikely to recognize a project (intended as a transformation sustained by an idea), but instead only interventions: The intervention is a *fact*, the project an *idea*. The project should be based on an assumption, on a precise point of view on the world and for this reason it is always "partisan", each time compromising. A project always chooses sides, and we believe that this is what frightens who do not have an idea about the ruins. The project must necessarily be a vital aspiration towards the possibility of a place for people.

Moreover, a choice that turns out to be wrong in time is still far better than not deciding. A wrong project, if it is really the expression of an idea, will really condition the lives of the inhabitants, not establishing a relationship of indifference with them but rather one of confrontation. "Polis" is the root of "polemic", a city without struggle is a dead city. The citizenship renews its identity above all in the face of an "enemy", in the face of what it recognizes as in contrast with all its values. However, a contrast requires at least two opposing visions. In the face of neutral intervention designed to affirm nothing, the clash is denied, here reigns misunderstanding and indifference, serious dangers for the health of a city. The lack of choice behind archaeological enclosures produces not only spaces that are not frequented by people, but real voids of meaning for the city. Truly, the authorities' blindness causes serious damage to the quality of the relationships of the people. The paradox is therefore to recognize in those interventions guided by neutrality some drastic and harmful choices precisely because they are not controlled and never reasoned. For instance, the "choice" of focusing only on the ruin itself, the "choice" of making it totally visible and on the other hand the "choice" of keeping it closed to human presence, the "choice" of making the hierarchies of a place incomprehensible and destroying its spatiality. We can rightly be convinced that none of these decisions has ever been the object of conscious reflection on the authorities involved in the protection of the archaeological areas. Nonetheless, these are precisely the consequences that affect the city making archaeological excavations similar to military areas, restricted areas for people.

All things considered, only the project can continue the construction of the city because it aims to enter decisively into its structure by re-establishing new relationships. Moreover, we do not believe that it is possible to design by looking at the archaeological area as itself and not as part of the city. This sectorial and watertight compartmentalized approach deprives the city of its vital space. The archaeological area is nothing more than *another city* that has emerged for some reason and with which we can attempt to establish a credible and plausible relationship with the *current city*, reaffirming that the city makes sense if it is a space for relationships.

2 The "Drawing of the City of Catania"

All these considerations about the nature of a city and the geographical space to this city have no meaning if not expressed through drawing. Representation is capable of saying all this with force and clarity.

2.1 The Plan by Sebastiano Ittar

In Catania, there is already a drawing of the city that is undoubtedly the most remarkable work ever been done: "La Pianta Topografica della Città di Catania" by Sebastiano Ittar. It is the most important work on the shape of the city of Catania because the plan has been able to produce two notable shifts inherent in its representation.

The first gap consists in the fact that the Plan is the first scientific drawing of Catania: Ittar manages to complete in about 25 years a huge effort to restore the measure of the city. The Plan is the first orthogonal projection of Catania; no one had ever seen the city in its entirety and in its exact dimensional relations. In this sense, it is clearly an invention: for the first time the shape of the city appears, is revealed in a drawing.

The second deviation made by Ittar lies in his idea of the city. The orthogonal projection of the city would have been sufficient to produce in any case something new and powerful, but Ittar goes further by representing his idea of the city: the close relationship between the contemporary city and its scenery.

He accurately draws the archaeologies buried under the city. He is not at all driven by "antiquarian" reasons but rather by constructive ones, which are perfectly within the discipline he deals with: architecture¹²⁶. Rather than isolated archaeologies, the ones he draws seem more like fragments of a whole that from "below" undermines the shape of what is "above": there is another invisible city that constrains the development of the visible one. This makes still more species if we consider that Ittar designs a young city, with little more than a century of age, almost integrally reconstructed following the earthquake of the Val di Noto of 1693. Therefore, from the Plan, it emerges a city of the XVIII century that only superficially appears totally brand-new but that deeply sinks the own roots in the fragments of other cities by now become founda-

²⁶ This may seem superfluous, but it is necessary to clear up any misunderstanding from the outset: the drawing of a city is always a matter of architecture and never of town planning.

tions.

The Plan of Ittar was printed in 1832 and appeared to be a work of the nineteenth century, not only for its obvious chronology, but above all for its intellectual position.

The city of Ittar is articulated through the juxtaposition of the blocks that compose it: the scale of representation adopted, the technical means at its disposal, the new ideas in the field of urban analysis, all converge towards a typological representation of the city. A way of representing placed within a period in which, for the first time, a systematic approach to the form of the city was felt, up to that moment only punctually faced by experiences sometimes extraordinary but not related to the same direction of research.

Our Drawing wants to be the 1832 Plan in the present day, not meaning a mere technical update but a shift of meaning with reference to Ittar itself.

2.2 The Drawing of the City of Catania: idea

To take the model means to betray the model. Going beyond the issues, raised by the reference from which we start, is a duty and the only way to add a necessary piece to the discussion in which we want to act. In our case, we attempt to go beyond Ittar's work.

The limit of the Drawing that the Bohob laboratory is carrying out is the eighteenth- century city of the post-earthquake reconstruction of 1693. Because it is this measure of city27 that determines the shape of Catania today. Our drawing shows the same city staged by Ittar in his Plan. However, what does it mean to make that drawing today? Clearly if we really want to make that drawing, it is necessary to make a different one. Faithful to the principles and not to the form, Bohob's Drawing wants to collect Ittar's idea of city and make a drawing even more pushed towards the physical fact of the city: our Drawing aims to be a constructive representation of the city of Catania.

The instruments available today allow us in a credible way to make a leap towards the understanding of the truth underlying the city. Therefore, the scale of the Drawing is 1:500, a powerful scale of representation for a drawing of the city. However, the issue is not superficially an enlargement of Ittar, a way of adding detail that Ittar could not technically have detected. His Plan is powerful precisely because of the lack of many details that would have weakened the "typological" figure of his representation, thus precisely what Ittar chose to omit. Not an enlargement but a shift towards the constructive dimension of the city. With the Amphitheatre and the Ancient Theatre, Ittar violently28 affirms that the city of "below" administers measure and form to that of "above", but the very scope and limitation of his Plan lies in doing so through the typological and not the constructive eye.

We choose the representation in a constructive sense of the city; this choice gives us the right to feel inside Ittar's reasoning more than he did. In this sense, the Plan

²⁷ One can rightly speak of several distinct cities in the case of Catania, since the numerous times it has been destroyed and rebuilt, discrete monolithic blocks somehow superimposed

²⁸ Even more so, if we consider that in its time the Amphitheatre was entirely buried by the city, unlike today where part of it has been made visible.

becomes a controversial archaeological subject capable of providing more suggestions for the future than it did at the time it was conceived. Reversing the reasoning, we affirm that Bohob's Drawing is more coherent with the main ideas of the Ittar's Plan than the Plan itself.

2.3 The Drawing of the City of Catania: structure

The Drawing of Bohob is composed of three syntagma: the roofs, the public buildings, the archaeologies. Their relationship gives shape to our idea of the city.

It is not possible to say with absolute certainty which of the three is more decisive in the form of the city but, if we were ever forced to say one, we would undoubtedly say the roofs. Roofs build the brute mass of the city, its skeleton, and at the same time give other fundamental information about the city. While they draw the outline, they give an account of the density of the built-up area, of its internal tensions. In the passage from silhouette to density lies all the effort of a year that Bohob has carried out in the redesign of the roofs of Catania. The shape is a datum expressed both by the drawing of the block and by that of the roofs. Nevertheless, the block is not a constructive unit but a typological one, to be clear: unlike the roofs, the block is not an element of the construction. The roof is a requirement and as such is capable of expressing the reasons it contains. The shape of the block is the result of single constructive acts no longer recognizable in that form, the roof instead, in the extreme synthesis of its few lines, expresses all the complexity of the plan, alluding to an invisible but present richness.

The measure of the city passes through the measure of the roofs. The accurate, or rather exact²⁹, design of the single roof with respect to the whole design finds its place in the hierarchy of the city, accentuating an axis if it is a large roof or giving unity to a small agglomerate if it is a small roof. The drawing of the roofs is able to give back in a representative form the perception of the density felt in the streets, being inside the city. Walking in a part of the city marked by blocks with tiny buildings has nothing to do with the density perceived in another part where a building corresponds to an entire block.

Drawing roofs is a powerful way to bring out specific characters of the city and not only its overall structure. A particularly effective exemplum of these specific characters is the "unreasonable disproportion" between the Benedictine Monastery and the houses of the surrounding neighborhoods. The ratio between a house in the neighborhoods and the Monastery is 1:35; an impressive proportion if we consider that usually in a city the ratio between an ordinary and an extraordinary building range from 1:4 to 1:6. The Monastery on the city's hill is one of the largest monastic buildings in the world. This datum, however statistically remarkable, considered in itself is useless to us; it is just one those many suggestions that we must daily evade. The relative dimension makes the city and not the absolute one. Around the Complex, develop the

²⁹ The difference between "accurate" and "exact" is fundamental. The former term may be at odds with the constructive idea of the object to which it refers, while the latter is not, because of its specific feature is to express an idea. A neutral relief is "accurate"; another that forces one aspect and conceals another in favour of a whole clarity is "exact".

most popular quarters of the city, marked by a measure of tiny housing³⁰. Face to face, the smaller fabric of the city is compared with the beastly and completely outsized size of the Monastery. This contrast gives shape to one of the strongest pieces of the whole city that in the Drawings the roofs have the ability to render.

Some buildings more than others are able by form, size, settlement issues, to specify the nature of a city. These buildings are what we call public buildings. In the Drawing, they are represented in horizontal section and not in plan like the roofs. The choice of this type of representation can be explained by the fact that we intend the plan of the public buildings as a "future archaeological section", as if to anticipate a persistence in the future site of the city: representing just what will remain in a future in which they, too, will be archaeological³¹. The term "public" in this context should be meant not in its literal meaning but in its spatial meaning. For example, both churches and palaces of the nobility are drawn as public buildings, and it is clear that they are not literally public either. Rather, we define the latter as public in that they are capable of representing the city, buildings capable of carrying within them the reasons for the city and acting as ordering elements of space.

How an invisible city is able to give form to the one that has emerged?³² The object of the Drawing is the form of the city and its aim is to represent its construction through the close relationship it has with its archaeological substrate. Having a clear sense of the research is fundamental in order to discern what is important to us from what is not. In the case of archaeology, our interest is directed towards those that, over the course of time, have been able to prefigure the form of the city: only those that therefore "belong" to the city since they have actively influenced its structure. In the Drawing, they are represented in horizontal section but, unlike the public buildings, a hatch spells out this time the section since these fragments are already archaeology.

It is good to specify that belonging to the city is not a datum that has to do with the visibility of the ruin in the urban space but with being present in a deeper sense. The Drawing takes the responsibility of drawing with the same weight both the visible archaeologies in the city and the submerged ones, if both have contributed to build the city. From the point of view of drawing only what gives shape to the city, the possible invisibility of the pre-existence is completely indifferent.

³⁰ This was due to the political choice of the men in charge of guiding the post-earthquake recon struction to define a real clear demarcation line that established two different land costs in the city. The Benedictine Monastery occupies a large part of this area and its economic and political power enabled it to acquire so much land that the less well-off were concentrated in neighbourhoods around the Monastery. This political choice is explained by the presence in this area of the Jewish ghetto, which became a huge empty area available after the expulsion of the Jews by the Spanish.

³¹ [Alberti is interested above all in the city as it is, the city through time; he is interested in the city and its history, in what he can still touch with his hand, such as the ancient city that has come down to him, the city and its architecture, that city which, through the signs left by time on its form, allows him to distinguish what is durable from what is temporary, what is important and therefore permanent from what is eliminated by time.] (Grassi, G. 2002)

 $^{^{32}}$ As Heraclitus said «The hidden form is more powerful than the manifest form».

3 The "Minimum Projects"

Minimum Projects are the constructive manifestation of the idea of giving dignity and value to spaces that currently have none. Each project consists of a white stone shrine to house the ruins. Many white cases of various sizes scattered around the city will make the small ruins they contain read like fragments belonging to a unitary whole.

They are not specific responses to the needs and problems of one area with respect to another, but aim to be applications of the same architectural construct, variations on a theme, which according to the characteristics of the specific site always take on different forms and aspects. They therefore consist of a single wall unit, which, depending on the archaeological site, may become a pavement, a parapet, a staircase, a sloping plane, etc. Two examples easily illustrate the versatility of a precise construction idea: the Terme Achilleane and the Benedettini's Balneum. In the first, the project is a stair- case with a parapet, in the second a paved floor and a volume (an archaeological room) with a considerable size. They are an expression of the same constructive idea.

3.1 Ethically "minimi"

Enough has already been said about the meaning of the word "project", but why "minimi"?

One of the pitfalls of being an architect is grasping the limits of our work, understanding the space of our field of action within which to propose a point of view on the world. You need to be credible by arguing within your discipline and its language if you want to make a truly useful contribution.

Therefore, they are "minimi" because we move within and through the tools of the discipline, hypothetically leaving decisions not related to our profession to others. The possibility of a different way of use, for example, is not the task of an architect, and certainly not of architects who, out of a pure ethical and civic spirit, have chosen to conduct research on this subject. The profound freedom of the Bohob Laboratory lies precisely in being able to allow itself to reflect on the nature of making architecture in an absolute sense, without any professional mandate. This is without prejudice to the extremely constructive nature of the projects carried out by the group: let us be clear, Minimum Projects are feasible and conceived as constructions, regardless of their actual implementation. This is always because it is part of being an architect thinking about transformations always connected to a clear constructive idea; otherwise, we would end up with meaningless speculation that has nothing to do with making architecture.

The projects are defined by the use of the discipline's own tools: geometry, measure, material. The geometry in each chosen site is attempted to be always clear; each time the design effort consists in defining an evident geometry that elevates that space with respect to the ordinary city around it. This is the essence of the city's public spaces, their being exceptions to the approximation of the surroundings as defined geometries "closed" within themselves. The measure of the project gives substance to

the presence of "something" extraordinary. The projects always look at the ruin through the city and never in itself, which is why the extension of the project area concerns the closeness of the ruin and never the ruin itself. The material gives part of the character of a place. In Catania the preciousness of a place, its being exceptional in the framework of urban space, has always been rendered with white stone in contrast to black lava stone. That is why Minimum Projects are made of marble.

3.2 Necessarily "minimi"

However, the word "minimi" contains another nuance, intimately linked to the rela- tionship between archaeology and the city. We are well aware that archaeology is "lower" than the level we live on today; the level of ancient settlements must be sought by digging. The only archaeologies at the level of the city plan are in fact those that over time have never ceased to host life within them and perform a function. In this sense, they could not even be completely defined as "archaeologies", precisely because of the lack of a trauma, a cut-off, that determines a before and an after. The difference of levels in the elevations produces a jump and here, in this gap, is the fundamental problem of Minimum Projects. The nature of the problem we are talking about is sub- stantial, that is, it must be sought in the profound sense of the relationship that the city has with its substrate (its scenery). The functional problems related to the resolution in terms of accessibility of this leap is not the object of Bohob's research. These are reso- lutions that would only come into play in the specific case of a project to be realized, but which are not exemplary for manifesting our idea of the city.

The resolution of the leap has to do with making it measurable, appreciable; as if to say: "this is not an accident like so many others, but a difference in level built by time that separates two precise worlds". Here too the theme is underlining, bringing out a condition that, though hidden, we feel exists. The white stone that follows the gap from the level of the city to the edge of the excavation is a powerful idea that alone gives the measure and weight of an invisible world that exists. Without the use of panels, totems, or any "educational indications", the extraordinary richness on which every inhabitant of Catania unknowingly walks every day would be made perceptible to everyday use.

Because the only means of restoring the richness and preciousness of a place are those of construction, thanks to which the life of the city could approach areas that are currently marginal and refractory to human presence.

Suddenly, around the ruins, life is given a chance to dwell.

3.3 The method: The Triptych

What is the drawing that can reveal the idea?

Not just communicating technical information but also conveying the sense of the whole work?

The drawing that can say all this is always one, rarely more. As strong as the idea is, as few papers is needed to render it. In our case, it is one drawing made up of three parts: a triptych. Architectural drawing has a mysterious nature whereby it is both a tool and an aim, something for knowing how to do and a complex representation of an

idea.

The Triptych consists of large square panels. Each project, depending on the characteristics and dimensions of the specific site, will have its own configuration. Both the shape of the representative module (the drawing) and that of the architectural construct (the building) take on their final form according to the characteristics of the site. It emerges that not only the "form is already given" but also an evident correspondence in the way the project is constructed and the way it is represented.

The Triptych holds three scales together in a single drawing: 1:200, 1:50, 1:10. The power of this representation also lies in the relationship between these scales, so that one is never an enlargement of the other. On the contrary, each scale is necessary to say something that the others cannot. This method of understanding the graphic scale leaves the practice of "territorial context" behind and moves towards a "form of drawing" that is the absolute bearer of an idea.

The plan on a scale of 1:200 shows the city to the extent that it shows the position of the project in relation to the urban space. This first part of the Triptych makes it clear that the project belongs to the city around it, remembering the great teaching that "the position is 70% of the success of a project".

The 1:50 scale plan brings to light the relationship between the project and archaeology. Unlike the first part of the Triptych, this is not an elevation from above but a horizontal section. The city around disappears to reveal the room, the size of the archaeological room, which, like a shrine, holds the ruins inside. The measure of the ancient and the contemporary measure coexist in a single representation because they are the same matter.

The 1:10 scale section gives body to the architectural construct, the constructive idea of the specific project and of every project. Of the three, it is the only vertical section precisely because it is the drawing in which the measure of the relationship between the two levels of the city emerges with greater resolution.

3.4 The representation: The View

In addition to the Triptych, however, another tool necessary for the representation of projects is the view. This image aims to narrate the project by placing a point of view in space (therefore a perspective representation as the centre of projection is at a finite distance). All the images are comparable, since the same three elements are always present in each one: the city, the intervention and the archaeology. What makes each image different from the others is the specific character of the piece of city in which the project is inserted, each time defined by different relationships between the city, the intervention and the archaeology.

The construction is to the city as the view is to our idea. Just as the construction is intended to underline the city, the view is intended to underline the idea at the basis of the projects. In fact, the perspective view adds almost nothing more than what is expressed in the Triptych, but it is equally necessary. The view underlines the sense of our work: to stand "on the edge" of the archaeological excavation, shaping the project on the gap between the height of the present city and the ancient one. That discontinuity between the excavation and the city, today apparently only accidental, becomes visible thanks to the project in its extraordinary nature: a temporal and not spatial gap

that separates and unites two worlds.

The image is the vehicle that intrinsically lends itself best to revealing the idea of the projects, in particular because of its innate predisposition to "falsification". Unlike the Triptych, which is always more real and exact on the quantitative datum (measurement, proportions, distances, etc.); none of the views corresponds faithfully to the spatial pro- portions detectable in the city. On the contrary, each of them is a "fake" that distorts the dimensions and alters the relationships from time to time, but never arbitrarily. What holds these choices together is the basic idea to which the representation must always be subordinate; formal inaccuracy is necessary to make the idea unequivocally clear. In contrast to renderings, the views of projects are not realistic but the result of a critical operation in which everything is on its own plane. For example, in every view, the context is always depicted with a strong abstraction in an approximate way, just enough to make the background of that particular project recognizable. In the graphic treatment of intervention, on the other hand, the technical possibilities of photorealism are pushed to their maximum potential, attempting to give substance to the vibrations of the material that constitutes the project. The realistic view of the project contrasting with the highly abstract context is another "gap", here however in representative terms, which makes clear the strong expression of detachment from the ruins and the context in general. That placing oneself "on the edge" is rendered through the view with this clear difference in the weight of representation, not at all realistic, in which two worlds appear powerfully facing each other, "head to head".

The view is therefore the ambition towards the representation of a gap not only in the interpretation of the minimal projects but also precisely in the representation: the possibility of making evident a gap in thought by a gap in representation.

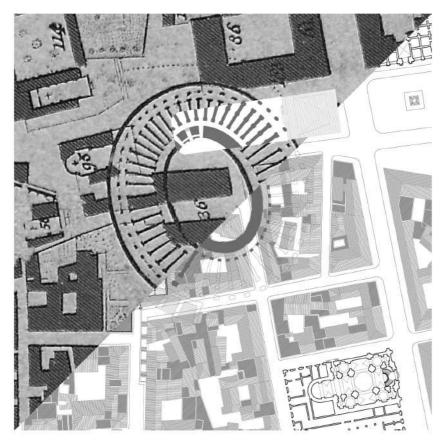


Fig. 1. Bohob's work in a picture: The Plan by Ittar, the Drawing by Bohob and the Minimum Project of the Amphitheatre.

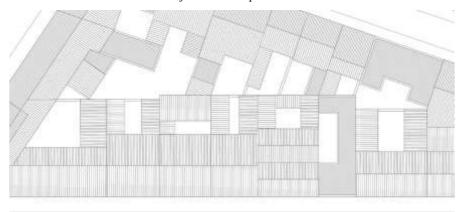


Fig. 2. 1st syntagma: the roofs. Excerpt scale 1:500.

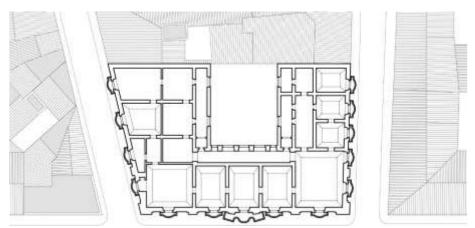


Fig. 3. 2nd syntagma: the public buildings. Excerpt scale 1:500.

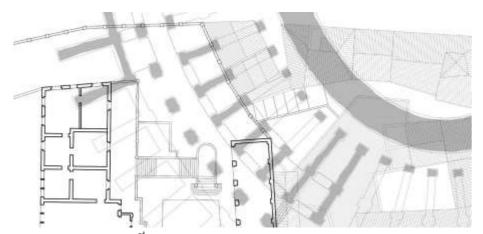


Fig. 4. 3 rd syntagma: the archaeology. Excerpt scale 1:500.

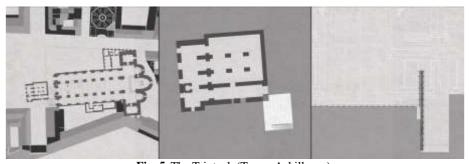


Fig. 5. The Triptych (Terme Achilleane).



Fig. 6. The View (Roman Amphitheatre).

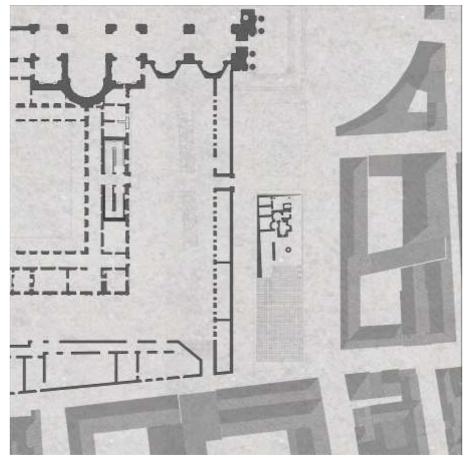
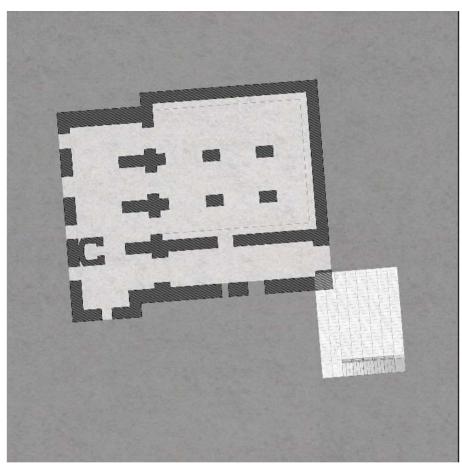


Fig. 7. The city, 1:200 (excerpt from the Triptych of Benedettini Balneum).



 $\textbf{Fig. 8.} \ \, \textbf{The room, 1:50 (excerpt from the Triptych of Terme Achilleeane)}.$

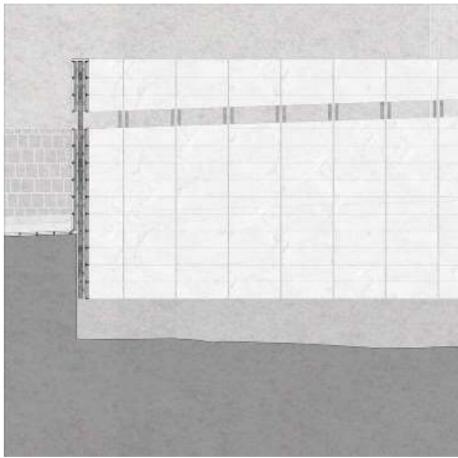


Fig. 9. The architectonical construct, 1:10 (excerpt from the Triptych of Benedettini Balneum).

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