PROCEEDINGS

of the workshop

ARCHITECTURE, ARCHAEOLOGY AND CONTEMPORARY CITY PLANNING

Reformation, regeneration and revitalisation

Liisa Seppänen, Giorgio Verdiani, Per Cornell (Editors)

TURKU
15-18th May 2017

Turku, Finland
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The workshop took place in Turku University, Department of Archaeology, Geohouse, Akatemiankatu 1, 20500 Turku, Finland.

Workshop organizing committee:
Liisa Seppänen, Giorgio Verdiani, Per Cornell

The workshop has been realized in collaboration between University of Turku, Finland, the Architecture Department of the Florence University, Italy, the Department of Historical Studies, University of Gothenburg, Sweden.

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WORKSHOP PRESENTATION

In recent discussions on urbanism, the need to involve new actors has been a major theme. In this field, throughout Europe, various ways of allowing citizens to take a more direct part in planning are being developed. It is also important to look at the role or lack of the role played by particular research fields.

Traditionally, architecture plays a major role in city planning. While archaeological surveys and excavations are intimately related to land use and construction projects in historical urban environments, the discipline seldom plays an important role in city planning. In several countries and particular cities, this situation has been questioned during the last decades.

The approaches and case studies are various with different perspectives and results, but all these experiences seem to move to collective and, little by little, well-structured knowledge. All case studies, attempts and discussions underline how intelligent (or visionary?) approaches, correct documentation, critic reasoning and in-depth analysis can contribute to taking next steps in comprehension about the profitable coexistence of the past and future of our cities.

We wish to open a new kind of communication between these research fields and related praxis in contemporary city planning. The possible contributions from archaeology include questions related to preservation and conservation of the past, diffusion of archaeological information with different means including practical knowledge about the development of particular districts over time, knowledge of comparative studies of urbanism, questions of design or of 'gestalt' in urban settings, and the intersections (or dialogues?) between archaeology, architecture and public art.

In the 5th AACCP workshop in Turku in 2017, with the theme 'Reformation, regeneration and revitalisation', the workshop was open to several topics including regeneration of urban areas, building complexes or single buildings, dialogues between urban development and cultural heritage, the understanding about cultural heritage through single-site research, the potential of cultural heritage for the revitalisation of the city and the impact of individuals, ideologies, values and politics in city planning at different times. Furthermore, many presentations reflected the topics related to interpreting, creating and reforming the identities, experiences and narratives of different places and why dialogues between different fields and parties are needed in more holistic understanding and more comprehensive development of the city.

These topics were reflected both in several

(or in nineteen) presentations and in formal and informal discussions during two seminar days and four different thematic excursions combining archaeology, architecture, history, art and city planning in Turku and Helsinki in mid May in Finland in 2017. The majority of the papers given during the seminar days are collected in this publication for inspiration and discussion related to urban studies and collaboration in urban development and city planning in the future.

Liisa Seppänen
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PROCEEDINGS

"Historical Sequences in Spatial Terms": an introduction

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Keywords: AACCP, Urbanisation, City, Layers, Archaeology.

Urbanisation is, and has been, a global trend that seems to have no end. After 2008, every other inhabitant of the earth has been a citizen. Cities have attracted people throughout centuries, and urbanisation has had different temporal rhythms around the globe, with manifold spatial manifestations. Cities are like living organisms that are in a constant state of becoming; they transform as assemblages of a built environment, with historical layers accumulated on top of each other, and everyday practices that are at the heart of a city as a living entity. They also include immaterial traces of those historical layers that have been removed or destroyed but somehow still exist as superimposed maps that shine through the more recent diagrams of city space.

The fifth workshop of the network Architecture, Archaeology and Contemporary City Planning (AACCP) gathered in Turku, Finland on 15–18 May 2017 to rethink the notions of reformation, regeneration and revitalisation of urban space. It brought together architects, archaeologists and city planners to discuss the complex issues around the history and future of cities, on how archaeological expertise could be acknowledged in the re-planning of historic areas in cities or in planning new residential areas. If we view urban surroundings from the perspective of spatial navigation, we could ask, for example, to what extent this navigation is a historically conscious process. How to develop urban landscapes so that they would enable the inhabitant to be aware of different temporal layers and to recognize traces of urban transformation?

This reminds me of a thought experiment Sigmund Freud made in his book *Culture and Its Discontents* in 1930. In the beginning of his book, Freud made, as he put it, a "fantastic supposition" about the city of Rome. He suggested to the reader to consider Rome not as a human dwelling-place, but as a mental entity that has a "long and varied past", as something "in which nothing once constructed had perished, and all the earlier stages of development had survived alongside the latest". Freud delves further in his comparison and writes:

"This would mean that in Rome the palaces of the Caesars were still standing on the Palatine and the *Septizonium* of *Septimius Severus* was still towering to its old height; that the beautiful statues were still standing in the colonnade of the Castle of *St. Angelo*,

as they were up to its siege by the Goths, and so on. But more still: where the *Palazzo Caffarelli* stands there would also be, without this being removed, the Temple of *Jupiter Capitolinus*, not merely in its latest form, moreover, as the Romans of the Caesars saw it, but also in its earliest shape, when it still wore an Etruscan design and was adorned with terra-cotta antifixae. Where the Coliseum stands now, we could at the same time admire Nero's Golden House; on the *Piazza* of the *Pantheon* we should find out only the Pantheon of today as bequeathed to us by Hadrian, but on the same site also Agrippa's original edifice; indeed, the same ground would support the church of *Santa Maria sopra Minerva* and the old temple over which it was built. And the observer would need merely to shift the focus of his eyes, perhaps, or change his position, in order to call up a view of either the one or the other."

Freud's text appeals to every traveller in Rome, not because of its "fantastic" idea of seeing Nero's Golden House at the same time with *Colosseum*, or *Santa Maria sopra Minerva* together with the temple under it but, more importantly, because this is a mental exercise that everyone tries to achieve in front of these historic places. Freud, however, concludes that the whole thought experiment is without sense: "There is clearly no object in spinning this fantasy further; it leads to the inconceivable, or even to absurdities. If we try to represent historical sequence in spatial terms, it can only be done by juxtaposition in space; the same space will not hold two contents. Our attempt seems like an idle game; it has only one justification; it shows us how far away from mastering the idiosyncrasies of mental life we are by treating them in terms of visual representation."

I would argue, however, that Freud's experiment hits an essential problem and that he is not right in suggesting that historical sequences can only be represented "by juxtaposition in space". I find the work of the AACCP fascinating since it elaborates on the question of how the same space can, in the end, hold different contents. Some layers in time might be transparent or superimposed but can still be made present in an urban space – through the cooperation between architects, archaeologists and city planners.

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Operations in Palimpsest and Collage: Site, City, History

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Abstract: This paper addresses the use of juxtaposition in the contemporary authorship of historical and themed historicized sites, assessing the deliberate treatment of real, imagined, and fabricated edges through the analytical categories of palimpsest (layered, multi-authored or even participatory, accidentally juxtaposed) and collage (lateral, single-authored, deliberately juxtaposed). Architectural and textual processes use the operations of palimpsest and collage in both the internal assembly of the site's components and its relation to the surrounding environment. Time and space can be collapsed or expanded, fragmented or spliced, such that even the most deliberately neutral site is fraught with selective, authorial choices, even in the attempt to eliminate or conceal that very process.
Methodologically, this investigation is conducted through an examination of the site's creation through official and unofficial documents of the design process and the physical and textual presentation of the site itself through architecture and in published materials. It is situated within an ongoing initiative to decode the spatial operations of themed places through GIS mapping.
Operations of juxtaposition are a necessary context when introducing new, old, and rediscovered elements to the city. Understanding the means by which different elements are brought together in places is crucial not just in addressing the coexistence of social factors inherent in urban life, but also for finding strategies for the integration of historical and archaeological sites into physical and social vernaculars.

Keywords: Themed places, Juxtaposition, Palimpsest, Collage, Curation.

Introduction

This is an investigation of what I might call curated places: different sites where the act of authorship, of creating place, is in part a process of collecting or assembling disparate components to bring about any of a variety of commercial, political, or didactic goals. Places formed in such a way occur commonly, whether or not the act of curation is visible. Some of these places are meant to appear as selections of pieces, such as malls, theme parks, or worlds fairs; others, like historical sites, commemorative districts, and other official landscapes have elements pruned away to suit a particular product.
But even more common sites—neighborhoods, developments and streets—exhibit some of the same practices.
The word "curation" bears with it the connotation of selectivity, of including certain elements and excluding others—such places have also been called themed places, but I prefer the term curated as it directs attention to the actions of selecting and composing. In dealing with place, curation bears sufficient impact to consider curated places as authored places, and authored places include the suggestion of specific meanings for the place. This paper is an exploration of how curation is used to create meaning; how the curators employ certain styles to make their actions visible or hidden—how the visitors' perception of the place is shaped and manipulated by

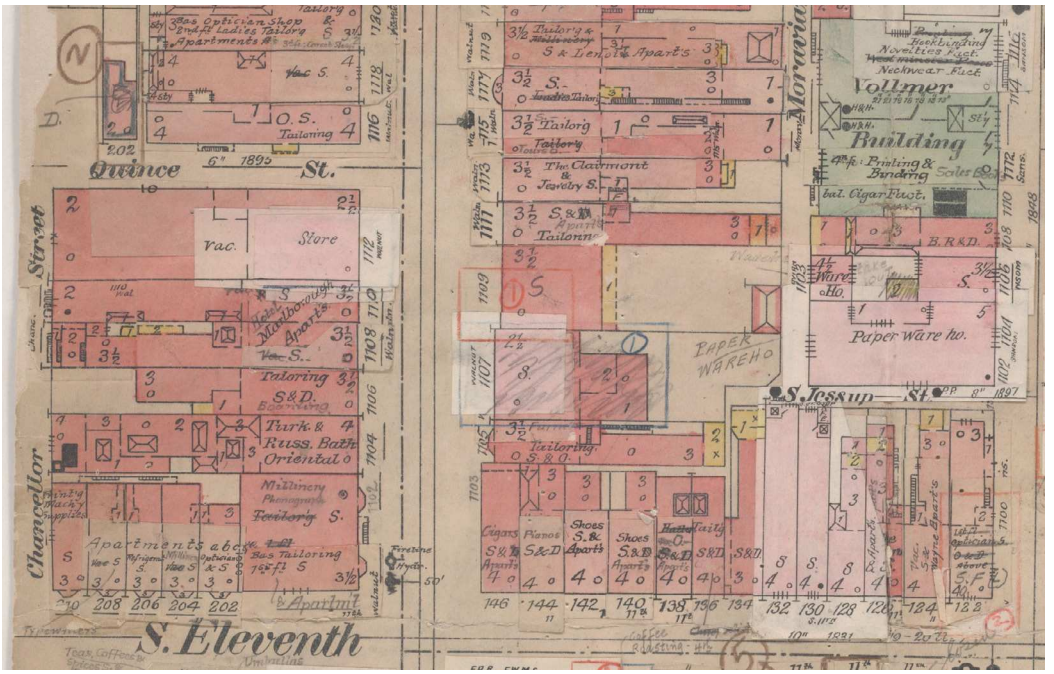

Fig. 1 - The urban palimpsest on paper. Ernest Hexamer & Son (1920). Insurance Maps of the City of Philadelphia, 1908-1920, Volume 3 revised, Plate 32 1/2. Philadelphia: Ernest Hexamer and Son. Free Library of Philadelphia Maps Collection, https://libwww.freelibrary.org/digital/item/21518

the juxtapositions inherent in assemblage. It will posit two categories of juxtaposition that are commonly and effectively used to shape place: palimpsest and collage.

Theory

This theory draws from generally disparate contexts—palimpsest initially from vernacular geography; collage primarily from aesthetic theories of postmodernism—that together suggest a comprehensive system of understanding the use of juxtaposition.

The distinction is necessary between the palimpsest as collective process, the "huge ragged informal document" (Lewis, 1993, p.116); and as aesthetic artifact, a single product, "a natural sedimentation more akin to geological deposition or cultural accretion" which can "break the aesthetic distance and both declare [its] composite nature and invite us to savor. . .compositions as well as accidents" (Wilson, 1988, p.61). The former is a fairly conventional geographic reading of landscapes; the latter is perhaps more common in a literary context but taken to the realm of everyday space by geographers as well (Fig. 1). This creates the distinction between that which is 'palimpsestic' (that is, that which demonstrates the act of layering) and that which is 'palimpsestuous' (that which exists, or appears to exist, as the product of this layering) (Dillon, 2007). Crucially for the discussion of authorship, the palimpsestuous can be an abstract ideal and the desired aesthetic product of a non-palimpsestic, individual process of authorship.

Materially—in their original visual forms—the distinction between palimpsest and collage is first one of edges. Collage as a spatial action generally appears in the context of postmodernism, as an endgame or illegibility of relation (Jameson, 1991). However, rather than what has been called a "new mode of grasping what used to be called relationship" (Jameson, 1991, p. 31), I will consider collage as an aesthetic condition of any collection or juxtaposition that makes the act of

collecting or assembling known through the visibility of the edges between items. Sites of collage employ sharp edges to emphasize juxtaposition—units have distinct boundaries, such as that between inside and outside or different exhibits or pavilions within a site, that even come to be celebrated. Palimpsests, on the other hand, lack edges, are made of layered or overlapping components that often defy the identification (let alone celebration) of a particular piece. While these categories have previously been explored as products or processes of authorship, this interprets them as operations—as categories of action and as rhetorical presentations.

Acknowledging palimpsest as a curatorial category goes against the prevailing trend in scholarship to consider palimpsests as anti-authorial, as the natural—even authentic—form of landscapes. Even those most sympathetic to the expression of authorship through themed environments, another a kind of curation, find an underlying truth in the palimpsest—"the artifice of theming, even in its most didactic form in New Urbanist developments, will never substitute for the lack of community" (Shanken, 2007, p.300, 294)—a community that is the product of more organic relations to the land.

And yet, palimpsest can be just as equally a deliberate product without straining the definition vernacular geographers use for the word. At first this is as simple as acknowledging that all actors in the landscape are influenced by their surroundings and that no action exists independently, but even more so, the palimpsest can be forged—either to create a falsely pure history, or to deliberately celebrate the action and aesthetic of layering. The creators of those historical sites and museums with a deliberate adherence to a place and time must import place wholesale and therefore sometimes seek to craft these false palimpsests, places that appear palimpsestuous without a palimpsestic history, the defining of a layered history for a static site.

One such example is Colonial Williamsburg, one of the most iconic American living history museums and a site curated to depict a specific time. Here, new constructions are specifically treated to appear aged or built from aged materials; buildings are dissembled for the sake of performative "house-raising" events.

Though the site has a specific 'historic cutoff' of 1770, many of its buildings and institutions date to much earlier and it actively honors these, while still maintaining a broader idea of a "visit" (Handler & Gable, 1997). Palimpsest, as the natural process creating a slightly aged and outdated city in 1770, is employed retroactively and deliberately as theme.

The idea of palimpsest can also be employed as a design strategy, a participatory model of semi-structured growth. Themed residential developments—from the original plans for Disneyworld's EPCOT to the New Urbanist developments such as Seaside, Florida—rely on a calculated non-curation, the instantiation of an initial theme that residents or participants, with varying levels of input from the original designers, are expected to maintain themselves. The New Urbanist developments employ a theme as design practice—Seaside has an aggressively argued theme of small-town America, effected through an architectural theme of a vague but homogenous regional pastiche (Treib, 2002, p. 232; see also Duany & Plater-Zyberk, 1992). Meant to be the natural design solution for the environment, Seaside attempts to create a palimpsestic process without a palimpsestuous product; though one may take issue with the designers' stated need to guide this process themselves. But participatory palimpsest is uncommon in historical sites, for its lack of both the precision and historical authentication that the curators of historical sites generally demand.

Palimpsest also has a natural application to the urban environment, recognized in the delight in city as palimpsest and city as museum (Kirshenblatt-Gimblett, 1991, p. 410). This is arguably participatory: if the city is

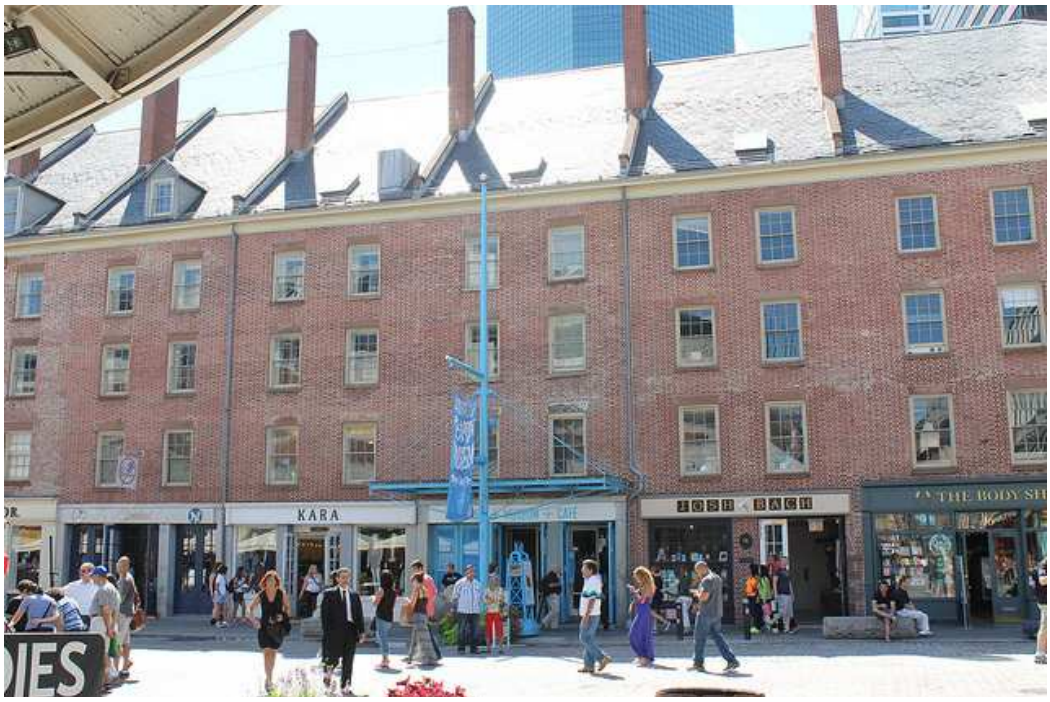

Fig. 2 – The mercantile palimpsest at South Street Seaport. Tynes, T. (2012). South Street Seaport Museum. Retrieved from https://flic.kr/p/dawndU

observable, the observer, as city-dweller, is material for observation as well. Some aware urban observers derecognize themselves as objects of observation and attempt to move through the city watching but unwatched, a detachment codified in the figure of the flaneur. (Benjamin, 2001). This rejection of the city as unified aesthetic totality allows for the recognition of the individual elements of the palimpsest (Certeau, 1984).

In the curated urban context participation in the palimpsest quickly requires purchase. Many curated places, with varying degrees of self-awareness and intent, suggest material consumption. Consumption even becomes part of the curation: the website for South Street Seaport, a historicized commercial development in Manhattan, brags that "With over 400,000 feet of retail space [Pier 17] will honor its historic roots as a bustling marketplace and influential port of trade centuries ago" (Fig. 2, Howard Hughes Corporation, 2016). South Street Seaport creates a narrative of adventure and accumulation, a palimpsestuous awareness in its evocation of a mercantile past and present, which leads immediately into the purchases anticipated by the creators (Boyer, 1992, p. 199-204). While not (outwardly) as focused on consumption, Colonial Williamsburg allows a lasting participation in the site through purchase: from the nursery you can "Take a piece of our garden home with you and watch history unfold before your eyes" (The Colonial Williamsburg Foundation). Ultimately, consumption has the possibility to reconcile participation and curation by shifting the distinction of palimpsest and collage to the visitor, instead of creator; employing the framing of consumption as a form of self-curation (Aldridge, 2003).

The flip side of layered palimpsests are the static and deliberate juxtapositions of collaged places. Collage is an explicit juxtaposition of elements, a form of assembly with strong roots in early museum practice, from the most basic curations in cabinets of curiosity to the later emphasis on the

curatorial practices of classification and arrangement in ethnographic museums (Kirshenblatt-Gimblett, 1991.) The juxtaposition of the display and the quotidian—inside and outside, the tension of reality and exhibit—is at its most accessible when a viewer to the Egyptian Hall in London in the 18th century can perceive both with a "turn of the head" (Altick, as cited in Kirschenblatt-Gimblett, 1991, p. 409). The exhibit is still curated, but when the museum-approach remains with the gaze, the city—an uncurated exhibition—becomes a museum as well (Kirschenblatt-Gimblett, 1991).

Collage is employed didactically at historical sites when the juxtaposition of elements is celebrated, making clear the differences between past and present. However, this use of collage is often overwhelmed by the desire to create a palimpsestuous site. Though Colonial Williamsburg may promote reflection on the processes of history, its composition does not encourage the hard line of collage between simultaneous past and preset worlds (Handler & Gable, 1997). However, by resisting those few 19th-century holdouts, Williamsburg shows itself to be extremely resistant to the juxtaposition of its "period" and any later architecture—the actions of the creators are meant to become invisible, to fade away while maintaining a static moment, and in this way Williamsburg's palimpsestuous form comes into contradiction with the actual palmipsestic process of the city.

Much more directly, collage can be calculated to bring about specific imperatives—abundance, through the presentation of goods in commercial displays, or power, in the ethnographic exhibits of other cultures. The latter practice is particularly visible in world's fairs, where events such as the 1876

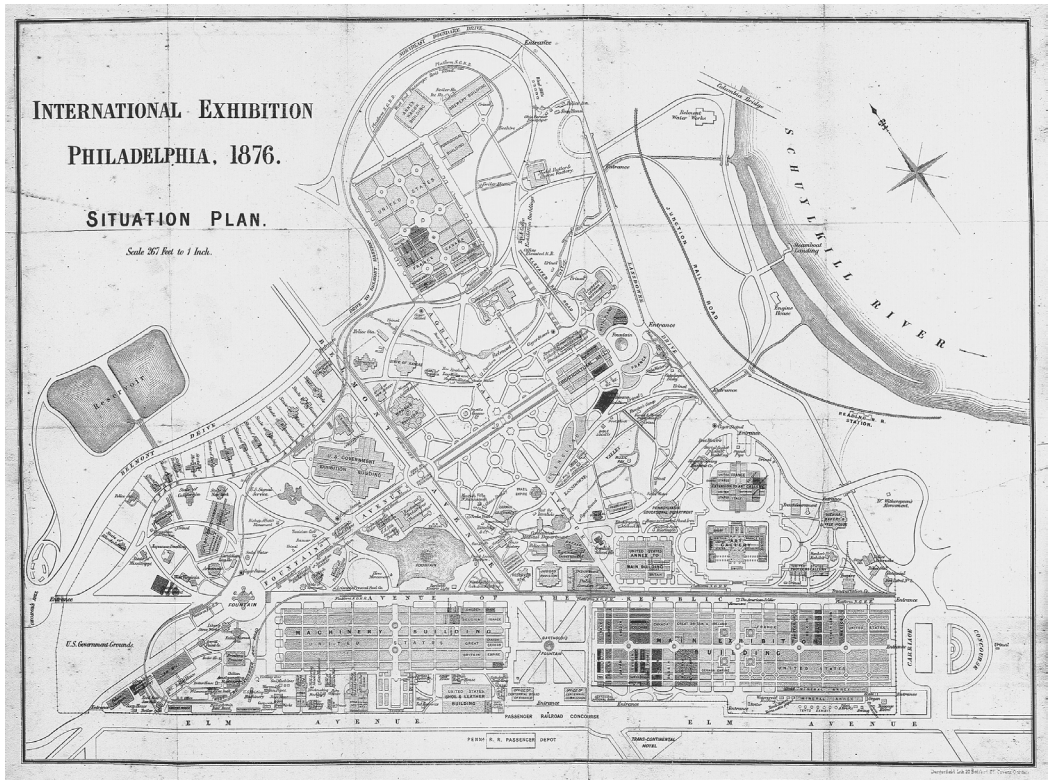

Fig. 3 – Collaged exhibits at the Philadelphia International Exhibition. Reports on the Philadelphia International Exhibition of 1876 v.1 (1877). International Exhibition Philadelphia, 1876, Situation Plan. London: Printed by G.E. Eyre and W. Spottiswoode. National Diet Library, Japan, http://www.ndl.go.jp/exposition/e/data/R/130r.html

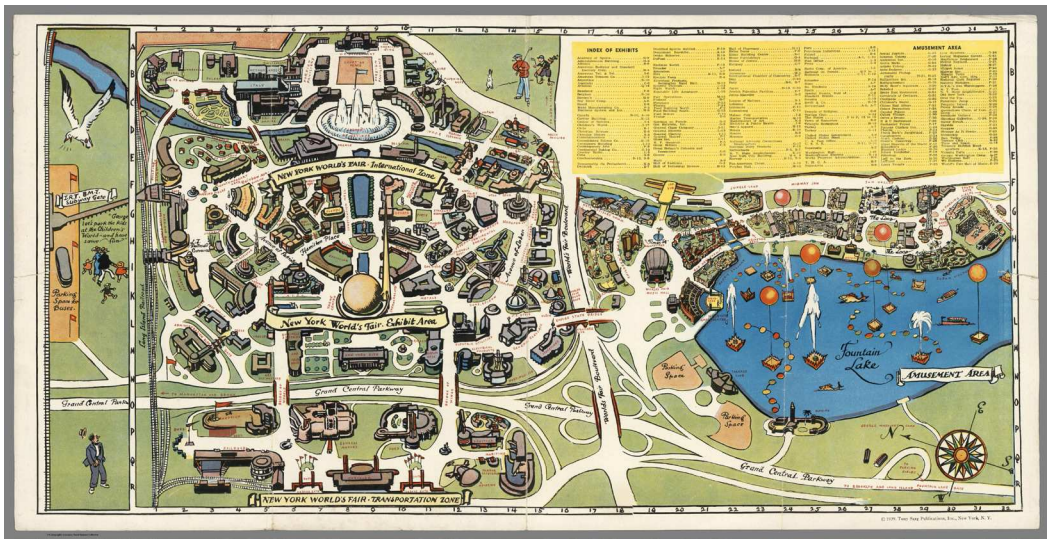

Fig. 4 – Palimpsestuous display at the New York World's Fair. Sarg, T. (1939). New York 1939 Official World's Fair Pictorial Map. New York: Tony Sarg Publications. David Rumsey Map Collection, https://www.davidrumsey.com/luna/servlet/s/51h7f0

Philadelphia Centennial Exposition or the 1851 London Great Exhibition demonstrate globalizing power through new architectural technologies of glass and steel. These industrial showcases have broad-ranging influence that creates an industrial meta-architecture of containment, a fabric onto which fragments—ethnographic or experiential—can be attached or inserted (Hinsley, 1991). Their edges, collaged edges, are clear and precise (Fig. 3, 4). Collage as imperial splendor, juxtaposition to re-enforce the primacy of place and present, is particularly evident in Frederic Ward Putnam's plans for the World's Columbian Exposition in Chicago, to form for the visitor "an appreciation which could only be aroused by such contrasts" (as cited in Hinsley, 1991, p. 348.) Architecturally, the World's Columbian Exposition sought other models for its world-weaving, but the basic impulse to display the entire world is clear.

Project Design

This is where I am testing this theory—in a realm where curation and juxtaposition are at their material and conceptual utmost. The world's fair is a place where juxtaposition is dually present in both the disparate internal components of the fair itself and in the division between the fairground, as a heterotopia, and the city.

Fairs, as showcases, are assemblages of individual components—their organizers are at heart curators of the elements on display, and the ability to curate displays quickly becomes a means of asserting control over the objects (or cultures, or peoples, or times) on display. They are also fundamentally other spaces, existing beyond city limits and possessing different mechanics of space and time in their internal structures. Both of these boundaries are sites of juxtaposition, and world's fairs generally do not employ the same operation for both.

At the 1876 Philadelphia Centennial Exposition (Fig. 3), where creators sought to define spatial projects (of nation and empire) by internal collage, but the site's relation to the city lost its distinction in a gradual process of palimpsest. At the 1939 New York World's Fair (Fig. 4), where the goal was temporal projects of endurance and future, internal elements were palimpsetuously related, but the site had a collaged border with

the city. A work in progress, I am examining both events, reading their physical structures and printed materials to see how both employ juxtaposition in the realms of space and time, and how the act of curation is concealed or celebrated.

Conclusion

Juxtaposition is undeniably a central element of any site that attempts to include disparate components, as well as any site which finds itself at odds with its surrounding architectural or social fabric (which includes, arguably, all but the most miniscule of urban developments.) Understanding the mechanics of juxtaposition then becomes crucial knowledge for both responsible design and informed resistance. There is undeniable value to observing processes at work in the built environment as a means of protecting ourselves against some of the more nefarious ones; however, I am also willing to recognize that acts of curation can potentially be helpful, that curation is a necessary or effective way of creating places.

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Formation of Urban Identity and Understanding the Cultural Heritage in Bozcaada (ancient Tenedos)

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Abstract: Bozcaada (ancient Tenedos) located in the Aegean Sea is an island which has hosted many different civilizations within the historical timeframe. The Roman, Byzantine, Latin, Venetian, Genoese and Ottoman periods were experienced respectively, in the island which is estimated to have been inhabited since the year 2000 BC. The residential area is located in the North-East side of the island. Even though the city has been demolished and conquered many times since Antiquity, it has been established in the same area at every turn. In consequence of urban stratification, it is difficult to carry out archaeological studies. The settlement of Bozcaada takes its present and unique urban form by the experiences, needs, and traditions of people from different cultures. The urban fabric is formed by a castle that has been restored many times and two neighborhoods developing around it. As a result of the long Byzantine and Ottoman periods, Greeks and the Turks have been effective on shaping this form of urban fabric. The importance of Bozcaada is not only its conserved urban and archeological sites, but also the viticulture, wine and life style of islander as a cultural heritage. In this study, the urban features, the relationship between built heritage, intangible heritage, architecture, and archaeological traces will be analyzed in the effort to focus on the very specific aspects offered by this unique island.

Keywords: Cultural Heritage, Urban Identity, Formation, Tenedos – Bozcaada.

Introduction

Bozcaada, about four miles far from the Anatolian mainland, is located in the Northeastern part of the Aegean Sea (Fig. 1). It is also 30 miles from Lesvos and Limnos and 18 miles from Imbros. The surface area of the island is approximately 3760 hectares. The name of the island was firstly mentioned in Homer's Iliad and Odyssey. According to these ancient sources, southwestern bays of the island were used in order to hide war ships belonging to the Achaean Fleet during the Trojan War (TAKAOGLU & BAMYACI, 2008).

Tenedos in History

History of Tenedos goes back to the early Bronze Age period. And consecutively Archaic, Classical, Hellenistic, Roman, Byzantine, Ottoman and Turkish periods were experienced in the island.

In the early Bronze Age Period (3000BC-2000BC) Bozcaada was used as a port city because of its natural ports. In that period, the island played an important role on maritime activities related with sea trade. According to archaeological excavations, the first settlement of Tenedos was built in early Bronze Age. There were no archeological findings in the middle Bronze Age. Achaeans and Phoenicians were hosted on the island during the Bronze Age (BAMYACI, 2006).

Wealthy archeological remains discovered from Tenedos Necropolis show that Tenedos was in its welfare period in Archaic (620BC-480BC) and Classical (480BC-330BC) peri-

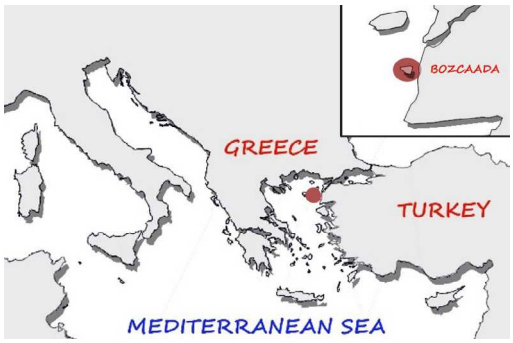


Fig. 1 - Location of Bozcaada

ods (Bamyacı, 2006). Also, in those periods, the island played an important role in sea trade in the leadership of Miletos. In the Archaic and Classical Age, there are not much evidence about the architectural environment of Tenedos. It is estimated that the materials belonging to buildings were used in the construction of the Tenedos Castle. In the Archaic and Classical Periods and also in the Hellenistic Period (330BC-30BC), wine and olive oil production came into prominence and played an important role in Tenedos local economy. Intensive findings of amphorae show surplus of wine production in the Hellenistic Period (TAKAOGLU & BAMYACI, 2008). Some ruins of farm dwellings related with these production activities were discovered in the rural part of the island, they are dated to the Classical and Hellenistic Periods. Greeks, Athens, Persians and Alexander the Great ruled the island respectively in those periods.

In the Roman Period (30BC-395AD) Tenedos lost its importance because of the construction

Source	Date	Greeks	Turks	Total
Ottoman Account	16th century	242 families	55 families	2500 people
R. Petcock	1739	200 families	300 families	500 families
W. Chandler	1765	300 families	600 families	900 families
De Choisel-Gouffier	1770	300 families	600 families	900 families
R. Walpole	1801	300 families	450 families	750 families
Ottoman Census	1831	439 people	793 people	1232 people
Cezair-i Bahr-i Sefid Salnamesi	1876	1438 people	580 people	2027 people
Semseddin Sami	1890	2453 people	1214 people	3667 people
V. Cuinet	1890	2820 people	1300 people	4140 people
Ali Cevat	1893	2760 people	1380 people	4140 people
Ottoman Census	1912	5420 people	1200 people	6620 people
COE Report	1950	1700 peole		
COE Report	1960	600 people	750 people	1350 people
	Today	25 people	2250 people	2274 people

Table 1 - Number of population according to different sources (Bamyacı, 2006)

of an artificial port in Alexandria Troas which places opposite side of the island in Anatolian mainland. Port of Alexandria Troas took control of the maritime trade route in this region (TAKAOGLU & BAMYACI, 2008). Archeological excavations demonstrate that the main Roman settlement was placed in the same area. According to the main hypothesis of the archeologists, the Roman town was a very small settlement. In the rural part of the island some dwelling ruins were discovered, they are related with viniculture and olive oil production.
In the Byzantine Period, some geomorphological changes occurred in the new artificial Alexandria Troas Port. And that new port lost its significance and Tenedos Port gained commercial importance again. Especially Tenedos port was used by cargo ships carrying grain from Egypt to Constantinople to avoid hard weather conditions in the Byzantine Period (BAMYACI, 2006). It is mentioned in the ancient literary sources that Emperor Justinian built large store-houses in the harbor area to store grain. Occasionally Venetians and Genoese dominated the island during the Byzantine period (ANIK, 2010). Bozcaada Castle places near the harbor was constructed in that period.

In the Ottoman Period the castle was rebuilt several times. In that period, Turkish people brought from Anatolia were placed into the castle. They had lived inside the castle walls until the 18th Century. Because of limited boarders of the castle, the Turks came out of the castle and formed a settlement called Alaybey Neighborhood. At the same time, formation of Greek settlement was continued to develop in Cumhuriyet Neighborhood. The monumental buildings that directs development were constructed in the center of neighborhood. Greek neighborhood formed in the grid iron plan system after the fire in 1874 (SAYGI, 2015).

In the Byzantine Period, only Greek people were living in the island. The Turks and the Greeks started to live together from the beginning of Ottoman Period. According to information obtained from different sources, the population of the island in Ottoman Period consisted of the Greeks and Turkish people (Table 1). Until the 1950 the Greek weighted structure of the population between these two groups did not change. Economical and mostly political problems between Turks and Greeks led to the emigration of Greeks from the island between the years 1965-1985. Today, approximately 25 elderly Greek people are living in the island (BAMYACI, 2006). Because of having properties in the island, Greek population increases in summer season.

Cultural Heritage in Tenedos

The concept of cultural heritage has been dealt with two contexts: intangible cultural heritage and tangible cultural heritage.
Both intangible and tangible cultural heritage elements of the island have been shaped with the historically mixed population structure of Bozcaada.
Although there are some boundaries between Greeks and Turks, these two cultures have lived together interactively with each other for a long time.
Tangible cultural heritage elements are related with the architecture, archeological sites, traditional settlements and rural area. Intangible heritage relates to traditional life. Traditional production mainly based on viticulture, viniculture, fishery and olive oil associated with both tangible and intangible cultural heritage elements.
Generally, intangible cultural heritage has been evaluated under two titles for the island. First one is the techniques and skills which are related with traditional craftsmanship in construction of historical buildings and traditional production method of activities based on viticulture, viniculture, fishery and olive oil.
Second one is the local dialects, music and literature. Socio-cultural activities including theatre, poetry, dance etc. are carried out in summer season. Vintage festival is arranged in September for both the Turkish and Greek

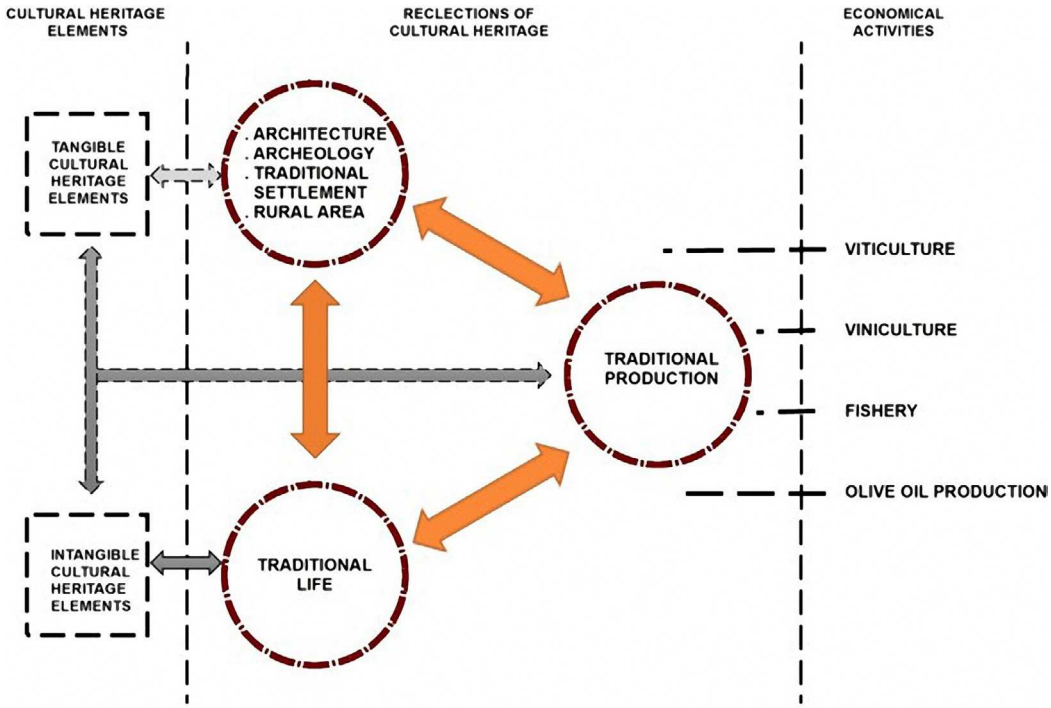


Fig. 2 - Conceptual Diagram of Cultural Heritage Elements

side. A religious festival is carried out on every July 25th-27th in a chapel next to the Ayazma Beach on the Greek side.

Architecture, archeology, traditional settlement and rural area of the island are dealt with as tangible cultural heritage elements. Main existing settlement dated to early Bronze Age and the small settlements that belongs to Hellenistic and Medieval Periods (Figure 3) in rural side of the island there are protected areas, catalogued as archeological conservation sites by the Turkish legal system. Archeological conservation sites have been classified from 1st to 3rd degrees, according to their importance (Figure 4).

The main settlement of Tenedos that includes traditional Turkish and Greek buildings is mostly constructed in Ottoman Period.
It is protected not only as archeological conservation sites, but also as urban conservation site because of its urban stratification.
In addition to conservation sites, single buildings are protected as registered monuments or registered civil buildings (Figure 5). Only Tenedos Castle is conserved as 1st Degree Archeological Site and registered monument.
Virgin Mary Church and a chapel in Greek side, and Alaybey Mosque, Koprulu Mehmet Pasha Mosque, Namazgah Fountain and Turkish baths in Turkish side are conserved as registered monuments.
Unique residential units are conserved also as registered civil buildings in both side.

These unique monumental and civil buildings have played a decisive role in shaping the urban form of Tenedos.

Conserved archaeological sites as an area and registered structures conserved as a single building constitute the physical structure of Bozcaada. Changes in the physical structure have been shaped the urban and rural character of the island.

Formation of Physical Identity

The urban and rural settlement of Bozcaada takes its present and unique urban form by the experiences, needs, and traditions of

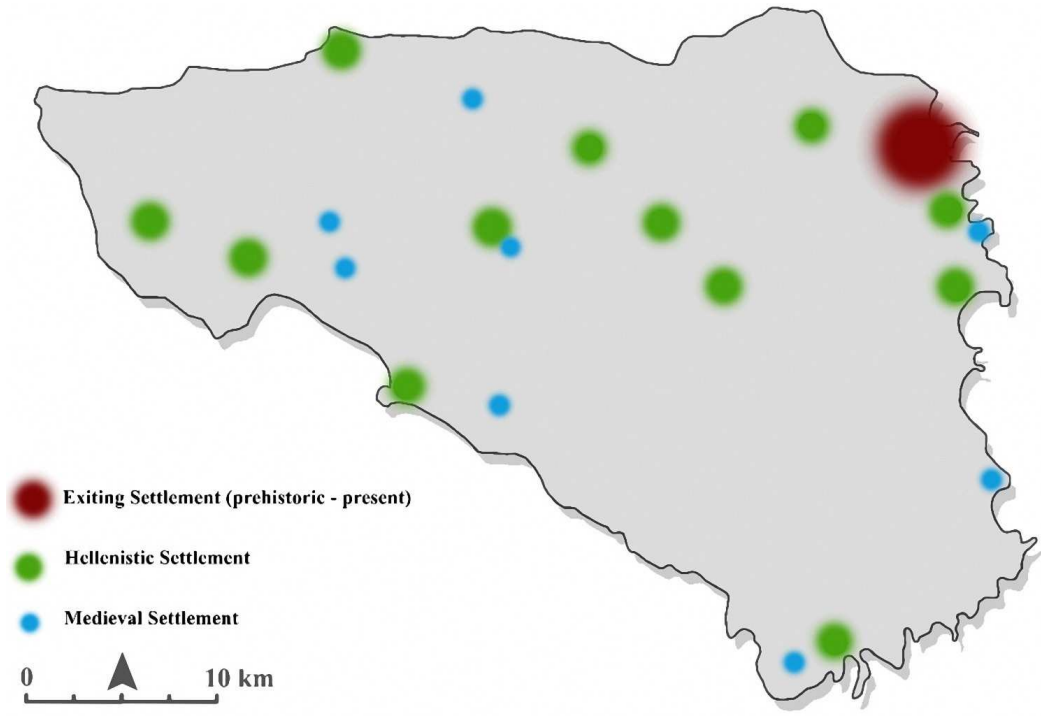


Fig. 3 - Historical Settlements of Bozcaada

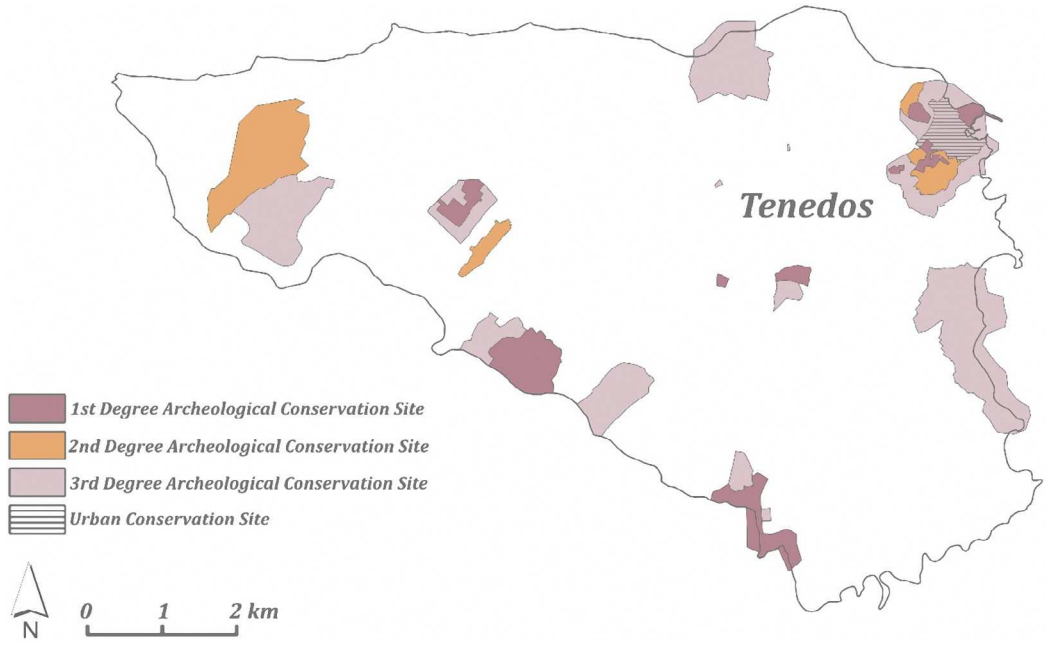


Fig. 4 - Conservation Sites of Bozcaada

people from different cultures. Daily life experiences of these different cultures reflect physical environment of the island. In order to understand formation of physical identity, unique values in rural and urban areas will be discussed.

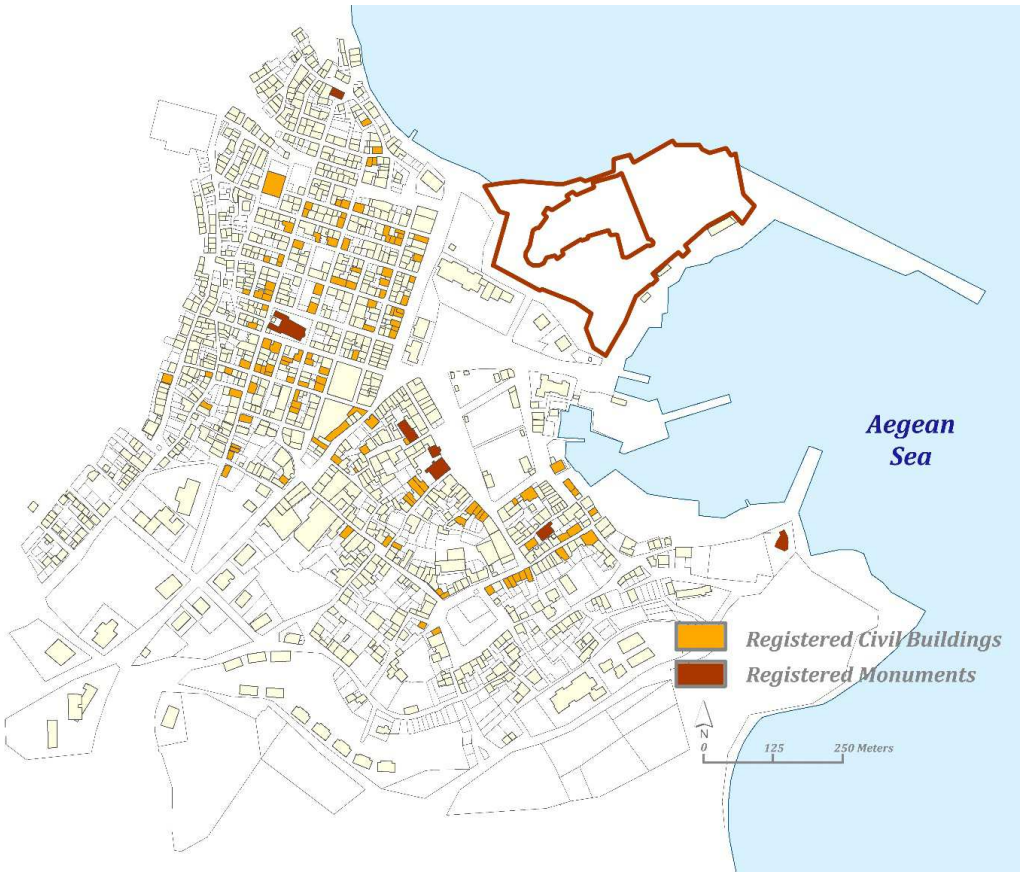


Fig. 5 - Registered Buildings in Main Settlement

Rural Fabric

There are no other settlements outside the center of Bozcaada. Only the vineyard houses are found among the vineyards in rural area. The vineyard houses are separated in two according to their physical form. Roofless single-storey ones are called “dam” (Figure 7); with roof and two-storeys ones are called “kule” (Figure 6) (Saygı, 2015). Rural roads are unpaved and identical in the island. Rural landscape and vineyards constitutes the main characteristic of unbuilt up area of the island.

Urban Fabric

The main settlement is located on the North-eastern part of the island and it is formed by the physical stratification of urban fabric throughout the historical process. In consequence of urban stratification, it is difficult to carry out archaeological studies. Çınarlı Çarşı Street is the main axis of built up area which divides settlement into two districts. Alaybey Neighborhood is located on the South, Cumhuriyet Neighborhood is located on the North (Figure 8).

Cumhuriyet Neighborhood is the oldest part of the settlement. It was also called the Greek Quarter because of the majority of Greek citizens in Ottoman period. One of the biggest change in island’s urban fabric was happened at the end of the 19th Century. A fire which was happened in the Greek Neighborhood in 1874 (Figure 9), nearly all of the Greek neighborhood was damaged and became unusable. After the disaster, Greek Neighborhood was rebuilt in grid iron plan system in order to prevent a possible fire from bouncing from structure to structure (Figure 10).

Fig. 6 - "Kule" Constructions in Bozcaada (http://1.bp.blogspot.com/-e3HVk6zPnas/UjbifgE_vPI/AAAAAAAAB70/zcdC10l5_vk/s1600/b1.jpg)

Fig. 7 - "Dam Constructions in Bozcaada (https://www.birhayalinpesinde.com/wp-content/uploads/2017/01/karadut-ba%C4%9F-evi.jpg)

Cumhuriyet Neighborhood streets were designed perpendicular to each other and almost with the same width. Rectangular plots were designed as a result of the grid plan in Greek Quarter. The structures are located side by side. The entrances of the buildings are directly from the street and they have no front yards (Figure 11).

Alaybey Neighborhood is another part of main settlement, also called Turkish Quarter. The residential settlement of Alaybey had been inside the castle walls until the beginning of 18th Century. Muslims from various regions of Anatolia were settled inside the castle wall after the domination of the Ottoman Empire. Due to the increasing popula-

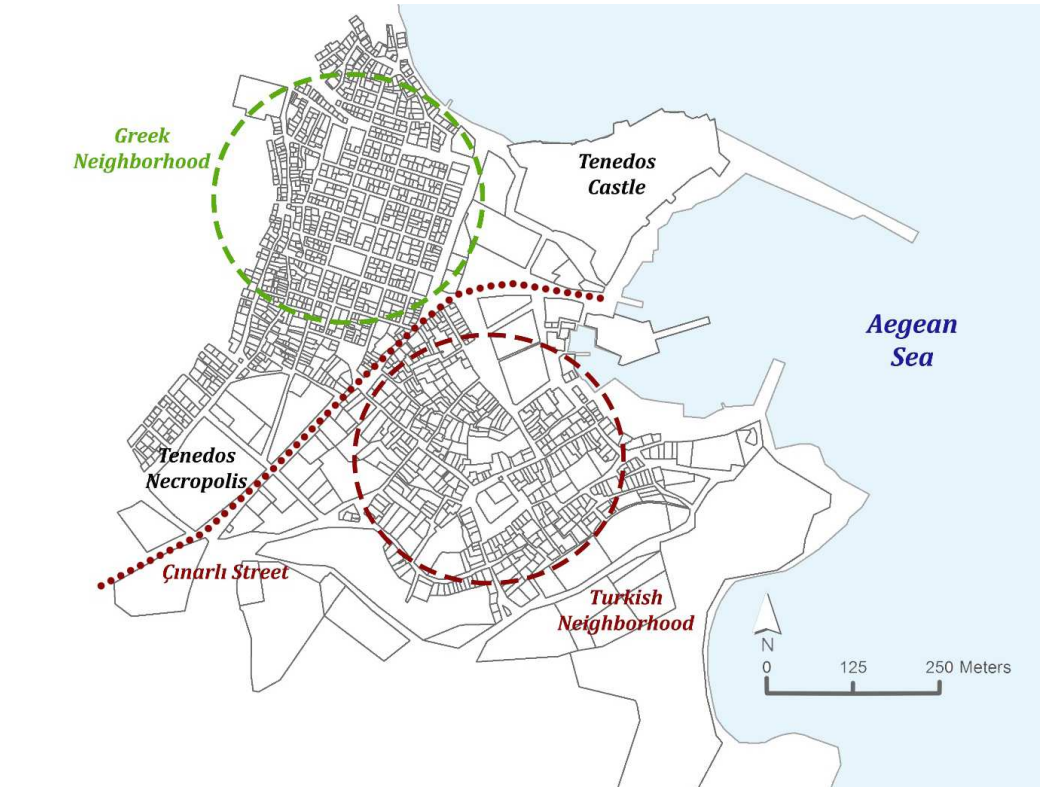


Fig. 8 - Main Settlement of Bozcaada

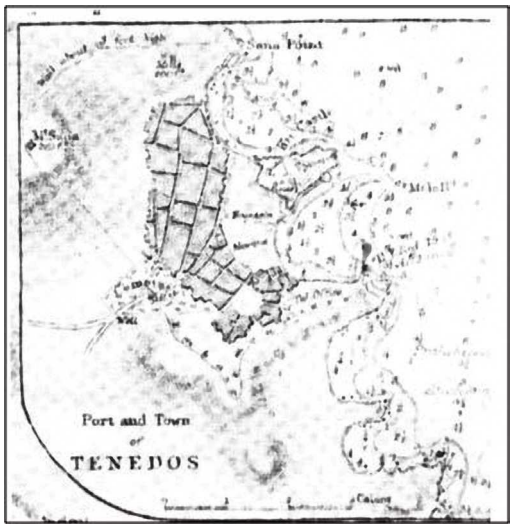


Fig. 9 - Greek Settlement before the fire (Anık, 2010)

tion over time, new settlements were needed outside the castle and Alaybey Neighborhood (Turkish Quarter) was constructed. Streets are mostly narrow, organic and have intrinsic quality. Streets expand in some parts and create squares.

City blocks in Alaybey Neighborhood are generally larger than the blocks in the Greek Quarter. Each block has a public courtyard between the buildings. Unfortunately, these courtyards are mostly featureless and unused areas now (Figure 12).

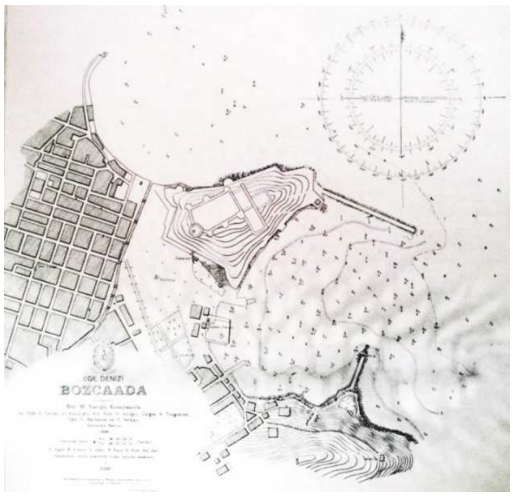


Fig. 10 - Greek Settlement after the fire (Anık, 2010)

Monumental and civil structures shaping the urban form display different character in the two districts.

Architectural Character of Cumhuriyet (Greek) Neighborhood

- Church Virgin Mary and a chapel (1800's) are located in the center of Cumhuriyet Neighborhood. The height of the church is 23.8 meters, so it is also a legible landmark for island's silhouette.
- Most of the buildings have a basement (kitchen, bathroom and laundry).
- The number of floor is generally two
- The structure of the buildings is masonry and some of them have a balcony

Architectural Character of Alaybey(Turkish) Neighborhood

- Alaybey Mosque (1700's) is located in the center of the Turkish Neighborhood. There are also Turkish baths and a fountain near the mosque.

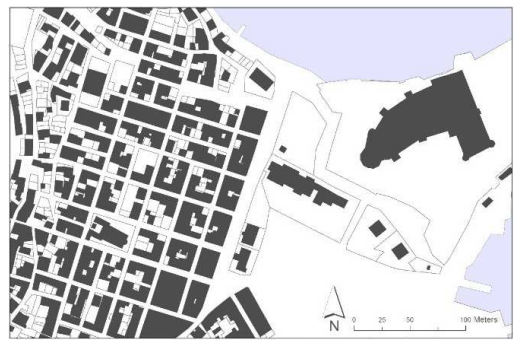


Fig. 11 - Cumhuriyet (Greek) Neigborhood

Fig. 12 - Alaybey (Turkish) Neigborhood

- Buildings generally don't have a basement
- Kitchen, bathroom and laundry are placed in courtyards.
- The number of floor is generally two
- The structure of buildings is masonry and some of them have a bay window
- Ceilings are generally wooden

Bozcaada has many unique values and assets in rural and urban areas. Conservation of cultural heritage elements and formation of physical environment is provided within the legal conservation framework in Turkey. This study aims not only to understand existing cultural heritage elements of the island, but also to discuss conservation policies to clarify the differences between theoretical and legal perspectives.

Legal Conservation Framework in Tenedos

Until this part of the study, unique cultural heritage items of Bozcaada have been discussed. The first legal basis for the conservation of Bozcaada's cultural heritage is the conservation plan approved in 1993. And the second one is the urban design guide, which was prepared in line with the environmental plan approved in 2014.
According to conservation plan, the protection of cultural heritage is applied on the basis of spatial and single structure. The conservation plan for the city center preserves the city center and its immediate surroundings as archaeological (first, second and third degree archeological sites) and urban conservation areas.

In archaeological sites

- Constructions are not allowed in 1st Degree Archaeological Sites
- Mining activities are not allowed in 1st Degree Archaeological Sites
- Needful infrastructure activities are allowed only the permission of conservation council in 1st Degree Archaeological Sites
- New constructions are not allowed in 2nd Degree Archaeological Site
- Simple repairing is allowed only for existing buildings in 2nd Degree Archaeological Site
- Mining activities are not allowed in 2nd Degree Archaeological Sites
- Excavation activities are not allowed except for archeological studies
- Foundation excavations for new constructions are allowed only with the control of museum authorities in 3rd Degree Archaeological Sites
- All new constructions are allowed only the permission of conservation council in 3rd Degree Archaeological Sites

In urban conservation site

- All trees in public space are protected inside the Urban Conservation Site
- Maximum building height (including the basement) is 6.5 meters in Urban Conservation Site
- Only one building can be built in a plot in Urban Conservation Site
- Attic storey is not allowed in Urban Conservation Site
- More than one basement is not allowed in Urban Conservation Site
- Maximum roof slope is %30 in Urban Conservation Site. Material of the roofs should be tiled.
- Street floor should be paved with local material (Andesite or Granite).

Single structures are protected as monumental and civil buildings

- Repair, maintenance and restoration of monumental and civil buildings are allowed only with the permission of conservation council in urban conservation site.
- Legal framework also defines maximum/minimum plot weight, plot depth, maximum building height, and building dimension for attached and detached building order in urban conservation site.
- Front yard depth is zero in urban conservation site, back or side yard wall height is maximum two meters in urban conservation site.
- Maximum ratio of doors and windows to building facade is defined in the

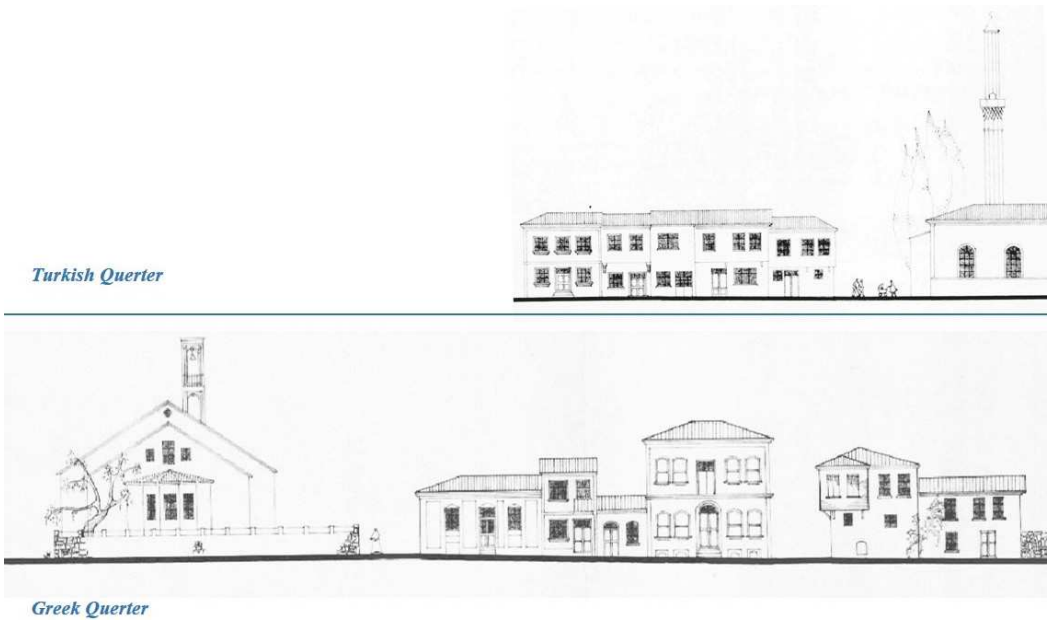


Fig. 13 - Religious Buildings in Turkish and Greek Quarters (Çanakkale Kültür Varlıklarını Koruma Bölge Kurulu Müdürlüğü Arşivi)

conservation plan for the city center. Total area of windows and doors should not exceed 30% of the whole facade.

The conservation plan also defines the conditions of settlement for areas that show rural area characteristics around the city center. On the other hand, there is no provision for the rural settlements on the whole island in the conservation plan.

In addition to conservation plan, there is also an urban design guide for Bozcaada. This guide defines main provisions for conservation of cultural elements.

Tangible

- *Built environment*
  - Vernacular architectural heritage (density, height and dimensions of buildings for new constructions, silhouette, existing registered buildings, plot typology, building order, building materials, building plan typology, structural elements of building)
  - Distinct local street pattern both Turkish Neighborhood (organic street pattern) and Greek Neighborhood (grid iron street pattern)
  - Existing green pattern

- *Rural environment*
  - Local character in rural fabric
  - Vineyard houses (local architectural materials should also be used in rural side of the island)
  - Pattern of rural paths
  - Landscape (natural environment, vineyards, agricultural areas and topography)

Intangible

- *Culture of insularity*
- *Vintage festival*

Development and conservation of local products

- *Viniculture and viticulture activities*

Conclusion

In this study, it is pointed out that how the tangible and intangible cultural heritage elements produced by various civilizations, especially Turks and Rums forms the settlement within the

historical process. While built environment and landscape constitute tangible cultural heritage elements, traditional life constitutes intangible cultural heritage elements. Likewise, traditional production includes both tangible and intangible cultural heritage elements. Fishery, viniculture, vine and olive oil production, traditional festivals, church and chapels, mosque, fountain, bath, civil buildings, archaeological sites and rural landscape are evaluated as tangible and intangible cultural elements in Tenedos.

Protection of these heritage values plays an important role in formation of physical environment. Conservation of these intangible and tangible heritage elements and formation of physical environment is implemented with conservation plan and urban design guide in Turkey.

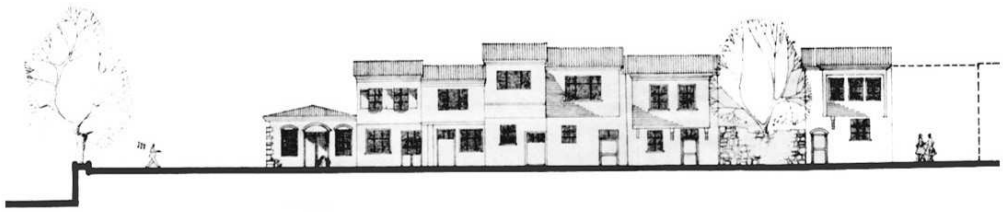
Under this legal framework, quantitative and physical values of urban conservation site are protected. Surface of façade, plot area, proportion of doors and windows, silhouette, materials, colors, street pattern etc. are some of these quantitative and physical values.

This legal framework is also obligatory for new constructions in urban conservation site. However urban and rural areas cannot be separated from each other with a distinct line. Production in rural areas are related with the physical form of urban settlement in Bozcaada (for example olive oil and vine production and marketing).

In this legal conservation framework, the conservation plan does not contain any provisions on how the rural area will be formed and preserved, while the design guide refers to the importance of rural heritage elements. However, urban design guide does not specify how the rural heritage elements to be protected and developed.

Like cultural heritage elements in rural and urban areas cannot be distinguished from each other, tangible and intangible cultural heritage elements cannot be separated from each other.

The island's intangible heritage elements (vintage festivals, technique and skills of viniculture) are associated with tangible heritage elements (product of vine). In other words, cultural heritage elements include built environment, landscape, traditional production, traditional skills and life, tangible and intangible heritage are integrated each other, although the legal framework does not discuss this values as a whole.



Turkish Querter

Greek Querter

Street Silhouettes in Turkish and Greek Quarters (Çanakkale Kültür Varlıklarını Koruma Bölge Kurulu Müdürlüğü Arşivi)

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Bolderaja and Hallonbergen – a comparison of culture and identity

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Abstract: The countries of Europe and its borders have been moved and changed several times over the years. What today seems obvious and stable, looked for 100 years ago completely different. Today we also have a large migration through Europe and an increasing nationalism. A nationalism that tries to annex our historic buildings and landscapes in an effort to create symbols for nationalist purposes. But buildings and landscapes often have a complex story, which in fact is a confirmation of the movement that has always existed between cultures and people.
So, who owns the history of our landscape and the historical buildings? And how can we create an identity and a symbolic value, which includes an inclusive approach?
I´d like to discuss how culture and identity change over periods of time, where I will give two examples, one of the Russian part of Riga and one of the suburbs of Stockholm

Keywords: Identity, Culture, Public space, Landscape, Migration, Social meeting space.

Introduction

Along the Daugava River outlet in Riga, lays ***Daugavgriva***, a fortification that was built in the 1600s during the Swedish occupation. In the previous century, Poland, Russia and Sweden fought for supremacy over the area. For more than 100 years Sweden ruled, only to be defeated by Russia in 1721, which until 1918 occupied the Baltic region. Between the first and second world wars the Baltic countries were declared independent but were once again occupied by Russia after the second world war, until 1991.
Daugariva is now a ruin that has a structure of a fortification from the 1600s but mainly bears traces of the military use during the 1900s. The area has previously been completely sealed and closed, and for most Latvians the fortress is unknown. The residential areas which are adjacent, are mostly inhabited by Russians.
Thanks to volunteers the fortress is today protected as a part of the cultural heritage. But because the area for most Latvians symbolizes the Russian occupation, there has been little interest from authorities. A newly established cultural and music festival Kometa, organized last year as part of an effort to rekindle and use the area in an inclusive way.
The suburb ***Hallonbergen*** was built in Sweden in the late 60s. It was built during a period when the Swedish government had decided to build one million new apartments over a 10 year period. Hallonbergen was described as “the best residential environment in Sweden”.
Today it is an area with big structural problem, the majority of the residents are immigrants with high unemployment, and crime is on the increase. The women are invisible in the public spaces, and young men are in the majority in the youth centre.
It is although an area with a strong identity. A big art project was held in 2011-2014, where an artist, Kerstin Bergendahl, was in charge of a dialogue process. This process was used as the start for a project of building 7000 new apartments with an

aim to mix social and economical groups in the area.

Daugariva

The Daugavgriva fortress is situated along the mouth of the Daugava river on the Baltic Sea. Since the Middle Ages, the river has been an important trade and transport route east of the Baltic Sea trade. In the 13th century a monastery was established on the site, Dunamunde Monastery, established by the Cistercian Order. In the early 1300s, the monastery was taken over by the German Crusaders, to be converted into military fortress.
In the 17th century, the present fortress Neumunde was built, which is supposedly designed by Erik Dahlberg, Swedish Consul in Riga 1696-1702. In 1721, Russia took over the rule of the Baltic States after defeating Sweden. Latvia was only free between the two world wars, only to be occupied again by Russia until 1991.
Today, the area is still characterized by the Russian presence, and the area is known as "the Russian part". In spite of the fact that the area previously had military use and was completely closed to private individuals, most people do not facilitate "mental memory" of the site. It was not previously perceived as a part of Riga, and was not seen as a cultural-historical valuable place.
The military fortress Daugavgriva has through history been a symbol of political and military occupation. Moreover, it was integrated into the Russian military zone, making it not worth the value of cultural history as other 17th century buildings in Riga.
The area was privately owned from 1999 until 2014, when the Latvian state took over the area. Unfortunately, some cultural-historical valuable parts were destroyed during this period, and even after the Latvian state's ownership, interest in the area has been low. 300 hectares large.

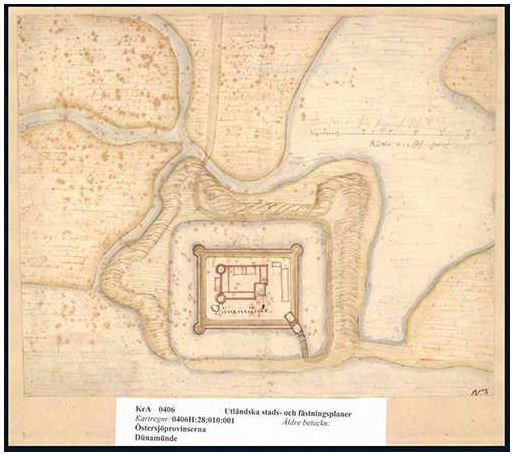

Fig. 1 - Dunamunde, 1630. Krigsarkivet, Stockholm

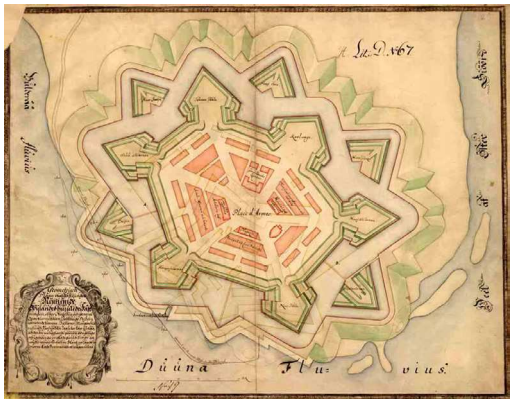

Fig. 2 - Neumunde, Dunamunde, Daugavgriva, 1682. Krigsarkivet, Stockholm

Cultural and social impact

Bolderaja Group, founded in 2000, is a group of non-profit enthusiasts who fight for Daugavgriva to be protected and preserved. Their goal is that the Latvian state and the Latvian people should discover the area and involve Daugavgriva as part of an open and inclusive Riga. Through various cultural activities such as art exhibitions, theatre, performances and concerts, they try deliberately to change the identity of the site from a symbol of military occupation into an area of inclusive and multicultural use, which is based on the cultural historical value.
Bolderaja group has now received a grant from the Latvian state, which corresponds to a minimum wage for one person, with the

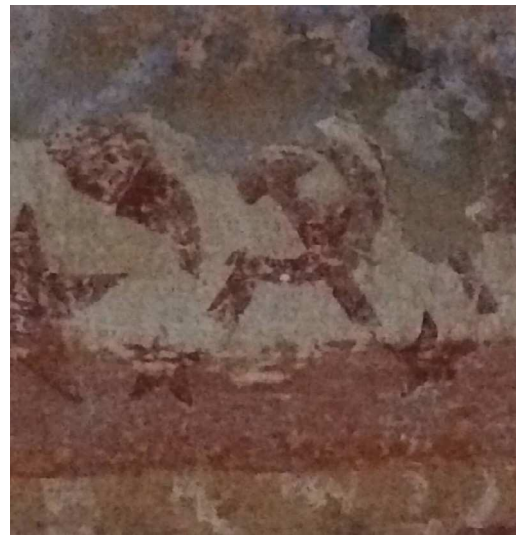

Fig. 3, 4, 5, 6, 7 - Photos from Daugavgriva

task of maintaining and supervising the area. The money is invested for the most part in tools and maintenance work. Bolderaja group also work as unpaid guides.

Two years ago the group collaborated with the organizers of “Kometa”, a music and cultural festival organized at the site. Kometa is organized ideally, and is carried out with the support of volunteers and local residents in the area.

Discussions are ongoing with the Ministry of Culture to find new forms of maintenance and management of the fortress. Bolderaja group is also looking for financial contributions and sponsors to develop the area as an open and inclusive social and cultural meeting place.

Unfortunately, the area is still unknown to many Latvian people, as it still symbolizes the Russian occupation and carries many traces of the earlier military use.

Fig. 8, 9 - Photos from cultural events

Hallonbergen

Hallonbergen is a suburb north of Stockholm. When Hallonbergen was built in 1971, the area was lifted and described as a symbol of the new and modern Sweden. An experimental school was started that was at the forefront of education, and for those who moved out of the innermost narrow and outdated apartments, Hallonbergen was a step up in the social housing career.
Today, the area is characterized by structural economic problems, and Hallonbergen are often described in the media as an area characterized by violence and major social problems. The public places are dominated by men, and there are few places where residents can meet of varying ages and gender.
Hallonbergen has although a strong identity and the residents are proud of their residential area. The existing large green parks with recreation and leisure areas contribute.
Sundbyberg City is currently implementing a

Fig. 10 - Photo of Hallonbergen

major urban development project in Hallonbergen. It is planned to double the existing population from 5,000 to 12,000 inhabitants with the purpose of getting a mixed settlement and a mix of social and economic groups. From being an area of a family housing development from 1969-1971, new housing is now being integrated into the area. As a basis for the urban development process, an artist Kerstin Bergendahl was involved. With her work with dialogue processes, the views of the residents was brought in as a ground for the continued urban planning.
The dialogue process changed and affected the plans for the new settlement, and focus was now on the social venues with the public green park as a supporting element.

Upcoming development work of public spaces

In the spring of 2017, further dialogue was

Fig. 11 - Photo of Hallonbergen

conducted with the residents. During the summer, “testlabs” have been implemented in the existing park area to investigate functions and places for the upcoming equipment. New seating, planting areas for vegetables, barbecue areas with outdoor kitchens have been erected, as well as a beach with a soccer field and sun loungers and hammocks.
The construction of these sites has been carried out with the help of the municipality’s summerworkers, (young teenagers, mostly residents in the area). After the summer, an evaluation has taken place to gather information and comments for the future work process.
A graffiti workshop was also held in the area over a weekend, with a well-known graffiti artist from Snösätra graffiti.

Difficulties

It has been difficult to reach people for evaluation and dialogue. Our focus has been to

Fig. 14 - Children living in Hallonbergen

Fig. 15 - Graffiti workshop

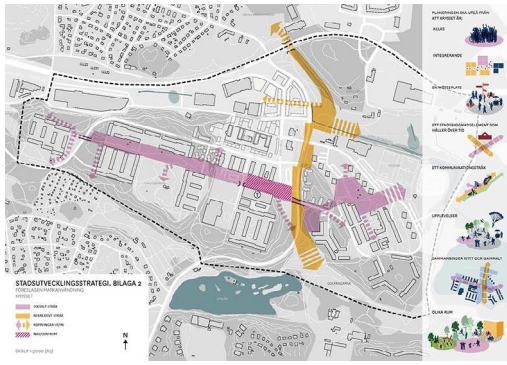

Fig. 16 - One of the testlabs

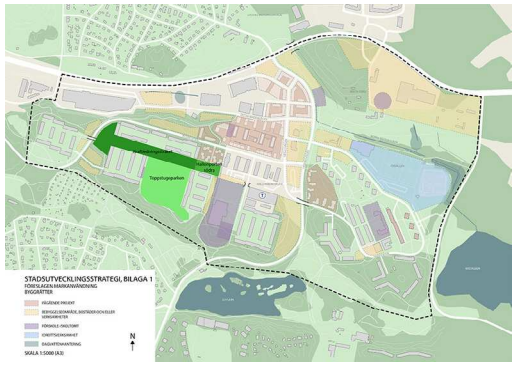

Fig. 12, 13 - Urban development strategy

Fig. 17 - Teenagers building the testlabs

Fig. 18 - Graffiti workshop

reach young girls and women. However, a workshop planned for young girls had to be canceled due to low participation. The mailboxes that were set up for the purpose of collecting comments, were not used. Certain damage occurred quite quickly, for example, carpeting, furniture and lighting disappeared.
It was also difficult to reach out to the community with information about activities such as the graffiti workshop. We had difficulty reaching the existing networks, which is essential for the participation of the residents.

Discussion

How can we change the identity, status and symbolism of buildings and places?
In Daugavgriva, deliberate attempts are made by the voluntary Bolderaja group, to change the identity of the area from a memory of Russian occupation and military use towards an inclusive cultural and social meeting place. By actively working with cultural events and cooperation with the Kometa music festival, they want to include a new open approach. Despite the great disinterest of the Latvian state, and the fact that the cultural historical environment was allowed to decay, they have consistently worked and integrated a large number of people into the project.
In order to succeed in a major urban development in Hallonbergen, the municipality has consciously and actively worked with several dialogue processes. The outcome of the dialogue has been the starting point for the city councils urban development strategy, and the focus has been the unifying green social spaces. During further work on developing the park and public spaces, testlabs have been developed and built during the summer. After evaluation, a program for development of the parks and public spaces will be presented in the autumn.
Further on, a research rapport, focused on aspects of gender, in collaboration with Vinnova, (Sweden´s innovation agency), and the University of Architecture, will be published.

Summary

To change the identity and symbolism of public places and buildings, a social commitment is required. This can be done as a voluntary initiative and idle basis, and come from individuals or organizations.
It can also be initiated by the municipali-

Fig. 19 - Communication with the residents

ty through a dialogue processe that is then used as a basis for the municipality's planning work.
Changing a memory can take a long time.
How long does it take to change the symbolism of a military occupation into a valuable historical cultural environment? How painful is that process?
At a time when Europe faces a strong migration and refugee stream, where people flee from war, it is important to be aware of that process.
At a time when Europe's cities have suburbs classified as problem areas with major social problems and unequal economic structures, it is important to know how to change an identity from within, based on the thoughts and consciousness of the residents.

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Image references

Fig 1: Utländska stads- och fästningsplaner, Dunamunde 1630

Fig 2: Utländska stads- och fästningsplaner, Neumunde, Dunamunde, Daugavgriva, 1682. The National Archive, (the War Archive), Stockholm

Fig 3- 5: photos by Anna Wyn-Jones Frank

Fig 6: Photo from exhibition of Armins Ozolins, by the permission of Bolderaja group

Fig 7: photo by Anna Wyn-Jones Frank

Fig 8-9: photos by permission of Bolderaja group

Fig 10-11: photos by Tengbom

Fig 12-13: maps by the planning office city of Sundbyberg

Fig 14-19: photos by Tengbom

Interviews with Bolderaja group

Mutual Connection of Heritage and Society. The Case of Revitalised Cemeteries in Poland's Postmigrant Territories

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Abstract: The paper presents the results of qualitative field research focused on new meanings of old, pre-war cemeteries in the post-migrant territories of Poland. My analysis of the sociological research results focuses especially on the social context of the processes of restoration practices of the cemeteries as the cultural heritage of "the other", and the values ascribed to them. Secondly, I highlight the role of tangible heritage in the processes of organizing new social, collective entities. This takes into consideration understanding of heritage as a social (cultural) discursive practice of constructing the idea (of heritage) and the practices involved in managing it (Smith 2006), as well as the relation between society and heritage (Appadurai 1996; Harrison 2004; Harrison 2012). Thus, the processes of restoration refer to the cemeteries as valorized and preserved heritage, as well as to the communities that are valorizing and restoring them. In this way, the tangible heritage is not only a passive object of manipulation, as well as social construction, but also plays an active role in shaping society.

Keywords: Heritage, Cemetery, Migration, Human interaction with material culture, Heritagisation.

Introduction

A cemetery, defined as a burial site where the funerary ritual takes place, and characterized by the control of the living (relatives) over their grave space (Rugg 2000: 264), has one more important feature: in a broader sense, as Kolbuszewski (1995) states, it is a text of culture, and as such a testimony of the living rather than the dead. The changing social contexts influence the changing functions and shapes of cemeteries, while societies reflect their beliefs, values, structure, and history within their symbolism and structure. In this way, burial spaces, especially cemeteries, are written by the ones who plan, build, and manage them on different levels, individually within a particular grave space, and institutionally (formal organizations and managers). Then, with time, successive generations read and interpret them, and finally they are also the subjects of the processes of reinterpretation, translation, and re-writing. This textual analogy for a cemetery brings a very useful development here. Existing cemeteries (already written), just as books, magazines, and other literary culture, may also be the subjects of censorship and erasure. This understanding of cemeteries corresponds with the more general idea of material culture as text. However, we need to take into account not the author-centered, linear idea of text, as produced with some assumed meanings imposed by the author only and then read as such, but one giving the reader agency in producing the meanings (Olsen 2013: 43). What is more, the readers may become active not only in the processes of interpreting, translating, or even ascribing new meanings on their own, as being grounded in their social contexts, but may become engaged in a palimpsestic process of re-writing the text, which results in a continuous process of creating new qualities. This way of understanding a cemetery is my starting point for presenting the results of research based on interviews with contemporary local

managers, revitalizing the pre-war cemeteries in the post-migrant territories of Poland.

As part of culture, cemeteries are visual representations not only of individual and social norms and values, but as places for burials and commemoration practices of the members of a particular group; in this sense, they "function as communicative symbolic practices that construct and express individual and collective ethnic and cultural identity" (Reimers 1999: 147). A cemetery as tangible proof of the intergenerational continuity of a group plays an important role in building and sustaining not only individual identity, but also group, religious, ethnic, or national identity (Ansari 2007; Li 2015; Natali 2008). As a result of the intergenerational communication, cemeteries are also places for expressing the society's structure and changes (Janson 2011; Merridale 2003; Scheele 2006; Straczuk 2006; Wingren 2013). Beyond this, as culturally shaped, cemeteries are the subjects of power relations (Onwuzuruigbo 2014). It is the dominant group that rules the space, its shape, structure and content. As such, they are visible proof of these relations, and of the symbolic dominance of a certain group over the particular space.

Within more general categories, cemeteries may be considered as part of heritage, as they may be valorized as important enough to be protected and preserved for future generations. At first glance, cemeteries would be included in the categories of cultural and tangible material heritage, using the classical division – although this is no longer unquestionable. Bearing in mind the broad ongoing discussion on defining what is and what is not heritage (Ahmad 2006; Vecco 2010) and the in-depth discussion on heritage studies and heritage theories (Waterton & Watson 2013), some theoretical assumptions need to be stated. First of all, it is assumed that the strict distinctions between the tangible and intangible, cultural and natural heritage should not be taken for granted (Harrison 2004, 2012; Smith 2006). Behind this criticism lies understanding of heritage as a social and cultural process of performative actions, constructing certain places and material or any other objects as valuable enough to be preserved for future generations, rather than having intrinsic, objective value and significance. As Laurajane Smith states, "heritage is heritage because it is subjected to the management and preservation/conservation process, not because it simply is" (Smith 2006: 3). Secondly, it is important to state that the society–heritage relationship, i.e. human–material reality, is not one-sided, based on human understanding and actions directed toward material objects. It needs to be perceived in the categories of human–non-human interaction, rather than human influence on the social, cultural or natural landscape; as a mutual, complex system of interplays and interdependences, rather than the human-or social-reductionist result of cognitive processes and performative actions, when the only possible agency stands on the human side. This gives a more symmetrical perspective for understanding heritage (Harrison 2012: 39).

This paper aims to analyse the interactive processes between pre-war cemeteries and their local, non-official managers in the post-migrant territories of Poland after 1990. The first part of the paper will focus on exploring the values ascribed to pre-war cemeteries by their bottom-up managers, including individuals, non-formal groups, and formal non-governmental organizations, and social practices resulting from the valorization. Secondly, it will discuss the impact of the practices considering the pre-war cemeteries on the people and organizations involved in the practices.

Background to study and method

During and after the Second World War, Poland was characterized by major politically forced population movements affecting over 30 million people over the course of just one decade (Eberhardt 2011: 15). The migration processes of flights, resettlements, repatriations, evacuations, and expulsions were the result of shifting national borders at the Yalta and Potsdam conferences and the post-war policy of dispersing ethnic, religious and na-

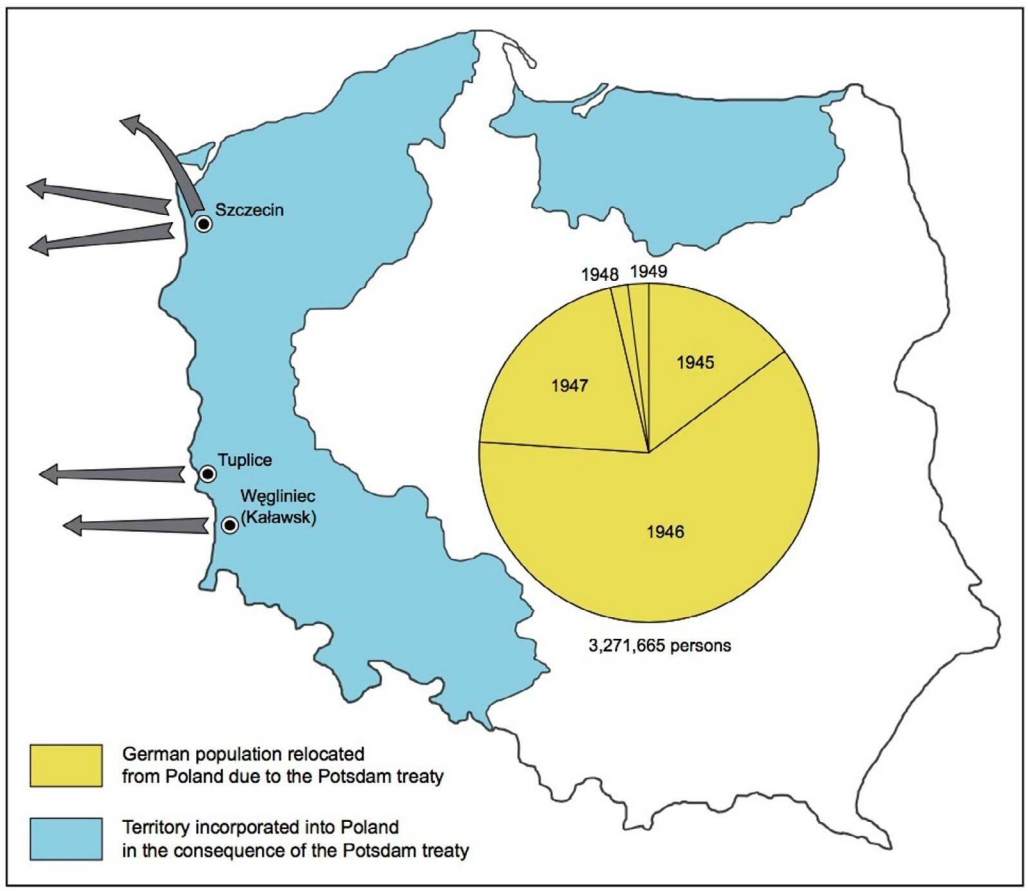

Fig. 1 - Post-war expulsion of German population from the territories incorporated into Poland (Eberhardt 2011: 151).

tional minorities. This resulted in assimilation, aimed at adjusting and unifying the language and religion of the population (cultural boundaries) with the national borders (Eberhardt 2011: 24, 145, 194). The processes included planned repatriations and resettlements of Poles, Germans, Ukrainians, Belarusians, Jews, and not planned migrations caused by the results of the war and changes of borders. The largest population movements took place in the western, Northern and eastern parts of contemporary Poland between 1944 and 1947. Historians are not unanimous about the final numbers of the people resettled in these years. However, considering only two nationalities, German and Ukrainian, it may be estimated that the number of German refugees, who fled the approaching Soviet army and arrived in Germany, was 7.5 million (Eberhardt 2011: 116-117); during the post-war years, 1945–1950, 3.2 million Germans were resettled (Fig. 1). The number of Ukrainians affected was around 500,000 between 1944 and 1946, and within "Operation Vistula" around 150,000 (including Lemkos and Boykos) (Fig. 2). For the purposes of the research, the territories left by one population and inhabited by another are called "post-migrant".

For fifty years, material objects, including houses, churches with their interior decorations, and cemeteries, were the only proof of territories having belonged to a different national or ethnic group, and as such they were exposed to destruction and manipulation. After the Second World War, cemeteries in territories formerly inhabited by a population other than Poles underwent extensive processes of formal, bottom-down dissolution and grass-

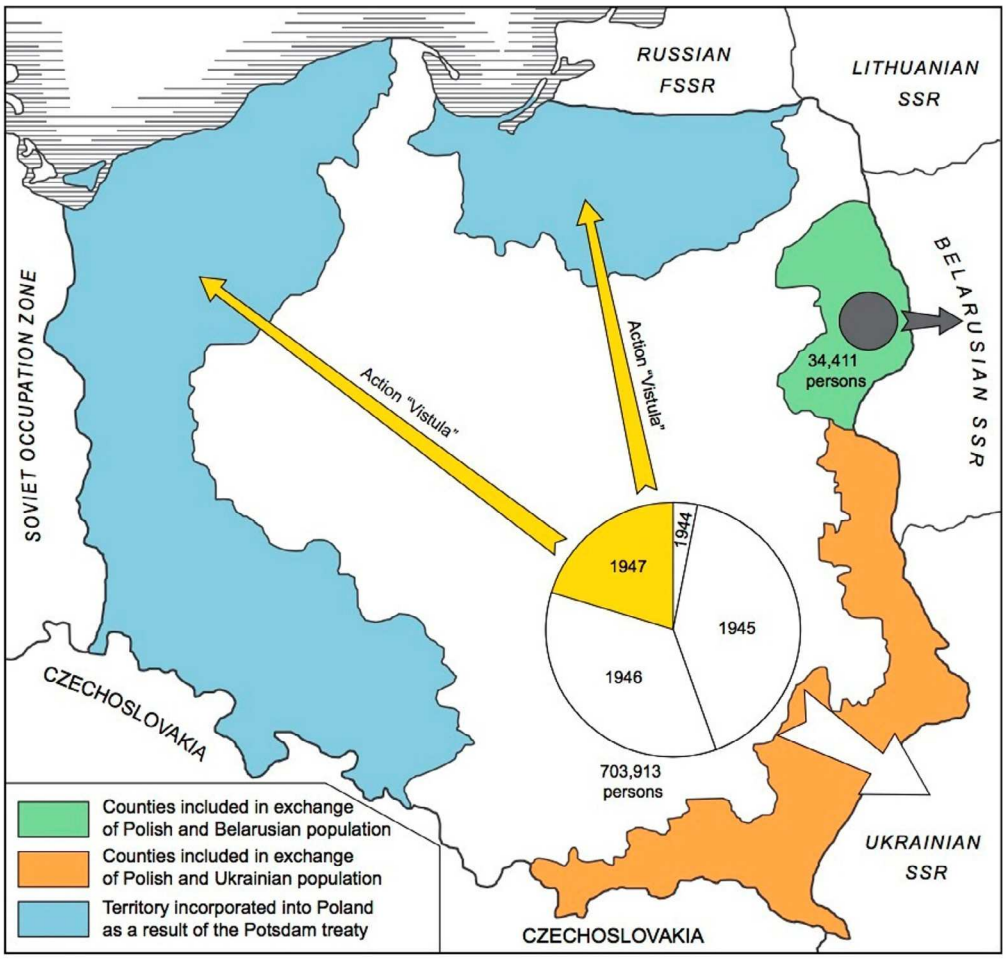

Fig. 2 - Post-war resettlement of the Ukrainian population from the Carpathia region (Eberhardt 2011: 144).

roots destruction (Stachowiak 2015). Such practices are also known in other cases of cemeteries during and after ethnic and national conflicts, (Saltiel 2014; Strang 2014), as they are in cases of any other strategical destruction of cultural heritage of the enemy in the conflict (Dolff-Bonekämper 2010). After over 50 years of destruction of the tangible heritage, processes aimed at social forgetting of "the others" (Connerton 2008), the 1990s brought the beginnings of the opposite grassroots commemorative and restoration processes (Skórzyńska & Wachowiak 2013: 33). These processes may be elaborated in the category of heritagisation, understood as social process of valuation and giving new meanings and functions to places, buildings and other objects and resulting from preservation acts (Ashley 2016; Sjöholm 2016; Swensen 2012).

The first step of recruitment of the research group was based on a web search for individuals, groups and organizations involved in the processes of restoring and preserving pre-war cemeteries in the post-migrant territories of Poland. Additionally, a snowball method of sampling was used. Consequently, 35 qualitative, semi-structured interviews were conducted in post-migrant territories of Poland, including: the Pomerania region (North Poland) in Słupsk (Ger. Stolp) and Gdańsk (Ger. Danzig); the Lower Silesia region (Ger. Niederschlesien) in Szklarska Poręba (Ger. Schreiberhau) and Wrocław (Ger. Breslau); the Kuyavia region in

Bydgoszcz (Ger. Bromberg); the Greater Poland region in Konin and Koło (during the war included in the Third Reich as Wartheland); and the Carpathia region (South-East Poland, formerly inhabited by significant Ukrainian groups of Lemkos and Boykos). The interviews in Greater Poland and in Carpathia were combined with two field observations. In the first case, it was conducted during one-day ecumenical, inter-religious meetings at three different cemeteries in Greater Poland, on 29 October 2016, and in the second case during two practical workshops at two cemeteries in the Carpathia region, with a non-governmental organization involved in the restoration practices of pre-war intentional burial places in July (10 days) and September (5 days) 2016.

Values ascribed and practices applied to pre-war cemeteries

When asked for their reasons for taking care of pre-war cemeteries, the people involved in practices of their restoration and management refer to certain values that are important for them and which they consider to be mediated by the graves and cemeteries. The values that occurred in the interviews on the pre-war cemeteries were categorized during the analysis into six different sets, which will be presented in this section.

The first set of values ascribed to the cemeteries is aesthetics, including elements of architecture, sculptural works with stone and metal, all kinds of sepulchral art, as well as elements of nature, mostly plants. Here the artistic values of the places are the reasons for saving and restoration of the cemeteries. One of the women interviewed in Szczecin (Ger. Stettin) said:

First of all it was very pretty, beautiful. Each and every grave was different, each had a different detail, that I liked very much. (…) and I was very excited with this digging out and looking at the graves, at these decorations. They've decorated the graves in a beautiful manner, in a modest way, but beautifully.

In this sense, the old cemetery is perceived as an art gallery or museum, with graves as items of a museum exhibition, showing historical arts and crafts to the next generations. Cemeteries' informal managers mention the processes of planning and building the pre-war cemeteries as grounded in aesthetics. According to the respondents, the artistic values of the cemeteries might also have been one of the reasons for their destruction during the post-war years. My interviewees reported that the decorative elements of the graves and cemeteries have been used for private reasons, and may still be found in private gardens. While talking about the post-war history of the places and their current state, the interviewees often use the category of shame. The practices of destruction are treated as shameful, and the destroyed cemeteries as places of guilt and shame. This occurs when pre-war cemeteries are compared to those used for burial purposes, which are well preserved and clean, and regularly visited by the relatives of the buried. Meanwhile, the pre-war ones, not used as active burial places, are dirty, dilapidated, closed, dark, hidden and forgotten spaces in a city or a town. This comparison causes shame and a sense of guilt in some of the inhabitants. While considering the comparison in the aesthetic category, it is worth mentioning another one made by my respondents – the quality of arts and crafts of the old, pre-war cemeteries and post-war, active ones. This comparison is accompanied not only with a sense of shame, but also with jealousy and longing. They feel like they are missing the high quality of art at current burial spaces, which are full of unified crafts.

The second category of values identified in the research is connected with religion and spirituality. Here, the interviewees refer to their religious or spiritual experiences that have taken place at or around the cemetery. The respondents do not usually link such experiences to their church affiliation or religiosity, in the sense of attending religious rituals or religious doctrine. Some of them referred to their sense of presence of spirits of the dead at the cemeteries, and hence the respect

they need to pay at the cemetery. Even certain respondents who declared themselves to be atheists or agnostics mentioned some kind of supernatural powers, the active role of the dead in their lives, or rationally inexplicable coincidence of circumstances. Categories of fate, or "the dead will", are used by the interviewees to explain their interests and actions regarding the cemetery. Within this values set, use of religious language and categories was noticed. Referring to their experiences with the Jewish matzevah of a 17-year old girl, Charlotte Bielousov, buried in the Jewish cemetery in Sopot (Ger. Zoppot), two interviewees from Gdańsk (Ger. Danzig) used the category of dybbuk, which in the traditional Jewish belief and mystical system is a possessive, malicious spirit. The woman I spoke to referred to this in the following words:

Every case we know when she [Charlotte] appears, her influence is enormously creative. It means, she's not a, it's not a dybbuk who destroys, ruins life, drives into depression, such stories of course happen, it is a person who, when she touches someone, immediately triggers an effusion of different creations (…) she is a positive figure, a positive dybbuk.

What we see is a creative practice of using a traditional religious category, for interpretative purposes. However, the category is modified individually, and then used in a different sense from the original one. The respondent is aware of the modification she made, yet nevertheless uses the category. These examples fit the category of everyday religion (Ammerman 2007) or lived religion proposed by Meredith McGuire (2008) and others researching contemporary religion (Niedźwiedź 2015). Apart from this kind of individual, spiritual experiences, and subjective modifications in religious terms, my interviewees see the burial spaces they are attracted to as important spaces for ecumenical meetings and inter-religious practices for religious communities of the people buried at the cemeteries and of the living who take care of them. Such ecumenical practices include lighting candles when visiting the cemetery, especially during All Saints Day and All Souls Day (the Holidays of the Dead – 1 and 2 November), ecumenical prayer meetings at the cemeteries, with a Roman-Catholic priest and an Evangelical pastor, local inhabitants, individuals and organisations involved in restoration practices, and local authorities. The ecumenical value ascribed to the cemeteries is close to secular reconciliation between members of different nations – Polish, German, and Ukrainian – experienced as a result of the restoration and anamnestic practices of the interviewees, with the difference that the latter is based on the category of national identity.

Conducing reconciliation is another distinct value of the cemeteries noticed by their carers. Instances of work at the cemeteries are seen as acts of forgiveness made by the members of a nation attacked during the war to the members of the hostile nation. When the anamnestic work is finalised with some symbolic meeting of the two national or ethnic groups, the participants refer to "reconciliation over the graves". Such experiences are very emotional and touching for the participants. Recalling such a meeting at the Central Cemetery in Szczecin, one interviewee mentioned the emotions, sympathy and the feeling of unity of all the participants "of ordinary people struck by the terror of war, from both sides of the conflict". Categories of national identification do not function here as sources of distinction; though noticeable, they are treated rather as categories of a negative reference. The respondents say: "regardless of our nationality, we care for them", "even though they are not Polish graves, they need to be respected", "it doesn't matter what nationality they [the buried ones] were, we need to take care of what they've left here".

Pre-war cemeteries, contemporarily no longer used as burial spaces, still function as commemorative places, and collective memory is another value crucial for the people saving them. In this case, cemeteries are treated as repositories of memory of former inhabitants,

especially important and valuable in the case of migrations, while there is no intergenerational continuity, and people cannot function as living carriers of individual and cultural memory. The cases of tangible heritage of the others, as is the case with the pre-war cemeteries, challenge the understanding of memory as content referring to the past of a certain group, as passed from one generation to another. The cemeteries function here as tangible triggers for interests in the past of the inhabited territories; for some respondents, however, they still function as a historical source, an archive of the knowledge of the past local communities, towns and cities, their history and sociological features. This knowledge is a prime value for the "memory guardians", provoking them to build a sense of continuity in spite of the migration processes in which their ancestors participated as post-war settlers. Here the categories of "living history", "cards of history" and "big history with a small 'h'" appear in the interviews.

For some of the cemeteries' careers, nature is a prime value of the old, pre-war cemeteries. The plants and animals that have overtaken the spaces for the last half century are what is valuable. This is especially the case in the context of the industrialization processes and growing building investments that have resulted in shrinking green areas in cities and towns. As socially forgotten and/or forbidden spaces, for a long time the cemeteries have evolved into quasi-wild spaces, and as such they are sanctuaries for rare and endangered species, which is why they are attractive for visitors and people living nearby. Sometimes, nature is treated as the savior of cultural artefacts. This results in a dialectical relation between natural and cultural heritage, both being shelters for each other against the intrusive activities of people.

The least representative category of values ascribed by the careers to the cemeteries is that of reflectiveness. Here, the respondents perceive the cemeteries as spaces that favor meditation and reflection of an existential nature. One of the interviewees from the Greater Poland region said:

Such a place, I don't know, sentimental, melancholic, inducing daydreaming, secret and surprising at the same time.

The values ascribed to the cemeteries may be inconsistent or even dissonant with each other, yet still they may be treated by individuals as equally important. The research shows that the activities resulting from the different values may be even conflicting, as for example the valorisation cemetery as archive will result in practices aiming to preserve the data inscribed on the grave, while valuing nature at the cemetery will result in allowing it to dominate and even destroy the graves.

The social impact of the cemeteries

The processes of heritagisation through positive performative valorisation of certain objects referring to the past should not be analysed without taking into account the social context and social implications not only for the heritage itself but for those playing an active role in the process. Due to attaching values to the objects and acts of their acknowledgement and preservation, certain changes are made among the individual and social actors. In this section, these changes will be discussed briefly using examples from the research.

One of the social consequences would be the acts of individuals, organising in groups – informal, open to all interested in anamnestic acts, or more formal, like registered societies. Within my field research, I contacted five formal, bottom-up organisations. Some are focused only on acts of restoration of pre-war cemeteries (such as Stowarzyszenie Magurycz–Association Magurycz), while for others the cemeteries are only one of their fields of activities (like Słupskie Stowarzyszenie Eksploracyjno-Historyczne "Gryf" – Gryf Słupsk Explorative-Historical Association, or Stowarzyszenie Miłośników Starego Fordonu – Association of Enthusiasts of Old For-

don). Some of the organisations started their activities by restoring or commemorating the pre-war cemetery, and then expanded their activities to different fields (Stowarzyszenie "Nasza Krępa" – Our Krępa Association). During the research, one of the interviewees was in the process of formal registration of a society (Wielkopolskie Stowarzyszenie Na Rzecz Ratowania Pamięci "Frydhof" – Frydhof Greater Poland Association for Saving Memory). Most of the formal organisations I researched are of a local character and scope. Usually their activities are focused on local cemeteries in one district, village, town, county or region, and their active members are inhabitants of the local communities. Association Magurycz – the oldest organization among those researched, active since 1988 – is an exception here, as its activities are of a greater, national and international character when it comes to the members and coverage of restoration activities. Among the organizations' activities are: restoration and preservation acts, regular cleaning and informal managing of the cemeteries, education and information on the history of the place, and, in the case of Magurycz, publishing and educating in restoration techniques as well. All the researched organizations have bottom-up origins, although in many cases they cooperate with local authorities and churches. The funding for the activities comes from national or international sources, other non-governmental organizations, state or local funds supporting bottom-up initiatives, local charities and money collections. As a rule, all work at cemeteries is done voluntarily.

The field activities of the organizations are usually accompanied by information on the association, with the use of social media. All of the researched organizations have their own fan page on the largest contemporary social media website (Facebook). The one with the highest number of followers is Association Magurycz – 4062, then Association of Enthusiasts of Old Fordon – 3534, Gryf Słupsk Explorative-Historical Association– 1365, Memento Foundation - 485, and the newest one, Frydhof Greater Poland Association for Saving Memory, with 467 followers. Apart from the researched organizations, there are also Stowarzyszenie Lapidaria – Zapomniane Cmentarze Pomorza i Kujaw (Lapidarium Association. The Forgotten Cemeteries of Pomerania and Kuyavia Region) – 2121 followers, Fundacja Anna w Gostkowie (Anna Foundation in Gostków) – 481, and some virtual groups focused mostly on an informational form of activity, like Ratując pamięć – Wiejskie cmentarze ewangelickie województwa łódzkiego (Saving Memory – Rural Evangelical Cemeteries of Łódź County), with 390 followers. Most of the organizations formalized their activities in the 2000s, although the interests and activities of the individuals in question mostly began in the 1990s. In general, there are several formalized, bottom-up organizations in Poland involved in the preservation and protection of pre-war cemeteries.

The next component of this process is based on the acts of symbolic acquisition and domination over the burial spaces of "the others". Such practices are based on the use of the symbols of one group (national, religious, ethnic) in a space primarily organized (physically and symbolically) by a different group. In the research on the pre-war cemeteries in the post-migrant territories of Poland, two such practices were identified. One of these is widely practiced during ecumenical, inter-religious meetings at the cemeteries, and is acted out by Catholic priests during the ritual of sanctification of the cemetery with holy water.

The ritual is not institutionally recognized, nor practiced by the Evangelical Church. This therefore means introduction of the rules of one religious institution over a space originally bound by the rules of another one. The other symbolic source of domination is the nation. An example of introduction of national symbols into pre-war cemeteries is at the lapidarium made in Gdańsk, called Cmentarz Nieistniejących Cmentarzy (Cemetery of Non-existing Cemeteries). Before the Second World War, Gdańsk (Ger. Danzig) was the Free City of Danzig, with its own political independence, formerly part of Prussia and inhabited by a large majority of German-speaking population. De-

spite this, though, every May at the lapidarium built in 2002, only white and red tulips bloom, reflecting the colours of the Polish national flag. The research shows that when referring to the cemeteries they are involved in, the respondents use possessive pronouns and adjectives (my/mine, our/ours). One of the reasons for this seems to be their everyday emotional and physical engagement in the restoration process. Apart from this, the other categories legitimizing the use of such pronouns are the unifying ones. Here, the research indicated two major categories – universal ones, like European (heritage), Christian (place of burial), and local ones (Pomeranian, of Gdańsk, of Słupsk, Kuyavian, Carpathian). These categories allow the research participants to include themselves in one category with people who were forced to leave their tangible heritage after the Second World War, and in this way allows them to consider themselves to be their cultural (European, Christian or local) successors.

Conclusion

This brief overview of the grassroots social activities organized, formally and informally, around pre-war cemeteries demonstrates vivid and socially influential character of the heritage. Looking overall at the three recognized processes allowing the identification of social actors with heritage and with the territories they inhabit, we may observe that it is not only the society that has the active power of "invigorating" the material objects in the process of heritagisation; rather, the heritage has the power and agency of invigorating, if not forming the communities.

This is one of the steps of the process of forming new, local identities among the individuals involved in the heritagisation processes. This brings us to Arjun Appadurai's idea of producing and maintaining a locality by asserting "socially (often ritually) organized power over places and settings that are viewed as potentially chaotic or rebellious" (1996: 184), which often involves actions focused on the material order of the landscape. However, this is not the point where the process finishes. According to Appadurai, during the process of reproducing the neighborhood, new material, social, and imaginative contexts are produced: "In this way, through the vagaries of social action by local subjects, neighbourhood as context produces the context of neighbourhoods.

Over time, this dialectic changes the conditions of the production of the locality as such" (1996: 185). This corresponds also with the dialogical and relational idea of heritage presented by Rodney Harrison (2012). The research results indicate the need for this kind of dialogical understanding of social actors and heritage as proposed by Appadurai, and further elaboration on the processes.

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Meaning and Use of Transformations in an Industrial Archaeology Context in Morelos, Mexico

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Abstract: Material culture is constantly embedded into semantic sociocultural systems. During such process, all kind of artifacts, architectural structures included, change their meaning and use according to the corresponding cultural transformations. Different models have tried to explain this phenomenon, from processual proposals implying a split between systemic and archaeological contexts, all the way to postmodern interpretive postures. The aim of this work was to clarify context transformations in a railway site called Barranca Honda, located in the state of Morelos, Mexico. This way, changes in use and meaning were recorded ethnoarchaeologically trying to identify the multiple semantic interpretations implied in this heritage asset. Associated to a small town, the analyzed context displays the heritage management performed by local people, in absence of professional assistance. It is worth mentioning that the use and appropriation of heritage under such circumstances may differ from the academic expectations, still representing valuable anthropological information. It is expected that this case study can be contrasted to similar or different contexts in order to understand the role of material culture as societies direct themselves in time towards different paths.

Keywords: Industrial archaeology, Cultural change, Archaeometry, Mexican Revolution, Railway.

Introduction

A Industrial Archaeology studies social phenomena and material culture linked to the Industrial Revolution. It is a highly developed archaeological field which has developed a great number of topics in different countries. (Hudson 1965; Palmer & Neaverson 1998; Stratton & Trinder 2000; Nevell 2006). However, in other places such as Mexico, results have been limited, due in part to legal conceptions. This is so because Mexican laws regarding heritage study and conservation define heritage chronologically, only protecting material culture prior to the 20th century and focusing mainly on Pre-Hispanic and Colonial periods (*Ley Federal de monumentos y zonas arqueológicos, artísticos e históricos* 1972). Therefore, recent heritage (19-21th centuries) has received relatively less academic attention and functional interventions, although such situation tends to improve in the present.

Among the industrial innovations, the railway represents one of the most relevant technologies because its introduction caused profound economic and social changes worldwide by altering the use and perception of geographic space. The railway appeared in Mexico during the late 19th century, starting with the construction of the so called "Ferrocarril Interoceánico" (Interoceanic Railway) which tried to communicate the Pacific and Atlantic oceans in order to increase commerce and communications. Such a goal was not achieved and later trials finally completed the deed. Eventually a full railroad system appeared through the nation (Ortiz Hernán 1988; Haber 1992; Kuntz & Riguzzi 1996). In fact, in Mexico the railway substituted the colonial road system which was almost completely destroyed during the previous Mexican Independence War (1810-1821). The road deterioration in Mexico prevailed until the 1870s (Ortiz Hernán 1988). Around 1823, only three roads, com-

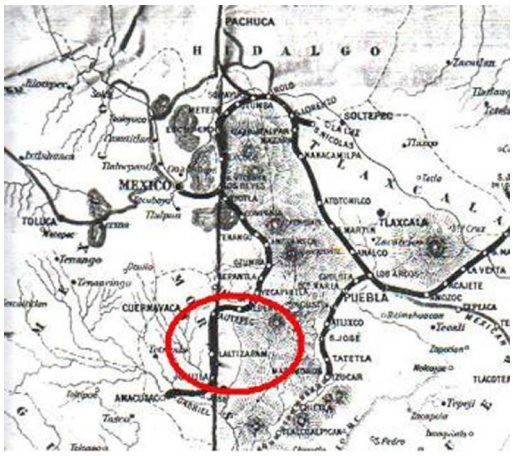

Fig. 1 - Detail of the map of the Interoceanic Railway of Mexico. The study area of this work is located between Yautepec and Tlaltizapam (red oval). Source: Map of the interoceanic railway of Mexico.

municated Mexico City: Veracruz, Acapulco and Tierra Adentro (D'Estrabau 1988).
The Mexican Government issued a great number of permits to allow the introduction of the railway, still it was not but until 1873 that the first functional line (Mexico City-Veracruz) was finished by the Interoceanic Railway Company (Kuntz & Riguzzi 1996). Part of the delay was due to the general suspicion since most of the capital invested was foreign and mainly British, fact which arose public criticism (Acevedo 2000). After the finalization of the Mexico City-Veracruz line, the company continued efforts to reach the Pacific Ocean, still due to a number of adversities, this was never accomplished. Even so, as it can be seen in the map of the Interoceanic Railway of Mexico published in the 1890s, the company did build a railway in the current territory of the state of Morelos with stations between 'Nepantla' to the north and "Amacusac" to the south (Map of the interoceanic railway of Mexico 1890) (Fig. 1).
Despite the former economic and social relevance of the Mexican railway system, currently most lines are abandoned. The last phase prior to the collapse consisted of a failed privatization effort, which only keeps a reduced number of lines in function (Sacristán Roy 2006). This is the reason why a conspicuous asset of industrial archaeology sites consist of railway vestiges in Mexico, unlike other countries where the systems remained working.

Barranca Honda as an Industrial Archaeological Context

The locality known as Barranca Honda (Deep Cliff in Spanish) is located in the central part of the state of Morelos, Mexico. Belonging to the municipality of Tlaltizapán, this site consists of the town itself and the surrounding common lands, currently devoted to agriculture and cattle raising. During the edification of the Interoceanic Railway, the area was crossed by the route in a predominantly North-South direction. Since this railway system is abandoned, the industrial remains can be conceived as an archaeological site, linked to current urban transformations as the small town of Barranca Honda increases its population and built area.
It could be stated that the whole archaeological site is represented by the entire Interoceanic Railway. Nevertheless, as it is usual with such extensive systems, subdivision is required. In this case, the limits of the railway section under study were arbitrarily established coinciding with the Barranca Honda common lands extension. This way, a railway section measuring 2.6 Km in longitude was studied. Dur-

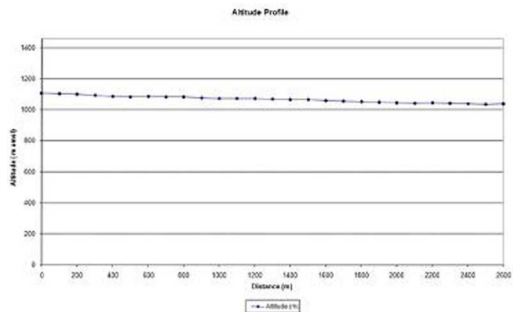

Fig. 2 – Altitude profile of the studied railway section. Source: the authors.

ing the prospection survey, performed in the North-South direction, GPS measures were taken every 100 meters. Regarding altitude, it was found that the highest point was located at the Northernmost point standing at 1,106 meters above mean sea level (amsl) and the lowest measure was recorded at 1,036 amsl, almost in the southern limit of the study area. In total, this railway section descends 67 meters with an average slope of 2.57% although individual sections showed values between 0 and 7%. Fig. 2 shows the schematic section obtained.

As such, the railway constitutes a continuous constructive work, however, relevant built entities were considered and recorded individually. This way a set of two storm drains and seven bridges were located. These structures were numbered in the North-South direction of the railway and once again, located with GPS as shown in Tab. 1.

Structures	Coordinates		
	N Latitude o ‘ “	W Longitude o ‘ “	Altitude m amsl
Bridges			
1	18 49 10	99 06 16	1106
2	18 49 07	99 06 18	1101
3	18 48 59	99 06 20	1089
4	18 48 54	99 06 20	1085
5	18 48 44	99 06 22	1083
6	18 48 28	99 06 25	1068
7	18 48 14	99 06 31	1048
Storm Drains			
1	18 48 01	99 06 41	1044
2	18 47 58	99 06 50	1039

Tab. 1 – Localization of railway structures in Barranca Honda. Source: the authors.

For the purpose of this research, two observations became relevant. First, the town as such occupies the Northern part of the study area. Therefore, bridges 1-3 are currently embedded in the urban area, while the rest remain in more free or rural surroundings. Both storm drains are located in the southern part of the study area and therefore also in a rural context. As the town grows, the southern section of the railway becomes part of the

Fig. 2 – Bridge 1. A major structural work saving a 48 meters long cliff. Note the differences between the Northern pillar made of brick and the southern one built with gray concrete. Source: the authors.

built area and the interaction between abandoned archaeological structures and new human habitat can be observed in this particular context. It is also relevant to mention that such process occurs in the absence of any formal or professional influence since, so far, people in the town take their decisions on their own, provoking diverse results in terms of reutilization or preservation. Secondly, one of the bridges, namely bridge 1, constitutes an example of historical reutilization itself as it will be explained further. About the bridges themselves, number 1 constitutes a major architectural or engineering work because of its dimensions and quality, while the rest represents more modest examples. Actually, the name of the whole site relates to the deep cliff where bridge number 1 is located (Fig. 3). The

Fig. 4 – Railway material has been transformed in a fence, at the same time clearing the former railroad, creating an even surface to walk. Source: the authors.

Fig. 5 – The cleared road becomes a street for the town. This same path leads to the agriculture section of the common lands. Source: the authors.

examples given above show different attitudes and uses towards what can be considered heritage according to more academic points of view. However, the free interaction between the contemporary society in Barranca Honda and the archaeological remains implies some kind of balance between the actual needs of the population and their conception of heritage. It has been studied and proposed from an archaeological point of view how and why to preserve a given site or monument through site significance assessment (Hardesty & Little 2009) The equivalent decisions are seen in this case taken from some kind of emic point of view, whose internal logics and social reasons become subjects for further studies. Even more, it was possible to observe that reutilization of railway materials might have historical deepness in the site.

The state of Morelos played a major role during the Mexican Revolution started in 1910. One of the most relevant actors of this episode was General Emiliano Zapata who established his headquarters in Tlaltizapán, just south of Barranca Honda. At some point, control over the railway was a major military goal. (Womack 2011) Bridge 1, locally simply known as Barranca Honda Bridge results particularly interesting, not only due to its dimensions

Fig. 6 – A railway bridge is incorporated into the contemporary architectural design leading to its preservation in absence of professionals. Note the concrete plaque added for pedestrian use. Source: the authors.

Fig. 7 – The bridge is being dismantled to use the carved stones in other buildings leading to archaeological context dispersion. Source: the authors.

but also because it shows different building strata. The Northern pillar is built with red bricks and carved stones, while the southern one is built with gray concrete (Fig. 3). At the top of this second pillar an inscription states the reconstruction of the bridge in 1919. In the depths of the canyon, red brick blocks lay, interpreted as the remains of the original southern pillar. The context implies that this bridge was attacked during the Revolution and partially re-built later to repair the system. Just outside the study area a small fortress is located in a hill. This fortress is built with recycled railway material, presumably with the remains of the original southern pillar of Bridge 1 (Fig. 8) and it shows a clear visual relationship with the bridge.

Presumably the fortress was created to protect the railway after the attacks. In any case,

Fig. 8 – Rails used to form a lintel at the small fortress adjacent to the study area. Diversity of recycled materials can be observed in this constructive system. Source: the authors.

the area shows clear evidence of constant railway material reutilization, phenomenon seen until today.

Conclusions

Industrial heritage in Mexico represents a relevant set of sites, monuments and artifacts, still to be fully studied and interpreted from both, archeological and heritage conservation points of view. Railway heritage constitutes a vast proportion of this cultural heritage due in part to the system abandonment.

Under certain circumstances, recent heritage interacts freely with urban expansion, be it in big cities or small towns. Under such conditions and due to the vastness of the sites, interactions between material culture and contemporary inhabitants can occur leading to a non-professional or academic use of the archaeological contexts or deposits. Even in such cases, some kind of significance assessment operates leading to the conservation and even inclusion in new designs of part of the heritage, while other fraction is taken away from its original condition, still implying some way of reuse and re-signification. All these social behaviors are still to be explored more profoundly in further research.

In the specific case study, it is possible to propose that historic events related to material reutilization in Bridge 1 linked reutilization itself with social agency. To some degree, the phenomena documented in this first approach might represent some parallelism with more formal citizenship participation in other contexts, where people can decide on what constitutes heritage or not and what to do with it. It is expected that this work can be used for comparative purposes with similar or different cases and above all that it raises questions for further research in the complex relationship between urbanism, archaeology and heritage conservation.

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Working Class Heroes – the Industrial History in the Urban - A Case Study of the City of Drammen, Norway

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Abstract: This paper is based on research on Norwegian cities in general, and on the City of Drammen in detail. Looking at Drammen, seen in the light of the historical development of the Norwegian towns and cities in general, this work investigates industrial cultural heritage in the urban structure and what identity they convey. The case is described as a city rich on preserved industrial heritage. Why is this more prevalent in Drammen than in other cities of similar size, geography and history in Norway?
The transformation forces at work in the cities have existed since the developers turned their minds inwards on the city. The research describes the different forces at play in preserving industrial cultural heritage in Drammen. The field work from the research is showing that a lot of industrial cultural heritage, both on larger area level and as singular building structures, is preserved in one or another form, in the spectre between legal protection or refitting. The interviewees convey how industrial cultural heritage is not a prioritized kind of heritage in the community, but that the planning processes (praxis) often result in structures being preserved, on different levels of preservation.
Drammen is now the city celebrating the "Working Class" in cultural events, in arts and in the common narrative described in local media. It has gone a long road from being the polluted city by the river, characterized by traffic, pollution and derelict industrial areas. The city has been transformed, now having an increased status among the cities and towns in the region of Central-Eastern Norway. A reuse of industrial heritage structures is a part of its new practice. The research implicates that a conscious commitment among actors (planners, politicians and the population) has led to this.

Keywords: Architecture, Urban planning, Heritage planning, Industrial heritage, Urban refitting.

Introduction

In this work, I want to discuss mankind's relation to the industrial in the urban. This begins with her relation to changing her environment – which in turn relates to sensing, to affect to physical environment, and to influence it and hence its atmosphere.
The first kind of organized production of mankind was agricultural production. After the age of solely making agriproducts; new commodities were being exchanged. It was wood or like here, minerals, and it had to be transported somewhere, to get sold or refined – though commercially realizing the values. I will in this paper concentrate on the age of production of space connected to the urban, which basically came with the exchange of commodities - more specifically the age of industry that has left physical traces we see as of today.
Gustave Doré's well-known engraving «Over London by Rail» from 1872 describes an extreme urban situation from the time well into the industrial revolution, and shows the dark side of industrialism. As we know, the racing growth of market capitalism contributed to creating a sort of an urban industrial slavery. Not to mention the effects of pollution, starting already back then. How can we pull something positive out of this historical development?
How does this relate to regarding the industrial as cultural heritage? Is it a purely aesthetic consideration? Is it because it is plentiful of it in towns and cities? Virtually every town or city has a history of industry, at a larger or smaller extent. What they have preserved of it, however, is a question with a

Fig. 1 – Gustave Doré: «Over London by Rail», 1872

great variety of answers. I will attempt to find answers through this paper.

Framework

The research has been conducted through observations of the towns and cities of Norway, with a particular focus on the city of Drammen. I have also conducted in-depth interviews with actors within the fields of media and urban planning management in Drammen. This data collection has been viewed in the light of relevant and state-of-the-art research literature within the fields of urban planning, urban and heritage studies.

The towns and cities have been observed thorough a 10 year period 2006-2016 through work with the national register over urban areas of cultural historic interest, the NB!-register (Norwegian Directorate of Cultural Heritage 2017). This is an official Norwegian register, complimentary containing all urban areas of cultural historic interest on a national level. It covers all towns and cities that contains existing areas of historical interest in any physical appearance as of today.

Among the information per urban entity and per urban milieu in the register, there is history, geography, building and structural typology as well as contemporary and former function(s).

The function of the register is not legal protection, but meant as a tool for developers and planners to use, for information on which urban areas the public heritage authorities will engage more in than others. The register is internet-based and an object of change, as urbanities continuously change. The NB!-register is showing the current heritage hotspots of the Norwegian towns and cities.

In the research, I go through the questions drawing on several theories related to heritage studies. I look at the practice in Drammen related to the authorized heritage discourse (Smith 2006), I relate to how the mechanisms of planning have been working, in addition to using Levefebre's works on the right to the city (Lefebvre 1996). These theories are also an entrance to further perspectives done by later researchers, bringing in several other, more-faceted perspectives on management and practices of industrial heritage conservation in urban environments.

Industry as part of historical urban development

As production grew and technology developed in the age of enlightenment, industrial units became bigger and attracted more people. In the 1600-eds this resulted in the exponential growth of urban agglomerations in Europe and the world dominated by European colonisation. In the southern of Norway, the phenomenon of urban growth occurred with the shipping out of timber and the need for port facilities.

The second push of urban industry came with the so-called industrial revolution during the mid-1800'eds. The technological development of factories based on hydropower or steam attracted workers from the urban hinterlands. Towns and cities grew. This brought challenges to whether / how urban development could be organized and urban living conditions improved.

There were eventually other sides of the industrial development. The industrial revolution came in the decades after the French revolution, and the subsequent

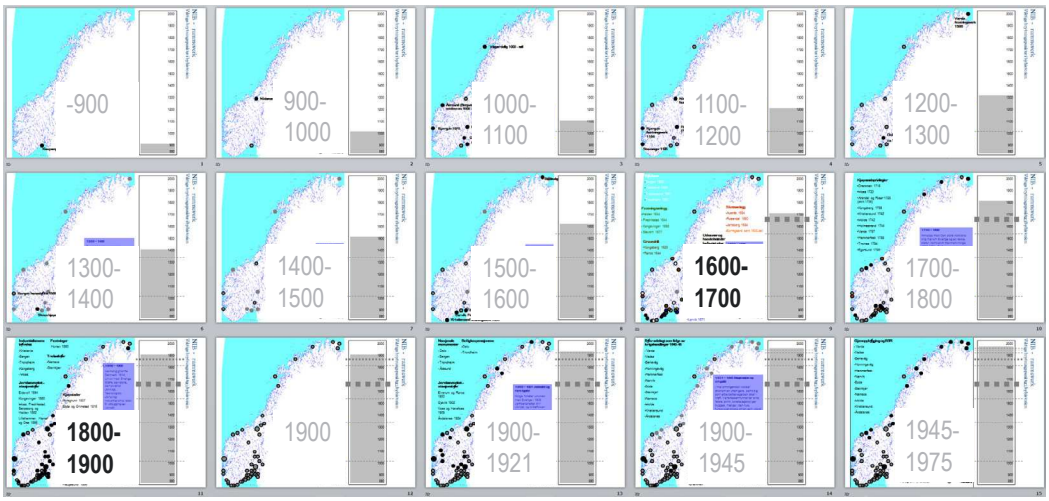


Fig. 2 – Urban growth in Norway through the last millennium

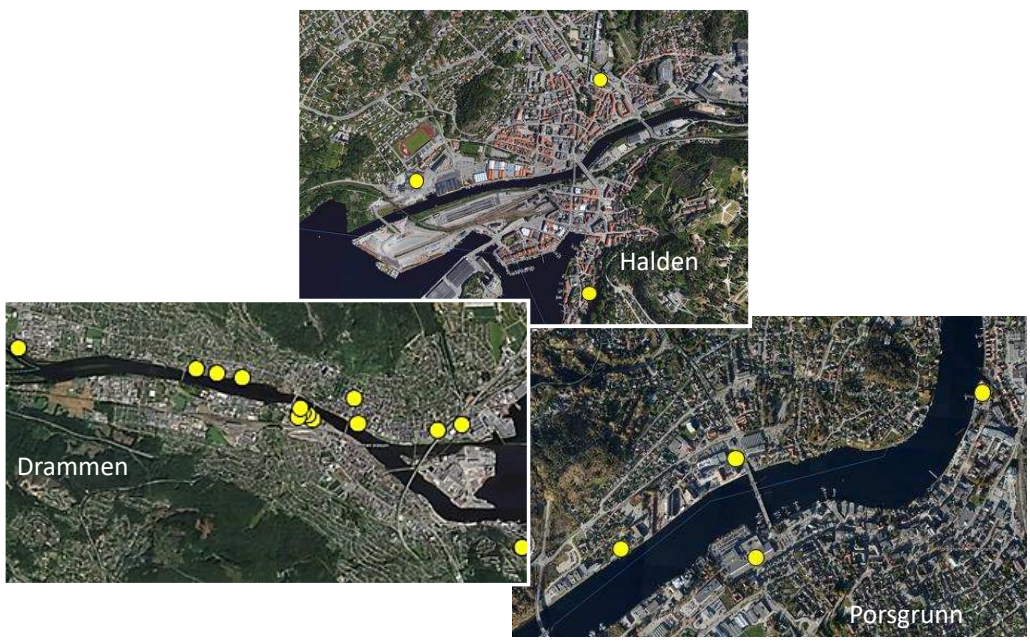
European liberation wars, parallel to the development of national democracies. Welfare was demanded, commodities got cheaper and affordable for more segments of society.

The ideologies of socialism and communism arose. Women entered the work force, maybe best illustrated by the push of women into the industrial workforce during WW2.

Industry in Norwegian towns and cities

There is evidence that Norwegian urban agglomerations increased in the centuries of the first exploitations of natural resources of the enlightenment in the 1600'eds, and during the industrial revolution in the 1800'eds, as shown by the maps above. The data is extracted from historical royal letters grant-

Fig. 3 – Comparing two medium-sized Norwegian towns with similar geographical physiognomy and industrial history with Drammen. The yellow dots represent preserved industrial cultural heritage.



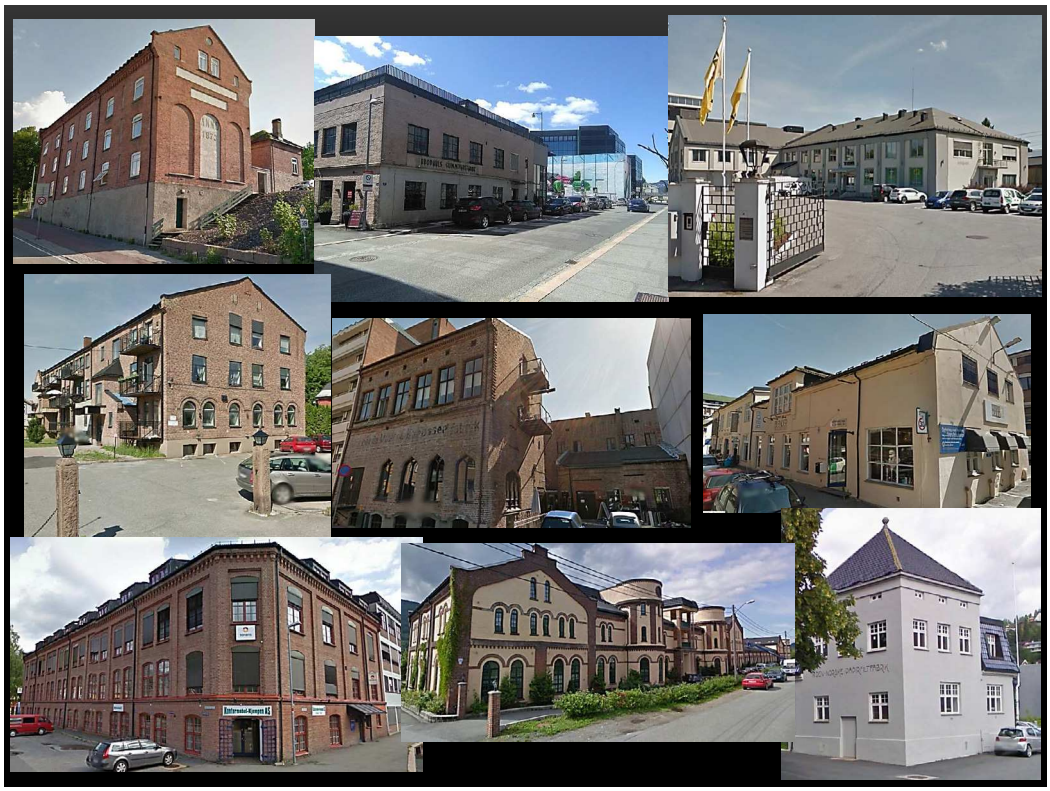


Fig. 4 – A collection of some of Drammen's industrial heritage structures (Google Earth).

ing city status to different urban agglomerations around Norway (Helle and Eliassen 2006) and data collected in the NB!-register(Norwegian Directorate of Cultural Heritage 2017). This management practice was transferred to the parliament in the years after the independence from Denmark, and abolished totally after WW2.

Comparing Drammen with other medium sized towns in Norway, we see that the amount of buildings of industrial heritage is more frequent found in the urban texture. Drammen, Halden and Porsgrunn are all cities situated close to a water body (river mouths). They all have a prominent industrial history, with a dominance of timber processing. The two latter are half the size of Drammen, but have comparably fewer preserved industrial buildings.

Industry in Drammen

The example case is Drammen described in regard to the great amount of preserved industrial heritage this city contains, which can be observed in sheer numbers. Why has this seemingly, because of the great amount of preserved industrial structures, become more important here than in other cities and towns of similar history and / or size? Drammen is now profiling itself as the city celebrating the "Working Class" in cultural events, arts and the common narrative described in local media. It has gone a long road from being the run-down city by the river, characterized by traffic, pollution and derelict industrial areas. The city has undergone a transformation leading it to an increased status among the cities and towns in the region of Central-Eastern Norway, and a reuse of industrial heritage structures has become a part of this practice. Why is this city particularly embracing its industrial history?

The interviews conducted were an important part of the data collection. The three inter-

viewees were experienced, professional persons from regional media and public urban management. The conversations were circled around the following questions:
Is there a "Drammen identity" connected to industrial cultural heritage (seen from the citizens' point of view)?
Is the industrial cultural heritage itself part of the identity of the city (seen broadly, as an image of Drammen viewed from the outside)?
Is this reflected when selecting heritage / designing physical environments locally?
Is there a public discussion of urban development and industrial cultural heritage in the city?
It is important to note that the interviewees answered to urban industrial heritage both in the aspect of urban transformation (professionally), and in the aspect of affect and identity for their own hometown.
The interviewees describe how Union Scene paved the way for the further development of the Paper Bank (Papirbredden). The development included new apartment buildings, a College and library center, and several of the historical industrial buildings from the times of the pulp production were incorporated in the project. Later on, the neighboring rubber factory was preserved in a neighboring project. "In many ways, Union scene marks the turnaround for the whole of Drammen".
After this project was finished in 2007, several historical industrial buildings have been preserved and refitted for new uses. This practice was established before The Paper Bank, but received more attention locally after. One spin-off is the street-art project on reducing unwanted graffiti, allowing graffiti as street-art on selected sites. Another project emphasizing the industrial culture in Drammen is the now well-established "Working Class Hero" music festival.
The interviewees tell about citizens referring to close identification with the industrial production in the city. The elderly telling tales on their jobs in big well-known industrial entities, the young ones having heard these tales and becoming fascinated by them. Occasionally, this seem to have been mentioned in urban planning cases, affecting old factory buildings in Drammen. This information is supported by media (including social media) and documents.
Industrial culture is also being celebrated as decorations in the offices of the local newspaper, and on the walls in the City Hall. Confronted with this, the interviewees admit that there is an attention towards the industrial history of Drammen. Still, they convey, the younger generations do not have a relation to industry. For these people, it is being said, the industrial historic buildings are mere "empty shells".
Drammen neither has any planning documents defining industry as a special part of history. There is no highlighting of this type of heritage in the adopted municipal area plans.

Discussion

There are different practices on preserving industrial cultural heritage. In Norway, the normative ways of valuating cultural heritage in a planning context is, somehow simplified, through the lens of established criteria used by the cultural heritage authorities (the Norwegian Directorate of Cultural Heritage 2014):

- Volume; how much of the type (morphologic, functional et cetera) is still existing
- What is the state of the objects (buildings); and whether the authenticity or integrity is preserved
- What meaning the object(s) of heritage convey

These criteria are well in accordance with international evaluation methods in use of by international bodies of conservation management (Jokilehto 2015), fitted to national conditions. This practice is described by John Pendlebury as a part of the practice of the authorized heritage discourse in the United Kingdom, but is applicable for Norwegian conditions as the systems for heritage and planning management are somehow parallel (Smith 2006, Pendlebury 2013).
The impact of industry has a general, overarching role in the development of society and the cities. In the case of Drammen however,

it is more relevant to look at the results from local practice in regard to the industrial cultural heritage.

Looking at the literature applicable as theory on the topic, I wanted to investigate whether awareness had been brought to the importance of the industrial as part of the history of Drammen. This could be on an authorized or an unauthorized level. I was also curious on the topic of whether this was regarded as an intangible value as well as the tangible, the existing volumes of historical industrial buildings already being a concrete fact, a well-integrated part of the urban fabric of Drammen. It is easy to see industrial history described as something of a positive factor for identity in Drammen. This would be in accordance with actor network – theory according to Beauregard (Beauregard 2015): One can consider the proudness of being a part of industrial history (having family with roots in the industry, admiring the strength, the honesty and the rawness of the industrial culture) as an agent bringing the thoughts towards physical built structures in the city. The structures resemble something positive, and the attention within the everyday practice of the daily discourse around the planning of the city and which object(s) to preserve within it, is brought towards the old factory buildings.

This is supported by Beidler and Morrisons work on how social (and psychological) aspects of spatial planning are crucial for creating space out of place. It is easy to transfer their four dimensions of viewing the mechanisms of bonding man and place to the mechanisms observed in Drammen. First the self as being engaged in the experience (of the industrial), secondly the (industrial) environment as such, thirdly the social interactions of the actors (citizens), agreeing on the common narrative (as being part of the industrial culture) and finally the aspect of time – having lived and experienced the tangible and intangible culture (of industry) over an extended period (Beidler and Morrison 2016).

Henri Lefebvres theories of ownership to place are also applicable in this study. The theory of right to the city (RTC) has recently been tested by Rosen and Shlay in a study of three neighbourhoods of Jerusalem. In this, they conclude that RTC may be used even in an environment of many different opinions and connotations to create a form of consensus over common belonging to the city as a greater entity (Rosen and Shlay 2014). This may, in fact, be the case in Drammen which was the scene of a rapidly changing citizen mass in the years of decline, also being the primary years of increased immigration to Norway, many of whom would settle in the city. This has created a need for finding the common narrative for Drammen during the last four decennia.

According to several studies, it has become more common to, in one form or another, preserve industrial cultural heritage in an urban context (Mathews 2014, Berg and Stenbro 2015). The question is whether planning and heritage management institutions are taking in this as an important part of considering the new designs for an urban area in transformation. The two questions I want to address are: firstly, the relevance of industrial heritage as traces after a general social development with an extensive impact on society, and secondly the impact locally in specific urban communities, related to exact examples of objects of industrial heritage (buildings).

With the cities and towns from the Norwegian NB!-register as raw data, it seems evident that urban agglomerations grew with the push of technology, both in terms of the volume of the physical urban fabric, but also as in terms of economic growth and as parts of a wider democratic welfare society. With the city of Drammen as an example, it could further seem that industrial culture has had an impact on the awareness locally, both in authorized but also in popular discourses, on the fact that the industrial is a part of the common narrative of this city.

Reading the history of the different towns and cities, and combining it with the data collected from the NB!-register and the interviews, a picture emerges: The towns and cities are

all unique, given their different geographical localizations, their traditions and the different individuals deciding on their development throughout time. These places nonetheless share two factors.

Firstly, they are all sites of urban features. Secondly, both the real and the narrative history of these urban agglomerations are different – even as much of the actual history is parallel: Industrial development. The history, read (authorized), is often a different one than what locally is decided is the common history, or, more precisely, the story about the history. The latter may be created after processes of commonly produced narratives, and can contribute to a more broadly shared sense of place narrative (Martin 2005), or collective place-identity. The process of a guided creation of a common place-narrative can, however, also contribute to a better shared understanding of the place (Cupers 2005, Kaymaz 2013), given the right condition and relevant rigging of these processes. It is, however, arguable if this shared understanding has to be connected to heritage or newer physical features of a place (Gospodini 2002). In Drammen, this local narrative is about the city of former industrial greatness.

Emma Waterton and Steve Watson are promoting the idea that in these processes, the affective forces may take over, and the narrative itself becomes essential (Waterton 2014). In Drammen, this may seem to have occurred, taking the promotion of industrial culture in everyday cultural activities in consideration. The industrial is being forwarded as something of past greatness, a culture for everyone to take part in.

Conclusion

The Central-Eastern Norwegian city of Drammen seems to have managed to create a common narrative about itself. This narrative has never been a part of a management, but has emerged through collaborative forces within the public heritage and urban planning managements, the local democracy and actors within commercial property development.

This conclusion is founded on observations of the mechanisms working within the urban planning praxis in Drammen, seen upon the canvas on recent theories thematizing processes within urban planning and transformation. The field work is uncovering that the processes of preserving built industrial cultural heritage are based on the consciousness around the existing reminiscent of the derelict industry. Being ever-present in the different districts of the city, it has never ceased to be a part of what is being perceived of the users of the city as natural elements of the urban fabric.

The first larger urban development project, the Paper Bank, was the project making the way for a wider awareness about adaptive reuse of the dilapidated factory buildings among the different actors in Drammen. The important present - past, having had an prominent role in the city, has thus been carried along forwards, into present – future development.

Is industrial heritage important as a part of urban heritage? It may seem so. The industrial development, seeding in the late renaissance with the increased focus on extraction of natural resources and trade, developing through the enlightenment and flourishing in the 1800-eds with the industrial revolution, made towns and cities evolve, both in size, in volume and culturally.

In Drammen, this heritage has been activated through re-use and adaptive refitting of formerly derelict industrial heritage structures.

Fig. 5 – Papirbredden, The Paper Bank (photo by Cornelis Horn Evensen)

These historical factory buildings, carrying on narratives of different levels of cultural historical prominence, in sum make up a central ingredient of Drammen's urban texture. The amount of industrial cultural heritage in the city is linked to local identity more than a consciousness about industrial heritage as driver of urban processes and culture generally. The affect towards the singular buildings (or – sometimes as well as towards the industry represented of this particular site, be it the corporation or the specific products) from the local population, neighborhoods or from the urban population as a whole, has contributed to the stock of industrial heritage. In turn, this has returned Drammens profile, its branding, as an industrial city, now with a vestige as a city of former industry. This also does radiate heavy urbanity.

It is the impressions from the physical environment that creates affective forces in the user of the place. This is being processed in her mind, and will produce an affect to the place. The user of the city will tell the story of the place to bystanders and fellow users of the place, and they will communicate and develop the tale about it. A narrative has been created (Waterton 2014).

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The Roman Villa of San Vincenzino and the "Zuccherificio": the revival of forgotten heritages, useful to a community development

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Abstract: Cecina is a Tuscan town with about 30,000 inhabitants, located about 30 km south of Livorno, on the Tyrrhenian coast, in what is called the Northern Maremma. The territory is settled by since ancient times and have received many influences over the centuries. From the Etruscans and the Romans, through the dominion of Pisa and Florence, during the late Middle Ages, and the Grand Duchy, getting to 1738-39, when the Habsburg-Lorraine sell the property of Cecina Farm and neighbouring estates to the florentine count Carlo Ginori. With the promulgation of the "General Law of Feudi", in 1749, the area returns under the Tuscan Government's authority until the Unification of Italy. This study deliberates an about 92,000 m2 urban area, extended between the two connecting boulevards between Cecina and its Marina, along the east-west axis. In this area there are two adjacent archaeological sites; the remains of a Roman villa and the broader complex of an abandoned sugar factory. The first, discovered in 1849 and dating back to the late Republican, consists of remains belonging to four different layers, from II-I century B.C to V century A.D; the second, ascribable to a typical case of "industrial archeology", was built in 1899 and remained in business until 1987, despite intermediate stages of inactivity, and occupies most of the area. For different reasons, both complexes, rather than being a strenght to the community, experience a state of deterioration and, as regards the factory, of total dereliction. About the latter, proposals and plans for its development came in succession over the years, by individuals and administrations, but the only project approved remained incomplete. The purpose of this work is to find strategies and intervention methodologies to enhance the public potential of these two integrated sites, starting from the current status and some questionable choices.

Keywords: Architecture, Urban planning, Heritage planning, Roman Villa, Tuscany.

Introduction

The aim of this paper is to delineate the situation about a 92.000 m^2 urban area, extended between the two connecting boulevards between the town of Cecina and its Marina. In this area two adjacent archaeological sites are located: the remains of the roman villa of San Vincenzino and the broader complex of the former Zuccherificio, an industrial archaeology case which has been abandoned since 1987 and subject to public debate since it was left in crumbling conditions for thirty years.
We will begin by introducing Cecina and its urban development during the last century. We will describe the two sites, looking at the phases of life and decline of each of them and then we will try to contextualize the area exhaustively within the urban scale. Finally, we will conclude with some future scenarios for these two sites, since in 2019 the Public Administration will resume the Municipal Structural Plan and it is possible that the Zuccherificio area will be included in a new development program. (Fig.1)

Urban development during last century

Cecina is a Tuscan town with 30.000 inhabitants, located 30 km south of Livorno, on the

Fig. 1 – Indagated urban area

Tyrrhenian coast.

The territory has been populated since ancient times, since Etruscan age and the Roman one. In the late Middle Ages the area was under the dominion of Pisa and Florence. In 1738-39, the Tuscan Grand Duchy, from the Habsburg-Lorraine's family, sold the property of Cecina Farm and the neighbouring estates to the florentine Count Carlo Ginori, that was the main promoter of systematic land reclamation works and a territorial division that will outline the nucleus of modern layout.

With the emanation of the General Law of Feudi, in 1749, the area returns to the ownership of the Tuscan Government until Unification of Italy.

Talking about the urban structure, the town has developed two cores: Cecina and Marina di Cecina, its outpost on the coast, 5 Km far from the former. (Fig. 2)

Fig. 2 – The two cores, Cecina and Marina

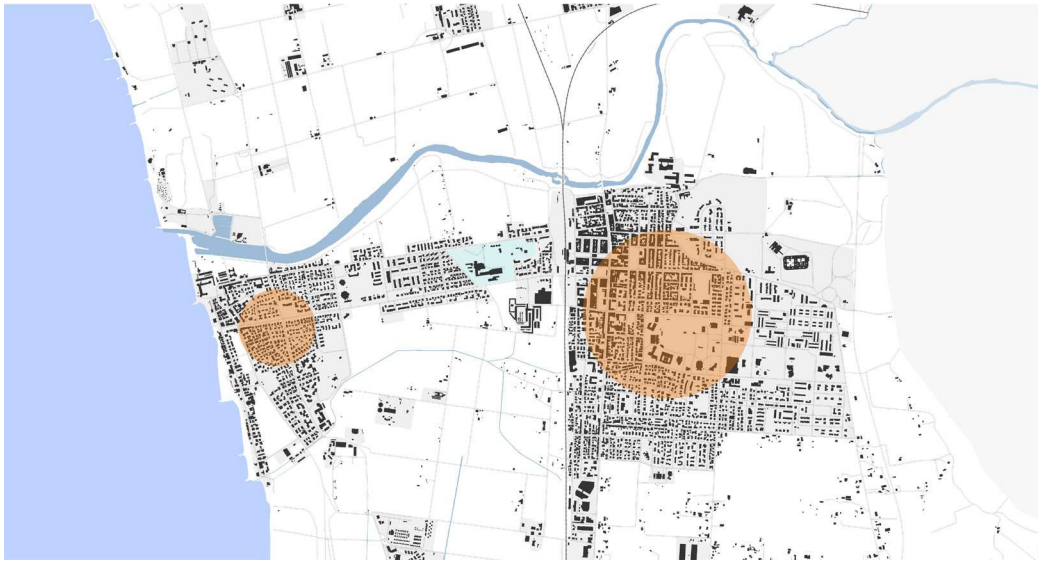


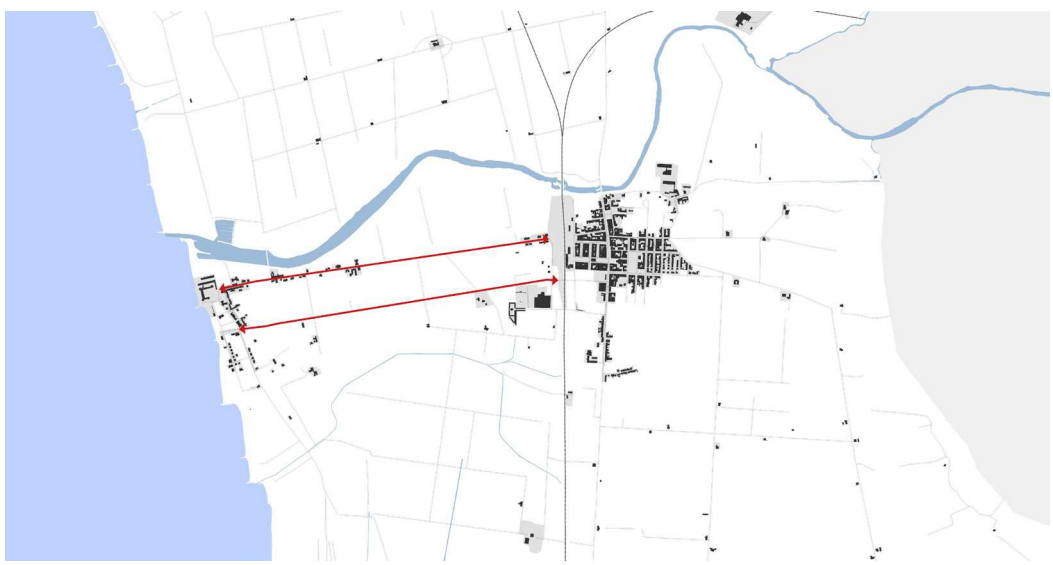
Fig. 3 – TAV_QC.05 Periodizzazione del patrimonio edilizio e infrastrutturale al 1821, Regolamento Urbanistico di Cecina.

Two parallel avenues connect the two places: Via Ginori and Viale della Repubblica. The former is the older among the two and its presence is documented by the urban plan since 1821 [1]; originally built in order to connect the oldest part of the town and Palazzo Ginori, built in 1740 nearby the Cecina river mouth by the florentine Count. (Fig.3)

Towards the end of the 19th century, starting from the south bank of the river, both sites began to expand themselves following the South trajectory.

In 1893 the railway station is inaugurated, located at the beginning of Viale Ginori, on the

Fig. 4 – Urban development in 1940



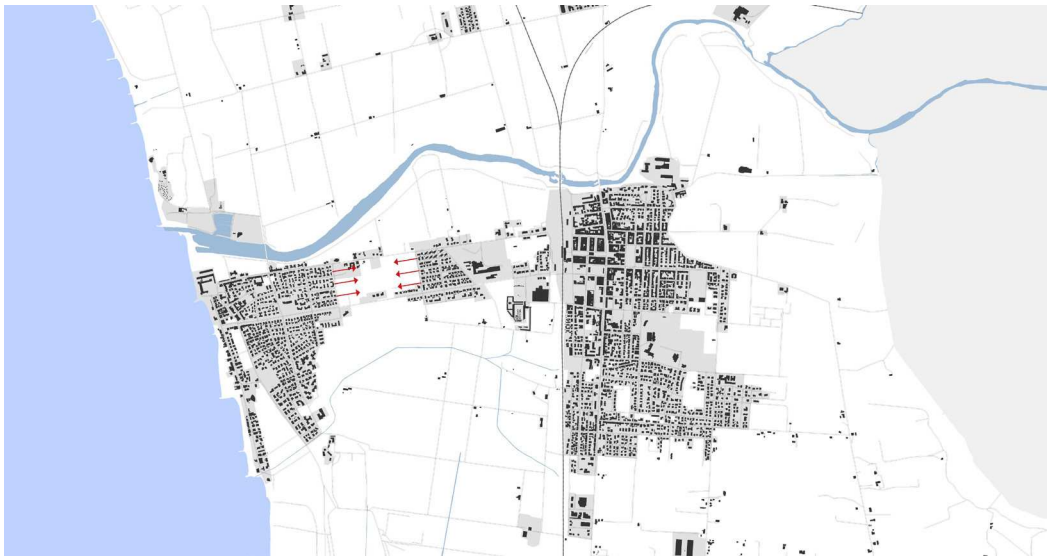


Fig. 5 – Urban development in 1978

Cecina side. The railway route follows the N-S axis, parallel to the coast line, and marks an important landmark, which makes communication between the two cores more complex. It is therefore essential to trace a second connecting boulevard, resulting the only Viale Ginori unable to serve the needs of the two growing realities.

Cartography clarifies the city's urbanization process during the last century [2]. (Fig. 4)

Cecina grew up like wild fire, starting from its historic center, and limited by the presence of the river and the railway track, thus favouring the south-east vector. Marina had a more contained and predominantly linear development. As it is normal because of the proximity of the two centers, the two connecting avenues got involved by urbanization, operating as a link in the perception of the physical continuity of the urban environment.

This process took place driven by two different impulses: the first, consisting of residential lots and some public services, represents the development of the marine core toward the city; the second one followed the opposite direction and the result is a more fragmented tissue: it includes the two investigated sites, in addition to mainly residential lots and the municipal cemetery. (Fig.5)

Fig. 6 – San Vincenzino area

The complete territorial union of the two settlements has not taken place completely. Lots not yet saturated by urbanization process are in the middle position related to the linear development of the avenues and now they are empty urban areas, waiting to be defined.

Focus on the two archaelogical sites: San Vincenzino (Fig.6)

Discovered in 1849, the roman villa of San Vincenzino dates back to the end of the roman republican age [3]. It probably insists on the remains of a late-Hellenistic farm and, during its long existence, it always reflects the stylistic and architectural standards of various ages. Overall, the structure is developed on different levels, sloping from N to S and from

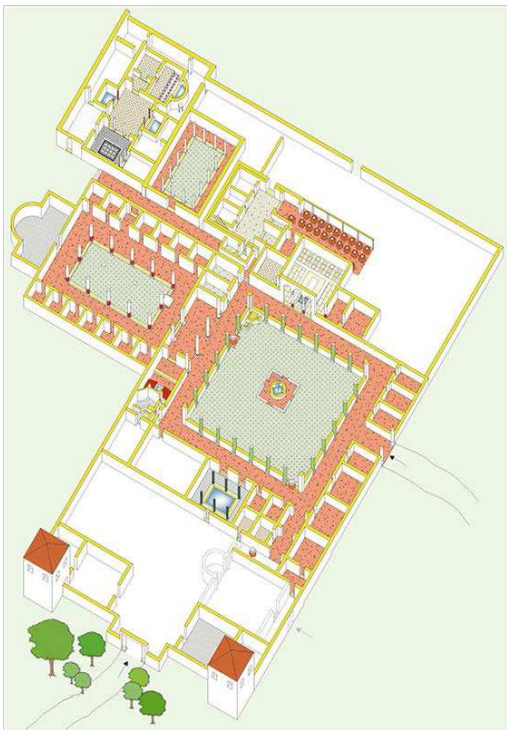


Fig. 7 – 3D reconstruction of San Vincenzino (drawing by M.C. Panerai, © Museo Archeologico di Cecina)

E to W. On the southern side, one of the entrances was opened, probably connected to the Via Aurelia by a secondary road. (Fig.7)
At this first stage, the construction of the Villa follows the evolution of the underlying water system, which includes the water tank, a large rectangular space with a wide brick barrel vault, set directly on the cave's clay floor, and five water distribution lanes. Although just few parts or elements of these primary structures remain, which are sometimes difficult to recognize because of their further renovation or expansion, it is clear that the building's physiognomy developed in a series of rooms symmetrically distributed around the discovered areas, through a full and empty space alternation. Following the canonical distribution of the spaces and starting from the southern entrance marked by a sort of angular jutting parts at the extremities, the atrium can be reached. It is defined as Corinthian or rustic atrium, having a series of 3x2 columns, and used to perform only passage and sorting functions, since most of the spaces identified in the area do not seem to open on this, but they are self-oriented and provide for a higher share. The itinerary continues directly in the large four-side columned porch, the peristyle, which exemplifies the core of the villa; rooms intended for the dominus residence are opened along three of its sides, while passing through the Northern one, the viridarium is accessed. Despite the many changes observed during the lifecycle of the villa, this large quadrangular square peristyle has always a nodal position as a sorting center for the various places, whereas a second peristyle is logically assumed from the first stage in the area above the cistern. Unfortunately, in the second half of the nineteenth century, the perimetral walls of the tank have been used as foundations for a new building, the Villa Rossa [4], built by removing the archaeological stratification and so preventing a complete and exhaustive external study of the structure. (Fig.8)
On an open area, therefore, two ring-shaped wells was arguably located on the top of the vault, where a compluvium would have allowed water to convey into the tank.
The two peristyles were allegedly connected through a wide arcade open on both sides, whose sequence identifies the second axis [5]of the villa.
At the highest level of the whole complex, in the NW area of the slope, there is a residential neighborhood, accessible from the north side of the peristyle, albeit completely free from this and from the underground water tank's drains.

Fig. 8 – Villa Rossa

The villa, throughout its five centuries lifetime, is subject to various stages of renovation and expansion; the first falls in the first half of the I century, under Julio-Claudian's. At this time, the economic-productive activity of the villa is increased, reacting to the economic changes resulting from the boom in the production of Dressel 2-4 amphora, which can be seen from the remains of many furnaces in the territory of the lower basin of Cecina river and in some areas close to the villa. It is most likely that the setting of the rustic plant for a large-scale production of wine, on the north side not far from the residential neighborhood, dates back to this era. The finding of large dolia in this area, which, probably arranged in two rows, were used for the fermentation of must, supports this thesis.

Under Severan dynasty [6], the villa is subject to considerable expansion and some monumentalization. At this time, in order to respond to a new standard of living according to luxury modules, the villa is equipped with new spaces, first of all the thermal complex that is erected ex novo in the unbuilt-up area on the west side of the hill, lower than the adjacent neighborhood, and optimally located on the sloping front facing the sea, to benefit the most from insolation.

Transformations in the peristyle district, instead, concern an elongated rectangular triclinary place with a nymphaeum, installed according to common usage in an area adjacent to the western face of the porch, over-

Fig. 9 – Thermal system

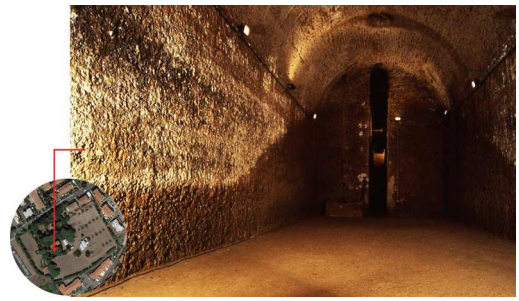


Fig. 10 – Tank

looking the garden, partially open on this stage to dine in summertime.

The thermal system, as well as the operation of these new water-based constructions, assumes more water availability in this period: if there wasn't a real defunctionalization of the tank until late, from this moment emerges the possibility to have pressurized water, now conveyed in lead pipes, drawn by the aqueduct and perhaps distributed by a castellum aquae upstream of the villa. (Fig. 9)

This condition is an economic and political indicator that marks the high prestige and the primary role of the owner at the time, together with the use of luxury modules within the villa. While in the IV century other plants and villas in Etruria are no longer alive or know phases of strong crisis, the villa of San Vincenzino still have prospery moments. In addition to the maintenance and renovation of part of the decorative repertoire of the villa, including the one of the thermal baths, we especially witness the construction of the new cerimonial complex set on the north side of the peristyle, expanding to the yard of the dolia.

After the half of the 5th century, broader political struggles in the Italian peninsula contribute the villa to enter a crisis period in which its productive and commercial system fall apart, being the structure subject to episodic reoccupations until the end of the 10th century. After three centuries oblivion, in the late Middle Ages, it is lived as a shelter during the iron season extracting campaign, promoted by the city of Pisa in those times [7].

In the early Middle Ages, the villa also un-

Fig. 11 – San Vincenzino today

dergoes the implant of a necropolis which occupies a large part of the southern sector, extending over several levels and entering the timespan from the Longobard age to perhaps the early XI century. After all, it is known that Longobards tended to settle in Roman ruins for their favorable location and that they occupied the mouth of the Cecina river.

After centuries of debates, critics are unanimous in identifying the site with the villa belonging to Albino Cecina, on the basis of the work of the Latin poet Rutilius Claudius Namatianus, De Reditu Suo. In this, the poet describes his return journey from Rome to Gaul, along the Tyrrhenian coast, in autumn 417 AD; he tells that because of bad weather he was forced to moor near his friend's villa and to join Caecina Decimus Acinatus Albinus, prefect of Rome in 414 AD. Besides the description of the villa's interior and exterior locations by the author, this identification is confirmed by cartography in which the name Albini Villae or Villa Albini emerges, such as on the wooden doors of the Wardrobe Hall of Palazzo Vecchio in Florence, or on the walls of the Belvedere Gallery in Vatican. (Fig. 10)

Nowadays the villa of San Vincenzino is mostly visited by school trips and sufficient funds for the necessary maintenance and safeguarding are lacking. The urbanization process has saturated the lots bordering on the archaeological site, particularly on the east and on the south side, which it would be the original entrance to the villa. The current entrance takes place on the north side, from Via Ginori, distorting the ancient enjoyment of the complex. The curator and scientific coordinator of the Museum, Dr. Stefano Genovesi, in order to overcome these difficulties, seeks to promote initiatives aiming to revalue this and other sites related to it, because among many archeological emergencies in the territory, none at all has the historical importance of this rich Villa, neither its size nor its longevity [DONATI 2012]. (Fig. 11)

To have a more clear idea and see an example of revaluation of the archaeological site refer to: L'area archeologica della villa romana di San Vincenzino a Cecina, aspetti della musealizzazione in situ, A. Nifosì, 2015

Fig. 12 – Zuccherificio area

Fig. 13 – Casa dello Zucchero

Focus on the two archaelogical sites: Zuccherificio (Fig. 12)

The sugar factory's production facility has a recent history but it is also windy and dense with continuous interruptions. Beginning its long journey in 1901, when the Ligurian and Livorno-based financial groups that hold the property of the area, joint in a consortium, start the erection of the main compartment, called Casa dello Zucchero. (Fig. 13)

This first structure, located in the southwestern part of the lot, consists of three volumes of different dimensions to which the chimney is added. The first of the three, developed according to the N-S axis, has larger dimensions than those of the volumes subsequently made. Built according to brick-walled masonry and white stone strips inserts, it extends for a length of about 60 meters, a width of 20

Fig. 14 – Officine

and a height of 15. Even though it has a strong spatial continuity, the volume is ideally divided into three part by the saddle roof, realized through a wooden structure of trusses and beams. In fact, in the central part, it undergoes a rotation of 90 degrees and an elevation of about 4 meters, resulting in an intermediate element of two specular parts. Unfortunately, this symmetry has failed because of a prominent rise of the roof on the south side, made with the reinforced concrete technology. The access to the volume is at ground level and it is guaranteed by the presence of large openings distributed throughout the perimeter: each of them, which on the upper floors develops in the same style as a window, has a dimension of about two meters, and it is framed by a brick floor and surmounted by a full arch, at the top.

Then, all the fronts are regulated by a balanced relation between full and empty parts, also marked by the presence of numerous details, such as cornices, pilaster strips, and inlays, which contribute to make the building unique. The other two volumes differ from the first one exclusively for their orientation and more modest size. Intended one to a thermal power plant and the other to a chemical laboratory, they are placed along the E-W axis, directly in the middle of the larger volume, keeping its same constructive and stylistic characters. As regards the interior, it is important to observe that all the architectural structures are made of steel and remain statically independent from the external wall structure, thanks to the presence of some metal pillars located within the perimeter.

In 1902, the company goes bankrupt and the entire property is taken over by the Eridania company from Genoa, which does not attempt to re-open the factory and, in turn, resell it to the Oleum Society in 1919.

In 1922, the factory is enriched with new buildings, built on the west side of the lot and extended to the wall of Via della Pinetina, on the west side. As a result of the increase in productivity and employment, the creation of new sub-funds derives from the need to separate the management, the technical office, the workshops, the garage and the changing rooms from the original core, while maintaining a tight proximity ratio. (Fig. 14)

There are thus three smaller buildings, parallel to each other and distant only few meters from the house of sugar. Developed according to a rectangular plan, they are expanded on two levels, by maintaining the same constructive features and stylistic details of the original volume: the technologies used for the construction of the supporting structure are brickwork and steel, while the roof covering has a wooden backbone. Excluding the small central block, the other two are characterized by the development of two entities. The first, attesting directly to the West Prospect of the Sugar House, has larger dimensions and a higher level of architectural details than the secondary one, the backside.

During the World War II, the factory's activities are suspended and resume only in 1945. In recent years, the company Spiritus from Genoa, a subsidiary of the Zuccherificio, has contracted to build a plant for the daily production of yeast. The Lieviteria building is conceived according to the architectural lines of the rationalist current. (Fig. 15)

The whole warehouse, made through a reinforced concrete frame with bricks masonry, is located at the south end of the lot and faces directly Viale della Repubblica. Articulated according to a symmetrical layout, the volume of the building is quite enlivened: the East and

Fig. 15 – Lieviteria

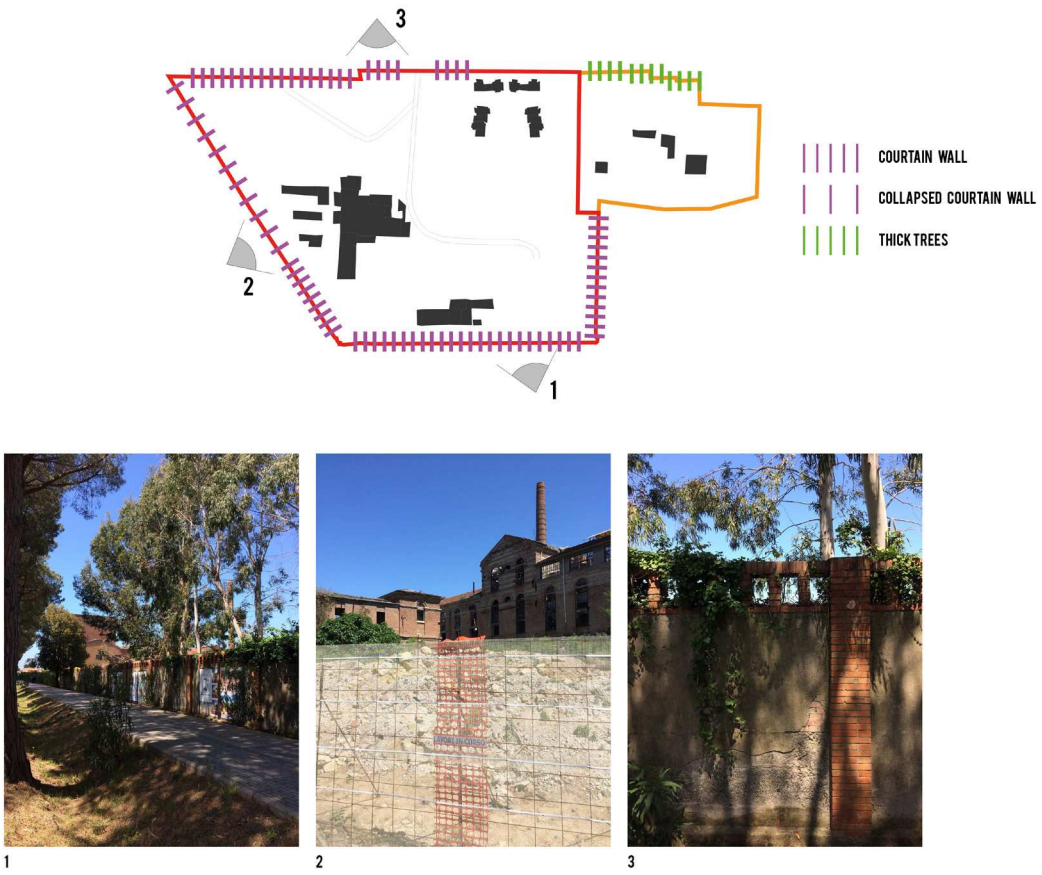


Fig. 16 – Zuccherificio perception from outside

West extremities remain low and never exceed 6 m high, while the central part rises up to 12 meters; the tower, however, not aligned with the previous volume, reaches almost 20 meters height. The roofing system is not uniform and includes both barrel and flat roofs, which are articulated through the insertion of terraces. The management of the facades takes place through a careful distribution of full and empty on all surfaces. The access to the building is guaranteed through a series of doors and gates, opened on the perimeter, facing the central part of the lot.

In 1968, the Società Zuccherificio from Cecina is acquired by Sermide Spa, which starts a restructuring process that substantially increases the production of the complex. At the same time, agricultural production goes hand in hand with industrial demands. Unfortunately, the 1978 EEC regulation restricts the Zuccherificio production and the Ministry of Agriculture assigns to it a production quota considered too low for the factory standards. The decline begins and in 1982 the company is being liquidated. During the following years, Federconsorzi implements the plan proposed by the Ministry, according to which the activity would continue for a few years, until the complete transfer to the sugar factory of Castiglion Fiorentino (AR) has accomplished.

The sugar factory is completely abandoned right after the production has been shut down in May 1987, after almost a century during which it sustained hundreds families. Hidden behind a parietal wall on every side, 30 years later, the Zuccherificio is both familiar and unknown to the new generations of citizen. (Fig. 16)

In 2008 a renewal project of the factory complex was approved. However few years later it

turned to be a total failure. The plan provided for 232.461 m^3 of constructions, then became 120.000 m^3, half of which designed for residences, about 250 houses. The other half was designed to host public functions, like the public theatre and a city museum, distributed in the Casa dello Zucchero building. After almost 10 years the 75% of the first lot has been realized, consisting in 79 units, most of them still unsold because of the real estate crisis, making the project conclusion impossible. In 2016, the municipality requested a 4.2 million payment of the surety to the Aulo Cecina company, the owner of the area which is, however, allowed to present them a variant project to be agreed, up to 2018 [8]. (fig. 17)
To have a more clear idea and see an example of revaluation of the archaeological site refer to: Recupero e riconversione dello Zuccherificio di Cecina, T. Del Rio, 2004

Contextualization of the area within the urban network

Cecina is one of the most populous city in the coastal area south of Livorno. It is an attractive core for neighboring municipalities, as there are many services, such as the hospital,

Fig. 17– 2008 project

reference point for all the low valley of Cecina river, and a secondary school, including high schools and vocational institutes, equipped with large areas for sports and completed a couple of years ago. In the northeast area, near the river, there is the technological, development and research center, alongside the University of Pisa.
It is based on a mixed economy: as already explained, the primary sector is very developed in the countryside and there are production plants, albeit of medium to small size. The town is equipped with a financial center, home to numerous banks and insurance companies and coinciding with its historical center. This is composed by a square between the Duomo and the previous City Hall, and a section of Via Aurelia, used as a commercial gallery.
The city has an important tourist tradition. From the '60s, with the great demographic growth, it begins to attract Italian and foreign tourists. It is also the natural outlet to the sea for the cities of Volterra and Siena. In summertime, Cecina triples its inhabitants, in addition to the tourists who populate the numerous accommodation facilities, welcoming people who own their second home. Marina di Cecina is a popular destination for families, both for the safety of its sea and for the tranquility that the area guarantees in thi chaotic period. Since 2006, the beaches of Cecina Mare receive the prestigious Blue Flag award each year. In addition, the water park Aqua Village is located in the area, an attraction for young summer tourism. The pine forests occupy an area of 400 hectares and they are stretched along the coast for more than 15 kilometers, forming the Biogenetic Nature Reserve of the Cecina Tomboli.
Among the natural resources that the territory offers, the river has surely an over-municipal value. The current Structural Plan follows the same objectives clearly defined for the first time in PRG '90: conservation of the environment, especially as regards the phenomenon of coastal erosion, through seafront placement works, and the enhancement of the river, through the establishment of a river park

Fig. 18 – Relationship between the area and the countryside close to the river

of major importance for the vast area [Del Rio 2004]. The first ones have been realized, while the river park expects further definition. To further enhance the seafront and drive the receptive development of the territory, work on the resettlement of the leisure port is under way, which will include the future construction of reception facilities and services.

Fig. 19 – Cycle and pedestrian path

Finally, among the projects waiting to start a bureaucratic process, stands out the Sport Citadel [9], in an area south of Marina, near the pinewood. It will be a neighborhood equipped with multi-sports facilities, buildings with completion functions and public parks.
This glance allows to understand how the various urban-scale functions are deployed and what the local government ambitions are for the management of the territory.
The investigated urban area is in a position of close contact with many of the territorial realities described above.
It is only a few blocks away from the historic center of Cecina, separated by the presence of the train station and the railway track. Among the future works provided for the Structural Plan to mend the two parts of the city, a pedestrian and bicycle subway is expected , taking advantage of the railway path which used to serve the Zuccherificio factory, tangent to the south side of the roman villa.
The area is located near the countryside bordering the river that will probably be part of the river park. With these it maintains direct visual relations since on the north side of Via Ginori there are still unbuilt lands, although over the last ten years construction activity has created new residential facilities in the surrounding lots. The river bank is run by a two-way cycle track, that connects Cecina directly with the marina area. (Fig.18) (Fig.19)
On the south side of the area, Viale della Repubblica is a driveway for dual-mode vehicular traffic and it is the most widely used by residents. Unlike Viale Ginori, which serves door-to-door the residences, it has a double row of tall pine trees on both sides and a cycle-pedestrian double-lane on each of them, and it is highly appreciated by citizenship as it is both connected to the Marina bicycle network [10] and the Cecina one. While the poles of attraction and services are located in the two agglomerations, albeit in a differentiated way, the urban trunk between the two boulevards carries a predominantly residential function.
On the Viale della Repubblica, on the Marina

Fig. 20 – Functional analysis of the area

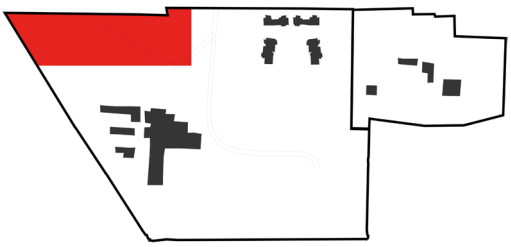


Fig. 21 – Residential function on Via Ginori

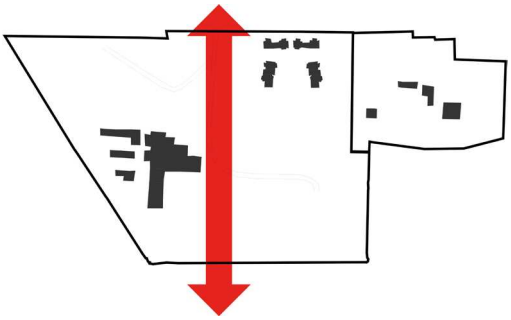


Fig. 22 – N-S axis

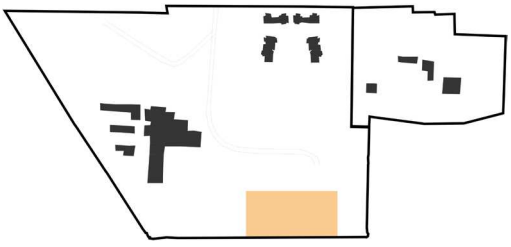


Fig. 23 – New multifunctional complex on Viale della Repubblica

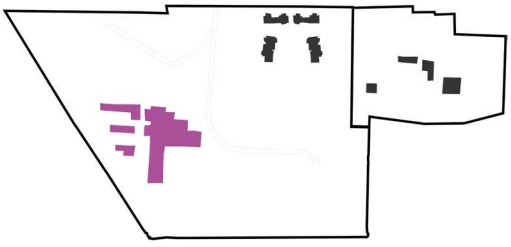


Fig. 24 – Public functions inside Casa dello Zucchero

side, stands the building of the elementary school that serves the locality. A few blocks away eastward, the asylum building, dismantled and lacking functions, has been demolished. Along this avenue, on the Cecina side, the communal cemetery is located, adjacent to the railroad. Close to this area new buildings with commercial use rose up, taking advantage of the wide availability of parking space. (Fig. 20)

Conclusions

The non-site taken in examination has multiple potentialities, framed in the perspective of future urban development. Beyond the specific function possibly attributed to the buildings to be recovered, it is important to focus on the need to get the public dimension of this area back and to open up interventions that favorite the coexistence of multiple functions within it. We have seen that the existing landing plan envisages the recovery of public functions in the buildings to be safeguarded, while for new buildings only residential allocations are planned, even though demand is much lower than supply.

The area is extensive and, in dealing with it, it is necessary to know the context in which it is needed to operate.

On the front of Via Ginori, it may be right to intervene with residential buildings, in order they can align themselves with the surrounding urban fabric and give continuity to the project begun in 2008, consisting of three floors buildings. Even acting this way, it is appropriate to respect the relationship between the site, the river and the surrounding countryside, by a not total saturation on the Northern side of Via Ginori. From a strategic point of view, the so-identified N-S axis would be preferable in thinking about the paths of a public space. (Fig. 21) (Fig. 22)

The front along Viale della Repubblica offers opportunities for different reflections. As we have seen so far, the boulevard already houses buildings of public interest and, for both its physical conformation and its function, it is suitable for playing a main representation role. The Lieviteria building, in the administration's intents, will be razed to the ground, because of the excessive deterioration and the poor architectural significance of the artefacts, while the volumes of new interventions will not be

constrained by those of the buildings that will not be recovered in the future project, as communicated by the instructor of the Technical Committee of the Municipality of Cecina, guaranteeing some elasticity of reasoning. The complex that will replace the original artwork is well suited for a possible insertion of functions other than the residential one, since the location is immediatly accessibile by users and easily supplied by parking areas. The complex could be a new business and management center, or permanently host the city market, which is currently being held in the streets with the consequent traffic closure (Fig. 23).

The House of Sugar structures, once recovered following the current plan, will house the public functions and services: as we said, a theater and a museum of the city.

The functions to be included in this building should be evaluated in relation to those included in the whole plan and in relation to the largest city network. It is clear that a theater, a museum and a park, alongside residences, create a public space. This will be characterized by a static nature and the risk is that the new museum will be just a space experienced by schoolchildren or a few interested, as the villa in the current conditions.

On the contrary, the line of reasoning given so far lead to think a different future for this area. A place that would be lived, fruited and multifunctional, and possibly integrating the functions the city is lacking. (Fig. 24)

Thinking this place as a living entity can certainly not leave the archaeological site of San Vincenzino out from this reasoning. Refurbishing the Zuccherificio area, making it a dynamic space, can also work as a motor for the resumption of the Villa.

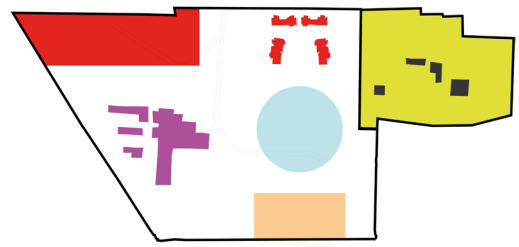


Fig. 25 – The entire multifunctional space imagined in the area

In a couple of years, the administration will be called to express itself on this issue and the hope is not to miss an opportunity for Cecina to expand its views, creating a pole that, in addition to giving back an identity to the two sites forgotten by the community and to a whole urban area, allows the Viale della Repubblica to link the city and its Marina, even with regard to the distribution of services (Fig. 25).

Notes

1 - TAV_QC.05 Periodizzazione del patrimonio edilizio e infrastrutturale al 1821, Regolamento Urbanistico di Cecina.

2 - http://www.comune.cecina.li.it/categorie/pianificazione-urbanistica/regolamento-urbanistico, accessed: 01/09/2017

3 - 50-30 BC.

4 - i.e. Red Villa.

5 - East – West axis.

6 - Late II-III century AD.

7 - XIV century.

8 - A. Rocchi (2016), Ex Zuccherificio, sarà rivista la convenzione, Il Tirreno, Cecina.

9 - Giomi, T. (2017) Cecina Sport Village. Progettare impianti sportivi per creare un luogo di incontro urbano. Università degli studi di Firenze.

10 - We refer to the pinewood cycle path and to the waterfront cycle network.

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A Rewritten City
Memories, stories and homes in the Finnish city renewal during 1960's and 1970's

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Abstract: City renewal changed Finnish towns during 1960´s and 1970´s. This paper, which is based on my doctoral studies, examines this phenomenon examines this phenomenon as a matter of change of urban space and living environment using former workers` living district called Amuri as a case study. Amuri was one of the biggest wooden end 19th century living districts in Finland and was totally rebuilt until 1980`s. New concrete flat houses were located on the area by following the old street grid and city plan. I´ll figure out what kind of sources and methods could be relevant in analyzing the renewed space.Main interest is on everyday life, living and home. Amuri was one of the biggest wooden end 19th century living districts in Finland and was totally rebuilt until 1980`s. New concrete flat houses were located on the area by following the old street grid and city plan. There is a new city planning process starting in Amuri, this article examines what kind of sources and methods could be relevant in analyzing the renewed space. Main interest is on everyday life, living and home. There is a new city planning process starting in Amuri. Contemporary city planners would like to have "more city" and consider concrete flat houses and modernistic setting "non-urban". In opposite, I claim, this case area is a palimpsest, "rewritten" and full of meanings and due to it, there is much more city than experts may think.

Keywords: City renewal, Modernistic city planning, Space, Meanings, Home, Inhabitants.

Renewed city as a topic

Built environment can be studied by many different perspectives and branches of science. Study on architecture is often study of physical structures but in many cases it´s also study of people and the architecture, lived place and space. In the frame of modernistic city planning there are lots of doubts that modern environment is thin by its´ historical layers. In this case, meanings, historical layers and uses will be discovered by listening people´s stories and collecting memories but also by analyzing documentary material and public discussion.
There are four main perspectives that could be defined as relevant to this study (Fig. 1). Henri Lefebrve`s theories about production of space are useful as a theoretical background. First, according to Lefebrve, urban space is a social product and could be analyzed as a presented, used or lived phenomenon. Secondly, modernistic city space obviously consists of several layers of meanings, it is like a palimpsest, rewritten. (Saarikangas 2002) Third perspective is the mechanism of change in renewal process. And finally, there is physical environment carrying meanings in it. Physical environment consists of layers of different scale: room, flat, house, block, neighborhood. Perspectives are defining, and on the other hand, are defined by the concept of home and belonging, which is the focus on this article.

Story of the renewal

In the fast-growing industrial city like Tampere by the end of 19th century, there was a lack of residence for workers. By extending the original city structure to the west in the end of the 1860`s city created new building sites and the first part of Amuri district. Amuri was meant to be a proper living place for workers of the large scale international industrial companies like Finlayson and Tampella. Amuri offered a

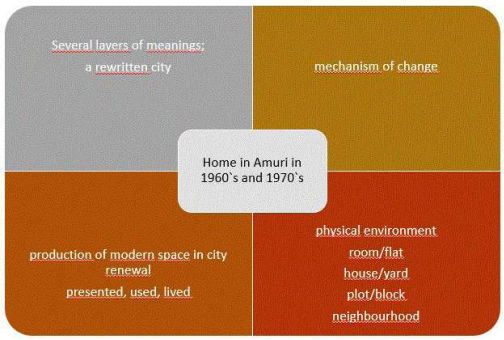

Fig.1 - Perspectives on the study of renewed city (copyright Hannele Kuitunen)

better and healthier life and due to it, a better worker for the employer. Amuri was built between approximately 1860´s and 1920`s and became one of the biggest and most homogeneous wooden living districts in Finland. It was homogeneous by its physical structure and architecture (Fig. 2) but also very solid by its social environment.

Traditional log houses, with shared kitchens, outside toilets and cold water from the well were normal living standards until the modernization and urbanization in the first decades of 20th century. Old standards gave way to the new modern ones and this wooden living district started to look old fashioned. Compared to other similar residential areas of Tampere, Amuri had poorer living conditions in the beginning of 20th century. The main reason was that there were more inhabitants per square meter than anywhere else. Even in 1940`s there were still in some shared kitchens and outside toilets in use. (KESKINEN & al. 2005)

Fig. 2 - Wooden Amuri before the renewal, Suokatu in 1960 (photo Ensio Kauppila, copyright Vapriikki archives)

During 1950´s city scape started to become more heterogeneous, mainly because new flat houses and public buildings with new activities were located around the old wooden residential area. School, art museum, swimming hall and Pyyninkintori market place with its activities created a totally new character to the area. Next to these new public spots, there were still existing the old attractions: across the railway bordering Amuri there was a rocky hill, very popular leisure time area, lively harbor and main road to the west passing by the Pyynikintori market place in the southern part of Amuri. Like in many other cities in Finland after Second World War, housing problem became very pressing again. Urbanization meant that more and more people moved from the countryside to the cities. Tampere was found very attractive among people looking for a job and new life in the city. There was soon a huge lack of apartments and city needed to do act quickly. Last time in 19th century it had been possible to extend the city area, this time other tools were needed for solving the problem. Next to urbanization, changing living standards and traffic issues were the main drivers for starting the discussion on the idea of renewing old wooden districts of Tampere. Amuri was chosen to be one of those areas. Amuri district was totally renewed until 1980`s and only one wooden house, by accident, was left of the old milieu. Despite of good intentions for improving the quality of life of the inhabitants, many of the old residents had to leave and new middle class moved in.

City planning process started in 1951. Due to problems with it (plot owners didn´t want to take part) city arranged an architectural competition in 1961. City plan was made on the basis of the winner proposal and completed in 1965. First buildings were under construction in the end of 1960´s. Figure 3 illustrates the change of built environment. An aerial black and white view from 1946 is there in the bottom, and the colors indicate the present situation. Streets are marked with blue, parks with green and new buildings with red lines.

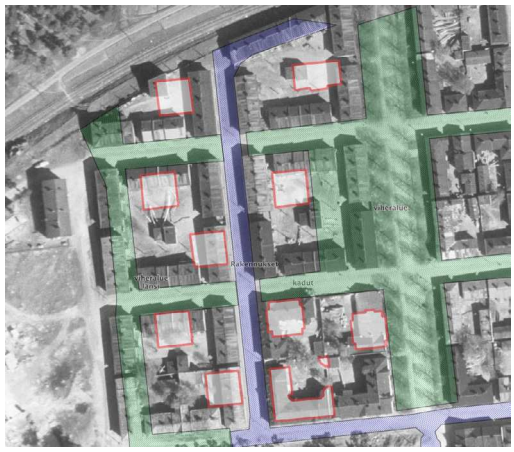

Fig.3 - The historical layers (Photo Tampere city GIS web-service, digitalization Hannele Kuitunen)

Fig. 4 - First modern block of flats (copyright Vapriikki archives)

The first buildings on the area were constructed by Tampereen Asuntosäästäjät association and were offered to the workers of Finlayson Company. These buildings had a typical modernistic architectural character and were built in the middle of the plots. (Fig. 4) Local bank and Finlayson Company were supporting these projects. This case proved that some of the workers were able to stay at their home area.

Production of space

One of the perspectives on this study is to analyse how renewed urban space was produced in the phase of renewal in 60´s and 70´s. Social scientist Henri Lefebrve´s theories are pointing out how renewed space was presented; ways spaces were conceived on the architects´ drawing table or in the public discussion. Secondly, there are spatial practices; how city and environment, which changed so totally, was lived and used. Third dimension is defined as a directly lived space, constructed by people´s and society´s notions and perceptions expressed for example in their memories and stories.

Presented Amuri

First some discussion about planning, of conceiving the space. Planners and politicians took a strong role in convincing people of the necessity of the renewal. Many articles and finally a leaflet were published about it. Building regulations of the time made possible to replace the old wooden buildings with 3 or 4 stories high blocks and closed yard structure. Future started to look bad and city administration stressed out that Amuri could become a slum. City argued that by renewing the area, by rebuilding it, Amuri could be in the future one of the most wanted living districts in Tampere. Modernistic city planning was chosen as the main method to create a better life and a better city. (Tampereen Kaupunginhallitus 1956)
In the city plan (Fig. 5) small plots were combined as bigger ones and some of the main streets were turned to walking ways with lines of trees. One of the main streets, Sotkankatu was replaced by the Sotkanpuisto Park. Modernistic city planning emphasized offering common, public and open places for the inhabitants to enjoy the leisure time activities. Amuri Park was built in the middle of the area and was a good example of that idealistic thinking. Amuri´s modernistic city plan took also care of the traffic issues and located different modes of transport to their own urban spaces.

Transformation of home -used space

As Lefebrve explains, space can be produced

Fig. 5 - City plan 1965 (Copyright Tampereen kaupunki)

by using it. City renewal was about homes and living conditions. It was originally meant to be a method for making residential areas "healthier". Because of that it is important to take a closer look at the homes.

In the beginning of 20th century a typical worker`s home in Finland, and in Amuri, consisted of kitchen (on yard side) and living room with multiple uses. There were lots of apartments with shared kitchens still left on this area.

Fig. 6 - Kitchen in a traditional wooden home (Copyright Vapriikki archives)

During the modernization, not only the built environment changed, but also homes and way of living underwent radical changes. As traditional way of living was a product of the class society, modern home was democratic in all ways: there was the same basic floor plan available for everyone, (kitchen, typically two or three rooms and a bathroom), mainly middleclass people who moved to Amuri after workers. Modern home offered separated rooms for separated uses: cooking, sleeping, and socializing. Big family including relatives was replaced by an idea of a family with mother, father and children. Domestic life privatized, but at the same time family life became a public cultural issue. (Saarikangas 2002)

This change took place in Amuri over 40 years. The last discussion about the protection of the last wooden building took place in 2014. During more than 40 years many people lived between traditional and modern lives. Home might have been in the wooden house but way of living was modern.

I lived there once – perceptions and meanings

Third perspective mentioned in the previous chapter is how meanings construct the space. Meanings can be created by memories and stories told by the inhabitants. (Karhunen 2014). One interview which was made for this study, took place with an old lady who had lived in Amuri from 1950´s until 1974 (Kuitunen 2015). She moved to this area when she was a single young lady and lived there with two older relatives until she got married. She got her first baby and quit her job. Their flat was very small, with only one room and a kitchen. Everyday life and all the basic things took lots of time: flat needed to be heated with wooden ovens and water heated with a kettle. Her family had many friends who visited them often and stayed over night. They all slept on the floor, in the same room.

It was crowded and sometimes cold. She told me she remembers very well the smell of Amuri: it was the smell of outside toilets when they were emptied by a horseman. She

Fig. 7 - Typical new home of former Amuri inhabitants in the suburbs. (Photo and Copyright Hannele Kuitunen)

remembered also the sound of the horses´ hooves and how sound was echoing from the cobblestone streets. Smoke of the steam locomotives made windows dirty and housewives frustrated.

She wanted to move away with her family and buy an apartment of their own. Flats in the middle of the town were too expensive, so they decided to move to the suburb area. She told me that the new suburb area reminded her a little bit of her childhood home in the countryside. (Fig. 7) Suburb was green and not spacious. Leaving Amuri was very exciting to the family. They worried how they`ll get used to the new modern and different home and life. But it turned out well. Life was easy and they didn´t miss their old wooden home at all.

Only sometimes she still has a strange, bad dream. In this dream, they are the last ones in their old wooden house, everyone else has left and they don´t know where to go. Soon, they know, their house will be demolished. Her dream wasn´t true, but the same kind of real life stories were told about Amuri in the renewal time. This lady pointed out that her home was neither the building where she was living with her family, nor this wooden living district. Home was a memory of her childhood living environment.

Amuri presented by photographs and films

Next to the city plans and stories people tell, there are lots of photographs of the renewal time. Juhani Riekkola was one the well-known photographers who specialized in catching the change of the townscape in his photos. He took photos of the buildings and physical environment, but at the same time told the story of a society in the middle of the change. Even when there are no people in his photos, the viewer can feel the sense of someone´s home.

At the first glance there seems to be only destruction, but later under demolished buildings there is a layer of meanings connected to the hope of a modern time.

Amuri has fascinated also several filmmakers. There are couple of romantic documentary films about the renewal and people living in this area when it was under the construction. Films are contradictory.

There is a strong nostalgic attitude in them, but on the other hand, they express very strongly that city is changing and it is a natural way of life. These films make you somehow understand that change is good

Fig. 8 - Amuri in the renewal process (Photo Juhani Riekkola, copyright Vapriikki archives)

Fig 9 - Old gate stones of Amuri. (Photo and Copyright Hannele Kuitunen)

for you.

Several layers of meanings – a rewritten city

How meanings could be found in this area that looks very ”unhistorical”? Meanings are projected and reflected on physical structures and on the other way physical structures, while carrying the meanings with them, make invisible visible. (Karhunen 2014). For example, old gate stones as a monument for the memory of the workers who once lived there (Fig. 9) or lines of old trees marking the former street “Sotkankatu” are concrete signs of the past. Amuri Park is like a reflection of the time when Amuri was socially active and homogenous society (Fig. 10). Modern flat houses and their yards without fences reflects the idea of modernism: better life for healthier people. You can still today hear the stories about the locomotives, which were passing by the area. Sound of trains is still existing and reminding of the time of the wooden Amuri; when there was a regular train connection to the center and a train stop called ”Amuri”.

Future is about to begin

New planning process is beginning in Amuri. Tampere city planners explained the current situation in the interview in 2015. Planners pointed out that they wanted more ”city” to Amuri. To their mind modernistic flat houses located in the middle of the yards are not a proper city and they wanted to change this setting. Planners found Amuri´s modernistic setting as a failure of city planning. They also pointed out that there should be more residents in order to have more services and activities on the area. So more flats are needed. After couple of planning workshops held with the inhabitants it has become clear that people value this area. Its architecture may not be glorious but green, open and wide cityscape attracts many people. Urban nature can be seen and felt in Amuri, which is very exceptional in Tampere.

It looks that as modernism became a myth on its own time, we are creating a myth out of the failure of the modernism. If we want to succeed in city planning we need to consider and deconstruct this myth. (Porphyrios 1991) In addition, we need to investigate the multiple

layers of the area and finally, we need to listen the stories people tell. By this way we can understand modern urban setting and area like Amuri. It is obvious that there is more “city” in Amuri than city planners perceive.

And how about the meanings, what to do with them? This far there is a strong, lively story of the wooden Amuri existing. It is told by the inhabitants of Tampere but it is known in other towns in Finland too. You can often hear stories

Fig. 10 Väinö Linna Park in Amuri, 2015 (Photo and Copyright Hannele Kuitunen)

about the loss and destruction of the Finnish wooden towns like Amuri. Next to them there are some stories about hope and new, better life after leaving the area. Modern Amuri hasn´t got its story yet. Maybe we should wait for it before we start renewing the area again?

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Photogrammetric survey at the urban scale of Livorno's ditches

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Abstract: Our research activity aimed to document the *Fossi* status in Livorno, Italy. The dimension of the area we needed to measure and the nature of the buildings made us choose Agisoft Photoscan, a stand-alone software that forms photogrammetric processing of digital images and generates 3D spatial data, used in many applications, included cultural heritage documentation. To create the 3D model, we had to take a specific photo campaign in order to fit Photoscan parameters. Photos had to be taken in parallel to façades and roofs, and 1/3 of each photo had to correspond with the nearest. We chose to use a drone, because we needed to take photos of the upper part of the buildings, without perspectival distortions. Drone permits to take several photos in a short time, following a georeferenced path in an automatic way. In this way, we were able to elaborate photos to create a 3D model and from this we obtained rather accurate 2D front representations, with textures. We studied a localized part of *Fossi*, due to our limits in calculating capacity and time. Though using Agisoft Photoscan to map the entire path of Livorno's Fossi is a realistic possibility, adopting appropriate strategies during photo campaigns and adequate calculating capacity.

Keywords: Digital survey, Drone, Livorno, Heritage, UNESCO.

Built Brief historical framework of Livorno

Livorno was born as a city of foundation, in a historically major region renowned for its trades: the so-called *Sinus Pisanus* (literally "Pisan Gulf").
In the Middle Ages Livorno was one of the principle port of call of the Mediterranean Sea. Through the centuries numerous towers arose in this area: the *Meloria* tower, the lighthouse tower, the two towers on defense of the port known as *Magnale* and *Fornice*, and finally the Red tower that would be replaced in the XVth century by the *Marzocco* tower). These vertical elements determined the typical aspect of *Sinus Pisanus* in history. The progressive burial of the Pisan port caused by the sands leaved by the mouth of the Arno favored the rise of the settlement that was born near the fortifications of this port of call.
At the beginning this settlement was like an extension of the port of Pisa, but in a short time it grew in importance, becoming more and more independent at the point that it required its own defense system for the new-born village, even though, through the Middle Ages Livorno was barely populated, because its surroundings were paludal and unhealthy.
In 1300 Pisa decided to create a new stronghold, building fortified walls between some of the existing towers. This fortification was named "Quadratura dei Pisani", and became the central core of the future *Fortezza Vecchia*. Between the XIIIth and the XIVth century the settlement grew outside the fortifications, defended by a new ditch. In the XVIth century, Florence had interest in Livorno to rise even more because the port of Pisa had become completely unusable due to the natural burial.
Looking for a new access to the sea, Florence invested on Livorno, changing the city aspect. A whole new stronghold was built in the place of the old one in order to protect the port itself. The work for building new ditches began in 1522 and part of the medieval city was demolished to do so. These were the first two steps for the new urban planning wanted by the *Medici* family, leader of Florence and Tuscany.

Cosimo de Medici choose to increase Livorno and its population. For this reason, privileges and public concessions were established and the city became a real free port. Moreover additional toll benefits transformed the city in a port for storage with a peculiar legal regime.
In the second half of XVIth century the grand dukes also decided to invest in the construction of a whole new city next to the port that could offer housing, warehouses and infrastructures. For the very first time, the funds were not exclusively for the port development but also and predominantly for the city planning. The project by *Bernardo Buontalenti* spread around *Fortezza Vecchia* and followed all the rules from treatises upon fortifications and the creation of an ideal city. But the existing area were Livorno was located was far from ideal.
The ideal design came true under *Ferdinando de Medici*, who modified the project to adapt it to the new demographic demand. Livorno began to rise thanks to new laws: writing off debts, tax exemptions, annulling criminal convictions, facilitated home sales, commercial and customs tax reliefs and so on.
These openings finally took many foreigners to Livorno, increasing its population. The Buontalenti project had to be changed because it didn't detail enough the aspects tied to the mercantile needs. Changes were made concerning the fortification due to the economic crisis that stroke the grand duchy in the XVIth century and after the realization of the *Fortezza Nuova*. This new stronghold was a second fortification on the land side, designed after the reorganization of the area in which the Navicelli canal was located.
In the first decades of the XVIth century the city grew up and occupied the piece of land between the sea and the *Navicelli* canal. This area was named *Venezia Nuova* ("the New Venice") because of its resemblance to the Venetian city due to the canals and ditches and for the employment of workforce from the Serenissima for the realization of its foundations. This district flourished until the end of the century, along with the transformation of the *Fortezza Nuova*. In this way, new spaces were available and they were well connected with the port thanks to the presence of the ditches. The urbanization of *Venezia Nuova* created the image of Livorno as a water city, with canals, bridges and cellars at the level of the waterways.
At this point Livorno had become a city completely dedicated to trades, in which the sea penetrated the hinterland trough canals.
This transformation is considered complete by the end of XVIIth century with the edict of free port proclamation and the placement of the customs at the mouth of *Navicelli*.
All the parts of the city included between the walls and the port were considered free zone.
Livorno continued to grow up both in size that in population. In 1835 new city walls were built to increase the free zone, with the realization of a new customshouse (*Dogana d'Acqua*) along them. The bastions of the old city walls were demolished and the *Fosso Reale* was rectified to reunite the old and the new city. Upon this canal a new great bridge was built, that would become one of the major squares of the city.
With the unification of Italy Livorno lost its condition of free zone, losing one of its more peculiar characteristics.
With World War Two the port and the city were destroyed by the allied bombings. Bombs erased the majority of the infrastructures and seriously damaged the city heritage like *Fortezza Vecchia*, the *Magnale* tower and the lighthouse tower.
The priority after the war was to clear out the port and the city from the ruins and to rebuild the infrastructures. The reconstruction of the system of ditches and of the strongholds was long and full of difficulties, and nowadays it cannot be considered completed.

Our work

Our research activity was developed inside a wider activity of materials collecting, in order to apply Livorno ditches system to UNESCO.
This document (that should be out in the next few months except for unforeseen circum-

stances) placed side by side traditional historical and archivist research and an activity of documenting the actual state of affairs of the area. For this reason, a survey of the area of Livorno ditches was necessary.

Traditional survey vs digital survey

At this point, we had several possibilities, but the lack of time due to the necessity to complete the dossier forced us to choose wisely.
Traditional surveying techniques would have implied a remarkable use of energy and means, especially considering the dimensions of the surveyed area. In addition, there could have been more possibility to make measuring errors due to the innate difficulties in surveying such large objects, with negative consequences on the quality of the model.
Various digital surveying techniques offered us several solutions to many of these problems, depending on which one we would choose.

3D laser scanner Vs photogrammetry

Laser scanner survey could offer 3d models of the area with a precision beyond the millimeter in measures in each scan, but it would have the problem of producing extremely heavy files that a normal computer would handle with difficulty, especially considering the number of scans required to represent the entire case area.
The alternative was to choose photogrammetry for surveying Livorno ditches and then use a specific software to elaborate the 3d models. This technique requires an accurate photographic campaign of the object. The larger the number of the photos taken, the bigger the level of detail and the precision of the 3d model will be. If this campaign is carried on without the adequate integrative tools, this technique let the user create an accurate model of the parts that they are able to see not excessively foreshortened only. In this way, the upper portions of the buildings will result inaccurate or incomplete in case of surveys with photos taken from the ground level and it may happen that the model has holes caused by blind spots behind overhanging elements.
Even in this case a decent computing power is required to elaborate the 3d models (above all in the meshing and texturing phases of the process), but it is far more accessible to mid-tier computer.

Ground-level photos vs drone

The method to carry on the survey campaign was not to be taken as granted. The lack of alternatives made us choose a “textbook” photogrammetric survey, initially: the photos were taken keeping the camera sensor parallel to the fronts to study with the help of a tripod. While one proceeds photographing the fronts it is important that each photo overlaps for at least one third to the closest ones.
In this way, however, the upper parts of the facades would be left out. This problem could be solved by doing additional steps in the photographic campaign, with an increasing inclination of the camera sensor (with a rotation of 30° each step).
By doing so it is possible to survey even the upper parts of the buildings (or at least the parts one can see from ground level).
Yet the results we obtained in this way were not satisfying, so we looked for alternative solutions to avoid the problems due to foreshortened areas that would have implied errors and lacks in the 3d models.
The solution was to use a remote pilot drone with a movable head that could host a camera. In this way, we could significantly reduce the blind spots and the foreshortened areas. Moreover, the drone could follow a preset path drawn by GPS coordinates on softwares like Google Earth, taking the photos automatically.
Collaborating with the drone pilot we were able to establish a path that permitted the camera to take every photo maintaining the sensor parallel to the facades and to the roofs. Photos had an overlapping of at least one third in every direction for each photo, with the addition of even more photos for the connection points, both horizontally (for the buildings’ corners) and vertically (for the eaves, where

facades and roofs join).
In order to completely survey the area of Livorno ditches we decided to study, only three flights of the drone were necessary, each of which took about 45-60 minutes, but due to peculiar weather conditions required to obtain the best results for the photogrammetry, these flights were accomplished along three weeks.
This is because to take the best photos possible the campaigns need to be carried on when the weather is rather cloudy, so that the overhanging elements don't have a sharp shadow that would confuse the software which elaborate the 3d model, significantly increasing the computing time required, and worsening the quality of the textures.
The problem was that in Livorno these weather conditions are often gathered with wind in autumn/winter, which would compromise the stability of the drone and prevent the possibility of using the auto-pilot for it.

Photogrammetry software, Agisoft Photoscan

Even though the collection of the data was rather fast, the elaboration was more demanding. With Agisoft Photoscan the creation of the 3d model is structured through at least five phases: photo alignment, creation of the sparse point cloud, elaboration of the dense point cloud, mesh creation and texturing.
The first step could be extremely fast or terribly long, depending on how the photographic campaign was carried on. The higher the overlapping among each and the number of details, the faster the software will be in alignment. Taking the photos following a rational and continuous path has a positive effect on the elaboration time too.
Wide plastered surfaces with no overhanging elements and few details, instead, could confuse the software, increasing the elaboration time.
The best solution to complete this phase is to use a camera with a GPS, so that the photos will have the information about their position written in their metadata. In this way, the software already knows their position and doesn't have to work too hard to complete the alignment.
The next step for the software is to identify the fundamental points to recreate the rough geometry of the object, creating the sparse point cloud, usually composed by 104-105 points. The precision of this phase is essential to the precision of the final model, considering that this is the first step in a cascade procedure.
With the creation of the dense point cloud the software fills the space included among the points of the sparse cloud, reaching the order of magnitude of 108-109 points. This kind of model improve the general level of detail filling the space in-between the points of the sparse point cloud. During this process, a color is assigned to each point, "simulating" the texture in an otherwise discontinuous model.
The software elaborates the mesh from the dense cloud: it is a surface composed by triangular faces creating by connecting the points. The number of faces of the mesh is an order of magnitude lower than the one of the dense cloud, usually. The mesh follows fully the geometry of the dense cloud, so the more accurate it is, the best the mesh will be.
The last step is the model texturing. This is one

Fig.1a, b, c, d - a) sparse point cloud, b) dense point cloud, c) mesh, d) textured mesh

Fig. 2 - Textured model created with the photos taken from ground level, the missing parts caused by blind spots are rather evident.

the deformations increase both in number and dimension, up to the roofs that are missing or heavily distorted.

Results: photo taken with the drone

Here you can see the results of the complete photogrammetric survey conducted with the aid of the drone. The surveyed area goes from the bridge of via Borra to the bridge of via Venezia, including the fronts from Rosciano and

Fig. 3 - Photomap elaborated by the previous model, the roofs are missing and the upper part is quite distorted.

of the most demanding phases and it could require some time, depending on the texture dimensions. Producing excessively big textures could make the model difficult to handle, especially if this one is rather large (just like in our case). For this reason, some tries may be needed to find the right dimension for the texture to be both detailed and light enough.
At this stage, it is possible to produce photomaps of the facades of the building one has surveyed, selecting four points from each plane they want to reproduce.

Results: photos taken from ground level

In this section, it is possible to see the results of the (brief) surveying campaign carried on with a camera from the ground level. The front depicted goes from the stone bridge of *via Borra*, and takes part of the *Monte Pio* docks. As you can see the buildings are well proportioned and geometrically accurate only in the lower band that goes from the ground level to approximately the first floor. From this point on

Fig. 4: textured model elaborated from the photos taken by the drone, the model looks well-proportioned and with very few parts missing.

Refugio docks on the west and Monte Pio on the east. As you can easily see, the facades are complete, well-proportioned and with very few deformations, only in the most concealed parts, like the lower part of the roof overhanging elements.

Conclusion

At this point it's clear how these techniques lead to rather different results. In this part of the paper it is useful to analyze the differences both from the point of view of the require-

Fig.5 - The complete photomap of Monte Pio docks, there are no missing parts and no deformations.

Fig. 6 - A comparison between a section of the model elaborated from photos taken from ground level (on the left) and the model elaborated from photos taken by the drone (on the right), with a focus on three details showing the differences on accuracy on the different heights.

ments and of the results of each method, showing pros and cons in order to facilitate future experiences.
The time we spent taking photos manually from the ground level was about eight hours, carrying on three steps. We took about three hundred photos to survey the whole area.
One has to keep in mind that just two of these steps will give accurate information for the elaboration of the model, while the third step will contribute to the rough geometry only, but it will bring usually missing parts and

Fig. 8 - 3D model of Monte Pio docks, final elaboration.

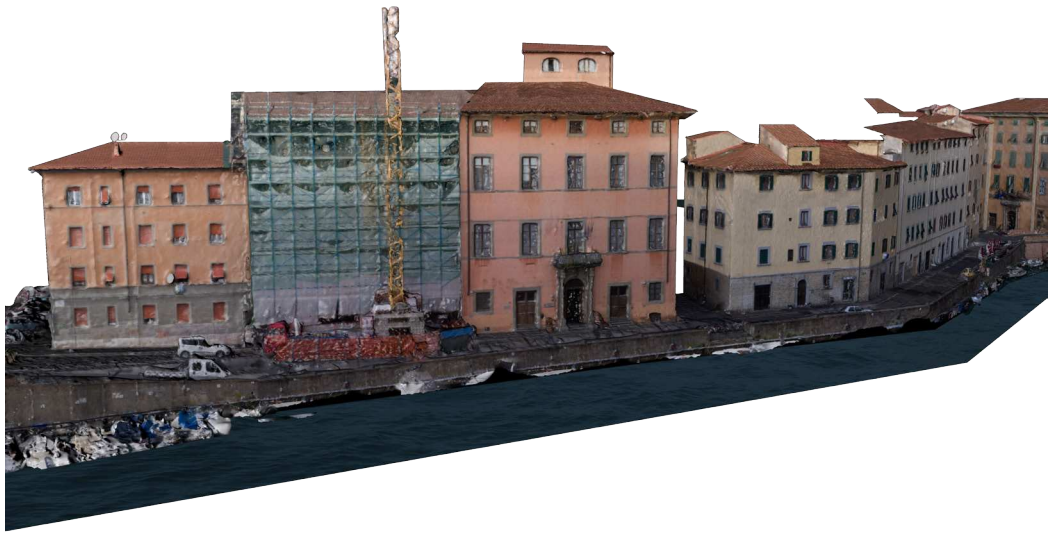

Fig. 9 - 3D model of Rosciano docks, final elaboration.

Fig. 10 - 3D model of Refugio docks, final elaboration.

deformations. With the drone aid we didn't have the necessity to put such limits, because the time the drone spent to complete its three flights was about three hours, taking almost six hundred photos. All these photos were taken with the sensor of the camera parallel to the surveyed surfaces, whether they were facades or roofs, completing overall six steps, three for the fronts and three for the roofs. In this case all the steps provided optimal data for the elaboration of the 3d model, thanks to the position of the camera sensor, always parallel to the surface photographed.

The amount of data to elaborate is different, but the time required for the creation of the 3d model was similar, because by using the drone we could follow a more rational path in taking photos, thus reducing the elaboration time of the software.

In both the cases, however, almost three days of continuous computer elaboration were spent in order to create a complete 3d model with textures on a mid-tier computer.

So, photogrammetry campaigns carried on with just a photo-camera are the best choice for surveying small objects, or for situations in which one could have few means, considering that even using a smartphone camera could lead to fair results as matter of principle.

But doing so one needs to remember that they will certainly have several limits in depicting the upper parts of the building.

Conversely photogrammetry campaigns carried on with the aid of a drone permit to take a large number of photos in a short time and almost automatically, without any limitations of highness or inclination. In this case the problems rise from the necessity of having qualified staff able to pilot the drone (and provided with authorization).

Moreover, the drone requires peculiar weather conditions to fly safely (almost no wind) and these conditions match those required to take optimal photos for photogrammetry very seldom (cloudy sky, so that there aren't sharp shadows on the fronts).

A careful consideration of pros and cons of each method in relation to the object to survey will help to decide which procedure will be the best one case by case.

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Preserving the heritage from the great urban transformations with the View Management methods and 3D GIS tools. The case of the Fortezza Vecchia of Livorno

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Abstract: The growth of the touristic and commercial port of Livorno was the occasion to develop a view management plan, to individuate and protect historical and cultural heritage of the city and within the port. View Management Framework is going to be develop along with Port Authority, following the existing plan, adopted in cities like London and Liverpool. To explain the work method adopted we first focus on the preservation of the Fortezza Vecchia image and figurability from the actual city/port and especially respect to the processing areas provided in the new port development plan and secondly, we preserve the integration of the Fortress in the new skyline and waterfront. We started with the analysis of visual landscape context, made of cultural heritage database, landmarks, analysis of buildings heights and urban pattern. Matching and interpolating these data, we found the so called "designed views", from which it is possible to recognize and appreciate the Fortezza. In this way, we obtained a list of "mathematical" quantitative rules to control future building heights near the port area affected by our designated views. In addition to enrich the method of a qualitative component, these instruments can be improved with social survey on people port perception. The method uses 3D GIS tools that allow the collection and interpolation, of quantitative data rigorously within the Geodatabase and a representation that makes it understandable the outcomes for stakeholders and designers who will have to operate in the processing areas. Thus, we were able to create a list of development plan that summarizes the results of each analysis previously mentioned. Our hope is that View Management will be an instrument to better know the city, not only in a historical logic but also in a visual, perceptual, almost empathic way.

Keywords: GIS, Heritage, Landmark, Livorno, View management.

Livorno Fortezza Vecchia, a bit of history

The actual form of the *Fortezza Vecchia* dates back to the project of Antonio da Sangallo the Old, and was built in the period between 1518 and 1532. With this project, the three preexisting building were joint with fortified walls. These buildings were the squared-based masonry tower of X-XI century: the so-called *Mastio di Matilde*, a circular-based tower built in 1077, and the *Quadratura dei Pisani*.
This cylindric tower is characterized by helicoidal steep stairs that go all around the tower, between two thick walls, in order to increase its defense capacities.
The *Quadratura dei Pisani*, built under Pietro Gambacorta at the end of XIV century, was a military post and housed a garrison in the fortified area.
With the downfall of the Republic of Pisa, Livorno passed first to French then to the Genoese that renewed *Quadratura*, improving its defense capacity against firearms.
From the XVI century Livorno is firmly under the Medici's control, that decided to strengthen the port fortification, in order to create a city defended both by land and sea.
The project by Sangallo took over the medieval core in a fortified structure with bastions and thick walls, typical of the military architecture of Renaissance. This caused a substantial difference with the traditional design

Fig. 1 – Fortezza Vecchia at the beginning of XXth Century, before the bombings of World Wat Two (Copyright: Photo Labronico).

usually adopted by both Antonio and Giuliano da Sangallo for geometrical strongholds and fortifications. *Fortezza Vecchia* plan is irregular, diamond shaped, with only three asymmetrical bastions; the old *Mastio di Matilde* was preserved, but even if was useful as a watchtower and for crossfire, it was too vulnerable for enemy fire considering its height.
From the XVI century, *Fortezza Vecchia* became the location for grand-duchy palaces: Cosimo I built his one inside the old *Quadratura dei Pisani*, Ferdinando III edificated his incorporating the church of *S. Francesco* and at last Francesco I made his own on the bastion towards the sea, as a memento of the victories of Medicis against Saracenic and Moor pirates.
In the Napoleonic era, the stronghold was heavily modified: it was turned into a prison and barracks for French army stationed in Livorno, and on the perimeter its walls were raised up in order to be more effective against the light artillery used in those ages.
During *Risorgimento*, thanks to its numerical superiority, the Austrian army fought and won the revolutionary rebels from Livorno and executed the survivors right inside the Fortezza Vecchia.
At the beginning of the XX century the stronghold was turned into an actual district of the city, until the World War Two bombing almost wiped it out because of its proximity to the port and to the near industrial zone.
The conclusion of the war started a path of restoration and refurbishment lead by Archeological Superintendence, but nowadays this process couldn't be really considered complete.
Today *Fortezza Vecchia* is included inside the area under the jurisdiction of Port Authority, and for this reason it is temporary administrated by it. Inside the stronghold the Port Center

Fig. 2 – Aerial view of Fortezza Vecchia, today.

museum is hosted, showing the history and the functions of the port in a didactic way, benefitting from the beauty of the place.

Livorno's new Port Plan

The port of Livorno is a really important and historical infrastructure, with a peculiar identity inside the urban growth of the city. The city and the port evolution are closely connected and port activities characterise the image of the city. The two strongholds, the *Marzocco* tower, the silos and also the big port infrastructures, like cranes are an important part of the city image.

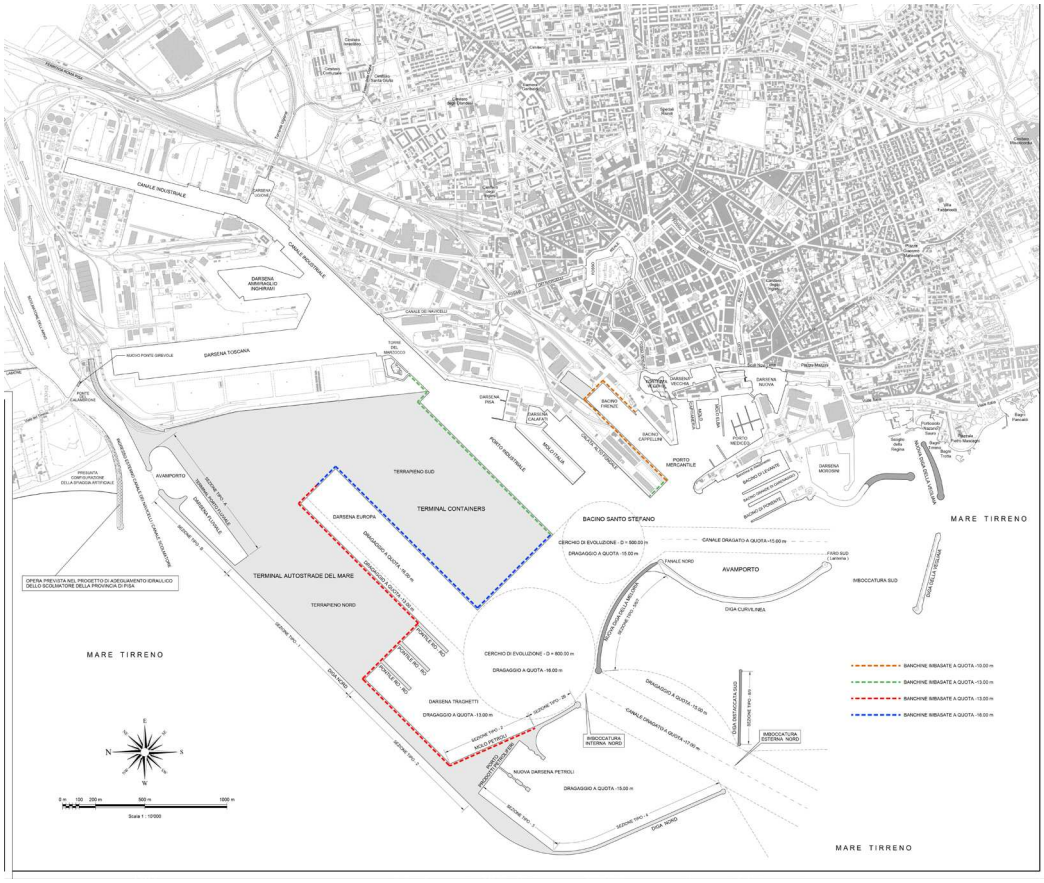
The port of Livorno is located in a really particular place, where the sandy coast meets the rocky coast. Port development interested the reclaimed area in north direction; in this way the existing urban morphology will not be compromised.

The new port masterplan was approved the 24th March 2015 and aim to raise economy and status both of port and city. The new integrated planning transforms in uniform way the two environments, port and city, connected in the past but now divided. The first real masterplan was adopted in 1909; since then they didn't manage a new organic plan for port area. Punctual actions didn't solve critical aspects but actually they compromised the situation.

There are three innovative aspects:

1. Explanation of the dual incentive in the modern port cities. The first is trades globalization, which is reorganizing the empty spaces hierarchy and establishing new relations and roles in horizontal connections. The second is the connection with other inland infrastructures. The Livorno case should be solved with a gateway connect-

Fig. 3 – The project for the new port expansion.



ed with the inland and with a waterfront freely accessible.

2. New port masterplan sustainability. Port development shouldn't ignore three fundamentals elements: environment protection, economic balance and social fairness. The attention in sources use and sources recycle is the start point of new port masterplan. The presence of important historical buildings incentive the authority to restore and maintain original traits with big investments.
3. Integrating the city. The actual port reorganization risk is to increase the distance between city and port, instead of reduce it. The enormous structures and empty spaces make the port inaccessible by citizens. Maybe this process is inevitable, but it could be controlled in some ways. For example, actual port areas near the city, but no more useful for the port, could become public spaces, benefit for the city and the port both. In Livorno case the possibility is to combine in the Fortezza Vecchia area the new maritime station and some public spaces. There is a specific masterplan for this area only, elaborated by Port Authority and Municipality after the new port masterplan. The masterplan in this area aim to attract citizens in port life, with green areas, multifunctional new buildings and monuments.

There are many improvements for the port quality that could be realised. Port Authority, during the new port masterplan editing, choose some strategic goals:

- New function organization, to improve port efficiency and productivity
- Enlargement of the sea space, realising 5km docks with 16m depth and 2 million mq of service area, and a new port entrance to host new large cargo ship.
- Development of dry port areas, improving connection with port, to develop logistic services integrated with trades.
- Railway and roads appropriate to needs of fast goods circulation to reference markets
- Requalification of port areas close to the city, to develop cruise services.
- Urban plan goals:
- Pier reorganization to host new cruise ships and boarding service area. For this reason, the new docks will be built near the old seawall, to increase capacity and safety.
- Fill in Firenze basin to enlarge boarding service areas and parking areas. Moreover it will increase terminal viability, to realise an efficient managing of vehicular flows of ferries directed to the islands.
- Appropriate solutions to integrate urban function of this port area and port function of passenger terminal. It will be necessary to individuate buildings to demolish, buildings to reuse and new buildings. The area will be divide in free-entry areas and control access area, to assure terminal efficiency, following the Isps Code.

Port Authority wants also to restore cultural heritage in port area. The ancient port buildings are now included in the industrial port area also. The Marzocco tower, for example, take place in container shipyard near enormous industrial cranes. Tough, in new port masterplan, they conduct a census of cultural heritage buildings is included. The idea is to promote ancient port buildings to included them in the new touristic terminal.

With the 2012 project and the works for Europa shipyard, Port Authority needed to study a new method to read and control the building development in the port area. This new instrument should try to exceed urban plan limits, which in the peculiar port case are considered too much constrictive.

The two main problems of the landscape of Livorno

Livorno landmarks and landscape suffers principally for two main problems which can be summarized as a disposition problem (or "cinema problem") and a dimensional problem.

These landmarks have always remarkable dimensions, but they are also surrounded by obstructions with remarkable dimensions too.

Fig. 4 – The cinema problem: a metaphoric representation of Livorno landscape situation: there are both movable and static obstruction, here represented as the ferry-head man for former ones and as warehouse-head men and the silos-head for the latter ones.

The obstructions may be permanent as Tirreno silos or warehouses of Azimut-Benetti shipyard, or movable as cruise ships and ferries.
The fact that the landmarks of Livorno aren't always and fully visible shouldn't be considered necessary a detrimental aspect, actually this "hide-and-seek" aspect may contribute to the definition of port and city landscape both in a scenic and functional way.
The second main problem is about the single elements that compose this landscape.
Nowadays, the municipality of Livorno imposed its land-use plan to the functional area of the port, limiting the height of new buildings to 20 meters. This choice doesn't take in account what are the actual dimension of nor the functional elements either the heritage ones.
To make this aspect more evident, here's some examples: the Mastio di Matilde is almost 30 meters high at its summit; the upper tower of the near Silos Granari is near 40 meters high; cruise ships that dock nearby are 50 meters high and 290 meters long while the tallest cranes in the close industrial port are 75 meters high!
For these reasons, the limit imposed by the municipality seems rather inappropriate and Port Authority felt the necessity to find different ways to safeguard the port heritage elements.

Three references for a possible solution

View management was the solution we find to deal with Livorno problems, especially for Fortezza Vecchia situation. Three references were fundamental for this research: London and Liverpool experiences in a British context and Piedmont and Bolzano for methods nearer to our country practice.
London: Inside the London Plan is the plan for the economic, social and spatial development of the city in the time frame between 2011

Fig. 5 – The height problem, a schematic representation of the scale of the port elements. The green area shows the height limit stated by the land-use plan of the city.

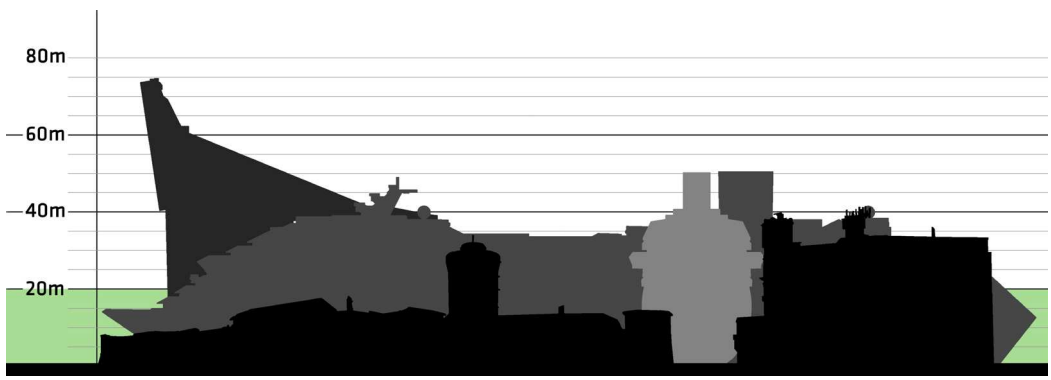


Fig. 6 – Panorama from the London View Management Framework

and 2031. The London View Management Framework is one of the tools of this plan. It was conceived by mayor Boris Johnson in 2011 and it was approved in 2012. Its goal is to protect the most historically valuable parts of the city, but also to regulate future developments in the nearest area in a rational and rigorous way. Among these valuable building, two are central for this plan: Buckingham Palace and Saint Paul Cathedral.

The document defines 27 assessment viewpoints that looks to valuable buildings. From these points four type of representation are determined: London Panoramas, Linear Views, River Prospects and Townscape Views.

London Panoramas, are photos taken with wide-angle lens with a field of view in 120°, and they usually represent the city or its suburbs from particularly favored viewpoints.

Linear Views are photos shot with a telephoto lens from far viewpoints, sometime even from outside the city, focusing on one of the two relevant buildings. For this reason, they usually have a narrow field of view, sometime even tighter than 6°.

River Prospects are the photos from Thames riversides, and they are usually studied with a series of photos taken following a commonly renowned path with a field of view comparable to human one.

And at the end there are the Townscape View, that are similar to the first typology (large field of view) but they focus on particular views of historical interest.

From the combination of the strategic viewpoints with these representation typologies a series of data sheets is elaborated (from the same viewpoint, often more representation typologies are possible). Each data sheet describes every positive (and negative) elements of each view has prescribing information about dimensions and relationships with the surroundings of possible future transformations.

And the document goes even further, the height limit established in each sheet is determined mathematically: once the elements to safeguard are individuated, their boundaries define a cone that frame them. Inside this cone, new buildings must develop below the view individuated in this way. Thus, each data sheet states the rigorous max height and the mathematical function from which derive it. This function takes also account of the curvature of Earth for the longest Linear Views. Moreover, outside of these cones and behind the relevant buildings, a wider setting consultation area is individuated, inside which new buildings are possible, but with a less strict limit in the height in order to avoid the so-called “Canyon effect”.

One of the pros of this document is to regulate the procedure to present a project inside one of these protected views. The project planner who wants to present a proposal for one of these areas would have to present an adequate number of Accurate Visual Representations. These are photomanipulations of the proposal inside the protected area, created in the most rigorous progress that can be always replicated. The required detail level will be adequate to the level of development of the project, and each elaboration will be judged by a commission of specialists.

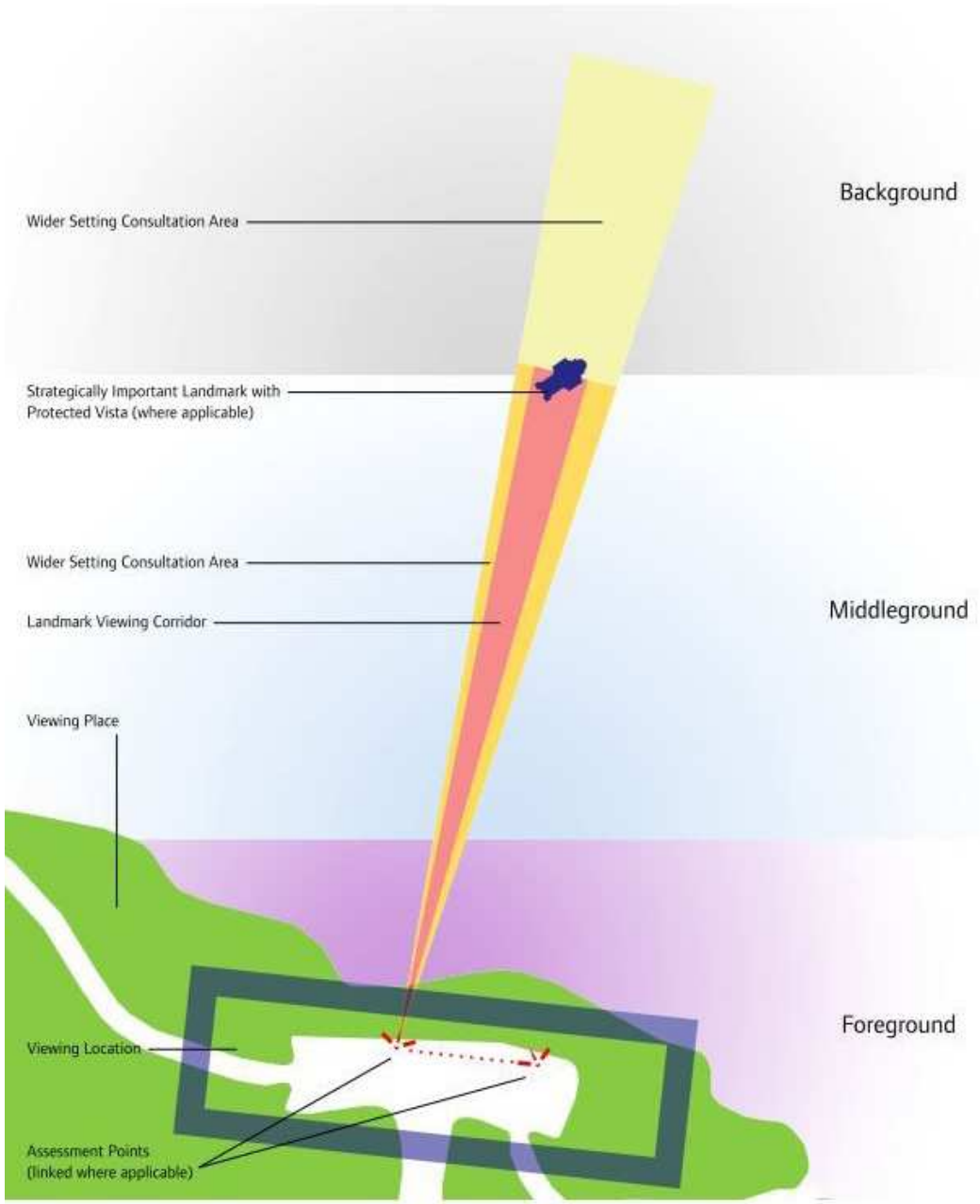


Fig. 7 – Definition of the elements from the London View Management Framework.

Piedmont: From the research activity of the DIST (Dipartimento Interateneo di Scienze del Territorio) of Turin University and Polytechnic for the regional direction for heritage of Piedmont, the Linee guida per l'analisi, la tutela e la valorizzazione degli aspetti scenico-percettivi del paesaggio were born. Starting from the regional landscaping plan, these directives focus to the local scale and introduce a method to take account to scenic and perspectival aspects to landscape analysis, finding the best view channels, the definition of viewshed for the investigation upon spatial and visual relations.
This analysis takes both in consideration areas that are universally acknowledged for their importance and "common" places with

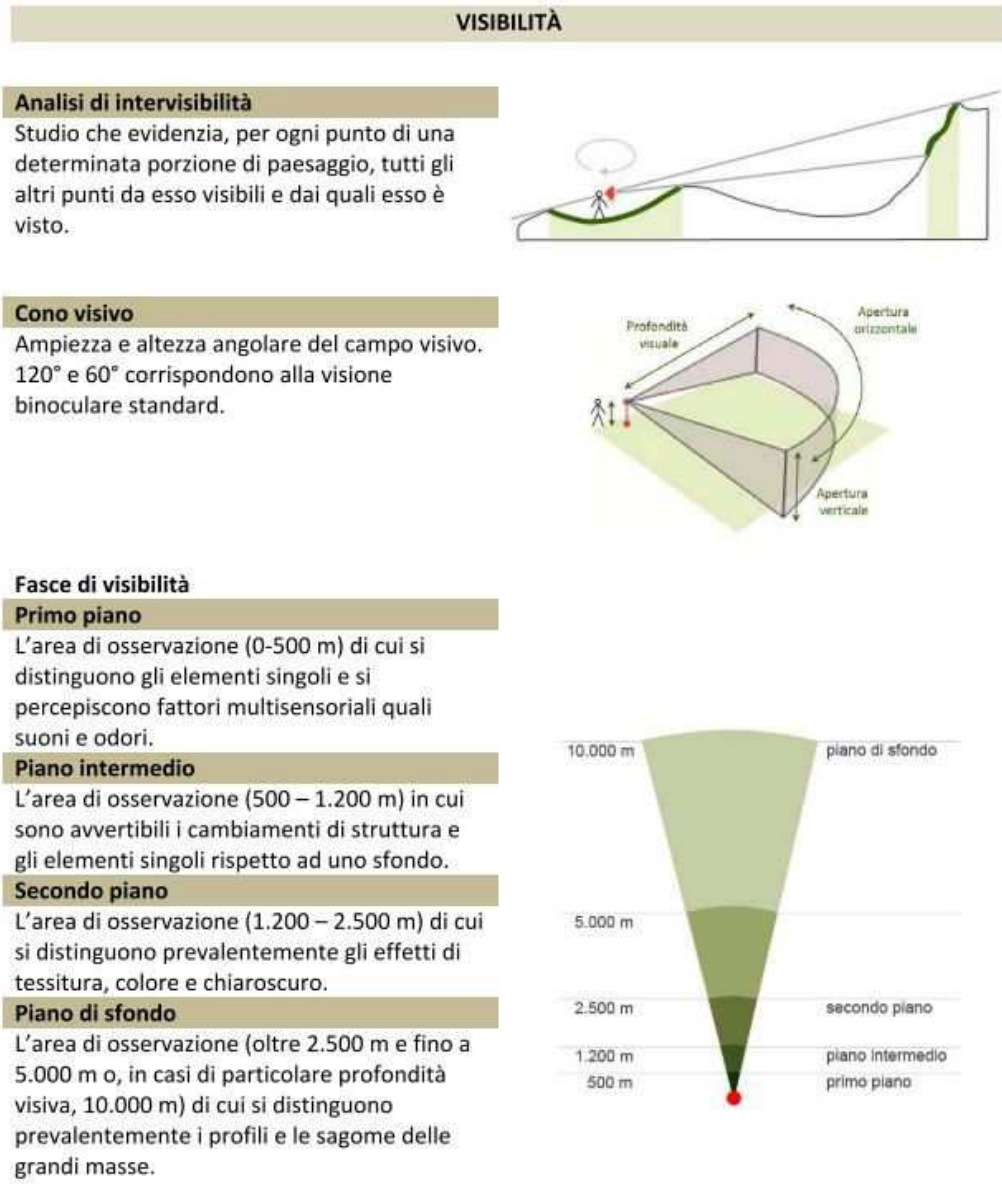


Fig. 8 – Elements for visibility analysis from the guidelines from Piedmont.

situations of particular landscape value (or issues), in the light of the European Landscape Convention of 2000.

Moreover, these guidelines try to refine the ideas, tools and methods of scenic analysis, in order to make decisions being built on objective parameters and verifiable procedures. Scenic analysis has to be thought at human scale, because this is our only way to perceive landscape, and this may be difficult to relate with regional-scaled planning. For this reason, these guidelines aim to improve the take in charge of these themes at a local scale.

A part of the scenic elements is individuated at a regional scale, but not their relations with their surroundings because they would require more detailed research.

The visibility analysis is carried on using a Digital Terrain Model (with 50x50cm cells) and a Digital Surface Model (with 5x5m cells). This allows to take account of not only the shape of the terrain, but also of obstruction

Fig.9 - Landscape visual analysis from the Piedmont guidelines.

like buildings and vegetation.
This analysis was carried on using ESRI ArcGIS, with its "viewshed" tool, from the Spatial Analyst extension. Viewshed is the portion of landscape visible from a determined viewpoint or path in GIS context, and it is determined through the definition of four parameters: horizontal field of view, vertical field of view, deepness of field, and observer height.
In this case, these were the settings of these parameters:

- horizontal field of view (azimuth1; azimuth2): for each viewpoint, the width was regulated to take account of the larger obstructions. For panoramic paths, this width was always 0°-360°;
- vertical field of view (vert1; vert2): it was chosen the widest field of view possible for a man, 180° (±90° over and under the eyes of the observer);
- deepness of field: (radius1; radius2): in urban context, this distance is considered between 500 and 1200 meters, in more open areas, this measure may be increased up to 2500, 5000 and 10000 meters;
- observer height (offsetA): the eyes of the observer were positioned at a conventional height of 1,6 meters.

This kind of GIS view analysis offers the possibility to determine the areas visible from a determined point, or conversely which areas "see" that point, on the base of a digital terrain model and some parameters of the eyesight of the observer.
Through this method we can have information about: the viewshed of a panoramic viewpoint or path, the area of influence of detrimental elements (or landmarks), the classification of viewpoints through the overlaying of viewsheds defining the so-called "view-sensitivity" and the total visibility, calculating the inter-visibility of each point with other ones.
So, these guidelines aim to follow the project processes at different scales, suggesting relevant elements, quality criteria, and indicating a specific lexicon, some illustrations on the analysis method and addressing for valorization. The definitions of scenic aspects are defined through three sections:

- Strategic Landscape Viewpoints: points and paths of outstanding panoramic, environmental value or relevant as principal crossing route of territory;

- Panoramas, both as a whole or as details: landmarks and other elements of landscape characterization, their visual relations and of their viewpoints;
- Areas with detrimental elements: cataloguing of critic situations on the base of the detrimental elements present.

In scenic analysis, there isn't a universally coded symbology considered a standard, each scale has its own problems and its own different opportunity. The symbology proposed by these guidelines is just an indication, and for this reason the scenic analysis is rather approximative and not such rigorous as view analysis.

Bolzano: Bolzano is situated in Trentino-Alto Adige, a special-status region as stated the 5th of September 1946, with the resignation of De Gasperi-Gruber deal during the peace conference of Paris. This deal gave the concession of an autonomous legislative and executive power to the provinces of Trento and Bolzano, and it was confirmed by Italian Constitution later on in 1948. It is thanks to this special legislative power that the principles of the safeguard of "ensemble" was introduced, first with the provincial urban law 13/97 (art.25), and then in 2006 with the actual regulation inside the section of landscape protection of urban law. The law for the "ensemble" protection is the dense condensation of ten years of study for the defence of Bolzano territory and landscape.

For our experience, it was quite useful analyse the actual articles of the law and one of the standard data sheet of the large collection individuated by the law.

For the first time, this document defined the meaning of the "ensemble" idea in landscape as "a group of elements, in particular streets, squares, buildings, even parks and gardens with their structures, open spaces and water surfaces, that for scientific, artistic or cultural reasons are to be safeguarded".

In order to simplify the identification of such areas, ten characteristics are stated inside the document. If an area has at least four of these then it can be considered as an "ensemble".

These ten characteristics are:

- Historical value;
- Picturesque character;
- Monumental character, in relation to buildings disposition and to landscape;
- Stylistic connotation, either as unity or mix-up of styles;
- Figurability as landmark;
- Panoramic qualities;
- Collective memory;
- Everlasting urban plan, as an urban project or plan or as a founding act, determining the settlement morphology;
- Everlasting buildings typology;
- Natural elements, and natural characteristics related to man opera.

The part of the document that describes the method is composed by a brief relation on the processes and the bodies deputed to evaluation, a list of rules and a large number of data sheet that catalogues every architectural and landscape element of value, suggesting which characteristics are to preserve and which detrimental elements may be modified.

In each data sheet, there is a first part in which each valuable element of the area is listed, a second one in which the area is described with its peculiarity as a whole, and a third section which of the ten "ensemble" characteristics are present, providing the indications for future projects.

Studying this document, we were able to define the ten characteristic that make a landscape an "ensemble" in a different context such as Livorno, with a precise focus on the safeguard of heritage.

The urban law from Bolzano is rigorous and very specific only for its settings, and this was the reason why we decided to take other references to improve its categories for the definition of an "ensemble", but even so its contribute is very relevant for raising awareness of more complex landscape with several layers of elements.

Analysis framework

The starting point was to define a rule set and a rigorous process of port landscape evalua-

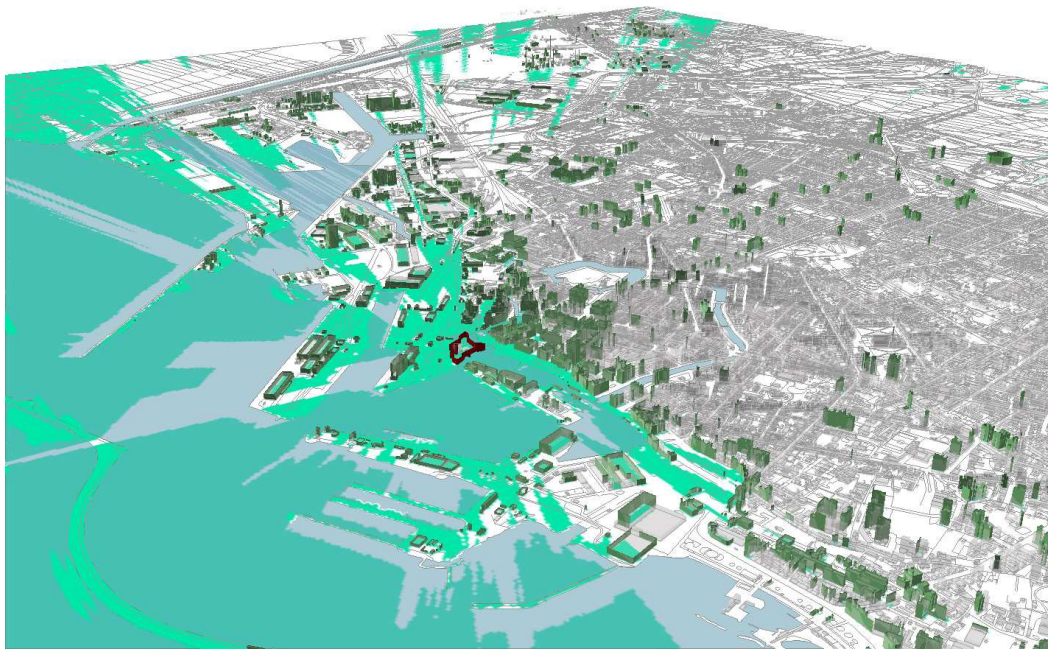


Fig.10 - Viewdshed analysis of Fortezza Vecchia (in red). The areas are colored from grey (low visibility) to green (high visibility).

tion. This was possible adjusting London experience with a key to reading more appropriated to Livorno landscape, thanks to the value system of Bolzano and the idea of "ensemble". This method is perfect for a complicated landscape as the Livorno port one, in which there are even movable elements, completely off the scale for urban pattern.

Obviously, the ten characteristics from Bolzano had to be changed to better fit the situation and take account of the sea effects on landscape definition.

This research focuses on the preservation of the image of Fortezza Vecchia, since its outstanding cultural and historical value.

Following the method from Piedmont, the first step was the viewshed analysis, which pointed out where were the best strategic viewpoints to look at the stronghold.

From these viewpoints we carried on a photographic campaign to survey the actual situation, showing the relations among Fortezza Vecchia and port landscape.

These considerations together with the photos permitted us to elaborate the panorama in which we delineated the "ensemble" characteristics. We decided to divide them into single element and areas characters. The formers are:

- Historical-testimonial value;
- Unique value of port landscape;
- Monumental character referring to buildings disposition, in relation with urban or port landscape;
- Architectural-stylistic features;
- Figurability qualities such as legibility, capacity to strike and provide orientation cues;
- Everlasting building typology.

On the other hand, the latter ones are:

- Panoramic character of the area, especially toward the sea, the port or the city;
- Everlasting urban layout, through the legibility of a project, a plan or a founding act that determined the actual residential morphology;
- Bodies of water which are in relation with present or past port activities;
- Groups of movable elements related to navigation, characterized by the suggestive3 value of the port landscape.

Moreover, each panorama has a classification of the skyline grounds, with the definition of foreground (0-500 meters), middle ground (500-1200 meters) and the background (>1200m). Lastly, we added some notes on principal landmarks accessibility to give more information on the availability of the area.

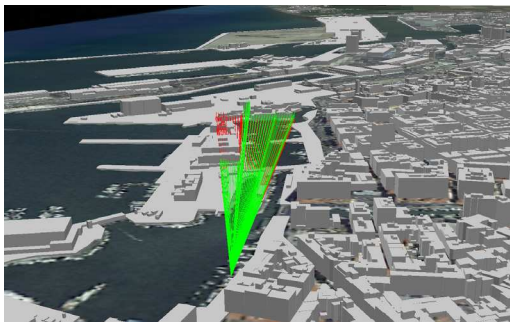


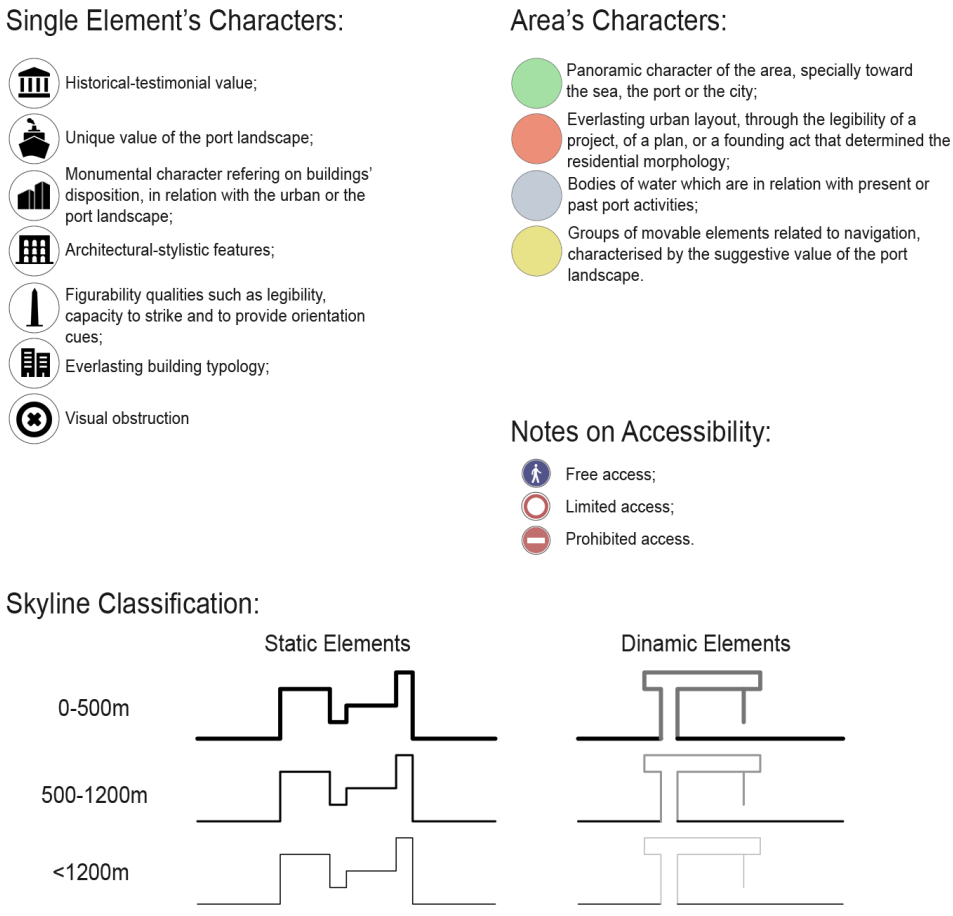
Fig. 11 - Representation of the line-of-sight analysis.

The following step was to analyze the actual visibility of the Fortezza, through the line-of-sight analysis. This type of analysis is some sort of implementation of London linear views, and it is based on Digital Terrain Model. In this case the software draws a series of lines joining the viewpoint to a grid of dots that the user defines to delineate the element to see, and show which of these are visible and which are not, and in this second case it displays where in the space the obstructions are. These lines and dots are green if visible and become red when they are interrupted or hidden by an obstruction.

Conclusions

This analysis method helps to the process rather than to the project that will develop, according to the needs and sensitivities that designers will consider appropriate during the

Fig. 12 – "Ensemble" analysis legend for panoramas.



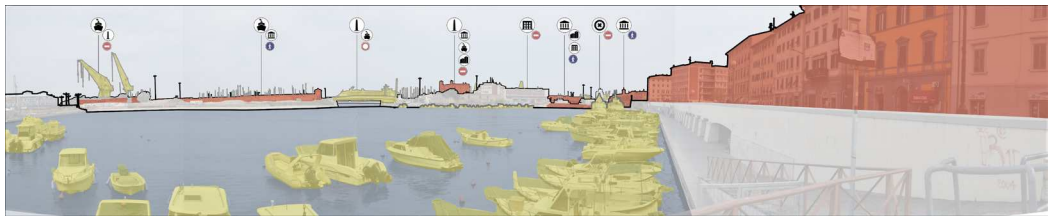


Fig. 13 – Panorama taken from the New Shipyard.

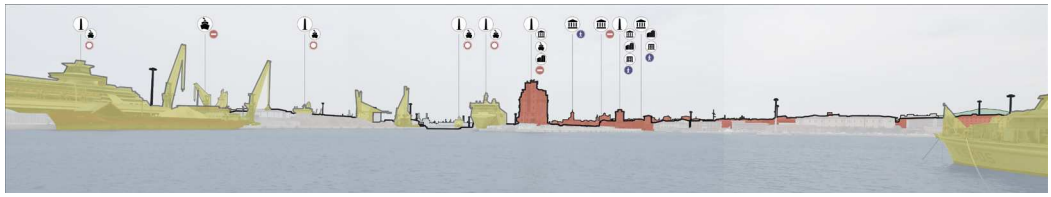


Fig. 14 – Cruise terminal. Panorama taken from the outer area of medicean port.

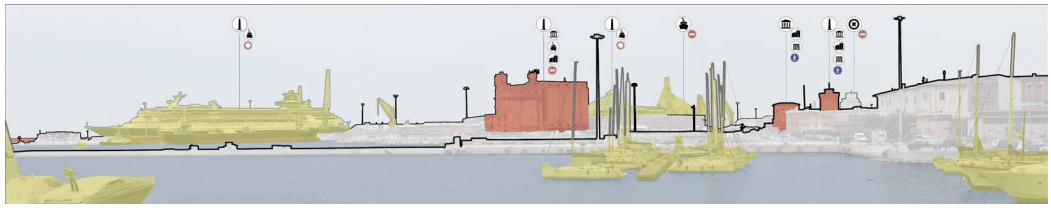


Fig. 15 – Old port vs city terminal. Panorama of the piers inside the medicean port.

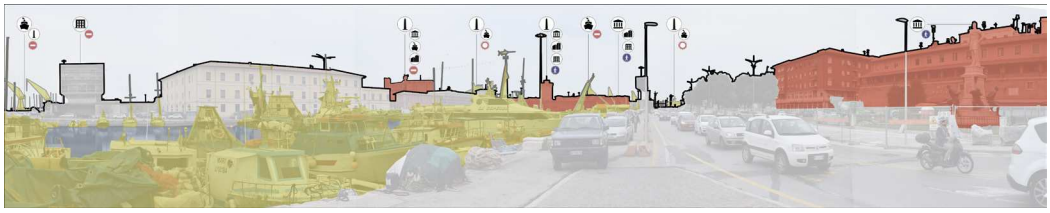


Fig. 16 – City/port filtering. Panorama taken from Quattro Mori square.

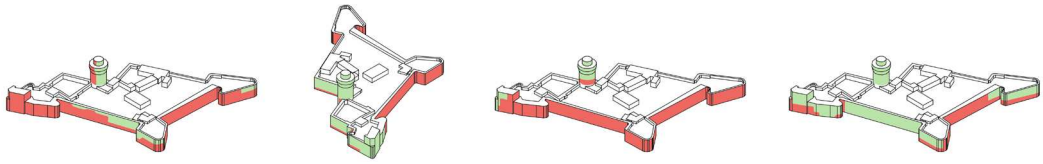


Fig.17 – Line-of-sight analysis results for the visibility of Fortezza Vecchia visibility in the four previous panoramas.

development of the Port Authority Plan.
Rules and performance criteria contained in the View Management Framework, enable individual projects to have an external coherence, relative to context and historical elements not directly functional to the regeneration of the commercial port like Fortezza Vecchia. Finally, the method allows a further verification of the visual impact, in line with the strategic environmental assessment.

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The ancient sewer system from Piazza Beccaria to *Macinante* channel: Emissario Poggi. An urban infrastructure of the period of Florence Capital

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Abstract: This study is about a "secret" aspect of the contemporary city of Florence: its ancient sewer system, going back in the second half of the XIX century, that was designed and built by the Engineer and Architect Giuseppe Poggi. The research is focused on the Emissario Poggi, an ancient channel that crosses great part of the city passing under the streets. The area interested by the channel is the North-East of the city center. It consists of an infrastructure built during the period of "Firenze capitale" and the "Piano Poggi", for the enlargement of the town. As a start point, a historical research helped to understand the project and his real journey across the city and his function, once as today. Nowadays the Emissario is partially functional and doesn't consist anymore in the primary drainage system but its existence is due to its historical value. The "Emissario Poggi" is accessible and has three entrances along its journey across the city. With the help of photogrammetry a set of three-dimensional digital models has been built for these doors and part of the buildings where they belong. All the material collected during the research and the material produced is at the end presented in a new set of graphic representations. Section, tracked, photos, drowings, reproduction of historical documents. The final work shows the history and the historical events that influenced the Emissario Poggi in the XIX century and the state of its remains. This study takes a look on a historic architecture that has been very important in the past and for the future of the sewer system and the hygiene of the city. Despite of the importance of this drainage channel, its existence is still not well known by most of the citizens as its structures are mostly concealed.

Keywords: Florence, Giuseppe Poggi, Sewer, City plan, Urban infrastructure, Architecture.

Emissario Poggi: Introduction

This research moves the attention to a secret and underground part of the city of Florence: the Emissario Poggi, part of the city's ancient sewer system. An ancient channel that crosses the city below the streets level and owes its name from the engineer and architect who designed it. Built during the period of Florence Capital and the Piano Poggi (second half of XIX), it aimed at the expansion of the city. We are facing an urban infrastructure realized in Florence when the city was Capitale d'Italia, from 1864 until 1870, that contributed to the improvement and renovation of the city (1). In 1864 started a period of modernization that produced a lot of transformation concerning the urban structure and utility.

Florence as city developed along the Arno river. Because of this, it was always affected by floods, which during the times had repeatedly caused damages to the city. The largest appears every 100 years, latest on 4th november 1966. A sewer system could be the answer to flooding problems, a functional system to eliminate water when excessive. During the 40's of the XIXth century, the first project for a real sewer system was began by Flaminio Chiesi, carried on by Giuseppe Poggi until the final fulfilment in 1865. The Emissario Poggi is one of the works realized following Florence's new city plan drafted by Giuseppe Poggi, known for the architectonic renovation of the city, new streets, building and districts,

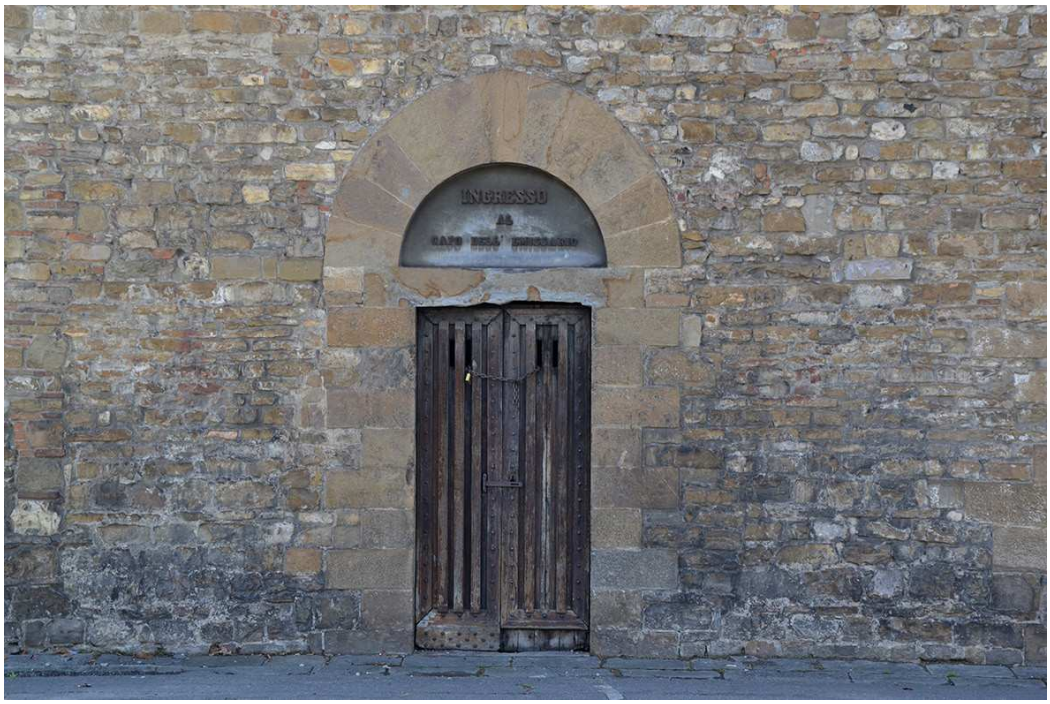

Fig. 1- Entrance to the Emissario in Porta alla Croce

the viali of the city (inspired by the parisienne boulevards).

Architects and engineers from the past, Giuseppe Poggi, the mayor of Florence Ubaldino Peruzzi made possible the realization of the sewer system of the town. An infrastructure absolutely necessary but also difficult to have it completed, because of prejudices and insufficient relevance given by the population.. Let's be more specific about what sewers really are:

Sewer: A sewer is a large underground channel that carries waste and rain water away, usually to a place where it is treated and made harmless.

Waste: Unwanted matter or material of any kind (2).

The interest on the city's drainage system was a theme neglected for a long time but now it's something actual. People rediscovered the importance of a good sewer system for the city and for the citizen's life, something that represents the beauty of the city like the more visible architecture, buildings, square, streets, gardens and so on.

The Emissario Poggi was designed to supply the needs of the north-east side of the city of Florence: starts from Piazza Beccaria, once Piazza alla Croce, goes on to Macinante channel, crossing the town down the streets with a linear path. It collects waters from secondary sewers along its path. Its presence is revealed by the architecture of the four main entrances (three of them are still visible).

What emerges from this study are the events that led to the birth of Emissario Poggi and his traces in the city of Florence, while examining the events that preceded it, with specific attention for the Northern part of the city.

The Emissario still contributes to the disposal of dirty waters, and after 150 years still serves the city in a different way.

Getting to the completion of a good sewerage system had been a long, painful and sometimes tragic work: think about the illness caused by the poor hygiene before society understood its importance. It is indeed a mandatory requirement for what it means in terms of healthy environment and hygiene.

Before the period of Florence Capital

Dating the birth of the sewer system in Florence is a challenge, as it is the result of a long historical process, started way before 1800, century in which great urban plans were developed, influencing the expansion of the city. From historical findings, we can deduct the presence of drainage channels already in Etruscan and Roman ages. Not exactly sewers but something close to them, modern and functional for the period.

During the Middle Age, the streets of Florence were where garbage of all kinds accumulated, as very few families could afford a toilet inside the house.

It was a very unfortunate situation for a city that already was an important cultural center, would have become the cradle of the Renaissance, and also being the capital of the kingdom of Italy for a short period of time, until it was recognized as one of the most beautiful cities in the world.

After the medieval period, Florence started growing as a city again, and it could be considered at the same level of the most important italian and european centers. It wasn't anymore just the towered city, with small and curvy roads. There were walls and moats, the lasts to remember the presence of rivers: Mugnone, Affrico, Terzolle, and Saints Rocco's, Saint Gervasio's, Gelsomino, Arcovata ditches (3). Florence development was always influenced by Arno river and is largest tributary, Sieve, with periodical and devastating floods (4). At the beginning of the XVIIIth century Florence was missing a sewer system and rainy water was not channeled, causing great inconvenience, especially 1835 cholera plague (5). Just because of this episode induced the population to take hygienical measures, to rethink road cleaning system and to build a sewer system to dispose of dirty water and make the city more healthy.

Florence is in fact composed of two parts, the center and the left side of the Arno, connected by several bridges. Given the city's location, the development of infrastructures, including sewer system, was similar but not the same. For example, sewer systems on the left and right side are completely autonomous, while this is not the case for the waterduct.

So started the development of great sewer collectors and procedures to clean dirty waters, to make them available again for industrial and agricultural use. The first step was the assignment in 1836 of creating an infrastructural plan and related evaluations to engineer Flaminio Chiesi, already working for the town.

The first interventions during XIXth century 40's were inadequate for a city as large as Florence, counting 95000 inhabitants. In the decade 1845-55 many notorious personalities and institutions, such as Società Nazionale d'Igiene and the Accademia dei Georgofili made pressures to bring Florence to the same level as the best European cities for what regarded private and public hygiene. Those projects didn't even start because of issues related to political crisis and lack of funds, which were destined to other "more visible" works.

Even with these premises, Flaminio Chiesi presented a report concerning a dirty water draining tributary to be built in the Northern region of the city. The tributary was designed to be close to the river and the main roads, so it would have been easier to work on it and make dirty waters join it. We are talking about the central collector: known as Emissario Chiesi (still present but not used anymore), its building started after the deliberation of the prior's magistrate on November 14th 1856 (6) ended in 1864.

It starts from Piazza Piave, once Piazza Zecca Vecchia, and flanking one side of Arno river, it flows into Macinante channel (7), around the current Leopolda Station.

One of the advantages was the presence of the water intake of pescaia di S. Niccolò, useful for moving the heavy materials inside the channel, coming from the Saint Giuseppe tanneries (8).

The original track by Chiesi was modified, as it exceeded the size of the roads. (9).

Fig. 2 - The Emissario Chiesi

Also, a more straight track and closeness to the river were privileged. Despite the project was ready for realization, its beginning delayed due to technical reasons. In the end, the most practical solution appeared to make the tributary flow into Macinante channel through fognone di Ripoli.

Before the realization of Chiesi's project, the sewer system was quite rudimental, with single channel in which both rainy waters and dirty waters flowed by (10). With the introduction of the new system, Florence sewers' system could be defined as modern: dirty waters were collected by five secondary collectors. The first four follow perpendicular path to the main tributary, while the fifth ran parallel.

Under Archduke Leopold II, a more modern sewer system was initiated, with the guide and projects of different technicians (including Flaminio Chiesi). The forced departure of the Archduke leaves works incomplete: most likely, the main problem was the luck of main

Fig. 3 - Entrance to fognone di Ripoli and Emissario Poggi in Porta al Prato

aqueduct and consequently of water.

Even before the realization of Chiesi tributary (main tributary), it already existed a large sewer known as fognone di Ripoli, which collected the waters from different sewers into

Fig. 4 - Macinante Channel today

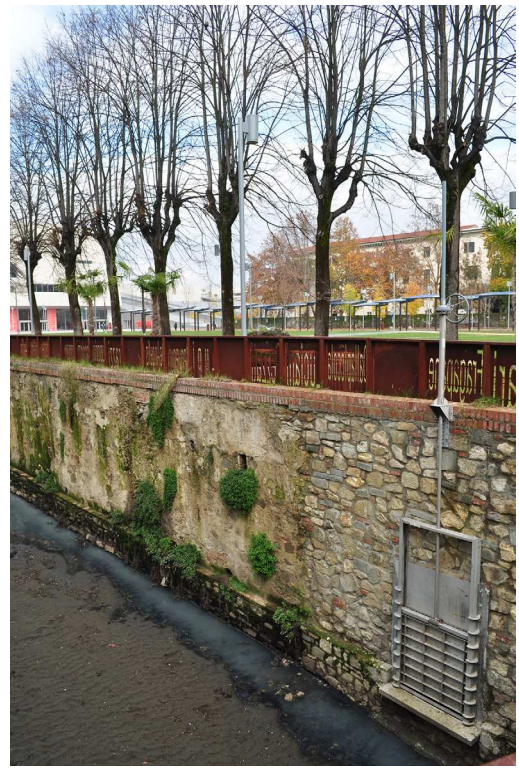

Fig. 5 - Emissario Chiesi flow, nowadays

Macinante channel, with the help of many cataracts (11). This was the situation in Florence before it became the temporary capital of the Italian Reign.

Giuseppe Poggi's project for Florence

In 1964, Florence was designated temporary capital of the Reign of Italy (12), and therefore the great period of works and changes, to bring the city to be up to the role given.
Many ministries moved from Turin to Florence, and the city faced a large population growth it had to be coped with. This was the first reason for the will of expanding the city, through a plan entrusted to architect engineer Giuseppe Poggi.
Florence city plan in 1864 was badly organized. The most qualified person for this task in a moment of urgent need was Giuseppe Poggi (to be said, without real competitors). Born in Florence in 1811, Giuseppe Poggi was set up to the career of Architect Engineer by his father. He further deepened his education in Bartolomeo Silvestri's atelier (13), studying for eight years the masters of arts and architecture.
The architectural expression he developed during his years of study is ambigous: it can be related to provincial style of tuscanian tradition, with neo-Renaissance influxes skillfully adapted to the the trends in architecture of that period.
It was no doubt he could stylistically satisfy the requirements of Florence's bourgeois clientele, with modest innovations, without breaking the bond with tradition.
Most important to his studies both as architect engineer and urban planner were his travels in Italy (Rome, Venice) and abroad (Lausanne, London, Bruxelles, Paris). From the Roman and Venetian school, he took as reference Bramante, Raffaello and Palladio. From his experiences abroad he assimilated urban arrangements through the careful study of redesigning cities.
Most likely, the Renaissance classicism from

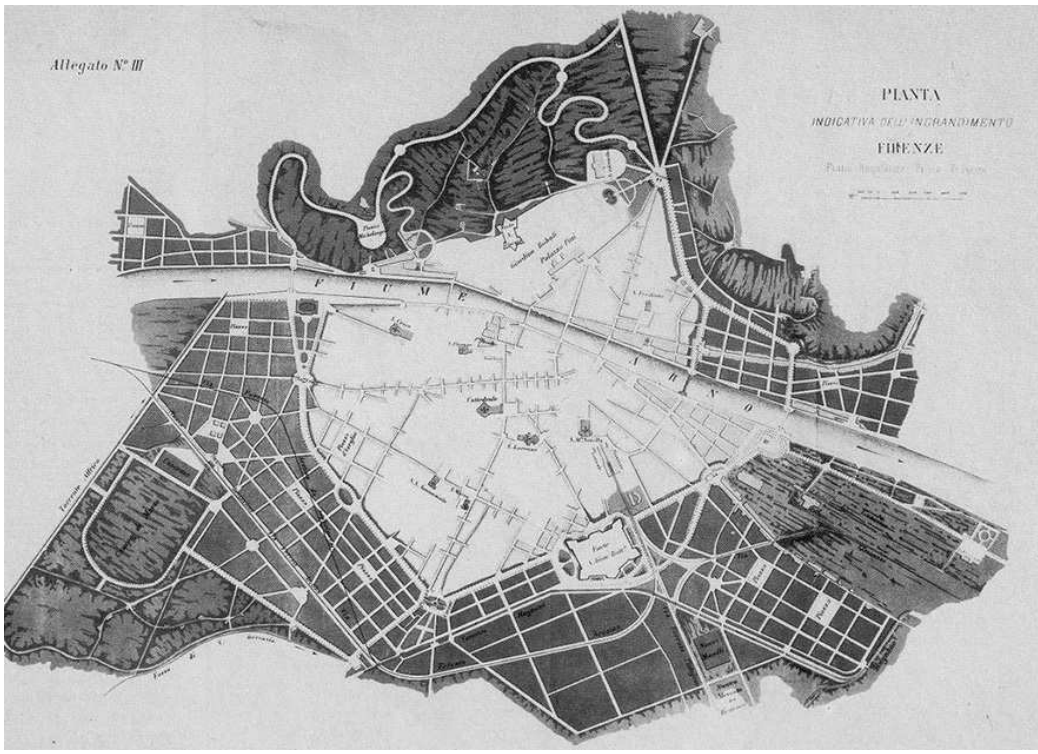

Fig. 6 - Poggi city plan, from: "Sui lavori per l'igrandimento di Firenze, Relazione di Giuseppe Poggi (1864-1877)", Barberà, Firenze 1882

which he draws most of his works was intended to develop a new style that could be related to the architecture of Italy as a united kingdom.

For his architectural knowledge and the fame he boasted among Tuscany's ruling class and bourgeoisie, no one else could be assigned to this task.

It was November 22nd 1864, when Gonfaloniere Giulio Carobbi handed over to Giuseppe Poggi the letter containing the assignment of expanding the city, transforming it from the capital of a grand duchy to the capital of the united kingdom of Italy.(14) The letter cointained guidelines about how the city had to be developed: the demolition of existing urban walls and the creation of a large passage (taking as example the boulevards in Paris). Also, it has to be provided a project about new areas to urbanize and a study concerning the realization of an organic defense system for river Arno's waters, following the destruction of the walls (and therefore, the bulwark they provided). No mention for infrastructures such as the waterduct and the sewers.

There were disagreements between Poggi and the Commission during the decision phase. The matter was solved thanks to alternative projects proposed by the architect engineer, which would have proven useful lately On January 31, 1865, he delivered to the Comune the draft plan for the expansion of the Northern part of the residential area, the city's embellishment with boulevards to be realized on the site of the walls, to form a junction between the new and the old city, and a defense from the periodic floods of Arno river.(15) On 18th February 1865, the project (containing six illustrative tables) was examined by the Extraordinary Commission and the new Gonfaloniere, the Count of Cambray Digny. In the same year, in September, works began. The project abided by the guidelines provided and it was approved.

Fig. 7 - New city plan for Beccaria Square and boulevards. ASCFi 413109

Demolishing the walls was more than a need: it was a symbol of modernity and adaptation to time, as all the major European cities already did, and was indeed a firm point. In this context, the Poggi Plan is inserted: the first comprehensive expansion plan in application of a national and general law, Law n 2359 of 1865.

It established for the first time the faculty for cities to draw up a "Regulatory Plan", for the transformation of the existing buildings or to extend inhabited areas. The walls were not completely dismantled: Poggi decided to save the doors "as historical memories and masterpieces", and they became the centre of the new city squares. (16)

Giuseppe Poggi, while composing his plan, did not merely thought about expanding the city but also with great anticipation, designing a capital up to the height of the other major European capitals, whose major project included sewerage infrastructures, on which this study is concentrated.

With a subsequent resolution, the Comune entrusted Poggi to realize public baths, general warehouses and definitive customs houses. In addition, a study of feasible sewers and about the arrangements needed by Macinante channel (in relation with the tributary) was committed.(17)

Giuseppe Poggi, having personally experienced the flood of 1844, was quite sensitive to the theme of the city's hydraulic defence and began with deep care in designing a Northern emissary to serve the Northern part of the city. This need was urged by the flood of 1864, and the administrations began to focus their attention on it.

On January 19th, 1866, during the council meeting chaired by the mayor, Senator Luigi Guglielmo De Cambray-Digny discussed the resolution approving the design of engineer architect Giuseppe Poggi and his helping engineer Tito Gori, presented three months earlier (18).

But this was not enough to immediately begin

Fig. 8 - Ancient sewers plan of Florence, 1893. ASCFi, cartografia n. 00025

the building of the tributary, which was definitively approved only on August 1866: a new emissary starting from Porta alla Croce and crossing the city until it flows into Macinante channel.

After the flood of the River Arno of 1864, the efficiency of Emissario Chiesi was questioned, given its incompleteness in the area of the farmsteads.

The expansion and modernization works, carried out during the period in which Florence was capital, interested the city both on surface as well as under the pavement, mutually affecting each other. There were complaints about expropriations, dangers due to the excavations, damages resulting from operations in the Macinante Canal, repeated arguments with the Municipality of Brozzi. The history of Florence's sewers is still poorly known and little appreciated, as at the time of his realization it was not given a great importance because it was 'hidden' to the daily view and considered of secondary interest.

The expansion Regulatory Plan of Florence made by Giuseppe Poggi legally decayed in 1891, since it had been declared public utility by the Royal Decree of September 19th, 1866, and with a deadline of 25 years for its implementation. After the 25th year the plan was almost accomplished: a great deal of the the manufacturing areas were occupied, and with the related roadworks completed.

The plan

The appereance of the sewerage infrastructure and the measures to defend city's waters were a topic dear to Poggi (19), who began this activity according to the Report on the Work for the Magnification of Florence Capital 1864-1877 (20)

At the beginning of the nineteenth century, a period of slow modernization of the center of the city began, with particular attention to the restoration and maintenance of pavements. A decree was issued, requiring the construc-

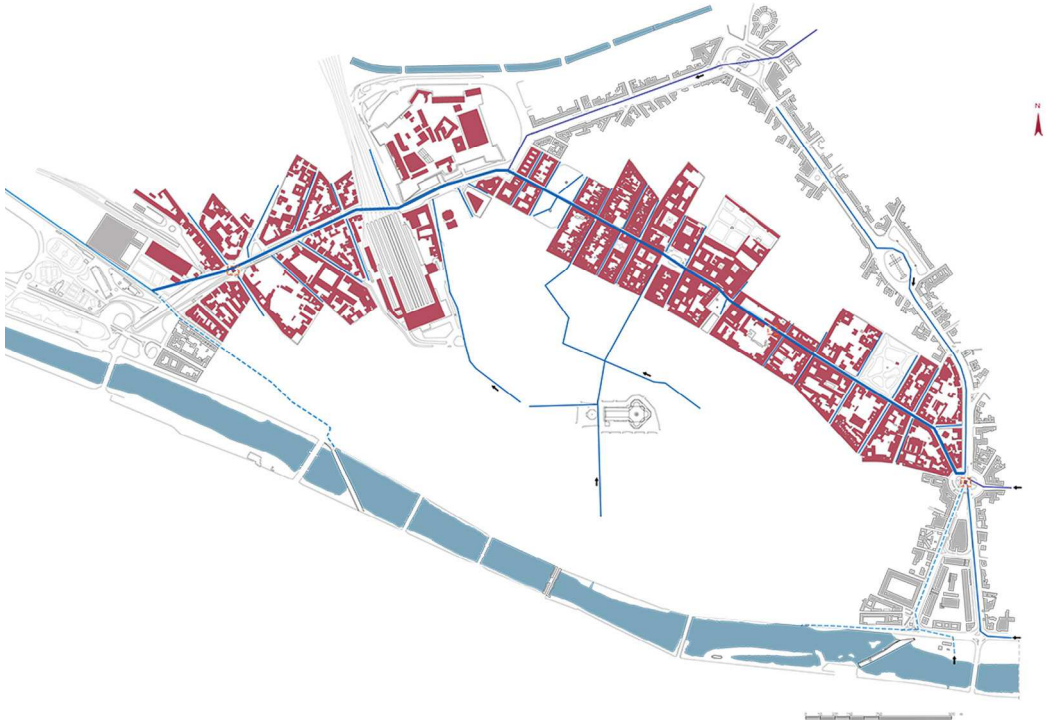

Fig. 9 - Emissario Poggi's path through the city

tion of sewers together with the other works. Perhaps for this reason, the Municipal Administration advised Poggi to carry out the realization of the master seam (21), as it was fisrt designed: beside the avenues, for better convenience. Subsequently, with a report dated May 15th, 1865, Poggi expressed the idea not to run the Emissary under avenues' pavements, proposing an alternative route that leaded to the Croce (now Piazza Beccaria), crossed the district of Mattonaia, via del Rosaio (now via Colonna), Piazza SS Annunziata, Via della Sapienza, piazza San Marco, via Sant'Apollonia, piazza Indipendenza and up to the fortress, to end up again in the track running below the large road alongside the walls. The reasons for this choice were explained with the report of July 25th, 1865:

1. Increase the income of dirty waters, including all those coming from the old city, between the walls to be dismantled and the tributary itself. It was pointed out that

Fig. 10 - Emissario's path and sections. Sewer infrastructure 1893. ASCFi n.008615 n. 008618

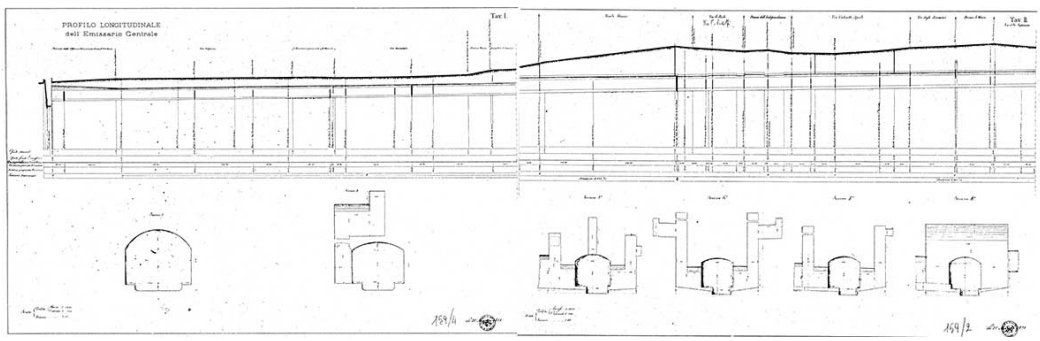

Fig. 11 - Original sewer section from Giuseppe Poggi's project. Sewers, different years 1866-1895 ASCFi CF7800

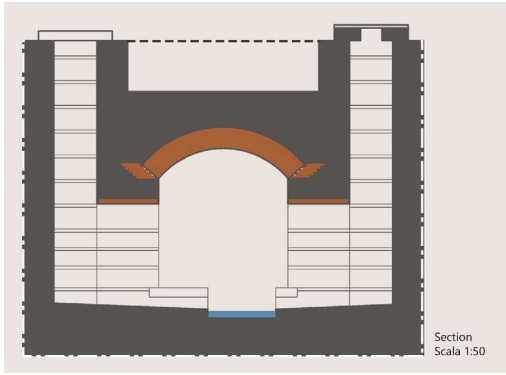

Fig. 12 - Emissario's section down Viale Strozzi

the old tributary and the sewers were not capable of easily disposing of the waters coming from the new areas.

2. Would have a length shorter than 550 meters, which an increased of slope to improve drainage.
3. Through the city, excavations were reduced from 5 to 3 meters.
4. It would have improved the drains of the city flowing to the tributary (22)
5. It was yet to be decided where the duct had to flow into: in *Arno*, *Bisenzio* or *Macinante* Channel

The final choice fell on Macinante channel, as it was favorable for the Cascine and provided greater security. So, in December 1865 the Commission presented the project Tributary with a proposal for drainage in Macinante Channel (23).

The project of the flow in Macinante channel was approved on September 29th, 1866, with the Deliberation of the City Council in which the need of a tributary was not in doubt and approved the drain into the channel next to Chiesi's tributary (24).

Poggi tributary was to be realized as an underground, practicable duct (25), beginning under Porta alla Croce and flowing into the Macinante channel, after crossing the city through Colonna Street, Piazza San Marco, Piazza Indipendenza, and turning left at the height of viale Strozzi, joining the path of the roads.

The Arno contributed to the cleanliness and good functioning of the sewage system, by supplying water for ordinary cleaning from the fishing tackle of San Niccolò, as well as feeding the Macinante channel downhill, from the fishing tackle of Ognissanti.

Emissario's characters

Sewers in Florence before 1840 were narrow and accessible with great effort just in some points, where the section of the channel allowed it.

The Emissario revealed to be a notable change, for its dimensions and his and service granted to the city

The path of the Emissario Poggi starts from Beccaria square, down Porta alla Croce and continues down the streets of via A. Manzoni, via Niccolini, via della Colonna, SS. Annunziata square, via Battisti, San Marco square, via degli Arazzieri, via XXVII Aprile, Indipendenza square, via Ridolfi, turns left on viale Strozzi, viale F.lli Rosselli and ends into Macinante channel beyond Porta al Prato. It is composed of three parts: a channel bringing water from Pescaia di San Niccolo to Porta alla Croce, working also as a sewer, a purgatoio to purify dirty waters from the countryside among Arno and Affrico rivers, and Porta Pinti, and a path crossing the city.

The water taken from the pescaia of Saint Niccolò goes into the purgatorio through a channel whose threshold is 0,50 m lower compared to the summit of the Pescaia di San Niccolò.
This channel is 546 meters long, a section of 1,20 m width and 1,80 m height and reaches a gap of about half meter till the purgatorio's entrance. The purgatorio is an underground chamber, 19,7 m widht for 8 m length and 6,7 m hight, with the bottom 2,50 m lower compared to the Emissario. The access at the purgatoio is possible from the tower of Porta alla Croce, it's viable thanks to a walkway all around the perimeter that also allows control and maintenance inside it.
For what regards the Emissario, we know its morphology from Poggi's works relation.
It starts from the purgatoio of Porta alla Croce, 1 meter lower than the crest of pescaia of San Niccolò; it crosses via della Mattonaia with a slope of m 0,139%, until it flows into Macinante Channel after a path of 3237,2 m, close to the Fognone di Ripoli, current way out of the existing Emissario. The threshold of the mouth is 0,75 m lower than the waters of Macinante Channel, to obtain a superior slope and penetrate a considerable distance within the emissary. This made Macinante's waters mitigate the foul exhalations that would have developed otherwise (26).
Talking about the Macinante channel, we have to consider the situation radically changed since the end of the XIXth century, the waterflow is considerably lower nowadays. The two mouths of the channels (now closed), Poggi and Chiesi, are visible over the water level (27). Nowadays the emissarios' flows are closed (but they can be opened in case of need) and visible out from the water.
The section of the Emissario Poggi is variable along the path, according to the conditions of existing roads. Even the maximum depth of the emissary floor varies during its journey, reaching its maximum point of more than 8 meters below the surface, where it runs below the railway, alongside the boulevards (28)
The inner morphology of the channel is characterized by two vertical wall collected by a

Fig. 13 - Porta al Prato

Fig. 14 - Entrance in Porta al Prato

circle segment vault; in the bottom two walkway of 0,5 m above the floor, wide respectively 0,80 m and the other 0,20 m, with a ditch between them for water flowing.
That's how the structure of the channel looks like, strong wall made with stones and bricks, the only variant are the height and the width of the section. In the section between Porta alla Croce and railway's viaduct, for a length of 2416.10 meters, the section is 2.50 meters high and 2.25 meters wide. In the following section of 60.50 meters, equal to the crossing of the railway line, the height of the section reduces to 2.30 meters, for the lowering of the road close to railway's viaduct: more precisely, it is 2.80 meters high and 2.50 meters wide in the last 760 meters, after the connection of

Fig. 15 - Main Entrance to the Emissario in Via della Colonna

some important draining channels (29).
A regulation of the XIXth century imposed that all the sewers had to be easily accessible and with enough space to contain water and gas ducts. The sections of the Emissario Poggi were decided according to the statistics of the pluviometrics registers from the observatory Ximeniano, concerning the average rain before the 1844 flood and to the introduction of water and gas tubes. Finally the water pipes were inserted after years, the gas one were never built for safety related reasons and because the channel illumination was provided by torches (30)
Along all its path, the Emissario is practicable, with four main entrances: one from the tower of Porta alla Croce, one in via della Colonna (once via del Rosaio), one close to the railway and the fourth in the tower of Porta al Prato, also where communication with Ripoli sewer occurs. Main access is the one of via della Colonna, both access to the duct and warehouse for various uses, storage of materials and repairs.
From the outside, the purpouse of the building is recognizable because of a marble sign bearing the "Ingresso Principale all'Emissario 1868-1871" ("Main Entrance to Emissary 1868-1871") wanted by Poggi in memory of the years of construction.
In order to make the emissary as accesible as possible, Poggi developed a system of lateral shafts with the dual aim of facilitating the descent into several parts thanks to wall-mounted vertical iron ladders and to serve them as dirty waters drains , bringing them to the low level of the cunette, without touching the bench for the inspection and transit of people. Inside the channel the orientation is easy thanks to several signs that shows the name of the streets, these signs are produced by Ginori ceramics industry. About the project Giuseppe Poggi wrote on the work's relation "as I faced many difficulties and dangers, but nothing such as those of this task" The reason is easy to understand because before and during the works he suffer many complaints, requests, solicits and problems to solve. Finally the trial on final work was made on 25th august 1870 by the engineer Ca. Marzocchi. The duct is still present under the pavement and is still part works as a sewer, but has undergone track modifications due the works for the railway along Viale Strozzi. The Emissary went through a deviation in this section (31).
All these events, and many others of the nine-

teenth century, have led to the development of what is the sewerage system of every city nowadays, and above all of Florence.
After the 1890s, the great waterducts, predecessors of the present ones, began to be realized.
In Florence, we can find the waterduct at the base of the Bilancino dam, which made possible the hydraulic restoration of Campo di Marte, Coverciano, Novoli, Gavinana, Cadorna, Vittoria, thanks to the bilding of large collectors on the right and left of Arno. The entire sewerage system of Florence is based on works done at the end of the nineteenth century, which are now being slowly re-evaluated. Apparently disconnected, sewers and sewage plants have instead lot in common and above all they serve each other for the well-being of the city and its citizens.
In other European cities, such as London and Paris, sewers are not just uncomfortable and dirty places but architectures considered the same as those above the road, an integral part of the city to be known and visited. The sewers however have their charm, the structure has to be admired just as its function. They are part of everyday city life more than what we think.

Fig. 16 - Emissario Poggi flow in Macinante Channel, nowadays

Notes / References

The present research was originally developed as an Architecture Master Degree Thesis, by Giorgia Ceccato, Tutor Prof. Giorgio Verdiani, Co-Tutor prof. Gianluca Belli, Presented in April 2017, Dipartimento di Architettura, Florence University.

1 - It was November 22nd 1864, when Gonfaloniere Giulio Carobbi handed over to Giuseppe Poggi the letter containing the assignment of expanding the city, transforming it from the capital of a grand duchy to the capital of the united kingdom of Italy
2 - http://dictionary.cambridge.org/dictionary/english/sewer - http://dictionary.cambridge.org/dictionary/english/waste
3 - Ottati D. *Il ventre di Firenze. Storia della fognatura dall'epoca romana ad oggi*, Cap I, Firenze 1988 , p. 25 [R. Davidsohn, *Storia di Firenze. Storia della fognatura dall'epoca romana ad oggi*, Firenze, Sansoni, vol. II]
4 - Ottati D. *Ibid.*, Editoriale Olimpia, p. 28
5 - Ottati D. *Ibid.*, Cap I, pag 38, Firenze 1988
6 - Ottati D. *Ibid.*, Cap I, Firenze 1988, p. 38
7 - Borsi F. *La capitale a Firenze e l'opera di G. Poggi*, Firenze 1970
8 - Poggi G. *Sui lavori per l'ingrandimento di Firenze, Firenze 1882*, p. 80
9 - The construction of the *Canale* dates back to 1563, by *Cosimo de'Medici* after the terrible flood of 1557. In addition to receiving the discharges, it was necessary to operate some mills from which the name *Macinante*.
10 - Ottati D. *Op.Cit.* Firenze, 1988, p. 45
11 - Poggi G. *Op.Cit.* , Firenze 1882, p. 79
12 - Ottati D. *Op.Cit.* , Firenze, 1988. p. 58
13 - Ottati D. *Ibid.* Firenze, 1988. p. 58
14 - Law n2032, promulgated December 11th, 1864, said in the first article that the capital will be transferred to Florence within six months.

15 - Poggi G. 1909, p.6 “Nello studio Silvestri ho studiato assai, o meglio sono stato occupato moltissime ore al giorno. Ho letto tutti i barboni dell’arte architettonica: certo mi si poteva far risparmiare tanto tempo e tanta noia! Ho mostrato in architettura un mediocrissimo spirito inventivo, ma sufficiente ingegno per dirigere dei progetti di un difficile spartito”.

16 - Poggi G. *Op.Cit.* Firenze 1882, p. 2 : “A questo fine il Consiglio Comunale, con Deliberazione del 14 novembre 1864, nominò una Commissione straordinaria con ampie facoltà per occuparsi di quanto poteva concernere l’ampliamento di Firenze. La ristrettezza del personale dell’Ufficio Tecnico Comunale, che diveniva insufficiente al semplice disbrigo degli affari correnti, rese necessario di ricorrere ad ingegneri architetti che attendevano al libero esercizio dell’arte. Fortuna volle che l’onore della preferenza cadesse su di me”

17 - Ottati D. *Op.Cit.* Firenze 1988, p.66

18 - Poggi G. *Op.Cit.* 1909, p.11

19 - Ottati D. *Op.Cit.* . Firenze 1988, p.66

20 - The project presented on October 6th 1865 concerned the construction of the first and second section of the new avenue, around the urban walls, among right side of Arno river, Porta alla Croce and Porta a Pinti. G. Poggi, Sui lavori per l’ingrandimento di Firenze. 1865-1877, Firenze 1882.

21 - G. Poggi had personally experienced the great flood of 1844 and was therefore sensitive to the theme of water defense in the city.

22 - A report was written by Giuseppe Poggi “About the work for the magnification of Florence capital. 1864-1877”, immediately after the completion of the works, edited by Barbèra in 1882. It includes all the events, design choices, decrees, issues, etc. addressed during the works for the expansion plan for Florence, in 1864

23 - Another name for Emissario Poggi.

24 - Poggi G. *Op.Cit.* Firenze 1882, p. 88

25 - Poggi G. *Ibid*. Firenze 1882, p. 86

26 - Poggi G. *Ibid*. Firenze 1882, p. 86

27 - On July 4, 1866, a Municipal Council Resolution stipulates that from now on all the sewers that will be built will have to be practicable, on the resolution of the question the sewers are entrusted to the engineer Francolini.

28 - Poggi G. *Op.Cit.* Firenze 1882, p. 90

29 - Ottati D. *Op. Cit*. Firenze 1988, p. 58

30 - Data on the depth of the Emissary are to be considered at the road level calculated at the moment of the works. With subsequent maintenances up to the present urban events of the city, the road surface has undergone many variations.

31 - Poggi G. *Op.Cit.* Firenze 1882, pp. 90-95

32 - Poggi G. *Ibid.* Firenze 1882, p. 92

The Hadrian'villa as a place of re-reading: a never lasting challange enters the digital age

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Abstract: The Hadrian's Villa in Tivoli, is one of the most intense representation of the will of its emperor (78-138 AD) and is one of the many, thus at the same time unique, example of abandon/persistence in the archeological and architectural culture all across the time between its foundation and our time. It has some very specific features characterizing, with even very different approaches, this place across centuries. In our age, it is part of the world patrimony, but even if a lot of theories raised around the general plot and the original use of many buildings, the balance between interpretation and certainties was always far from reaching a definitive version of "the facts" about this architectural ancient masterpiece. The main points that rise from its architectural aspects are the extreme experimental will behind many important structures, the organic shaping of the urban structure seen as "a system" and the (now lost) high level of richness of decorations. The balance between tradition and innovation seems a presence all across the development of the Villa, something that smooths the borderline between styles and solutions, making difficult to fix points of interpretation. In our time, the digital approach to "everything" offers a lot to dissemination, sharing and understanding for this kind of monuments, opening more questions then any previous approaches to the monument. But Virtual reality, Augmented reality, mobile Apps are "words" (sometimes just expensive) if not supported by contents. Even more, a too specialized or too poor approach to this context is at risk of stooling something to the possible suggestions coming from such a site. Basing its considerations on six years of digital surveys and various tentative of digital reconstruction, this contribution tries to propose a discussion and to define the main existing paths to the digital age for this significant monument.

Keywords: Hadrian's Villa, Architecture, Archaeology, Digital survey, Digital reconstruction.

Introduction

The architects and the archaeologists have a common ground in the ancient architectures: the remains of large or small buildings and the traces of past urban assets are often the occasion for discoveries, for reading the past, for understanding architecture from another time and to bring back to new project the lesson learned from ancient designers. From the fragments of walls to the monumental archaeology, the need to "virtually reconstruct" the original architecture is an act, a mission, a desire, or simply a thought that rise in the mind of Architects and Archaeologists in the same manner, most of the time with quite different approaches and strategies, but always with a similar desire of knowledge, understanding and, then, communication. In the past two centuries this phenomenon has been more and more frequent and from the end of the XXth century the always increasing use of digital technologies and virtual environments brought on new interests and perspectives on this kind of operations. The knowledge about design rules and the graphical control of the representation, most of the time owned by architects, combined with the understanding of historical phases and remains interpretation from the archaeologists, can sum up to positive and creative results, producing an intelligent image of the past, useful for communicating the history of a place, but also useful in itself as a workspace for testing and devel-

Fig. 1 - Hadrian's Villa: Essential chronology

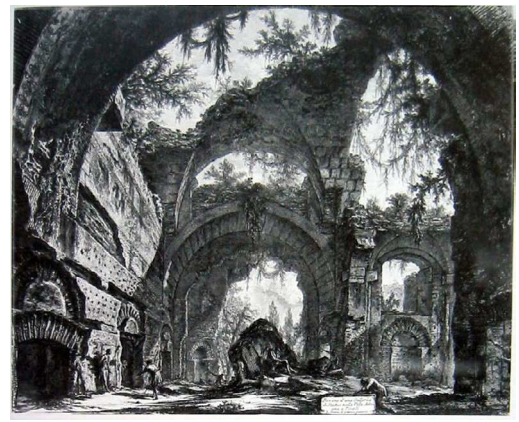
Fig. 2 - The Maquette from Italo Gismondi of the Hadrian's Villa (1956) shows a complete and detailed reconstruction of the Villa in the will to show the whole are in its (probably) maximum expansion. Thus many further studies and new excavations have changed the state of knowledge about various parts.

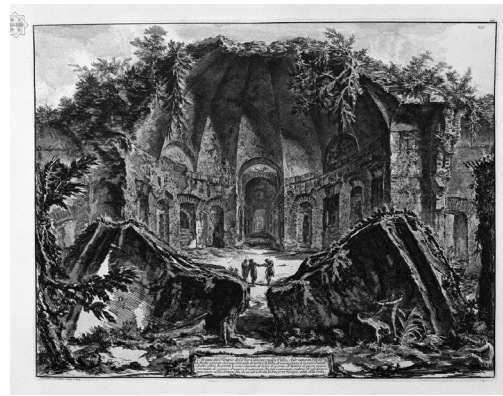
oping theories and verify them.
The virtual reconstruction of a place, brought to our digital age, requires a complete understanding of all the parts of an architecture; the development of a 3d model is rarely limited by a single viewpoint, it is made of elements and may require a procedure somehow similar to its physical realization. For these reasons the 3d virtual reconstruction is a valid check for any hypothesis, it requires to solve all the building doubts before passing to the final representation.
Such a research may move from minimal remains (the ruins of some basements), or it can be something starting from previous representations (i.e. the horse of Troy, based on written words and an innumerable number of old and recent representations), or it can face a quite complete and well recognizable building, with most of the walls still standing, but with a long and complex story of abandon and vandalization on itself.
The fascination coming from the ruins asks the scholar to operate a reconstruction, to travel through time and find a possible recreation of the whole building, of its lost decorations, of its lost skin. This decay somehow puts an emphasis on the place, it gives it a memory of the past events. The ruins, when quite complete or even if standing by chance,

enhance this perception, create a subduing sense of relationship with the past. The historical figures once moving between those walls (somehow still standing) are felt a little closer in time.
This non-scientific lines are a simple tentative to describe the impressions that many visitors may have while entering the remains of the many monumental archaeologies with consistent architectures still in place, like those left from the roman age. Between them, some are extremely capable to capture certain specific attentions from the architects as well as the interest of the archaeologists, mixing very particular aspects linked to the inner aspirations of both of these scholars.
There is no doubt that one of these stimulant places is the Hadrian's Villa in Tivoli, near Rome, a place of great beauty and also a very articulated collection of complex architectures and artworks.

The Hadrian's Villa

Publius Aelius Traianus Hadrianus born in Italica, Hispania, on the 76 B.C. From the 117 D.C. to the 138 D.C. he was Roman Emperor, he managed his reign reorganizing the borderlines, managing an extended building program, rewriting laws and relationships with the various people mastered by the Romans. He travelled across the countries of the Empire, showing interest in local cultures, being fascinated by the arts and always showing a clear propension for Architecture. In 118 D.C. he started the realization of his "out of Rome" Villa, following a common tradition for all the Emperors of that period.
The designed place was found in Tivoli, in an area with some previous realizations, like a Republican Villa, a Ninfeum and some other artefacts. The first phase of the courtyard and the first group of buildings was developed until the first long journey of the Emperor, taken from the 121 to the 125 D.C. in the Northern and eastern part of the Empire: Britannia, German Limes, Asia). At his return the second phase was brought on until the





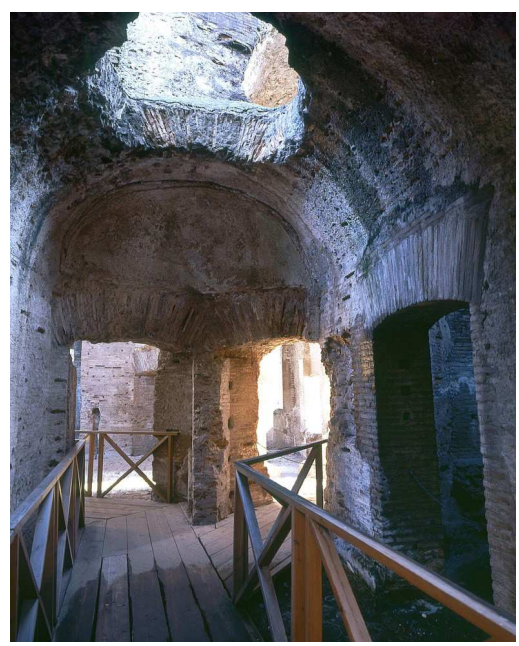
Figs. 3, 4, 5 - Views from the ruins of the Hadrian's Villa by Giovan Battista Piranesi, XVIIth century.

128 D.C., date of the second and third journeys of Hadrian, this time aimed to visit Africa and then Greece and Asia, bringing him away for almost five years. After the return of the Emperor, from the 134 D.C. the third phase of the Villa took place until the death of Hadrian, in 138 D.C.
The accurate timeline of all the buildings in

the Villa is not completely defined yet, various studies have tried to date the architectures and the courtyards according to the stamps on the bricks and/or the components in the mortars, or by rational or theoretical ideas. The many studies and proposals have little by little increased the state of knowledge about the Villa, creating a better understanding of the value and the architectural language, as well as, the urban plot of the whole settlement. Some logic reflections can be done: The Villa was a representation

Figs. 6,7 - Archaeological remains and environment: trees, skyes and new human artefacts

Figs. 8, 9, 10 - The ruins and the lighting: from very specific events, like the sun passing between ruins at sunset, to the sunlight modelling the shape of things, to the soft, smooth lighting inside the abandoned buildings, the levele of details and the fashination of the places is guided by the intensites and conditions of light.



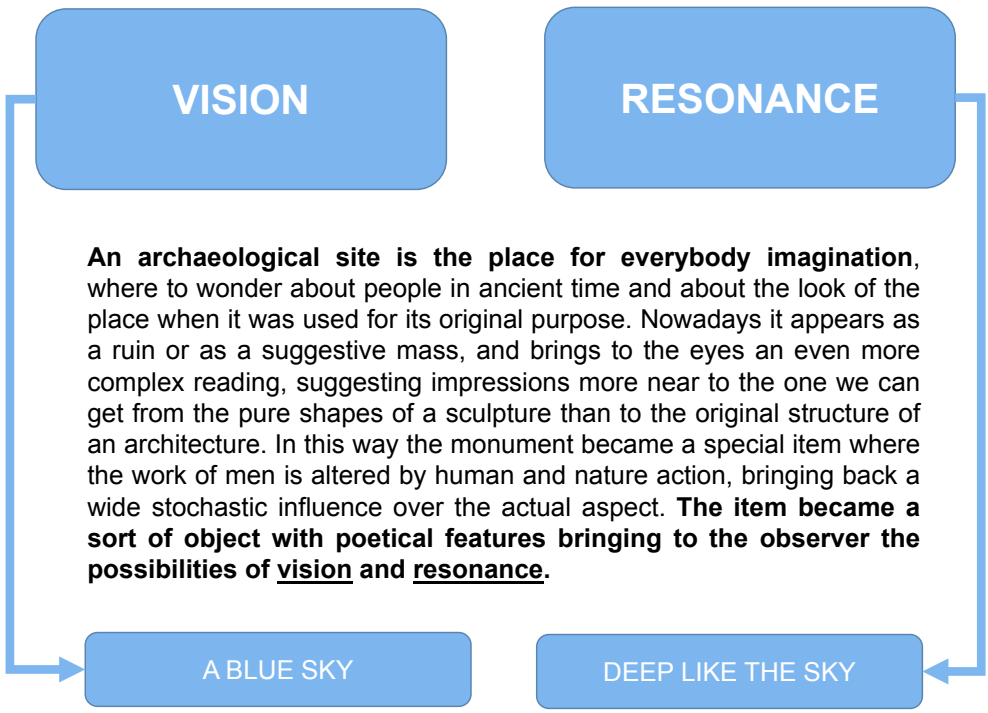





Figs. 11, 12, 13, 14, 15, 16 - "Vintage" pictures of the ruins, taken between 2008/2010 (G. Verdiani)

of the will of the Emperor, of his desire of showing richness, culture, control and was thought to surprise and please visitors and guests. Several factors assimilate perfectly the private space of the Hadrian's Villa to the public one of a town, such as the considerable extension (about 200 hectares) or the coexistence of different social classes (with a great attention paid to the organization of the spaces for the servants).
The deep interest of Hadrian in arts and his documented wish about architecture are clearly mirrored in the remains of this monumental archaeology, with a variety of shapes, of technical solutions, of urban continuity showing the presence of experimental intentions mixed with the pleasure to propose something seen somewhere or coming from some innovative ideas.
In general, the Villa shows the presence of an accurate network of passages and "technical" areas and sectors, aimed to the functions of moving, operating, bringing services, organizing the pre-existing and natural elements. On this network with a rich variety of solutions there where the developing and integration of public and private buildings, of open and closed spaces, all created with richness of details and articulating straight and geometrical assets with curved parts.
The network of the "services" and the over ground architectures influence one another, bringing on a relationship of function and shapes that has changed more than once the aspect of the places.
It is only possible to suppose an evolution in the general architecture connected to the experiences encountered by Hadrian while travelling around the Empire, a gradual transformation linked to these events, to the changes of his social relationships and to the implementation of his culture according to the new people and cultures found around. Whatever the changes are recognizable or only a mere hypothesis or suggestion, all the architectures in the Hadrian's Villa share a clear intention to experiment solutions and technologies, bending or adapting the con-

Fig. 17 - The parallel between "vision" and "resonance" in archaeological remains



Figs. 18, 19, 20 - Pictures from the Hadrian's Villa, taken between 2008/2010 (G. Verdiani)

text and the pre-existing buildings to new aspects, creating solutions and rethinking even the new buildings when the applied solutions come out being not so well working or according to variations in needs and/or ideas. Thus, all this architectonic vitality had a quite short duration, indeed, the period of full use of the buildings is approximately of just 20 years, and its marginal role in the post-hadrianic age have caused, however, the absence of demolition, renovation or other substantial changes, the Villa simply encountered a long period of decay and was hardly damaged by people in search of construction materials, thieves and vandals for centuries.

Architecture and image

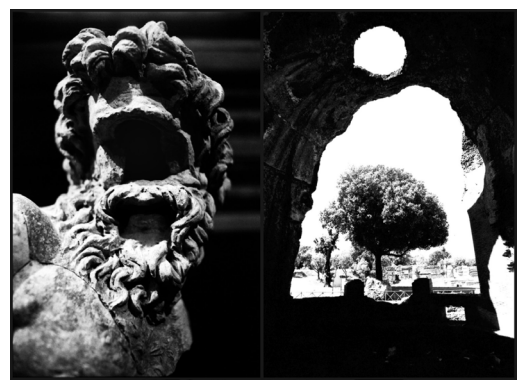
According to Dione Cassio, Apollodoro di Damasco had a verbal confrontation with the young Hadrian, who was criticizing the work of the imperial architect, Apollodoro shut at him: "Get out of here! Go away and draw your own collection of pumpkins, you have never understood anything about architecture!" [Stroppa 1995]. This short story, often indicated as the base of the unlucky destiny of Apollodoro, and to underline the interest of Hadrian in architecture, seems to contain a particular approach from Hadrian: will of change, will of experiments, interest in changing the rules and the tradition. Something maybe grown in time, supported by his journeys, and going to the opposite of well-established construction rules. The remains of the Villa show quite clear presences that can be read as witness of this intentions towards architecture: for first a wide collection of vaults, types of walls, plot of the rooms, alignments, openings; secondly a lot of buildings present significant variations between the outside aspect and the inner organization, this can be the result of the intention of surprising the visitors or just a strategy to enrich, with continuous changes in the context, the experience of living in this place apart from Rome. Third but very important, the level of technical solutions for lighting, warming, refreshing and moving clean and dirty waters was at the top of the possibility for that age, with many, probably

experimental, advanced solutions [Blanco et alii, 2009; Verdiani, Pucci, Blanco, 2009].
In time, these three conditions have captured the attention of creatives, giving inspirations and creating direct re-interpretations of specific architectural parts in contemporary works. And it can be even too simple to cite the case of Le Corbusier and its declared reference to the wall of the "Pecile" and to the "Heliocaminus", seen during his journey in Italy and later reinterpreted in the projects for Chandigarh and for Rochamp.
The Hadrian's Villa is also an architecture of rethinking, the buildings often present signs of integrations, transformations, reconstructions. The interest in experimenting may bring interesting results, but also failures, but in the very practical approach of the Romans to construction, this does not mean destructing the wrong result, often it means adapting it and bringing it to a better condition, not far from the original intention when possible. The remains, reduced to parts of the original structure, may present these phases as a difficult puzzle, that may offer different interpretations. Last but not least, it is worth to remember that the Hadrian's Villa was the house "out of Rome" of an Emperor, so the richness, size, articulation and even the number of caprices are at an imperial dimension. The need to satisfy and Emperor with intention to discover and explore architectural solutions probably brought the tentative to realize the "perfect architectural machine" for that time, it is possible to see this try in the network of the "Cryptoporticus", so articulated and wide to make the people from the Middle Age confused about the reason for such an extended underground structure, that was possible to notice and to visit but that was so anomalous for the common interpretation to push them to image a penitent Hadrian, sad and guilty for having send to death because of her religion a christian local woman, St. Sinforosa, deciding to expiate this serious wrong living for a whole year far from the sunlight, in the underground.

Archaeology and suggestions

The Villa is now a wonderful set of ruins, a part of them maybe still to be completely discovered, the neighbour areas and some sector inside the perimeter protected by the museum, should reserve interesting discover, the recent re-readings of the "Antinoeium"

Figs. 21, 22, 23 - Parallels in shapes and materials, underlined in pictures from the Hadrian's Villa, taken between 2008/2010 (G. Verdiani)



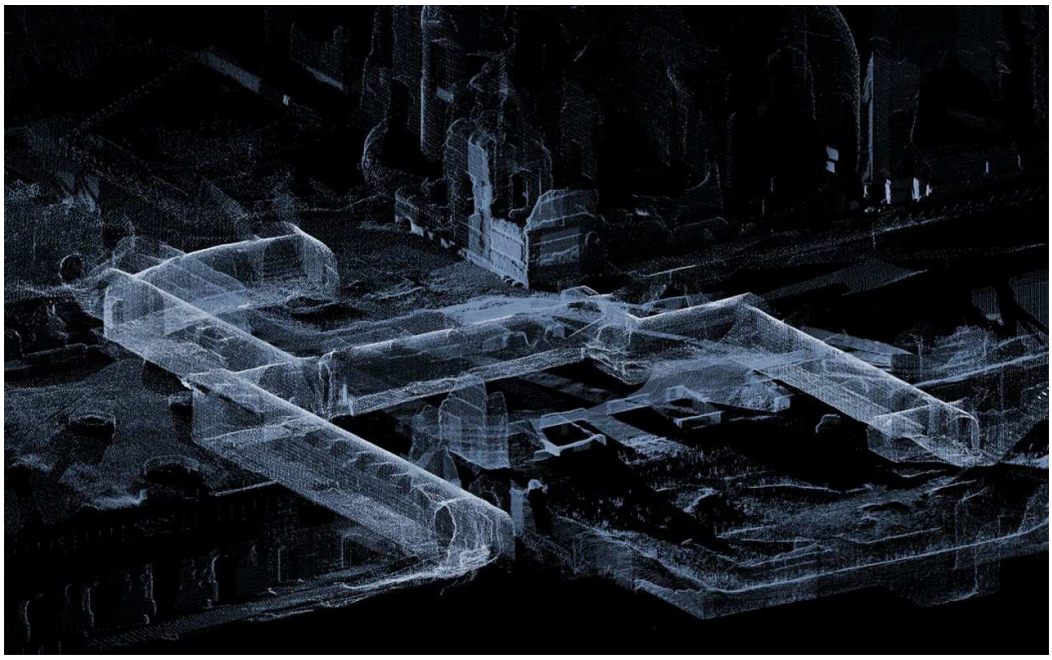


Fig. 23 - Digital survey of the Cryptoporticus between the Great and the Small Baths (G. Verdiani, G. Corsaro)

and of the so called "Palestra" by the archaeologist Zaccaria Mari have revealed how much can be still studied and interpreted in this site [Mari, Adembri, 2016]. For the common visitor, but for a significant part also for the scholar, the influence of such a place is strong and fascinating, the consistent presence of architectural remains, the large parts of building still standing and the presence of a rich catalogue of spaces of great beauty, enhance and stimulate certain "poetical" effects over the people in the Villa. It is quite clear how the ruin presents itself at two different levels, one that can be called "the vision": the observer look at the walls, their masonry, the spaces and starts interpretating them according to what it is possible to read directly. The other level is the one of "the resonance": the suggestions coming from the remains evoke specific perceptions, some of them are generic (the item is recognized for some clear similarity to other items or animals or architectural space), others are "personal", they get a grip in the mind of the observer and create an association to some images creating a parallel. Some of these very particular effects can be transmitted to other observers and replied, some others remain only a personal perception. In both cases the extreme richness of this event system creates a strong suggestion on numerous people visiting the Villa. And even if it may create some wrong interpretations or some casual fascinations, it is a strong characteristic of this archaeological area. Probably a stochastic but important value, quite intangible, but worth to be preserved at the same level of the remains themselves, In a condition of balance between the risk of loss of a ruin and the reconstruction of parts.

The digital approach to everything

In our time, the digital approach to "everything" offers a lot to dissemination, sharing and understanding for monuments like the Hadrian's Villa, opening more questions than any previous approaches to the monument. But Virtual reality, Augmented reality, mobile Apps are "words" (sometimes just expensive) if not supported by contents. Even more, a too specialist or too poor approach to this context is at risk of stooling

something to the possible suggestions coming from such a site. The single trace cannot be replied to the whole of a building, with the risk of creating a too "synthetic" or too poor result, the presence of a single part of the slates from a floor can help to hypothesize a pattern, but if mechanically replied may simply create an odd effect, more similar to a modern "serially produced" space than to the spaces of an emperor with a great interest in architecture. In the same manner, the completion of fallen or missing parts can be a valuable exercise of comprehension, its virtualization may help in communicating complex perceptions to a wide public, but trying to operate the completion, hiding, masking and altering the ruins put this monumental space at risk to get lost in a different way -but equally bad- than the decay in itself. The creation of virtual spaces, the possibility to walk in the many possible reconstructions may be an interesting and good solution for sharing and presenting the various idea about this place. It seems well compliant with the continuous and various hypothesis about the Villa, it can support theories without putting a real end to the intellectual exercise of "reinterpreting" and "rebuilding" the monumental spaces over their ruins. At the same time, from the point of view of the documentation and the operations at support of comprehension and restoration, it is worth to say that the digital approach creates a great opportunity in creating relationship between parts, different system, creating a 3D digital model where all the systems are in relationship and where the reading of the overground and underground parts is immediately accessible. The adoption of proper workflow, aimed to results and not simply self-referenced may create interesting case studies and support actively the preservation of the Villa. In this sense, applying common protocols and sharing results and post processed materials, should be an ideal condition, but there is yet a lot -if not everything- to be done in this direction.

Conclusions: the never-ending challenge

The Maquette from Italo Gismondi of the Hadrian's Villa (1956) shows a complete

Fig. 24- Digital Survey scheme for the documentation of the Cryptoporticus between the Great and the Small Baths (G. Verdiani, G. Corsaro)

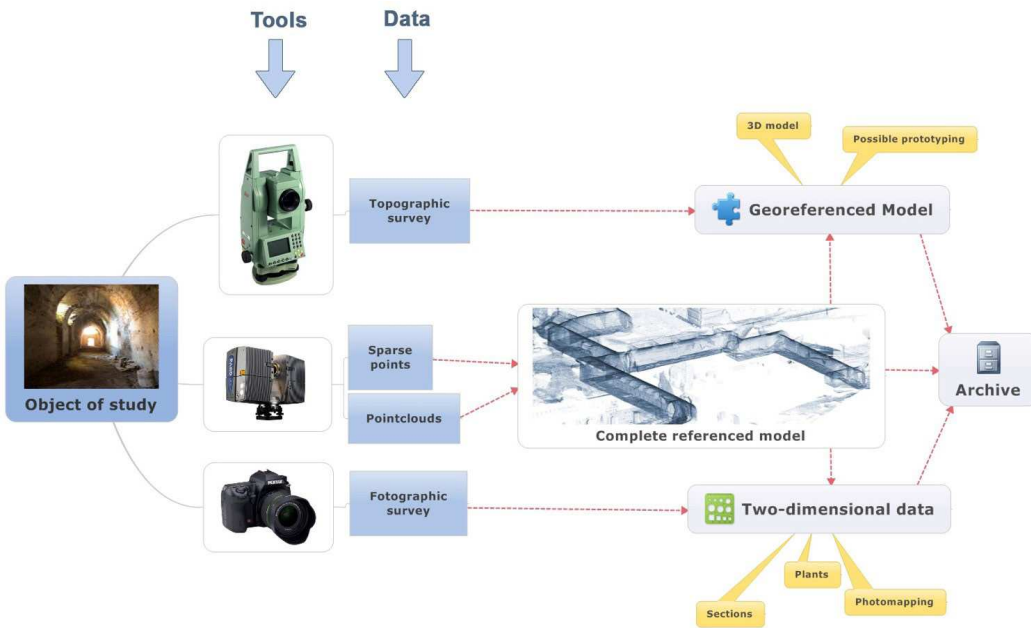


Fig. 25 - Results from the digital survey: cross section of the Small Baths (M. Pucci)

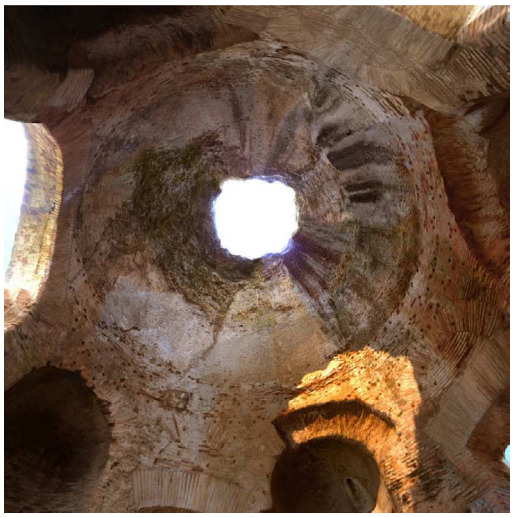


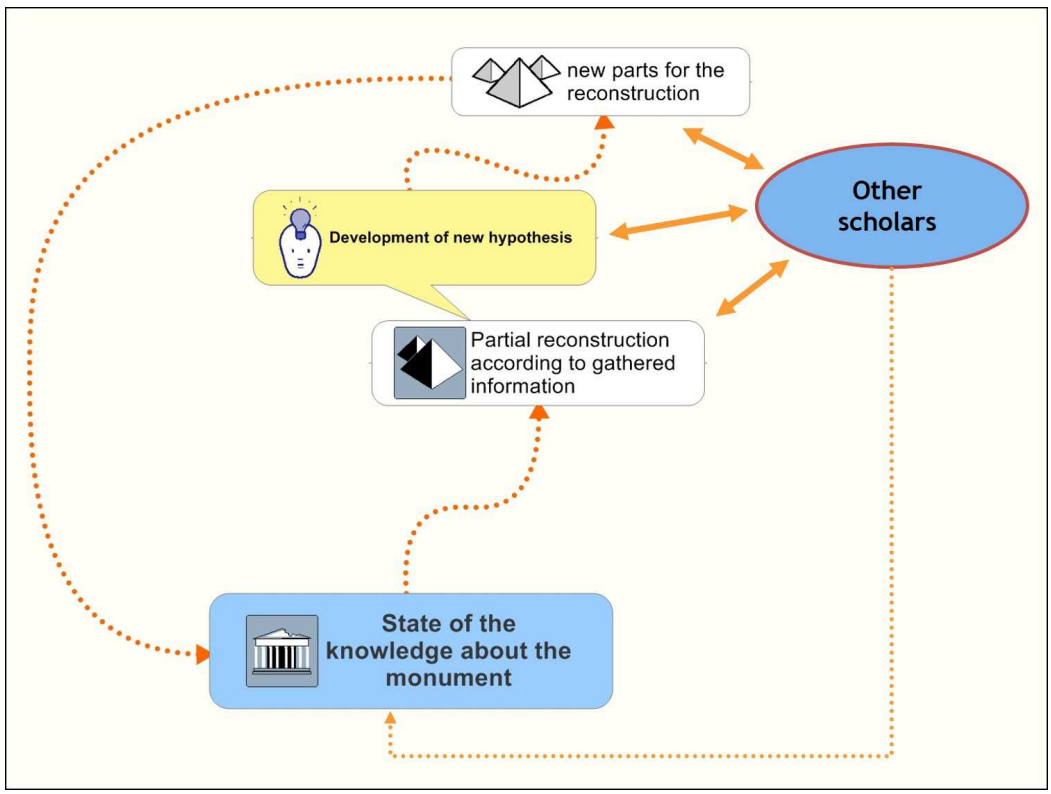
Fig. 26 - Results from the digital survey: perspective from the inside of the Small Baths (M. Pucci)

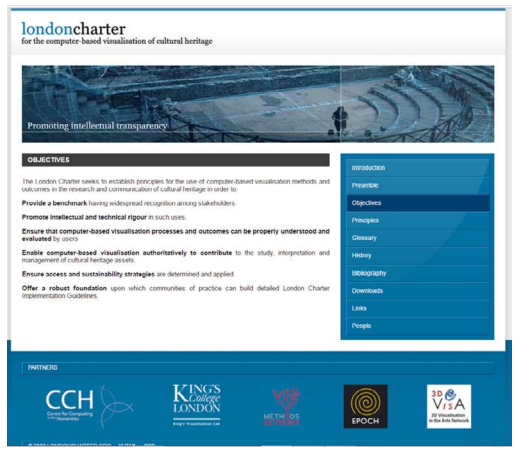
and detailed reconstruction of the Villa in the will of representing the whole complex at its (probably) maximum expansion. It tries to fix an image of the Villa according to the state of knowledge of his time, completing all the possible unsolved areas with very rational and quite essential solutions, most of the time inspired to previous studies or in reference to similar architectures. Many further studies and new excavations have changed the state of knowledge about various parts. Thus, it still has a value, increased by its historicity. It is a sample about how different solutions may fit the starting elements revealing themselves compliant. The many theories and the many options that seem to solve the general plot of the Villa, indicate a very particular condition for this place: after almost two millenniums, there are two Hadrian's Villas in Tivoli: one is the real one, the one that for all the events and all the studies is almost intangible, it is possible to see and visit the ruins, to admire well conserved parts, but it will remain most of all a base and a source for developing new theories and hypothesis. The other one is made of the many virtual Villas, one or many according to our convictions, according to each single theory. There will be always space for a new solution to imagine the plot as guided by certain axis or alignments or geometrical constructions, the complex articulation of the Villa seems capable to host more than a solution, maybe for its being the result of progressive variations and twists of fate,or maybe only by chance, but in any of the possibilities along this gradient, the Hadrian's Villa remains a great place for experiment the intellectual challenge of a possible, virtual reconstruction, an act of imagination that in itself, is part of the evolution (not of the decay) of this particular elemente of the World Heritage. And every try of interpretation, even if it fails in finding the very definitive solution, it

will gather the real sense of the words from Francesco Piranesi: *Conviene per fine persuadersi, che gli Edifizj di questa Villa superavano ogn'altro tanto per la magnificenza, che per l'ornamento, e per la lor vaga, e bizzarra figura: Dalle quali cose molto possono profittare i Professori di Architettura / In the end it is better to convince yourself, about the fact that the buildings in this Villa were highly above any others in matter of magnificence, and this for their decorations, but also for their sometimes vague, sometimes even bizarre aspects: from this there is a lot to learn even for the benefit of the Architecture Professors* [F. PIRANESI, 1781].

According to these reflections, if it exists a way to plan a future for the preservation of the ruins of the Hadrian's VIlla, it is quite clear how this approach should be the protection of these versatile nature of the place, avoiding the restorations operated with the intention of creating some "completion" of parts or aimed to the "imposition" of too robust and artefact elements, keeping the "spirit" of this monumental archaeology in all its capacity of stimulating the inventive minds and keeping its continuous challenge of interpretation and reading alive.

Fig. 27 - Partial virtual reconstruction of the so called "Octagonal hall", Small Baths (M. Pucci, A. Blanco)
Fig. 28 - A basic collaborative workflow for virtual reconstruction of architectural archaeology (G. Verdiani, M. Pucci)





Figs. 29-30 - Webpages about the "Sevilla Principles" and the "London Charter"for the Digital Reconstruction

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Perspective In and On the Urban and the Question of the Ruin. Seven fragments.

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Abstract: This small contribution is merely a set of fragments, pending further elaboration. It develops certain discussions from my earlier contributions to the AACCP, and some of my previous articles, referred to in these AACCP-contributions. I am greatly indebted to a large number of scholars, of which only few are mentioned in the references. I have also benefitted from discussions with my colleagues from Archaeology and History, and even more from my friends among the Architects. But this is only a work in process, a highly temporary glimpse at certain fragments of thoughts. It is about perspective, about time, about excavating and about the Ruin as a part of the living landscape..

Keywords: Fragments, Fragment, Archaeology, History, Architecture

Site and Time

It is impossible to escape the notion of site. It is a major variable to any social, economic, political or cultural event, process or structure. But site is not to be understood simply in terms of a given eternal population, but rather as a dynamic field, in which varied actors, various "cultures", if you like, operate, a site at which varied politics, socio-economic processes and culture manifest itself. Time is a crucial dimension to any social setting. While there are examples of an almost complete erasure of past remains, intentional or nonintentional, such cases are not frequent. In most cases certain vestiges of other times remains, and in general some of these remains are directly visible, while others are, in different ways, hidden. In the making of a social setting at a location, at a site, there are processes of selection, of choosing what to iterate, and what not to iterate, what to connect to and what not to connect to. Such processes of selection are not always neutral or "kind", but often dramatic and violent.

Certain traditions on architecture of the 20th century celebrated site. This counts for such notable architects as Robert Neutra, who even published a book called The Site (1951), but also for the work Gunnar Asplund (e.g. in the Forest Cemetery in Stockholm), to mention only two names, two modernists. While not all architects would give the same importance to setting, it is a factor which can never be trivialised. Even in terms of construction, the particularities of the ground and the environment are crucial. Even in a densely built town, the natural environment, while perhaps still not visible, continues to affect townscape and the conditions for building. But site is not only the "natural environment" (and, we must keep in mind, this environment in itself is far from static), but often also the built space at the location.

Location

There were during the 20th century certain architectural forms, elements and features, varying according to periods, of more general distribution across several parts of the globe, and these are, of course, of major interest, and recurrently addressed. But the socio-economic settings, and the historical process of given macro-regions, countries and not least specific locations give certain conditions for built environment, which tend to produce a certain tendency to particularity in the built space. In certain cases this

tendency is strong and evident; at times it is weak and almost invisible. This tendency to particularity is frequently addressed in terms of a specific culture or ethnicity, but such an interpretation is not always applicable. Rather, it is relatively frequent that the variability of elements is rampant, and that it would be impossible to find a common "culture" or "ethnicity" in such a context. I will briefly illustrate with the example of Rome in Italy, while also referring to some other case.

When it comes to Rome, it is not a random example. It is, rather the contrary, a place charged with a set of associations to powerful social, cultural, political and economic structures. Several of these associations relate to past events and phenomena, no longer of relevance (or, at least, at present not of relevance), while other associations are still alive and important. There is, of course, the strong association to the antique Empire, which is still a symbol of power and politics, despite its dissolution long time ago. Another evident centre of power is it being the centre of the Roman Catholic Church, today manifested not only in the shape of the state of the Vatican, but also in its strong presence in the whole town, not least through its monumental buildings. And, of course, it is also the Capital of Italy, with all its functions and monuments manifested in the town. There are, of course, several other powerful organisations in Rome, les apparent but none the less of much importance, in terms of large companies, special associations, cultural organisations, etc. This question of Rome as a centre of power must be kept in mind all throughout the reading of this brief contribution.

Perspective

A particular and fairly interesting dimension of large sites is to what extent visibility is important, and if so, what is made visible. In the Early Modern context the idea of central perspective planning of certain areas became of great importance, though this occurred slowly. The idea of such a planning is introduced; it seems, in drawing and painting before it became a common way of organizing built space as such. Thus, the central perspective in depictions of imaged fantasies of built environments precedes their actual application at a larger scale. The introductions of perspectival openings have often been established only during the last two centuries (cf. Archibugi 2001). To pick only one example, what we see today in form of the street running up to the St. Peter's Church in Rome, is not a project of the renaissance or the baroque, but of the 20th century.

It is often fairly difficult to open up a wider perspective in an existing town-scape. To pick only one example, we take an example from Rome. Pope Alexander VII in 17th century wished to open up the famous "Corso", which was not at the time an open street, since several buildings had been extended to the street, new buildings erected in the street, and since there were several triumphal arches on and over the street. The pope initiated a large project of opening the street, and connecting it to new buildings and installations at the Piazza del Popolo, which became one of the end-points of the street. However, the project was never entirely finished, since the Pope was unsuccessful in opening the street in the other end. Alexander failed to get access to that particular area of the town. It is only two centuries later, in connection with the creation of the large monument to Vittorio Emanuele, that the other end is actually opened (Haber 2002).

Demolition

A town may be destroyed by natural disasters, by fire or through actions of war. But the townscape may also be intentionally destroyed as a kind of purpose in itself; often a part of a process of creating new buildings, but not always. While Roman buildings were demolished all through the history of Rome, and while there was a certain intensification of demolition in the 15th century,

Fig. 1 - Demolitions in Via dei Fori Imperiali, Rome (1932)

the most extensive demolitions are probably from the 19th and the 20th centuries. The extent of the demolitions in Rome during the period of the Kingdom, and not least in the Fascist era, was tremendous. This has been demonstrated repeatedly in the bibliography. The photographic material gives us, perhaps, the best demonstration of this; the documentation of the demolitions between the Mercati di Traiano (Trajans Market) and the Foro Romano (Forum Romanum) swept away an incredible amount of buildings – and ruins – from different time periods (cf. the old photographs with the visual situation today, L'Invenzione 2008, cf, in general Insolera & Prego 1988, Cederna 1979, Gentile 1996, 2001, and for approximated numbers of surface demolished in various large projects from the Fascist era Gentile 2007, cf. De Marco 2001). There was, actually, no attempt at hiding the extent of demolition. It was, rather, celebrated as a victory.

The case of the destruction of the old port of Marseille (addressing another case) in 1943 is in certain regards similar, though very different, horrible, but also illuminating. To put it briefly, the German occupants during the 2nd World War decided to demolish large segments, more than half, of the old port district in Marseille. The area was evacuated by the French police in a gigantic operation, in which thousands of people were taken out of the district, and some of them eventually deported to prison camps or concentration camps in the German Reich (Guicheteau 1973). This act of demolishing an old built environment is appalling but also interesting for an analysis in varied ways. The first point would be the fact that the forces of the German occupation invested much war-related material in the destruction of old buildings, which is, I think, a weird way to invest money in the context of a gigantic war, but, sad to say, this is far from the only case of this sort in the context of the Second World War. The arguments raised for demolishing the district are also of interest. The argument was that the planning and the architecture of the old port were such that it made it easy for the armed resistance movement to operate from

this base. Thus, in this case, the German troops, which were extremely efficient and with an enormous power at this time, felt in some sense that the buildings as such were a treat, and that they, for being that, had to be completely eradicated. Thus, we see in this case, how a mighty military power feel that built environment of a special kind is a treat. This is an important observation, and is of interest in future discussions on the ways built environment is understood.

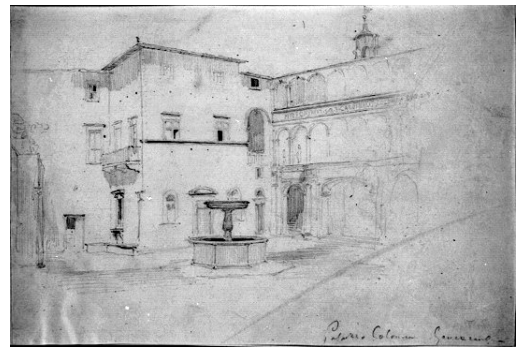

Fig. 26 - Egron Lundgren, Interior from Palazzo Colonna, Genzano, National Museum, Sweden

Excavating

Finding remains from old times has been frequent in Rome, also in early historical periods. In the 15th century a strong interest rose, and when certain remains of old buildings and old murals were revealed, often as an effect of preparing the ground for new edification, these became the focus of much discussion. From such experiences, a general interest in the ruin emerged; the ruin as such, as we can see in many depictions, e.g. in certain mural paintings dated to the 16th century in the Palazzo Altemps in Rome. Excavating became, through time, a purpose of its own. Just to pick one example, a brief mention by an outsider on excavating, we can address the Swedish painter Egron Lundgren (1815-1875), who dedicated several years to Rome, and became famous, above all for his paintings in water colour. In a sort of general reflection, he speaks of the on-going excavations at Forum Romanum in terms of being of some interest; but, he adds that there is "something horrible about it; it is almost like tearing the lid of a coffin" (my translation; cf. 1873:118). He is impressed by the buildings from the Roman age, arguing that they have a certain positive naiveté, which he understands as a quality. However, in general terms he is not interested in the scholar working the antique. He even considers them ridiculous and unproductive.

Fig. 26 - Antonio Gaspardi e Dirck Helmbreker Il Portico d'Ottavia, end of the XVII century

Ruins. Love and Hate

A particular question of major importance in relation to the question of the monument is the way to handle the ruin. There has been hatred to the ruin, and there has been romantic takes (cf. for a discussion Fehrman 1956). Italy during the end of the 19th century, under the period of the Kings, favoured the ruin as an attraction, to give them high visibility, and opened areas of ruins in the city centre, and even, in a large series of cases, favoured demolishing parts of a building which inside the structure held a ruin, to make the ruin one again visible as such, to "restore the ruin". However, in the same time period several scholars, not least Austrian art-historians e.g. Riegl (1903) asked for the stop to the cult of the ruined monument, and favoured something like a prohibition of ruins. Reconstruction of large

buildings was allowed in Riegl's thinking, but the ruin was decadence and destruction. This difference in position is interesting, and we still see similar positions pop up in certain cases. Today, Ricci (2006) also asks us what the nude stone means, and there is certain echo from Riegl.

Carlo Levi and the urban landscape

When thinking the Urban, Le Corbusier, with his modernist architecture of the monumental separation of buildings, contributed to produce certain ideas, which are still relevant. But his general disdain for Time as factor, for the Ruin in general and, his adherence (in several ways) to the tradition of the central perspective, makes him difficult in certain ways. It is actually interesting that it is a painter of the time – Picasso – who made the frontal attack against the central perspective, and not the architect.
The famous author, painter and politician Carlo Levi (1902-1975), lived several decades Rome. The way Levi addresses Rome in his work L'Orologio (The Watch) is interesting. Notably, he quotes several friends speaking about the ruins as a kind of obstacle, or even a threat (cf. e.g. 1950:211).

Ritraevano gli occhi dalle antiche mura, che parevano ad essi muraglie della China, passivi ostacoli a ogni cosa viva.

The eyes again found the old walls from antiquity, which seemed to be like Chinas wall, passive obstacles to all life.

The walls in Rome are considered to be obstacles, and obstacles to any life. But Levi is also observant, and in his almost lyrical language, he remarks how many of the historical buildings have a slightly brownish colour, which is, however, in sharp contrast to certain monuments from the beginning of the 20th century, notably the National Vittor Emanuel II monument, the Vittoriano, at times called the Altare della Patria. This

Fig. 4 - Carlo Levi in Italy.

massive white building to Levi resembles a large block of naphthalene, but it never, he stressed, saved it from the moth (1950:122); Levi and his friend tried to avoid looking at it, when passing by.

Era come camminare, in una stanza ombrosa, tra mobili intarsiati e lucenti e pareti di velluto marrone: voltavamo l'occhio per non vedere, là in fondo, l'offensiva mole bianca dell'Altare della Patria, enorme blocco di naftalina, che non si aveva salvato dai tarli.

It was like walking in a dark room, walled in chestnut-brown velvet, in between furniture with intarsia; we looked to the sides to avoid seeing the giant monument we had in front – the offensive Altar of the Nation, which looked like a block of naphthalene, but never kept the moth away

Here, then, Levi tells us about a similar hatred towards certain monuments in the urban space, and this is a highly illuminating point. However, this same author in later,

brief sketches discussed the importance of Rome as what evaded and escaped, what was not in the monument itself but something more general (2011, ed De Donato). Perhaps, as even Piacentini, Mussolini's favourite among architects, actually noted in an early text, Rome tends to kill the monumental, to make it idyllic and less threatening.

While this to Piacentini was a problem, to Levi this was the possibility and a hope for another urban thinking.

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Gothic, Frankish or Crusader? Reconsidering the origins of Gothic Architecture

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Abstract: According to an accepted version of history, in the middle of the XII century, for some reason, the construction style in Northern Europe changed suddenly from Romanesque to Gothic, besides the differences in style it was a revolution in the construction techniques. We propose here a different interpretation: that Gothic architecture originated in Holy Land, and that it had in Cyprus an important experimentation phase before it was imported to Northern Europe. After that Salah Din in 1187 reconquered the city of Jerusalem, a number of Christians were allowed to leave the city by paying a ransom. A number variable between 30.000 and 6.000 according to different sources, fled from Jerusalem to Acri, Tripoli and Cyprus: it is not a case that two years later, the island passed under the authority of the Templars, and after one more year under the lordship of Guy de Lusignan, former king of Jerusalem. Both these groups, the Templars and the Lusignans had moved to Cyprus after the loss of Jerusalem, in what should be considered a migration. After this event, the architectural prevalent style in Cyprus shifted gradually from middle Byzantine to Gothic. When these groups arrived to Cyprus, they brought to the island a new architectural style, named by historians the Gothic style. Actually, what they could bring with them was the architectural knowledge as it was in Holy Land, following the encounter of Northern carpenters coming from the elastic cultural area, with the local Islamic masons and engineers belonging to a plastic cultural area. The Northern builders used to build with wooden scaffoldings for the construction of arches and vaults as we can see in the Romanesque architecture, and after the first crusade (1099), had to operate in Jerusalem, a different environment where wood was expensive and difficult to find. In continuity with the local building knowledge, they developed a new way of building based essentially on ashlar and masonry without using wooden scaffoldings, importing some models and elements of former Islamic architecture. We are going to illustrate some very early Holy Land buildings featuring the typical characters of the Gothic style: the polylobate pilaster, the lancet arch, the ambulatory choir, the flying buttresses, the groin vault and the rib system.

Keywords: Gothic, Frankish, Crusaders, History, Architecture.

In presentia Domini Hugonis Regis Cypri.
& Domini Eustorgii Nichossiensis Archiepiscopi

Pauli 1773, n. CVI, p. 112, 1217

Crusader architecture

An image depicting the cathedral of Aghia Sophia on the counter-seal of Eustorge de Montaigu, archbishop of Nicosia (1217-1250), shows the church covered by a central dome. As far as we know the church does not have a dome, and it never did. So why is the drawing showing a dome? Can we assume the dome as a symbol of the archbishopal power in the local culture? The cathedral's construction happened in different phases and was interrupted by several earthquakes it is therefore possible that in one of these phases the church included the dome as depicted in the seal. Upon their arrival, the Lusignans redesigned the sacred topography of Cyprus, putting the orthodox bishops under the rule of the newly established catholic bishopal seats, but also founding new catholic cathedrals, like in Nicosia and Famagusta. These new churches followed rigorously the longitudinal scheme used in those times in catholic countries. It is in smaller churches though

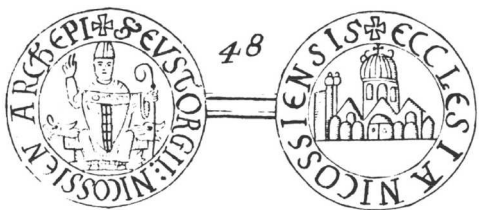

Fig. 1 - The Cathedral of Aghia Sophia on the counter-seal of Eustorge de Montaigu, archbishop of Nicosia, 1217-1250, (Pauli, 1773)

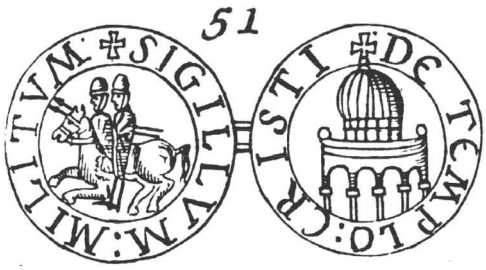

Fig. 2 - Templar seal, 1221, (Pauli, 1773)

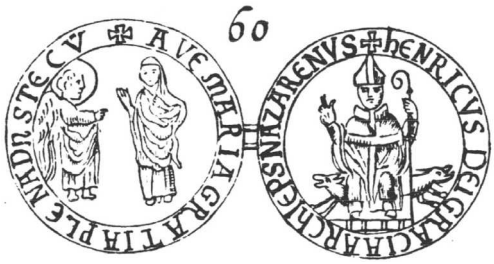

Fig. 3 - Henricus, Bishop of Nazareth, 1259, (Pauli, 1773)

that we can recognize abrupt changes in the form of the inner spaces, and therefore of the rituals. In several examples, the architects modified the catholicon of the middle and late Byzantine times adding a second catholicon, or a narthex, and in some cases a longitudinal nave, transforming it *de facto* in a longitudinal Latin scheme. This evolution of the morphology of sacred space, from central to longitudinal, is singular in Cyprus, as the manifestation of the change of regime and religion in the island, from the Byzantine and orthodox rule to the Frankish and catholic rule. The paper individuates the typical transformations that Christian buildings underwent in Cyprus following the Lusignan occupation, challenging some of the most common interpretations of the so-called Frankish architecture in Cyprus. Gothic Christian architecture, usually referred as Frankish in Cyprus, is based on some specific elements: the longitudinal plan, the choir with ambulatory, the lancet arch, the rib vault system, the complex polylobate pilaster and the flying buttresses. According to the acknowledged interpretation, following the occupation of Cyprus by Guy de Lusignan and his group, architecture in Cyprus changed from Byzantine to Frankish. The Lusignans transformed Byzantine buildings into Gothic, importing models and characters from Northern France (Enlart, 1899). So according to this thesis, following the rule of the Lusignans, who were Franks, Cyprus assumed Frankish vests. The architecture became "Gothic" importing models from Northern France and the characters of that regional style i.e. longitudinal plan, pointed arch, choir with ambulatory, rib vaults, complex pilasters and flying buttresses. We propose here a different interpretation: that Gothic architecture originated in Holy Land, and that it had in Cyprus an important experimentation phase before it was imported to Northern Europe. If we consider that Guy de Lusignan came from of Poitiou, which is not in Northern France and at that time was under the rule of the crown of England, how could we seriously consider him and his followers as proponents of a Frankish style? In fact Guy, and probably some 10.000 people that came with him to Cyprus, were fourth generation Holy Landers, so they were not really Frankish. After that Salah Din in the year 1187, after a long seize, reconquered the city of Jerusalem, a number of Christians were allowed to leave the city after paying a ransom. A number variable between 30.000 and 6.000 according to different sources, fled from Jerusalem to Acri, Tripoli and Cyprus: it is not a case that two years later, the island passed under the authority of the Templars, and after one more year under the lordship of Guy de Lusignan, former king of

Jerusalem. Both these groups, the Templars and the Lusignans had moved to Cyprus after the loss of Jerusalem, in what should be considered a migration. After this event, the architectural prevalent style in Cyprus shifted gradually from middle Byzantine to Gothic. When these groups arrived to Cyprus, they brought to the island a new architectural style, named by historians the Gothic style. Actually what they could bring with them was the architectural knowledge as it was in Holy Land, following the encounter of Northern carpenters coming from the elastic cultural area, with the local Islamic masons belonging to a plastic cultural area. The Northern architects, who were skilled in using wooden scaffoldings for the construction of arches and vaults, as we can see in the Romanesque architecture, after the first crusade (1099), had to adapt to the new environment of Jerusalem, where wood was scarce and expensive. In continuity with the local building knowledge, they developed a new way of building based essentially on ashlar and masonry, limiting the use of wooden scaffoldings, and importing some models and elements of former Islamic architecture. Therefore the so called Gothic style was developed as a solution to build vaults limiting the amount of timber necessary for the centering. If we do consider the following dates: 1099, arrival of the crusaders in Jerusalem and beginning of the crusader state, 1131-1138 construction of St. Anne in Jerusalem, and the construction dates of the great Gothic cathedrals in France, Chartes 1134, Notre Dame 1163, Reims 1211, we realize that they are all serior to the crusader experimentations in Holy land. The encounter of the Romanesque builders with the Islamic ones during the crusades should be considered the starting point for the Gothic architectural characters, which can all be found separately in earlier examples of Islamic architecture, pointed arch, rib and vault system, flying buttresses. So when the crusader designers moved to Cyprus and started building the new architecture therein, they were not

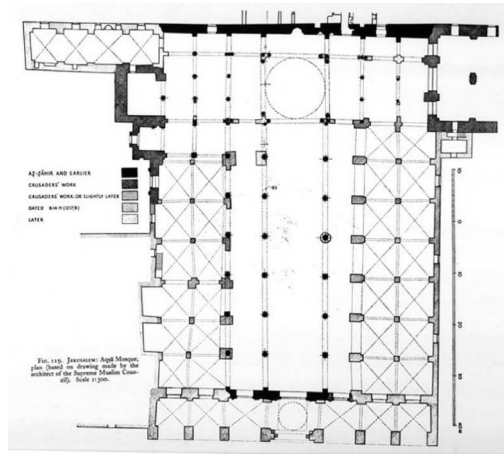

Fig. 4 - Al Aksa mosque, Jerusalem: crusader phase, transformation into Templar palace, 1099.

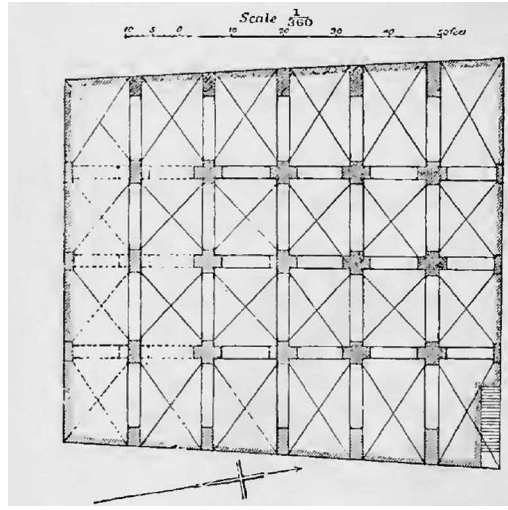

Fig. 5 - Water Cistern, Ramla, Abbasid Caliph Harun, Rashid 789.

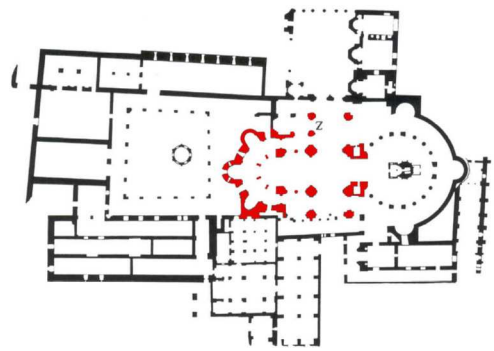

Fig. 6 - Holy Sepulchre, crusader new choir, Jerusalem, 1099-1149, plan (Burke, 2002).

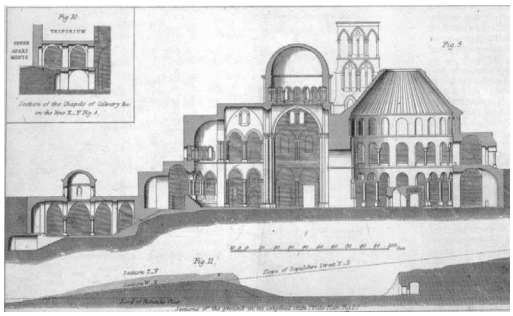

Fig. 7 - Holy Sepulchre, crusader new choir, Jerusalem, 1099-1149, section.

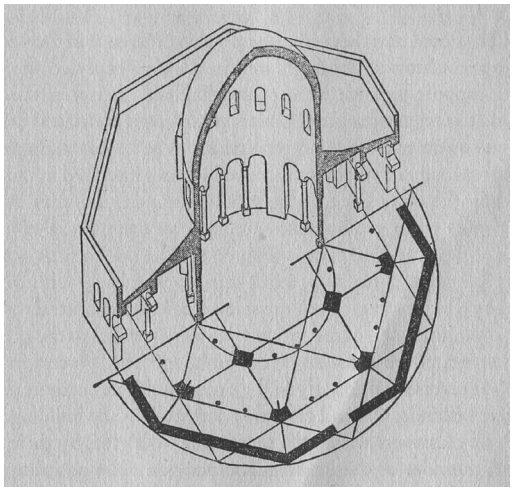

Fig. 8 - Qubbat Al-Sakhrah, Dome of the Rock, Jerusalem, Architects: Raja ibn Haywah, Yazid Ibn Salam, 689-691 (K.A.C. Creswell, A short account of early muslim architecture, Penguin Books, Harmondsworth 1958)

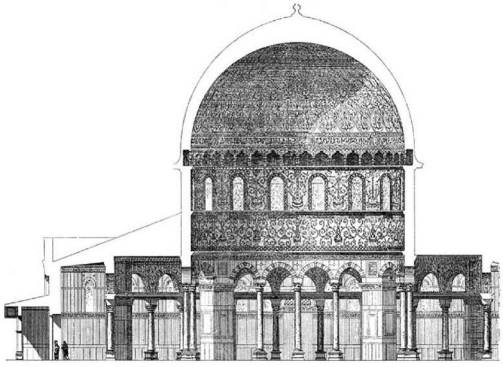

Fig. 9 - Qubbat Al-Sakhrah, Dome of the Rock, Jerusalem, Architects Raja ibn Haywah, Yazid Ibn Salam, 689-691 (Georg Dehio, Gustav von Bezold, Kirchliche Baukunst des Abendlandes, Verlag der Cotta'schen Buchhandlung, Stuttgart 1887-1901, Tafel 10)

copying French models, as it is generally assumed (Enlart), (Jeffery), (Papacostas) but they were rather continuing the extraordinary avant-garde experimentation that was started in the Holy Land some years before. We are going to illustrate some very early Holy Land buildings featuring the typical characters of the Gothic style: the lancet arch, the choir with ambulatory, and the groin vault built on ribs.

Islamic models of crusader architecture

As an example of a building using the lancet arch and the groin vault system we might

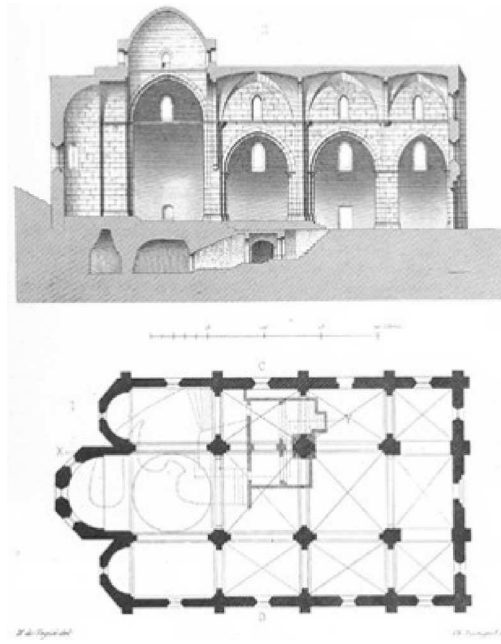

Fig. 10 - St. Anne, Jerusalem, transformation of former Byzantine church, 1131-1138

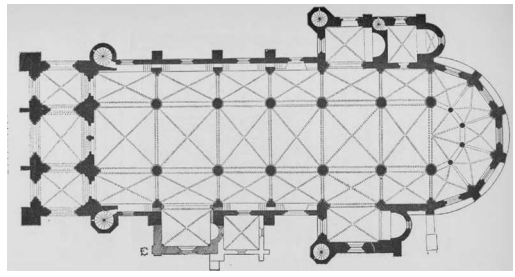

Fig. 11 - Plan of Agha Sofia, Nicosia (Enlart, 1899)

mention the underground water cistern built in the late VIII century in Ramla by the Abbasid Caliph Harun al-Rashid 789, which used the groin vault system, the polylobate pilaster and the lancet arch and was built 355 years before St. Denis (1144), considered by scholars as the first Gothic building. After the first crusade and the occupation of Jerusalem, the Templars established their headquarters inside the former "Al Aqsa Mosque" transforming it into a palace. In that transformation (1099) of the building we can find the polylobate pilaster, the pointed arch, a first example of rib in the arch dividing two consecutives bays, the groin vault, the longitudinal plan, and a dome. Actually, the dome belonged to the former phase of the building. Another example of early transformation of a building using the so called Gothic style in Jerusalem, is the eastern choir of church of the Holy Sepulchre, which had a long series of different transformations in Ancient, Late antique and Byzantine times. But this last crusader project outlined in red in figure, is documented as being finished in 1149, and it is what we call today a choir with ambulatory, one of the typical features of Gothic architecture. Another early Gothic church is that of S. Anne in Jerusalem, built in 1131, on top of the ruins, or we should say as the modification of a former Byzantine church. We can recognize there in the groin vault, the ribs, the polylobate pilasters, the longitudinal plan, the lancet arch and a dome with a pointed arch profile, sitting on a drum. We should recall that 1131, the beginning of this church, was 13 years before the completion of the Gothic phase of the church of S. Denis in Paris (1144) which is usually recognised by historians as the first Gothic church. I do believe this new exploitation in architectural design follows the encounter of two different cultures, the constructive culture of western countries with the mathematical and mechanical of Islamic engineers, and it merges some characters of Islamic architecture, like the dome which has a pointed profile and sits on an octagonal drum. In Jerusalem one very important dome was available as an architectural model at the time, the Qubbat Al-Sakhrah, Dome of the Rock, designed by architects Raja ibn Haywah and Yazid Ibn Salam in 689-691.

Transitional Gothic churches: the cathedral of Aghia Sophia, Nicosia (1196-1326)

Let's now move now to Cyprus, where an image depicts the Cathedral of Aghia Sophia in Nicosia on the counter seal of Eustorge de Montaigu who was archbishop of Nicosia from 1217 to 1250. The counter seal shows a church with a dome, but as far as we know the church does not have a dome, and it did never have one. So why is the counter seal showing the dome? There are different interpretations: the dome is symbolizing the archbishopal power, in an orthodox area the newly established archbishop of the Latin church

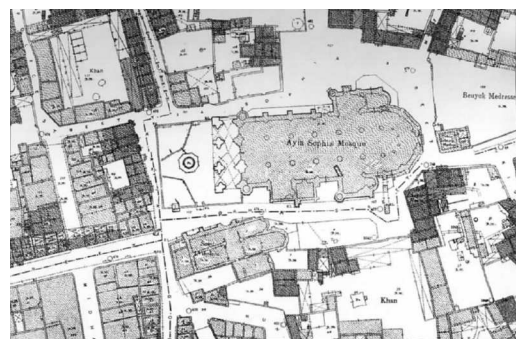

Fig. 12 - Cadastral map, Aghia Sofia, Department of Lands and Surveys, Nicosia.

Fig. 13 - Photo Aghia Sophia.

affirmed its power posing a dome on the image of the church; or it is the representation of the Gothic Aghia Sophia which had a dome in some phase of its construction or design. Hill, (1948, p.13) refers to the counter-seal as a view from the south showing the gate to the church demolished in Ottoman times, and in note quoting Megaw, as a view of the unfinished church, showing part of a former building, or as a view of what the artist imagined the church would have been when finished. The church was founded under Thierry in 1209, completed in 1228 under Eustorge, and "resembles Cathedrals in the Île de France" (Coureas 1997, p. 55). Papacostas (2005) inteprets the building on the counterseal as the old Orthodox cathedral that was there before the completion of the new Latin cathedral. For us the counter seal depicts a building with a longitudinal plan, as seen from the front, showing though on the left two stairs towers, which are delimitating the nave, and supported by counterforts, The building is faced by five chapels, of circular plan, as shown in most of the city views depicting the cathedral, but is covered with a semi-circular dome, of dimensions corresponding to the nave of the represented church. It could also be interpreted in a symbolical manner, deforming the features of the building, but for us it depicts the building in a very precise manner. We must note that whatever the drawing represents, it corresponds to most of the images of the cathedral of S. Sofia in the city views, except the dome. Either a project of a dome, never accomplished, or a wooden dome, now not existing, or a former version of the church that fell apart in one of the earthquakes that damaged its roof. We will here consider, in the most cautious way, this image for what it is, the emblem of the Catholic church of Cyprus in the Middle-ages, containing the political programme of the transformation of Orthodox churches into Latin ones, expressed with the language of Architecture, by the modification of the central plan. The Dome as represented is very similar to the one represented in the Templar counter-seal, giving us a clear idea of the proximity in that time of Cyprus to the Holy land in terms of figurative models. Mas Latrie attributed the foundation of the cathedral to the archbishop Albert, earlier than Eustorge (Mas Latrie, 1861, pp. 188-189). Coureas (1997, p. 54, n. 192) assumed instead that it was founded later by Thierry in 1209. Literature generally refers about a bell tower incorporated in the western facade, transformed into a minaret, following the conversion of the church in mosque in 1570. All the images depict the church with a bell tower separated from the building. Observing the plan of the building it should be noticed that the chapel on the southern side, interrupts the continuous gallery that surrounds the entire church. Papacostas (2012) recently could recognise in the dome the trace of the former Orthodox cathedral which was replaced by the Latin cathedral, explaining that in the counter seal the transition between the two buildings is represented: according to this interpretation at that time they were demolishing the old church while building the new one, the two buildings are not one on top of the other one, but one in front of the other one. Looking closely at the counter seal we can find some other interesting information: the archbishop's representation on the front of the seal is similar to the iconographical series of the kings of France, where the monarch is depicted frontally seated on the curule chair, a model also used in Holy Land at that time like, in the seal of Guillame II, Patriarch of Jerusalem 1270 (Delaville Le Roulx, 1887) or that of Henricus, Bishop of Nazareth, 1259 (Pauli, 1773). On the other side the dome is very similar to the dome of the rock as represented on the Templar seal in 1221, (Pauli, 1773) with the difference that there the cross belongs to the building and is also included in the seal's script. That cross was posed by the crusaders on top of that building. The Cypriot seal belonged to Eustorge of Montaigu, bishop of Nicosia in that time, who came from a very powerful family that included Peire de Montaigu, grand master of the Knights Templar from 1218 or 1232, and Guérin de Montaigu, grand master of the

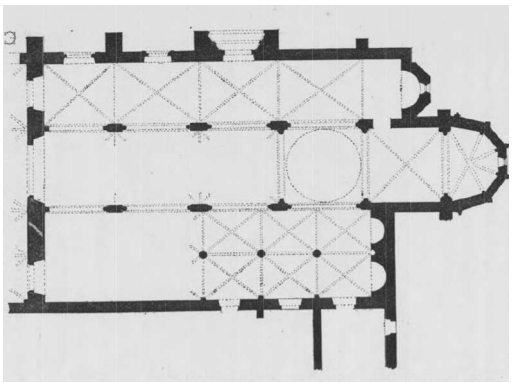

Fig. 14 - Plan of the Bedestan (Enlart, 1899)

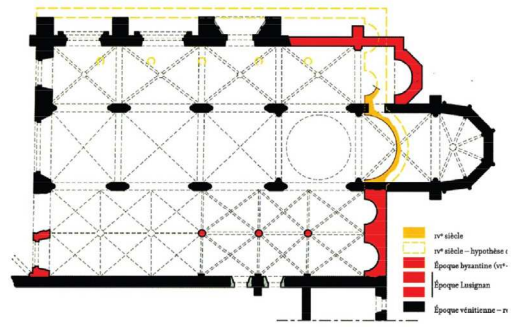

Fig. 15 - Plan of the Bedestan (Papacostas, 2012)

Hospitaller Knights from 1207 to 1228. This family had very strong connections with the Holy Land. Considering the iconographical series of the views of the Aghia Sophia cathedral does not help, since it is not showing the dome, but a bell tower instead. In the series it also possible to recognise some round smaller chapels or martyrions in front of the main church. So maybe this seal is representing something real. The plan of the church as published by Enlart shows the choir with ambulatory, the groin vaults, the longitudinal plan, but also a square bay at the intersection between transect and central nave, which is compatible with a dome. By comparing today's view and the image in the counterseal, we must admit that they are not so different, so maybe this picture is showing what the church was in that time. In this paper it will be considered only for what it was, the emblem of the Latin church of Cyprus, expressing a political program the submission of the orthodox clergy to the Latin clergy, expressed in pictures by merging two features, the longitudinal plan and the central dome. This transformation is visible in many other examples in Cyprus. The church of Agios Nikolaos in Nicosia (also known as Bedestan), is the sum of several additions to the first building, than can be recognised by the analysis of the plan. The relevant feature to be focused herein is the dome built during the Gothic phase of the building. This dome apparently rests on the connection of the Byzantine phase to the Gothic phase of the church. Agios Nikolaos' first phase was a Byzantine basilica; in the 12th century the building was converted to the Catholic cult, and dedicated to St. Nicholas. During the Lusignan rule the church was renovated, and in Venetian times, it was transformed into the metropolitan bishopric building of the Orthodox Church, dedicated to Mary, with the name of Panaghia Hadegetria. Following the Ottoman conquer of Nicosia, the building was transformed into a Bedestan (market), which is the name mostly used today for the building.

In the so called Bedestan, actually the Panaghia Odegetria, close to the cathedral, we can see the same features. And comparing this building (referring to the left aisle and central nave with dome) with St. Anne in Jerusalem we recognize exactly the same type of building, same plan, same model, same dome on octagonal drum. Maybe these two building belong to the same time, for sure they belong to the same constructive culture, that of the crusaders coming from the Holy Land. In St. George of the Greeks in Famagusta, the transformation of a former Byzantine church (XI-XI) built between 1350 and 1374, designed to be the Orthodox cathedral of Famagusta, we can find all the above-mentioned features including the dome, which is not usually considered as a Gothic feature, except in St. Anne in Jerusalem and in these Cyprus examples. It is in smaller churches of Cyprus instead that

we can recognize the same transformation from the central Byzantine plan to the longitudinal Latin plan fulfilled in the Latin domination of Cyprus, which was also a ritual and symbolic transformation, by the addition of narthexes to the former Byzantine catholicon. The church of Panaghia Acheiropoietos, in Lapithos, was built on top of a VIth century basilica, showing the other part of the transformation, from longitudinal to central plan. Here the first catholicon (XI cent.) was enlarged by four successive narthexes, the last one being built in the XIV century, in pure Northern Gothic style, with ribs, groin vaults and lancet arches. We have surveyed this building in 2014 with a laser scanner campaign with the cooperation of the University of Florence (Camiz and Canaletti, 2015).

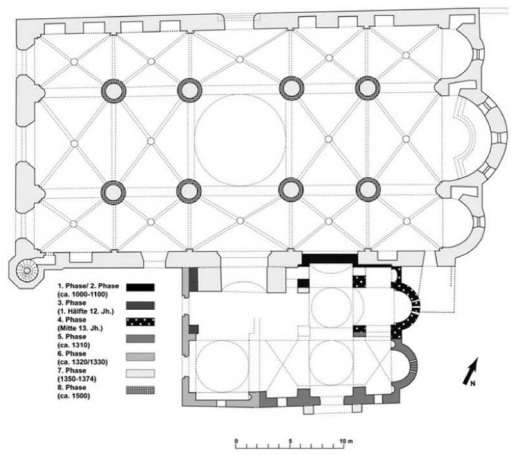

Fig. 16 - Plan of S. George of the Greeks, Famagusta, (Norris, Walsh & Kaffenberger, 2014).

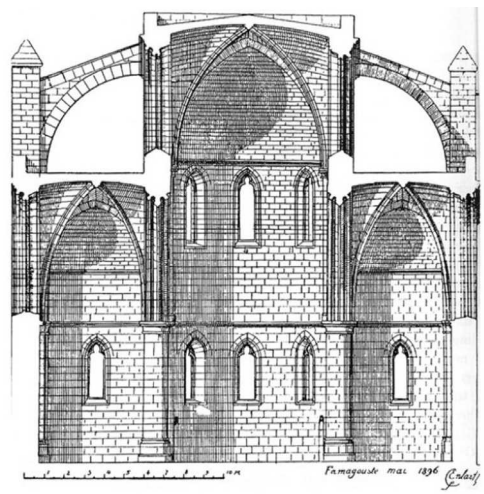

Fig. 17 - S. George of the Greeks, Famagusta, section (Enlart, 1899).

The Cathedral of Saint George of the Greeks in Famagusta (1150-1374)

The presence of a dome in a Gothic church is somehow unconventional, if we consider the typical western examples, but in Cyprus we do find some interesting examples of domed Gothic churches, a transitional type, from the Crusader churches to the western Gothic churches. Saint George of the Greeks, or St. Simeon, is a gothic church in Famagusta, on the South-eastern coast of Cyprus. The church used to be Famagusta's Orthodox Cathedral, and is now in ruins. It was damaged during the Ottoman seize of the city in 1571, and after two severe earthquakes that occurred in that area in the mid-18th century. All that remains of the structure are the East end, the southern wall of the nave, and the lower section of the West end. Anyhow it is possible to recognise therein the transformation of a Byzantine church into a Gothic one. The new building was started in 1350 as an addition to the older one. The Cathedral was built in different phases, in fact the church, incorporates the southern wall of a late Byzantine smaller church, Agios Epiphanios (1150 ca), a place of veneration of the island's most important saint, bishop of Salamis. Nevertheless, the old structure, as material testimony of the bishopric's long tradition, was preserved during the erection of the new cathedral. By comparing St. George of the Greeks with St. Anne's church in Jerusalem (1131-1138), we can demonstrate the transitional character of the Cypriot Gothic architecture. The Gothic architecture of Cyprus should be therefore considered transitional from the Crusader architecture to the French Gothic, and not a derivative of Gothic, named Frankish, as many affirm.

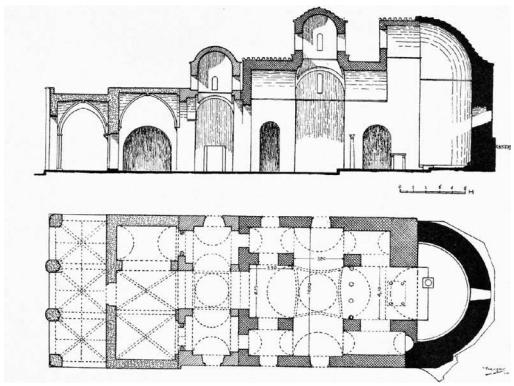

Fig. 18 - Plan and Section, Panaghia Acheiropoietos, Lapithos (Σωτηρίου, Γεώργιος Αγγέλου, Τα βυζαντινά μνημεία της Κύπρου, Ακαδημία Αθηνών, Αθήναι 1935).

Gothic architecture stands in between the Crusader architecture and the French Gothic, and should not be considered a derivative of French Gothic, as many affirm. It is in smaller Cypriot churches though that we can recognize the trace of abrupt changes in the form of the inner spaces, and therefore of the rituals. It is clearly visible in several examples how the catholicon of middle and late Byzantine period, modified by the addition of a second catholicon, of a narthex, and in some cases of a longitudinal nave, became a longitudinal Latin scheme. This singular phenomenon may be observed in the Acheiropoietos church (catholicon, second catholicon, and nave), in the Chortini church (catholicon

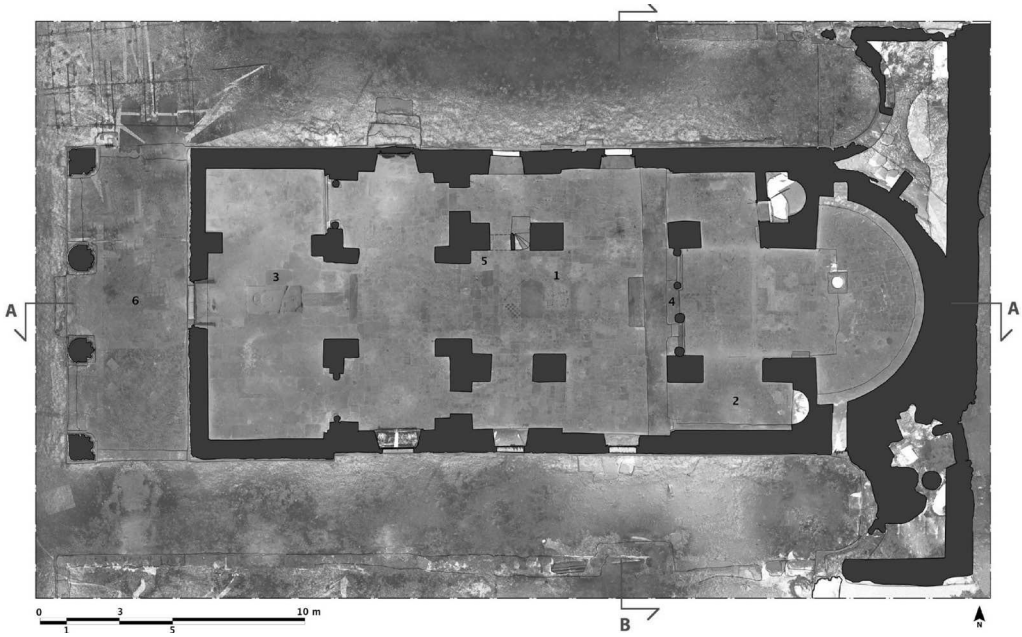

Fig. 19 - Plan view, Panaghia Acheiropoietos, Lapithos, (A. Camiz, C. Canaletti, G. Verdiani, A. Braghiroli, 2015).

Conclusions: Cypriot as transitional Gothic

The ribs, the lancet arch, the complex vaults, the flying buttresses and other mechanical devices, such as the joggled voussoir lintel (Camiz 2015), developed through the Islamic architecture, and then were exported to the Spanish area, and then following the loss of Jerusalem in 1187 to Cyprus and France. The dome resembles both the typical elements of Byzantine and Islamic architecture, and is an indicator of the transitional character of Cypriot Gothic architecture. Cyprus and nave), in the Rizokarpasso church (catholicon and second catholicon), in Aghios Nicolaos church (catholicon and nave), in Panaghias Kanakarias (nave rebuilt around the catholicon), in Panaghia church at Trikomo, (catholicon and side addition in the form of a nave). This evolution in the morphology of sacred space, from central to longitudinal, seems to be singular in Cyprus and it is the manifestation of the change of regime and religion in the island during the Lusiginan rule, from the Byzantine and Orthodox rule to the Frankish and catholic rule.

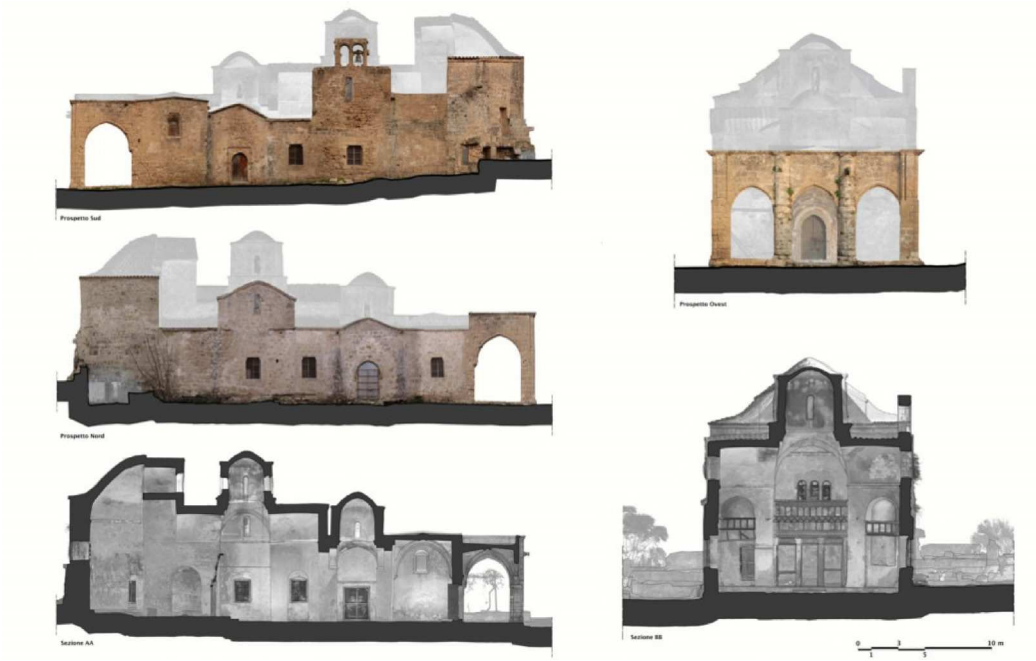

Fig. 20 - Fronts and Section, Panaghia Acheiropoietos, Lapithos, (A. Camiz, C. Canaletti, G. Verdiani, A. Braghiroli, 2015).

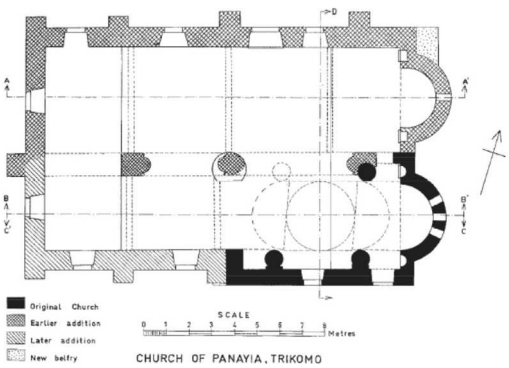

Fig. 21 - Panaghia, Trikomo, Catholikon, VII century, Addition: XV century, plan (Papagheorghiou, 2010).

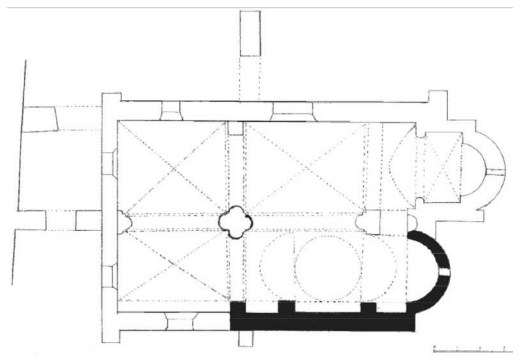

Fig. 23 - Panaghia Avgasida, Milia, Catholichon, XII cent., Addition: XIV cent., plan (Papageorghiuou, 2010).

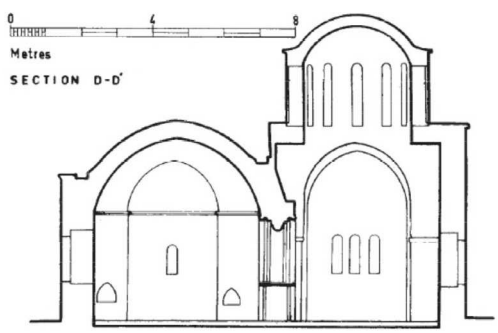

Fig. 22 - Panaghia, Trikomo, Catholikon, VII century, Addition: XV century, section (Papageorghiuou, 2010).

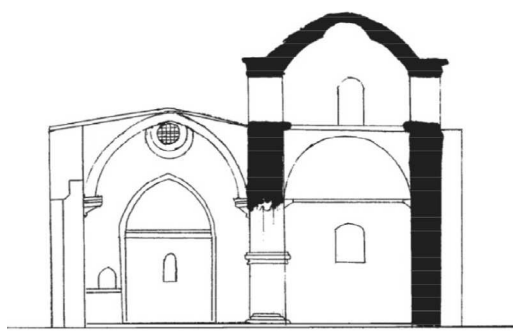

Fig. 24 - Panaghia Avgasida, Milia, Catholichon, XII cent., Addition: XIV cent., plan (Papageorghiuou, 2010).

Chronology

1100-1118	King Baldwin demolishes the outer aisles of Al Aqsa Mosque in Jerusalem
1131-1138	S. Anne Church in Jerusalem,
1195-1206	Alan first Latin Archbishop of Nicosia
1196, 13/12	New Church in Cyprus established (Hiestand, Papsturkunden, p. 358)
1196, 20/2	Celestine III Bull on the Cyprus Church
1202-1203	Earthquake in Cyprus
1204	Fourth crusade, sack of Constantinople
1206-1211	Thierry Archbishop of Nicosia
1211-1217	Albert Archbishop of Nicosia
1217-1250	Eustorge De Montaigu Archbishop of Nicosia
1222	Earthquake, epicentre in Paphos, magnitude 7,5
1228	Frederick II in Cyprus
1251-1267	Hugh from Fagiano, Premonstratensian monk (Ugo di Pisa)
1255	Bulla Cypria
1260	Bulla Cypria
1267-1270	Giles Archbishop of Nicosia
1270	Bertrand Archbishop of Nicosia
1270	Lady chapel
1278	John of Angoulême, Dominican Archbishop of Nicosia
1278-1280	Ranulf Archbishop of Nicosia
1286	Lanfranc dean Archbishop of Nicosia
1288-1295	John I of Ancona, Franciscan, Archbishop of Nicosia
1295-1303	Gérard of Langres, Archbishop of Nicosia
1303	Henry de Gibelet, Archbishop of Nicosia
1303, 7-8/8	Earthquake in Nicosia, Cathedral damaged
1310	Peter Erlart, bishop of Limassol administering Nicosia
1312-1332	John II of Conti, roman Dominican (former archbishop of Pisa)
1317	John of Nicosia, Archbishop of Nicosia
1319	Nave and narthex rebuilt
1319- 1326	Latin archbishop Giovanni del Conte or Giovanni de Polo
1322	Cartulary (1195-1292)
1326	Consecration of the cathedral of Aghia Sophia
1326	Side Chapels consecrated of the cathedral of Aghia Sophia
1330	Nicosia flooded
1332	John dies
1332-1344	Appointed 15/11 Helias de Nabinali, Elie de Nabinaux, seal is published in (Szczepanowska and FritzHugh 1999, fig. 6, p. 40)
1342-1361	Philip de Chamberlac
1347	Pope Clement IV, bull on the restoration of the cathedral
1363-1374	Raymond de la Pradèle (1366-1370 Jeffery)
1376-1382	Berengar abbot of Lézat
1382-1390	Michael
1396-1400	Conrad I
1400-1402	John III
1402-1411	Conrad II Caraccioli
1413-1442	Hugh de Lusignan
1442	Cathedral is repaired from destructions following the Mameluk raid in Nicosia of 1425
1442-1447	Galesio de Montolif
1447-1453	Andrew II
1456-1460	James (King James II)
1464-1467	Antonio Taneto
1467-1469	Guillame Goneme
1469-1476	Louis Perez Fabricius
1477-1484	Vittore Marcello
1484-1495	Benedetto Soranzo
1491	Earthquake
1491	Earthquake destroys part of Aghia Sophia (probably the upper part of the facade)
1491	Venetian repairs of Aghia Sophia, Archivio di Stato di Venezia, Senato, Mar. reg. XIII, fol. 74, also, Mas Latrie, Histoire, p. 106.

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Opposites attract – or don't? Aspects related to reformation, regeneration and revitalisation of two squares in Turku

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Abstract: A square was the first and the most central element in most towns regardless of their location. They were forums for political, commercial and social activities of different kind. Although, many of them have had the same function until our times, the role of the squares as urban public spaces has changed in the course of time. In this paper, I am focusing on presenting two squares in Turku, which are locating on the opposite sides of Aura River and facing each other. Both squares have a long history dating back to the Middle Ages and even today they are flanked with buildings representing the history of the town. The functions and roles of both squares as urban spaces have changed in the cause of the centuries and decades. Today, the functions or appearances of the squares are not that different, but the atmosphere on the squares differs from each other for most of the time. While the other square is gathering crowds a couple of times a year, the other square attracts people every day. The aim of this paper is to raise discussion about different factors and elements, which are making the squares attractive today and about the means how urban spaces can be revitalised without changing their historical character and disrespecting their heritage.

Keywords: Attraction, Functions, Square, Turku, Urban space.

The roles and meaning of squares

Squares are important urban elements besides buildings and streets. A square has often been the very first and the most central element in most towns regardless whether they were established in Greek or Roman period, Middle Ages, Early Modern Period or Modern times. Generally, the squares have been the forums for political, commercial and social activities of different kinds. For example, a square, agora, in ancient Greek city states was a gathering place, assembly. It was a centre for athletic, artistic, spiritual, commercial and political life of the city. In Roman towns, the squares, forums, were the most important public spaces where people gathered for social, political and commercial activities. Furthermore, the forums provided stages for public speeches and sites for official measures and weights. With all these functions, the squares symbolised power, liberty, equality and control. All these functions can be combined to squares in the Middle Ages, too. Squares were the most significant public places and physical and symbolic centres of towns. They were places of trade and scenes for religious and administrational events where official notices and information were shared to public, too. Furthermore, they were forums for amusement, entertainment and performances of different kinds including official punishments. However, the squares made in the Middle Ages were not that monumental as the squares made in the earlier periods which may reflect the change in their role and main use from administrational and representational events to more social and commercial activities as well as the division

of activities to several squares in different parts of the town. In the Middle Ages, the squares were made in front of churches, castles and city gates where people gathered for social activities, craft making and commerce. Small triangular squares were formed when a street was branched off to two streets and likewise elongated squares were made between two parallel streets. Sometimes a square was nothing more but an extension of the main street. (CALABI 2004; NICHOLAS 2003: 71–75.)

In his study, Paul Zucker (ZUCKER 1959) has distinguished several principal types of town squares in the past. The number and variety of squares indicate the different roles and functions of squares have had at different times. Since the functions and roles of squares have changed in the course of centuries, the need, role, and functions of squares today are often discussed in contemporary city planning when productivity, efficacy and especially economic aspects related to the land use in different areas are considered. It seems that the most attractive squares have been made prior to the 20th century and today the planning of squares and open spaces is highlighted rather in shopping malls than in city centres. However, the old squares in city centres are important when considering even their size and central location as well as their role in creating the atmosphere and visible liveliness in a particular part of the town.

Two squares in Turku on opposite riverbanks

In this paper, I am focusing on discussing two squares in Turku locating on the opposite sides of Aura River in the old part of the town inhabited since the 14th century. The other square on the eastern side of the river is the oldest square of Turku known today as Old Great Market Square. We don't actually know the exact time when the square was made, but probably the square was made in the turn of the 13th and 14th century as the first infrastructural urban element and as the heart of the town when the town was established. There are few archaeological finds and evidence referring to older activities in this area prior to the establishment of the town. Possibly, the area was used as a market place at the end of the 13th century already. In the turn of the century / early 14th century, the square formed the starting point of the first street network of the town from where the streets stretched out symmetrically to the most important buildings and destinations of the town as well as outside the city. (SEPPÄNEN 2012: 911–912; 2015: 123–131.) There have been few archaeological excavations on Old Great Market Square, but we don't actually know whether the size and frames of the square have changed in the course of time. Probably the length and shape of the square have not changed since the elongated square stretched between the town hall and the river as it does even today and the location of these two landmarks has not changed since the early 14th century.

The other square is so called Minor Square locating on the other side of the river right opposite to Old Great Market Square.[1] The earliest history of the square is unknown but both squares can be detected in the oldest map of Turku from the early 1630s illustrating the layout of Turku. (Fig. 1.) According to the old maps from the 17th and 18th centuries, it seems that Minor Square has formed an extension to Old Great Market Square on the other side of the river. The squares were connected with each other by a bridge, which was built in the early 15th century. There is no evidence about the exact time of the construction of the bridge, but it is mentioned in the latter part of the 1410s as a property of the city. Probably Minor Square was established in the late 14th or early 15th century and acted as a starting point for the road leading to the North and West in the same way as Old Great Market Square acted as a starting point for the roads leading to the South and East. (Fig. 2.)

While the size and the form of Old Great Market Square remained more or less the

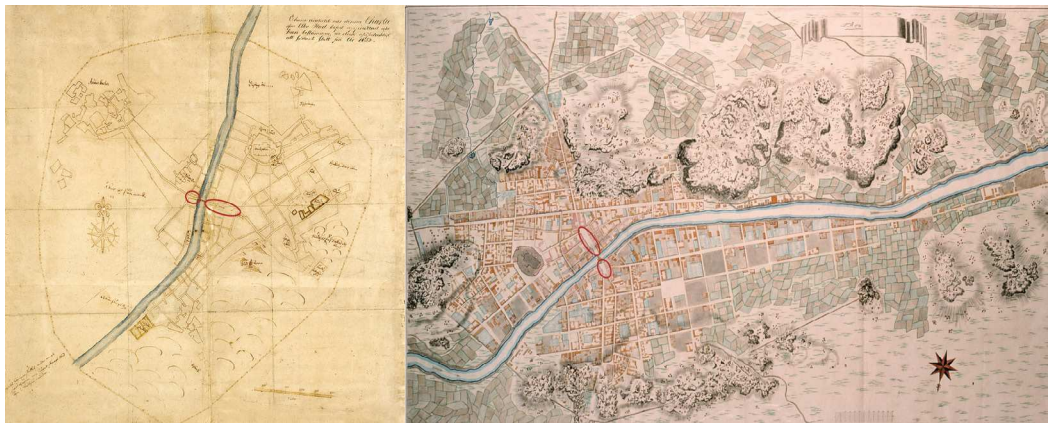

Fig. 1 & 2 – The Old Great Market Square (on the right side of the river) and Minor Square (on the left side of the river) have been marked on the oldest map of Turku from the 1630s (Fig. 1 on the left). The map on the right is from 1743 (Fig 2) and is made by Russians so that north is down. The comparison of the maps demonstrates that the size and the shape of the squares remained the same. Probably, the size and the shape was the same in the Middle Ages already. The present Market Square of Turku created in the mid 17th century can be seen on the younger map on the right between the river and the hills framing the town (at the bottom of the map). (Copyright: Kansallisarkisto / National Archives of Finland, additions Liisa Seppänen).

same, the size and form of Minor Square changed in the course of centuries. Today, the size of the squares is nearly the same, but the shapes of the squares differ from each other and directions are opposite. Elongated Great Old Market Square is still facing the river with the short side while triangular Minor Square is facing the river with the long side. (Fig. 3 & 4.) The squares are physically connected to each other no longer, since the combining bridge burned down in the big fire of Turku in 1827 and was not rebuilt but replaced with other bridges combining the two sides of the town. Even though the size and location of the squares by river are nearly the same, the functions and atmosphere of the squares differ from each other. There is no doubt which one of these squares had the major importance in the Middle Ages and in the Early Modern period. Today, the importance of the squares

Fig. 3 – An aerial view to elongated Old Great Market Square. The original form of the square is framed with red. Prior to the fire in 1827, the north side of the square was framed with buildings, too. After the fire, all buildings between the square and the cathedral were removed and replaced by parks and open areas. The building on the southern end of the square is the old town hall (Copyright: Liisa Seppänen).

Fig. 4 – An aerial view to triangular Minor Square framed with red. The physical connection between the squares, the bridge, was destroyed in the big fire in 1827. Cathedral bridge (at the bottom of the photo) is the oldest bridge of Turku today and it was built after the fire in the 19th century (Copyright: Lahtinen & Otronen 2016: 11).

Fig. 5 – There are only a couple of pictures about the oldest bridge of Turku which was destroyed in the big fire in 1827. This illustration of the bridge was made in 1811 by Russian artist Gavril Sergejevits Sergejev who was travelling in Finland at that time.The bridge did not only combine the squares but acted as a functional extension of the squares providing a market place for butchers, shoemakers and craftsmen of different kinds. At the end of the 18th century, a small building was erected in the middle of the bridge. The building was leased to a Swedish bookseller who opened the first bookstore on the bridge. (Copyright: Kuurne 1994: 61).

Fig. 6 – A watercolour from the early 19th century made by C.L. Engel (c. 1814) presents the view from Old Great Market Square to Cathedral. Until 1827 the square was framed on three sides by buildings. The fire in 1827 destroyed all buildings in this area and after the fire this area between the Old Great Market Square and Cathedral was left unconstructed with parks and open spaces (Copyright: LAAKSONEN H. 2002: 96).

cannot be compared but it is quite evident which one of the squares attracts more activities and people. In the following, I am presenting an overview to the history of both squares and discussing the differences of the roles and functions of the squares today.

In the early 15th century, the construction of the bridge, called Pennisilta in Finnish (Penny bridge in English), closed the water route upstream the river. In this phase at the latest, harbour activities concentrated on the South side of the bridge on the riverbanks between the squares. The bridge, which connected the two sides and squares of Turku discussed in this paper, remained the only bridge leading across the river until the big fire of Turku in 1827. (KUUJO 1981: 175, Fig. 5.) This connection was lost in 1827 when Turku experienced the biggest catastrophe, which has ever met a Nordic town. In the fire, nearly 2500 buildings burned down and almost three quarters (75%) of the whole town was destroyed.

Prior to the fire, between 1300 and 1827 the Old Great Market Square of Turku was a central trading place. It was also a scene of big

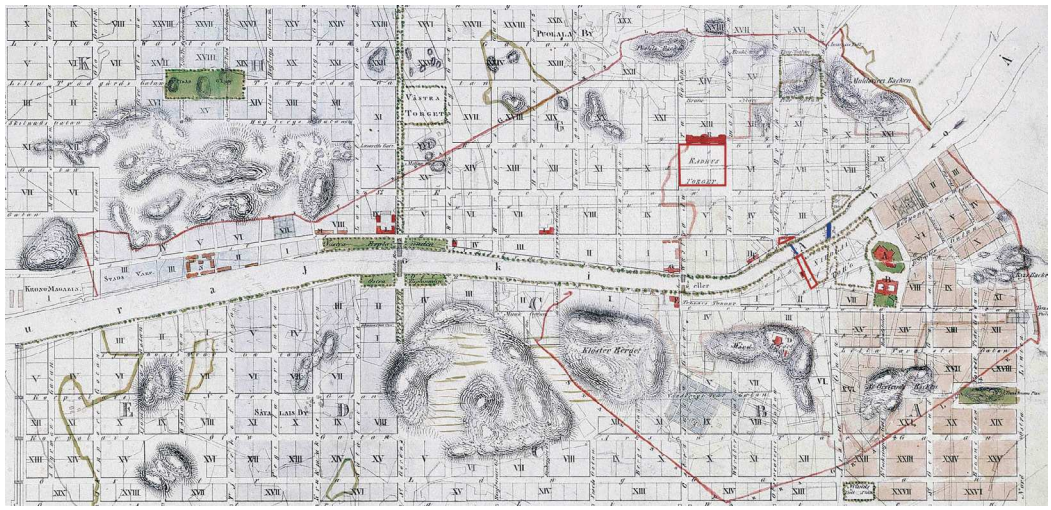

Fig. 7 – The draft for the new layout of Turku after the fire in 1827 presents the new plans as well as the old layout of the city until 1827. The Great Old Market Square and Minor Square are marked with red. Furthermore, the new Market Square of Turku is marked with a red square on the top. The square was made in the 17th century, but after the fire the size of the square increased notably. After the fire, it was called Town Hall Square (Rådhus torget). This new city plan made by architect Carl Ludwig Engel was accepted in 1828 with minor changes (Copyright: Turun kaupunki, Ympäristö- ja kaavoitusvirasto / City of Turku, Urban Environment Division).

markets during different seasons of the year. It was a place for public meetings and ceremonials where also public humiliations were executed. The square was surrounded by significant buildings including the town hall built in the early 1300 (see Fig. 3). The square was the administrational and symbolic centrum of the city with the court of appeal and houses representing the wealth of the city. The fire in 1827 marked a turning point in the history of the square. The fire destroyed all the buildings in this area and since then the area has never looked the same as it did before (Fig. 6).

After the fire, a new layout was created. The size and shape of the Old Great Market Square remained the same but the buildings between the square and the cathedral were torn down and replaced by a new unconstructed open space (Nikolai Square) with trees and other arrangements and the area was turned into the parks we see today. In the new layout, Minor Square on the other side of the river got its present dimensions and shape. (Sw. Nikolai Torg). The connecting bridge between two squares was demolished and replaced by a new wooden bridge on its Northwest side in 1831, known today as a Cathedral Bridge. A square on the Northern side of the city established in the early 17th century became the main square of the city and is today known as Market Square of Turku. (Fig. 7).

After the fire, Old Great Market Square lost its importance as the commercial and administrational centre of the city. For example, the renovated old town hall housed a clothing factory, which operated there until 1925. Thereafter, the premises were headquartered by the police force. The erected new buildings were in residential, administrational and industrial use. One of the buildings housed city archives and a pharmacy and another became a school, which is operating in the same building still today. In 1848, a restaurant called Pinella was opened in the adjacent park (Nikolai Park, Fig. 8). The restaurant was owned by a family Pinello and it became quite popular especially after 1876 when the restaurant got rights to sell strong spirits. It was especially favoured by city officials, academics, policemen and priests. In the 1910s, the city of Turku became the owner of the restaurant and the first suggestions were made to demolish the building. However,

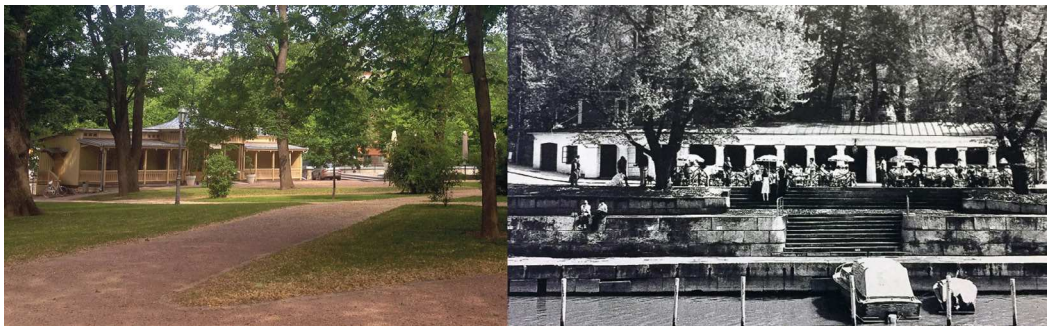

Fig. 8 – Restaurant Pinella has experienced many ups and downs in the past. It was at the peak of its popularity at the end of the 19th century, before the WW II and in the 1980s and 1990s. The restaurant consists of two parts: The older wooden restaurant facing the park (today a bar) on the left picture is the upper floor of the restaurant. The actual restaurant on the first floor is facing the river. The photo of the restaurant on the right was taken in 1979 after the renovation of the building in 1973. Before the renovation, the building was used as a gas station for 35 years. (Copyright: Liisa Seppänen & Latvakangas, Holmén & Kivelä 2011: 21, 23).

Fig. 9 – The Old Great Market Square is often empty despite of the services and commodities available in the buildings framing the square. The photo on the right demonstrates that people have no problems of finding and getting to the square during events of different kinds like during the Medieval Markets in summer time (Copyright: Liisa Seppänen),

these ideas were not realized and the restaurant became again very popular prior the WW II (1919–1939). (LAAKSONEN, H. 2002)

In 1970, the Turku-born architect Benito Casagrande catalysed the revitalization of the whole area when he presented his diploma work in which he emphasised the importance of historical urban environments and focused especially on the development of the area of Old Great Market Square in Turku. (CASAGRANDE 1970.) This was the time of intensive and rather violent modernisation of Turku when several old buildings were demolished and build heritage and cultural heritage was not highly valued. However, the plans proposed by Benito Casagrande catalysed the discussion about the condition and revitalisation of the historical part of Turku and the decision makers set up a commission to make a survey of the cultural heritage of the area and a plan for its redevelopment. The plan was published in 1983.

According to both of these plans, the cultural heritage of this area needs to be respected and highlighted while the accessibility in this area and its activities needs to be promoted. Casagrande suggested that the area should be reserved for cultural activities of different kinds respecting the cultural history of the area (CASAGRANDE 1970; SUURTORITOIMI-KUNTA, CASAGRANDE, CONTEAM 1983). He kept on reminding the city planners and decision makers about the importance of the site and eventually the buildings were reno-

vated and taken into more cultural activities. In the 1970s, the restaurant Pinella was enlarged and renovated according to the plans made by architect Benito Casagrande. After the renovations, the restaurant became very popular and was an attraction of this area until the early 2000 when it was closed down. The restaurant was reopened in 2011 after renovations and archaeological excavations in the area (LAAKSONEN, T-T. 2002; LATVAKANGAS 2011; VASAMA 2002).

While Old Great Market Square seems to be isolated and empty Minor Square on the other side of the river is attracting people with its restaurants and cafes. However, Minor Square has not always been attractive. This part of the town was inhabited already in the Middle Ages, but it was not until after the reformation in the 16th century when this area became more popular among wealthy citizens, burghers, trades and noblemen. From the late 17th century, this area was favoured also by travellers, thanks to services provided for them including accommodation and meals. In the early 20th century, this area was favoured especially by Italians who settled

Fig. 10 – Minor Square with its shops at the early 19th century (Copyright: Lahtinen 2017: 83).

Fig. 11 – The bad condition of the buildings aroused discussion about demolishing and replacing the old buildings with the new ones. The photo was taken in 1979 before the renovation when the building had been empty for many years. After the renovation of this building, the beauty and uniqueness of the whole area was understood (Copyright: Kalpa & Junttila 1998: 60).

Fig. 12 – The Minor Square attracts people especially on sunny summer days. (Copyright: Liisa Seppänen.)

down in Turku and people were attracted in this area with shops and services of different kind (Fig. 10).

After the WWII, the activities and the buildings in this area declined. (Fig. 11.) In 1968, it was discussed about the demolition of the old buildings in this area and plans for new multi-story houses were presented. However, these plans were not realized and in 1975 the discussion got another tone and ideas of preserving this area were presented. In 1979, Benito Casagrande started renovating one of the houses (Ingman's house) by the square and as a result of his example and efforts, a decision was made in 1985 to preserve the square and the old buildings framing the square. In 2009, the square was closed from the traffic and was reserved for pedestrians. Today, the square is the most attractive squares of Turku with many restaurants and cafés (Fig. 12) (KALPA & JUNTTILA 1998; LAHTINEN 2017).

Does a bridge and pavilion make a difference?

In the 2000s, the decision of building a new bridge for light traffic and pedestrians was made. Two main alternatives for the location of the bridge were presented. According to the other suggestion, the bridge would connect Old Great Main Square and Minor Square in the same place where the oldest bridge of Turku (Pennisilta) existed until 1827 (Fig 7). In the other alternative, the new bridge would connect the western and eastern riverfronts (Läntinen ja Itäinen rantakatu) in a new place c. 200 meters South of the old, destroyed bridge.

Both suggestions were both supported and criticised by experts, citizens and decision makers. Arguments both pro and con were presented about the need, purpose and significance of the bridge about practicalities related to light traffic and economic interests of different parties. One of the biggest issues

Fig. 13 – The new bridge, so called Library Bridge, (on the right side of the photo) did not replace the old Penny Bridge and the connection between the squares was not recreated. The new bridge connects the riverbanks and leads to adjacent streets. Celebration of the 1st of May brings a lot of people together on both sides of the river. (Copyright: Liisa Seppänen).

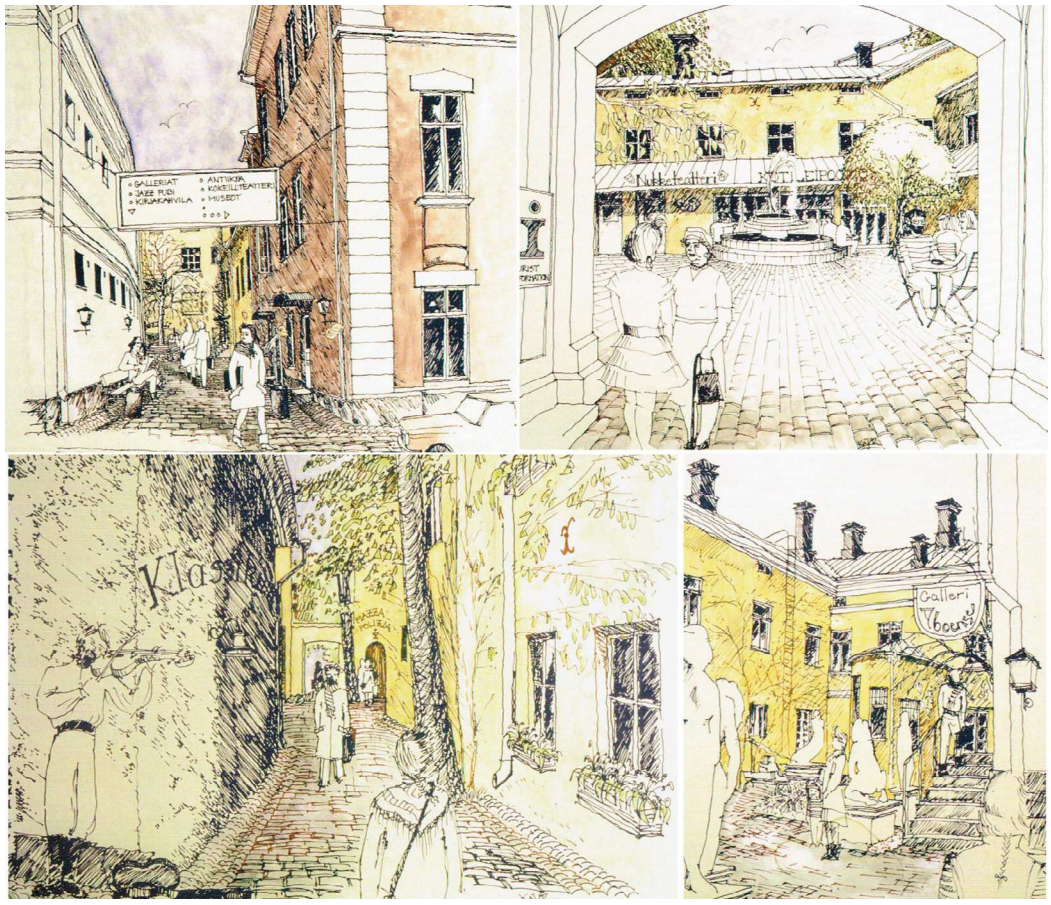

Fig. 14 – The visions of young architect Benito Casagrande to revitalise the life on Old Great Market Square were published in 1970. The drawings depict the visible life on the courtyards and alleys opening from the square. (Copyright: Vasama 2002: 132–137).

especially contra the new location was how the bridge would change the cultural landscape in this environment recognised as one of the national landscapes of Finland. The old place connecting two squares would not have changed the cultural landscape as much as the new suggested location downstream the river. According to the supporters of the new location, including many museum officials, it was finally time to update this cultural landscape to new century and era. Arguments pro the new location highlighted that the cultural landscape is time bound and changes according to new ideas and constructed elements. In this case, the values related to the past traditions and preservation of the cultural landscape were not considered significant enough and the bridge was made to a new location in 2013 (Fig. 13). The discussion about the destruction of the cultural landscape has ceased by now, but it proved how strong emotions and ideas the citizens had about cultural landscape in Turku.

The new bridge did not recreate the physical connection between the two squares discussed in this article. We can only speculate, how the bridge could have activated the use of Old Great Market Square with more pedestrians and cyclists. The bridge could have acted as an extension of two squares and at the same time as a separate urban element providing experiences or services like the old bridge did with craftsmen and a bookstore. The new bridge could have continued this

tradition by having e.g. a small coffee shop, ice-cream bar, pop-up boutique or even a small bookshop.

In 2016, a city of Turku established "a vision group" to compose a vision for the development of Turku and to suggest concrete actions for increasing the vitality of the town (SEPPÄNEN 2017: 181–182). According to the vision released in the spring of 2017, the most important characteristics of a lively city centre are easy accessibility and transportation, attractive commerce and meeting places. In the vision, the revitalisation of the old town including the area of Old Great Market Square was one of the topics that was discussed. The vision contained three suggestions to revitalize the area of Market Square: Firstly, the new museum of Finnish history should be located in the vicinity of the square. Secondly, the adjacent street (Uudenmaankatu) should be devoted to public traffic and pavilions should be placed in the parks in the vicinity of the square. Thirdly, actors of different kind would be spread out on the square activating the square and surrounding parks [3]. However, the vision did not specify the actors who would make the square more active or in what kind of use the pavilions would be in the parks surrounding the square. The proposition about the new museum was justified since the city of Turku made a suggestion already in 2012 about having a new museum of history as an attraction of the city. The preparations and plans for the museum have been made ever since and in the spring of 2017 the city council of Turku made a decision about having a new museum in Turku. According to the plans, the museum is focusing on presenting the history of Finland and will be opened in 2020/2021 [4],

When it comes to the plans related to the revitalisation of this area only, the vision released in 2017 was much more limited than the plans and the suggestions presented by Benito Casagrande nearly 50 years ago. At that time, the young architect gave many concrete suggestions for revitalization of the area including a new city attraction as well as restaurants, antique shops, art galleries, cafes and theatres and insisted on prompt measures (CASAGRANDE 1970; VASAMA 2002: 130–131, Fig 14). Today, we can find restaurants in the area (Pinella and Teini), a coffee shop (Kirjakahvila) and several shops selling art and crafts.

Why then, after more than four decades, there is still a need to ask suggestions to make this area attractive for the people in Turku as well as for the ones visiting the city? Why these two opposite squares presented in this paper are not attracting people in the same way although they both have similar kinds of elements including location by the riverfront, historical buildings, restaurants, coffee-shops and boutiques and an area reserved for pedestrians and cyclists only. What else is required? Is there an "art of making places attractive"? Possibly there are some fundamental elements that need to be "right" before the place is considered attractive and before it appeals the crowds.

What makes places attractive?

Many studies and surveys have been made about the living preferences of the people in Finland including a survey made in Turku in 2009 (VASANEN 2009). The surveys have mainly focused on living conditions and issues related to services, traffic, safety, environment as well as ideas about the pleasant atmosphere and attractiveness of places. According to the surveys made in the 1990s and 2000s, people appreciate historical and aesthetical environments including old buildings and the 'sense of the past' (SEPPÄNEN 2018: 46–47). Both squares presented above have similar kind of environment with historical buildings from the 19th century and should be appreciated equally. However, historical buildings and appreciation are apparently not enough but something else is required to attract the people.

First of all, the awareness of the place and services and events it provides is necessary. People do not come to the square to do shopping, to visit galleries and have a coffee unless they don't' know about the boutiques, restaurants, coffee shops and art galleries located in the area. Therefore visible, attractive signs and advertisements are needed to inform people about the existence of these commodities and services. However, the best way of spreading information is people who like the place and recommend it for the others, but first we need these people to visit the site and make sure they like it and come back again and bring their friends along. Awareness is closely related to the reachability of the location. The place needs to be reachable for those who want to go there. It seems that in small towns, like in Turku with less than 200.000 inhabitants, the location really matters. According to a saying, people in Turku need to have a good reason to go somewhere if the place is beyond the distance of two minutes from the present Market Square. In practise, this means that the areas on the other side of the river are not attracting people that easily. This is acknowledged by many shopkeepers, who frequently claim that customers do not come across the river very easily even though many people live on the other side of the river, too.

London-based alternative education group The School of Life has collected six criteria, which make the cities attractive [5]. The following criteria can possibly be assimilated to more restricted areas and places too. Location is not only related to the reachability of the place. It is also related to different kind of values and identities connected to the place. In practise, the values are often reflected in the use of the most valuable buildings. This tells us about the actual but not necessarily admitted priorities in the society. Especially, big and high buildings should be worthy of their prominence, in a such kind of use that gives us a sense of humanity and respect and meets the long term needs of the people providing hope and love and makes us good. Instead of having factories and offices in the most handsome buildings in central parts of the city, people would like to have museums, galleries and functions, which raise their spirit. Therefore, it was not probably a good idea to place a shirt factory and police station in the old historical buildings (old town hall and Brinkhall House) on Old Great Market Square and a gas station in the premises of the old restaurant by the river in the 20th century in Turku.

According to the studies, the cities, which have a distinctive and strong character are considered attractive. This means that places, which reflect the identity and unique history of that particular place in a visible and comprehensible way are found attractive and appealing. Consequently, when making a place attractive we should make it local. This would mean that the places and cities should embrace their uniqueness and highlight their own history and avoid sameness. This should be easy since each place has the history of its own. However, the unique history and identity of the place needs to be visualised and concretised. This can be done by using local, traditional materials or by giving respect to local architecture and style.

According to the studies, people like the sense of history. For example, in the UK and US, more than 90 % of the people consider historical places attractive (SCHOFIELD & JOHNSON 2006: 111). However, aesthetical, pleasant environments do not necessarily have to be historical but the place needs to have character. Both squares discussed in this paper have similar kind of historical environment, but there are differences between the characters and functions of the squares and visible life in these areas.

People are attracted by visible life, entertainment and company. Urban places which offer something to see and are full of life and people to look at are considered attractive. This is often related to the existence of the nice restaurants, coffee shops, bou-

tiques and services, activities and events of other kind.

In general, the people like order, but an excessive order and regularity of the place can be, soul-destroying, relentless and harsh. Therefore, an order with a variety, like different forms, colours and variety of details makes places interesting and attractive. Consequently, what the majority of the people want is an organised complexity. Places need to balance somewhere between variety and boringness if they want to be considered attractive. Furthermore, attractive cities and places are easy to orientate but at the same time they need to provide a sense of a mystery, novelty, excitement and surprise for those who visit the place regardless of the frequency of the visits. Easy orientation is connected with compactness of the size. For example, the most attractive squares are intimate and close enough in order to give a sense of containment. People like to have a feeling of being close to other people, spending time together and this feeling is easier to reach on a small square than on a big square with the same number of people. According to studies, the diameter of an ideal square is less than 30 meters, which enables the people to see and recognize each other from the opposite sides of the square. The squares bigger than this give people a sense of alienation and dislocation, even claustrophobia. Two squares discussed in this paper are not that different in size. The shape of the Old Great Market Square is elongated and it is 100 meters long and 30 meters wide. The other side of the square is framed by the buildings while the other side opens to the adjacent park giving the sense of wider space and openness. According to the rule mentioned above, the Old Market Square is simply too big to be attractive. Minor Square is triangular and is slightly smaller. The length of the square is circa 80 m and the diameter is 35 meters at the widest. The shape of the square triangular with the long side facing the river, which gives the same feeling of openness than the park to the other square. However, Minor Square has one big advantage (besides the better view to the river): the longer hours of sunshine during the daytime.

Conclusion

In this paper, I have presented two squares in Turku (Finland) on the opposite sides of the river facing each other. Both squares have a long history are framed by old renovated buildings from the 19th century with activities of different kind offering commodities, services, culture and education. However, the squares attract people in different ways. The emptiness of the other square is not a recent phenomenon and the first more comprehensive plan to revitalize the life on the square was made already nearly 50 years ago including concrete suggestions. Despite the renovation of the buildings and some other actions, the popularity of the square did not increase as wished. In spring of 2017, a new vision for the development of Turku centre was published including the ideas for the revitalisation of the old part of Turku comprising both squares discussed in this paper. According to new suggestions, the attractiveness of the area would increase with a new museum and placing pavilions in the adjacent parks and bringing more activities to the area. The suggestions presented both now and 50 years ago are rather similar with differences only on the level of concrete suggestions.

Even though there are big differences in what each of us finds beautiful and attractive, there is a certain formula for attractive cities and places. I have presented the criteria for attractive cities and reflected some of the aspects with the squares discussed in this paper. If the formula and abovementioned elements for making places attractive are known, what prevents the city planners making the places, areas and cities attractive? Is it only a question about different interests related to the function and productivity of the place or lack of political will? Making places attractive is not a question of money. It is a question of will and ability to understand the uniqueness

of the place and capability to build fascinating bridge between the past and present.

Notes

[1] The names of the squares have changed in the course of time but in this paper I am using the names that are used today.
[2] The video about the event is available at https://yle.fi/uutiset/3-9993668)(Accessed 10.1.2018).
[3] The results of the vision group are available in Finnish at https://www.turku.fi/sites/default/files/atoms/files/20170814_visio_press_lac_s.pdf (Last time Accessed: 14.1.2018).
[4] The background and plans for the new museum are presented in a report published in 2017 available at http://historianmuseo.turku.fi/wp-content/uploads/2017/06/Historian-museo_esiselvitys-2017_web.pdf . The webpages of the project are available at http://historianmuseo.turku.fi . (Accessed 14.1.2018.)
[5] How to Make an Attractive City. Available at https://www.youtube.com/watch?sns=tw&v=Hy4QjmKzF1c (Accessed 10.1.2018).

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Urban identity, heritage, and commodity: Reflections on the fifth workshop of AACCP 2017 Turku

Mary Hyunhee SONG
Centre for East Asian Studies, University of Turku, Finland

Abstract: City regeneration and construction activities are related to new buildings and infrastructure. Although architecture, archaeology, and urban planning in the contemporary society are deeply connected, it is hard to find their collaboration in academic fields. Thus, attending the fifth workshop of AACCP (Architecture, Archaeology and Contemporary City Planning) in Turku, Finland, 15th – 18th of May, 2017 was meaningful not only for those academics who had held their thirst on this multidisciplinary cooperation but also for me as a doctoral candidate who is currently researching on UNESCO Creative Cities of Gastronomy in East Asia.

The purpose of this paper is to discuss the papers presented at the workshop of AACCP 2017 in Turku and to report my reflection of the meeting. In this paper, I approach the papers through three themes: urban identity, heritage, and commodity, which attracted my interests related to my own research. Finally, I suggest expanding the workshop with urban studies in other continents.

Keywords: AACCP 2017, Urban identity, Heritage, Commodity, City.

Introduction

City regeneration or revitalisation has been highlighted recently as one of the solutions for sustainable development. Cities, if not the whole city, parts of the cities, are redeveloped, redesigned, reorganized to revitalise or regenerate their economic prosperity again. Regenerating or revitalising a city is frequently accompanying building projects. Often a huge building project is organized by a city government. As a result a world-famous architect designed building emerges in the city.

Archaeological excavations are needed if the area under construction includes ancient remains and protected archaeological evidence of the past. In this way, everyday life in the city is intensively related to architecture, archaeology, and urban planning in the contemporary society. However, it has been difficult to find much of collaboration of these three subjects in the academic field. Thus, attending the fifth workshop of AACCP (Architecture, Archaeology and Contemporary City Planning) in Turku, Finland, 15th – 18th of May, 2017 was meaningful not only for those academics who had held their thirst on this multidisciplinary cooperation but also for me as a doctoral candidate who is currently researching on UNESCO Creative Cities of Gastronomy in East Asia.

Living in Turku and working on my doctoral research at University of Turku brought me the chance to participate in the AACCP 2017 Turku. When I looked through the workshop program briefly, the contents and certain keywords drew my attention because I am working on the same topics in my doctoral research, too. To list some of those keywords: architecture, city planning, regeneration, revitalisation, urbanism, cultural heritage, urban identity, and commodity. Therefore, these became the main focus of my attention during the workshop in the presentations of the speakers.

In this paper, I focus on discussing urban identity, heritage, and commodity, and reflect my ideas on the basis of presented papers in the workshop. In addition, I develop my sug-

gestions for potential research on other continents and collaboration with different cities.

Urban identity

Cities have many nick names and titles authorised by public or official organisations. They obtain these names either without their intention or sometimes with their own applications. These nick names and titles cities have represent their identities. Cities try to have these identities with different reasons.

During the workshop, by discussing Bozcaada, an island in Turkey, Seda Sakar and Serkan Gokalp argued that it is important to conserve not only Bozcaada's urban and archaeological sites but also its viticulture as a cultural heritage. They saw the necessity of conservation of urban and archaeological sites despite of difficulties for carrying out archaeological studies due to the stratification. However, the argument emphasised the necessity of establishing a cultural heritage with wine and life style of islander. Then, how can this be done? Building an urban identity through a cultural heritage can be a complicating job. In Bozcaada's case it would be viticulture, especially when considering that Bozcaada has a history composed by several civilisations which current nations may want to claim their authenticity and tradition is related to.

Anna Frank's presentation allocated this problem well. She compared two places, Bolderaja in Riga, Latvia and Hallonbergen in the outskirt of Stockholm in Sweden in the era of migration and nationalism. She explained how complicating it can be to see the stories behind the buildings and landscapes. Anna Frank also argued that art exhibitions and NGOs are actively creating cultural scenes in an inclusive way in Bolderaja and its fortress is a part of the cultural heritage of the place today. However, does this mean there is an urban identity now? Anna Frank also explained that Hallonbergen wants a new identity and testlabs will be built and evaluated. I look forward to see not only how well this revitalisation of the public space could work in Hallonbergen, but also how much residents are involved in this process. Here, we can think the overlapping of given image and identity which oneself establishes. What do the local residents in Hallonbergen think of their own identity? Is this identity the same as what others think of this place?

Often the identity which an urban space is wanted to be given by officials is different from what it is given by public. Public often neglects the space a city wants to utilize and vice versa. Liisa Seppänen presented this problem in Turku, Finland. Today, the old market square is empty and used only on a few occasions, whereas the other side of the river is vibrant with restaurants. She asked any suggestions for how to make the quiet square more alive, but the problem looks simpler when one can notice there are many restaurants to sit down to eat on the other side of the river. Food always attracts people. However, we cannot make the whole city with rows of restaurants and cafés for public to sit down. One solution can be found in the impressive picture by Taneli Pyysalo, a brightly-lighted kiosk with warm food at night in front of the giant Turku cathedral. This picture explained well where people are attracted to: their needs. Simply putting a bright light on the old square of Turku would not be enough solution, but meeting the needs of the public at the same time would solve the solution. Urban identity can be established in diverse ways in a society. However, it is significantly important to ask first what people need in general, before giving any urban identity to this place. Otherwise, any urban development policy implementation can give forceful impression to the public who may look for different kinds of urban identities than what the governing part offers.

It is essential to involve residents in the planning of urban areas these days. Hannele Kuitunen showed another level of city's identity in her presentation related to people´s stories in an area in Tampere, Finland. The stories of people are often invisible unless

they are asked and listened by others. This engagement with residents has become vital nowadays. Katrina Foxton also showed this local engagement well in her research. She, as an active participant-researcher, utilises post-its, posters, letters, workshops, and BBQ with the residents to understand the Red Tower in York, United Kingdom. She asserts the concept "Flexible Space". How much a certain space can be changed according to participants, events, happenings, and others? This creates also questions about power impact as well as local policy on regeneration.

Urban identity was a concept several participants used in the workshop, but there are different ways of approaching the matter in different disciplines. Sometimes a new urban identity was needed by the city to renew their image. Other times an urban identity was requested to be created through cultural heritage. During the workshop, in general, strategies to regenerate a city with a new urban identity were asked. At the same time, most of participants in the workshop, however, agreed that any strategies we all pursue for regenerating cities must be reflected on several issues in a city or in a society. As many already know, it is a difficult task for many policy makers to consider these in the process of city regeneration. Instead, many of city regenerations are more focused on heritage development.

Tangible and Intangible Heritage

Heritage is a wonderful way to develop an urban identity. It makes a city more historical, more authentic, and more meaningful for tourists to visit and enjoy. However, why a certain heritage has to be chosen to be developed and why other heritages are not chosen can be problematic in terms of heritage politics. Who chooses to develop what as a heritage is an indispensable power game in the process of city regeneration through heritage development.

Cornelis Horn Evensen explained a case study of the city of Drammen, Norway in the sense of urban heritage. Drammen emphasises its "working class" which seems be the urban identity the city wants to establish. Consequently, in this case, urban heritage equals to industrial heritage. Evensen also noticed the differences between the identity from inside and the one from outside. For example, public discourse on a certain space may depend on who is the perceiver. The same space can be perceived as an empty space for young people who have no knowledge of the history or for the people unaware of the industrial heritage of the place. Evensen explained that a conscious participation of city planners, policy related public officials and the people made the local active scene and this could produce the final result of industrial cultural heritage as urban heritage. Heritage is developed and created with great efforts by many stakeholders. On the other hand, heritage is destroyed with huge labours work done during a war. Evensen's presentation also mentioned a valid fact that decrease of urbanization is often linked to civil war.

Małgorzała Zawiła's presentation was linked to the result of the World War II; German-speaking inhabitants in Poland and their cemeteries are preserved and revitalised by local communities. Zawiła's research was based on 40 interviews and participants observations in local communities which are actively creating "European heritage". She addressed the question how tangible heritage functions to organise new social, collective beings. I understood this that German-speaking inhabitants are also included in intangible heritage of the World War II along with tangible heritage in their ancestors' cemeteries. Intangible heritage is something hard to grasp. In the contemporary society, sounds, smells, tastes in the city can be visualised, yet it is still difficult to grasp them as they are experienced. Thomson Korostoff's research is to sense time and space in the collage to understand a site, a city, and history better. However, it is

again visualised in another form rather than the experience itself. Therefore, describing an experience with another media can be tangible. However, the experience its collage itself is again in tangible. This brings much bigger power to the tangible heritage.

Despite the power of tangible heritage, a big construction project in a city can create a massive destruction. Per Cornell asserted that historical ruins can be rubbish to some developers by mentioning Le Corbusier, a French architect and city planner (1887–1965). Heritage, whether tangible or intangible, relies on the power of developers, politicians, and public opinions.

In the workshop, there were presentations about preserving heritage through technologies such as photogrammetric survey or 3D GIS tools.

This also shows the significant role of the person who decides what to restore, preserve and conserve. Many scholars who are working on these technologies to build or rebuild heritage have to consider what kind of impact do these technologies have and what kind of consequences their use might bring along. As Girogio Verdiani asserted in the workshop, the digital era can be empty without any contents. Therefore, building, restoring or conserving heritage without comprehensive backgrounds and rational aims can be occurred unintentionally, especially now when we are living in the era of heritage.

Creating an urban identity through social engagements with local people is understood as a better solution than handing over a new urban identity created by implementing any forceful government policy. Nevertheless, heritage development is highly attractive not only for policy makers who try to attract people to their cities through tourism, but also citizens who want to enjoy the city in the name of heritage experience because people consume the heritage both as a tourist and as a citizen.

Thus, it is necessary to think about a city as a commodity.

City as a Commodity

Commodification of space, sites, cities, and heritages enables the city to make profit out of newly created urban heritage and urban identities. Tourists visit the specific city-site, enjoy the public space, and appreciate newly restored heritages. Other stories unfold when you go inside the building. When ruins and heritage are brought into a museum setting as artefacts and objects, they become to possess sublime to allure visitors' indebtedness to the history. Nowadays, a city becomes a huge museum and it offers products to be bought just like the ones in a museum shop: souvenirs.

My doctoral research is also partially about how a city becomes a commodity with culinary identity created by cultural institutions which consider food as intangible heritage. How a city tries to establish their urban identity on gastronomic tradition offers many aspects to reconsider on city regeneration policy. In my research, I explore mainly three East Asian cities which are named as UNESCO Creative Cities of Gastronomy to examine how this global policy on city regeneration applies to different local levels in mainland China, Japan and South Korea.

As mentioned earlier in the case of Bozcaada by Seda Sakar and Serkan Gokalp, viticulture has become popular for policy makers to create cultural heritage out of food. Creating foodscape more diverse in a city can create a huge difference. As Liisa Seppänen's case for the vibrant square with restaurants, it is perceived that the city square with food offers much more than the one without similar attractions due to the lack of people in the square without any food. Hence, making food as heritage became trendy and a way to make a city attractive nowadays. Consequently, a city offers fine restaurants as a commodity to sell both to citizens and tourists. Food has been unfocused for a long time in the history of studying heritage. However, it has become the trendy heritage to be designated by the global institutions such as UNESCO.

Cities which have heritages whether they are tangible or intangible can convert these to a commodity. Thus, cities have to be studied in the perspective of commodification in the era of consumerism with global tourism as well as local tourists to find own identity through heritage in their own cities. In this sense, it will be worth remind a classic work by John Urry, The Tourist Gaze (1990).

Although this book is about tourism and its economic, social and cultural aspects including globalization, this can apply to study cities with heritage as a commodity because the book describes much of consumption in the process of tourism.

Approaching cities, urban heritages, architecture and archaeology in sociological perspective can convey more fruitful outcomes.

Conclusion

This reflection paper has discussed several presentations in the fifth workshop of AAC-CP 2017 Turku, Finland. The purpose of this paper was to rethink a few topics raised in the workshop through three themes: urban identity, heritage, and commodity. I asserted that there are different approaches on urban identity. I argued that heritage has a huge role in building city identity and discussed how the city becomes a commodity these days.

Indeed, the workshop covered a wide range of studies, disciplines, topics, and related issues. Participating the workshop as a listener was pleasant and this workshop extended my knowledge of architecture, archaeology and contemporary city planning. However, I could finish my conclusion with a few suggestions.

First, there are huge parts missing in Africa, Asia, and Oceania. When one can think of a city, it is hard to forget that there are cities in China and India, where most of the world populations are concentrated on. Many cities forgotten in these areas are definitely worth studying for scholars who want to see old civilisations as well as contemporary societies. Moreover, their cityscape is diverse and has different scale than what often European cities deal with. More dynamic studies can encourage other studies to understand our own cities in a different way.

Second, many of scholars are studying their own countries or own cities. How about studying other place and other site? Per Cornell and Andriana Velazques M. had a well-cooperated example between Mexico and Sweden and Anna Frank introduced two cities from Latvia and Sweden. It is incredibly important to study in a collaboration and in comparison. Often this brings wider perspectives in the research and creates better understanding.

Reference

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Pictures from the workshop

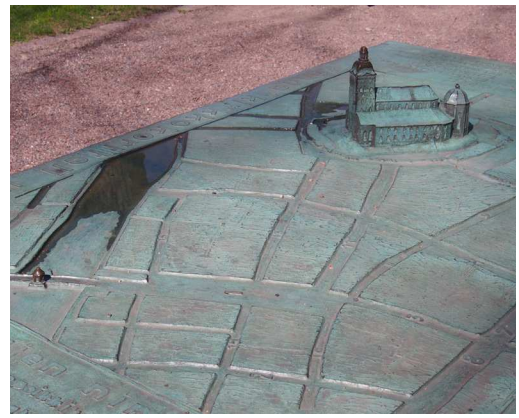
Giorgio Verdiani
DiDA (Dipartimento di Architettura) – School of Architecture – University of Florence

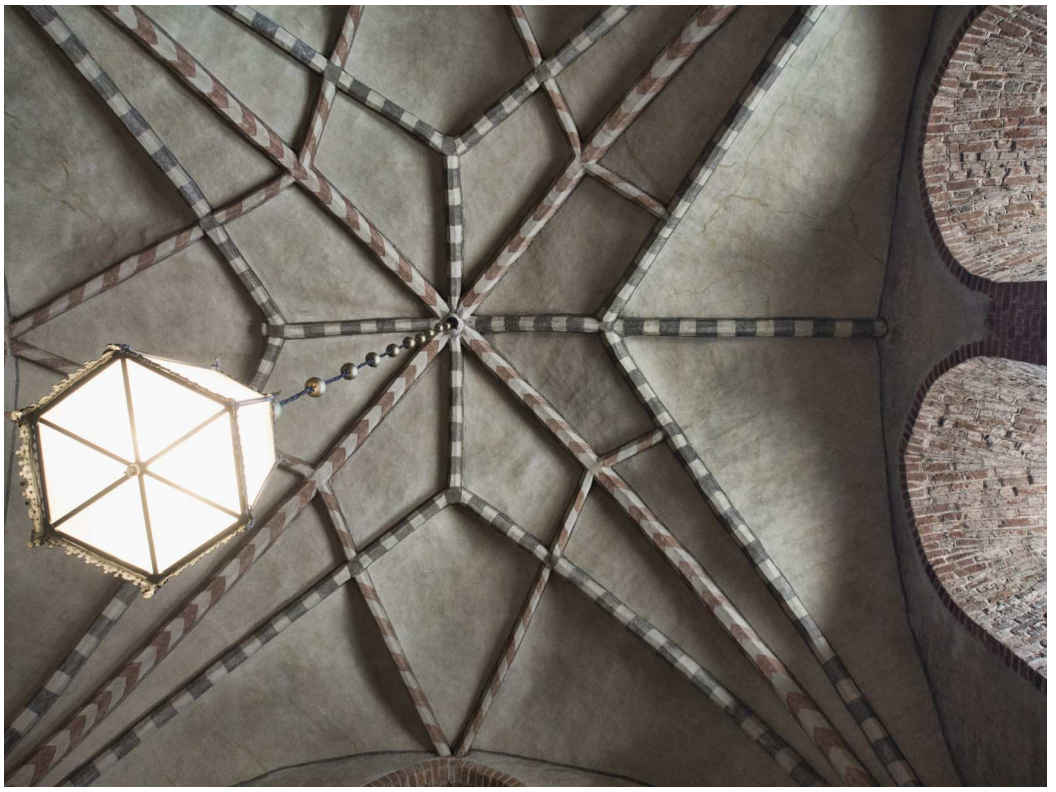
Abstract: Behind a conference, behind the proceedings and the book left to testify the complexity and the mountain of ideas flowed in few days, there is always the group of people who debated all the subjects, and their life around the event. So documenting with pictures is a nice way to add something more to the acts, and it is something that can be done with group pictures, with reportage pictures, with casual shots, but most of all it is something that must be done with an effort, the one trying to capture the real essence of visiting and of the people around. In this closing contribution it is possible to see a selected series of images from the workshop, the visited city, but no people posing or common postcards, only few shots to put in order what was done, trying to capture the involvement of the participants in the workshop. All the pictures here are taken by the author and by Anna Wyn-Jones Frank, and post processed by the author.

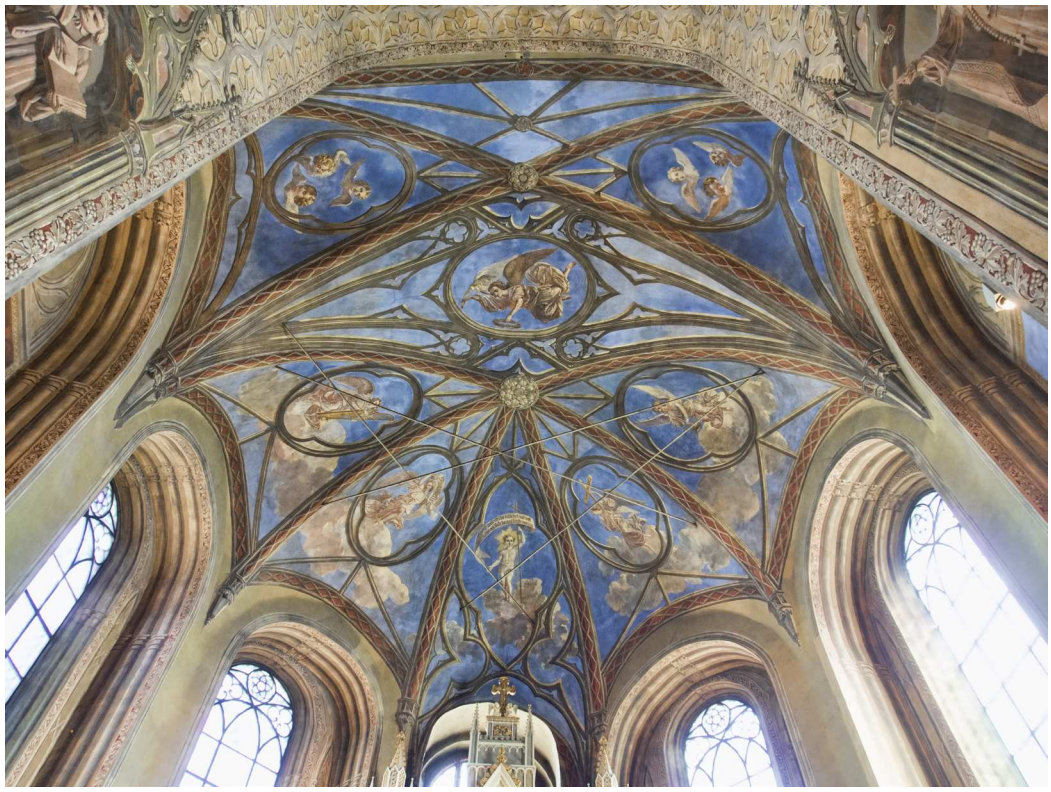
Keywords: Photography, Workshop, Turku.

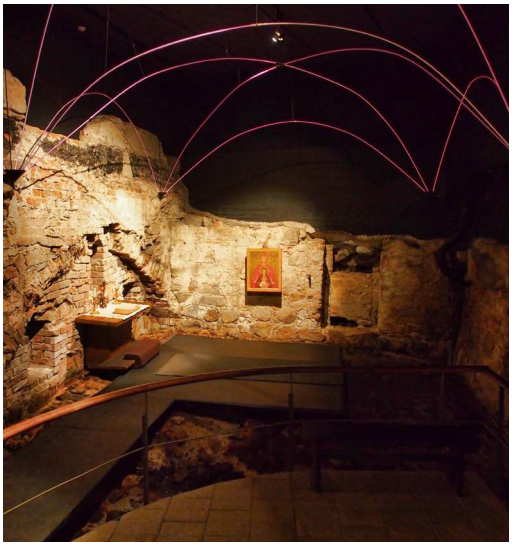
Social activities: visit to the Turku town center

A very interesting downtown with many high quality architectures, showing and mixing new and old elements from the recent history of the town, from an ancient past, burned by accident, to the contemporary public spaces for museums, cultural and social events, and in a contemporary urban fabric that somehow tryes to connect the traces from the old times to the today. During this tour, the accurate and detailed coordination by Liisa Seppänen and some specific local guides, allowed the clear comprhension of the evolution of the main parts of the downtown. From the area of the Cathedral, to the museum of the city, to the housing nearby the ports/channels, Liisa took care about illustrating to all the participants the nodal points of the transformations and the historic background bringing this places to the contemporary aspect. The many architectures and their urban asset, transformations, evolutions, specific materials and changes in planning, were clearly explained, bringing the participants to “live” for some hours in the reality of the places, interpreting the lively changes occorred in the past and still ongoing.







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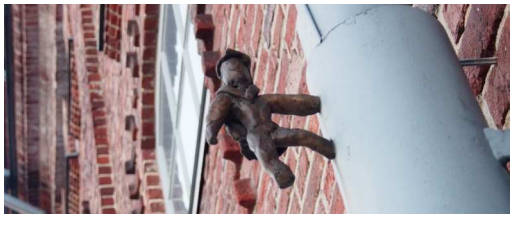
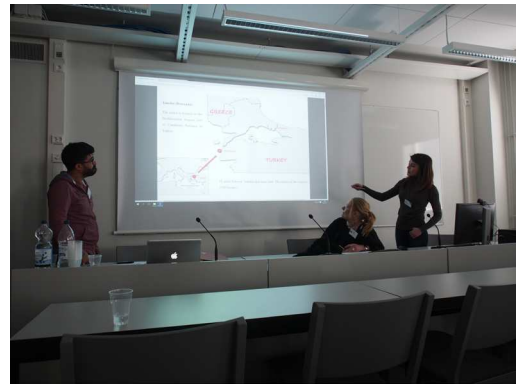
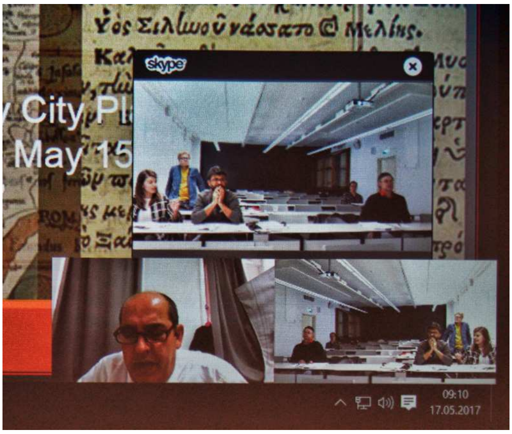



TURKU
ENERGIA

Days of the workshop

Obviously, the presentations of all the participants, questions, answers, discussion. With a certain presence of "online/remote" presentations, but also with the great and personal presence of all the participants, with the interest and the intention to bring on this experience. A detailed report about the main lines developed in this workshop can be found in the paper from Mary Song in this same volume.

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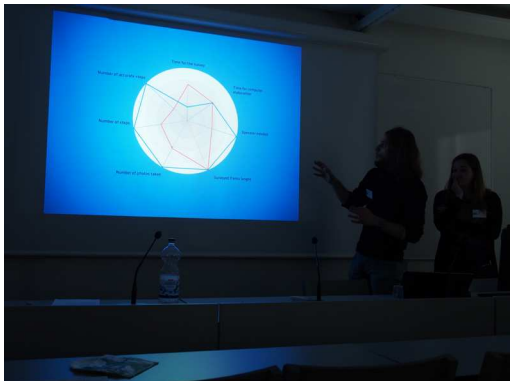
TENGBOM
BOLDERAJA AND
HALLONBERGEN
A COMPARISON OF CULTURE AND IDENTITY
ANNA WYN-JONES FRANK,
LANDSCAPE ARCHITECT, TENGBOM


CENTRE FOR
HERITAGE
STUDIES


5th AACCP Workshop
Architecture, Archaeology and Contemporary City Planning


Halden
Drammen


A Rewritten City

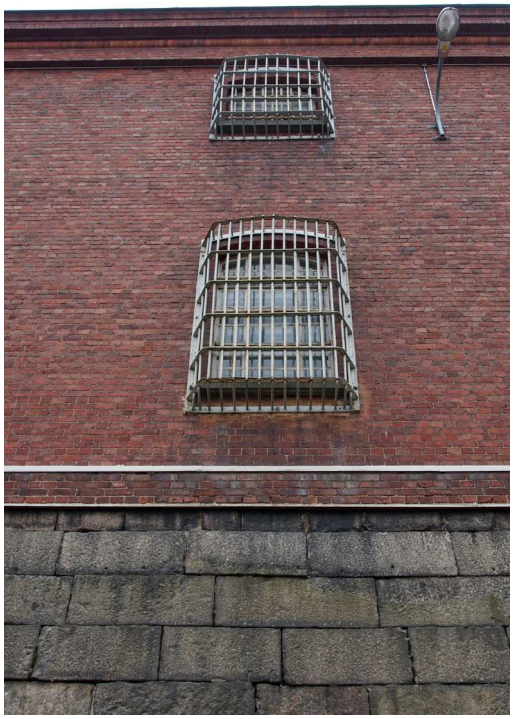



1864 Florence becomes the Capital of Italy
Giuseppe Poggi


2017

Visit to the Kakola Yhtiöt Oy prison area

An interesting visit to a large former prison structure, now changing little by little into housing and services, still preserving some mood from the past, but with a new and modern approach to presenting a pleasent way of living were once it was emprisonment and suffering.

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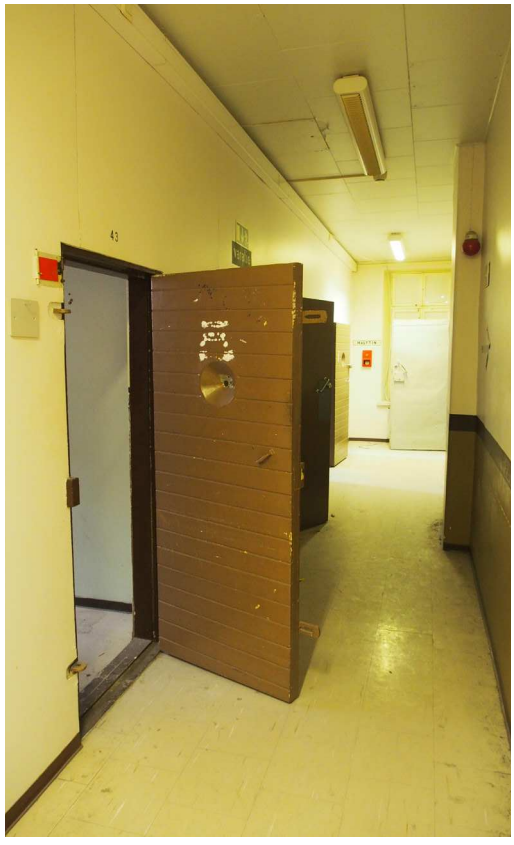
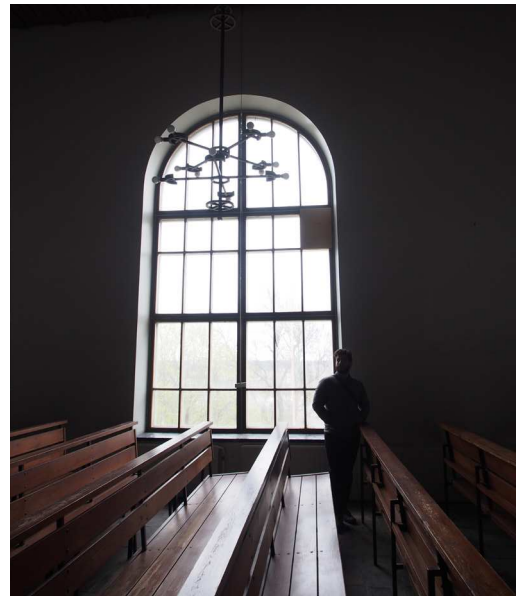
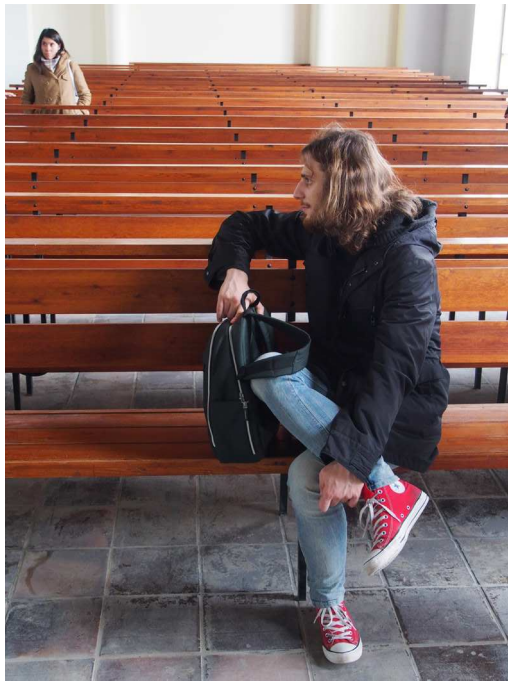
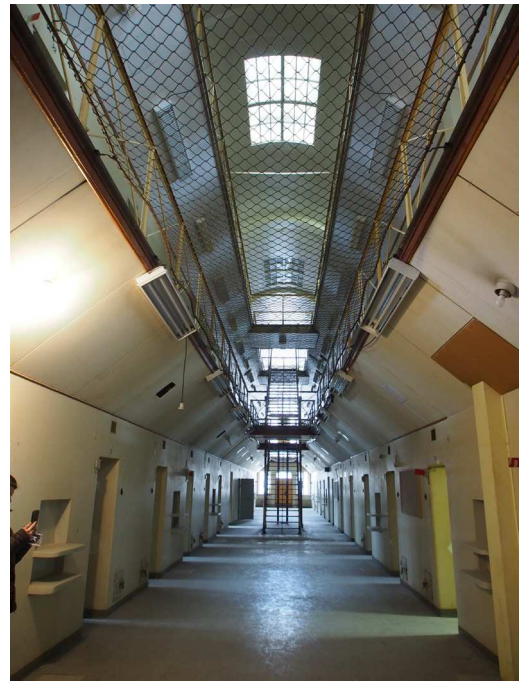




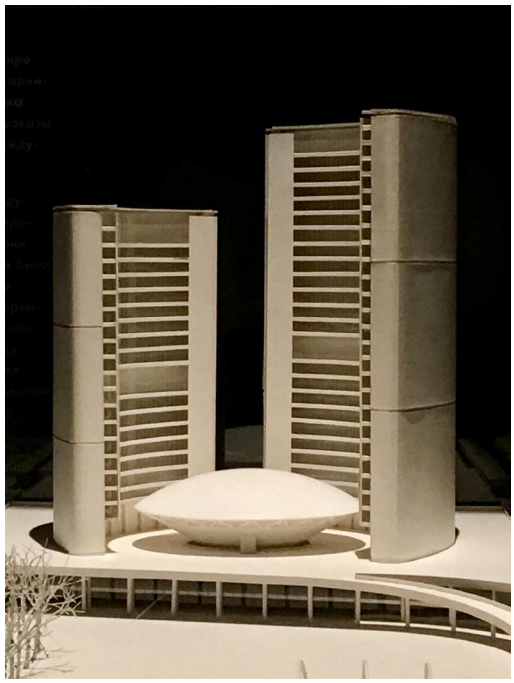





SIRO 7

Visit to Helsinki

As a salutation to all the participants leaving from the Helsinki Airport, the last day offered a visit to the capital of Finland and a specific visit to the Design Museum, a final interesting moment to meet the architecture of this country, read the transformation, get new imputs about the urban transformation and see once more how the layers of the urban fabric continue to evolve all across Europe. A last moment togheter to share ideas and get new suggestions before starting the way back home.



Turku, Finland
15-18th May 2017

Scholar workshop:
ARCHITECTURE, ARCHAEOLOGY AND CONTEMPORARY CITY PLANNING
Reformation, regeneration and revitalisation

The workshop took place in Turku, Akatemiankatu 1, 20500 Finland.

Workshop organizing committee:
Liisa Seppanen, Giorgio Verdiani, Per Cornell

The workshop has been realized in collaboration between University of Turku, Finland, the Architecture Department of the Florence University, Italy, the Department of Historical Studies, University of Gothenburg, Sweden.

Turun yliopisto
University of Turku

UNIVERSITÀ DEGLI STUDI FIRENZE
DIDA DIPARTIMENTO DI ARCHITETTURA

Proceedings Editors: James Dixon, Giorgio Verdiani, Per Cornell
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ISBN 978-0-244-09051-7

2017
15th-18th May/Turku, Finland

In discussions on urbanism, the need to involve new actors has been a major theme of recent debate. In this field, throughout Europe, various ways of allowing citizens to take a more direct part in planning is stressed. It is also important to look at the role or lack of the role played by particular research fields. Architecture plays a major role in city planning. While archaeology has become increasingly involved in field projects in urban environments, the discipline seldom plays an important role in city planning. In several countries and particular cities this situation has been questioned during the last decades. In May 2017, a group of scholars from different countries met in Turku to discuss about the relationship between Architecture, Archaeology and contemporary City Planning. This book collects the final papers from that meeting.

The workshop has been realized in collaboration between the **University of Turku**, the **Architecture Department** of the Florence University, Italy, the **Department of Historical Studies**, University of Gothenburg, Sweden

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