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URBAN INTEGRATION OF ARCHAEOLOGICAL HERITAGE IN ZADAR

Marko RUKAVINA University of Zagreb, Faculty of Architecture, Kačićeva 26, 10000 Zagreb, Croatia e-mail: mrukavina@arhitekt.hr

Mladen OBAD ŠĆITAROCI University of Zagreb, Faculty of Architecture, Kačićeva 26, 10000 Zagreb, Croatia e-mail: mos@arhitekt.hr

ABSTRACT

The paper examines urban integration of archaeological heritage in the town of Zadar via analysis of the town's history and urban development; the history of archaeological research and archaeological heritage protection and preservation; and the analysis of the relevant developed urban or spatial planning documents in relation to archaeological heritage. The history of archaeological research, of archaeological heritage protection and preservation and spatial planning in Zadar have not yet been systematically scientifically researched, and cover the period between the late 19th century (first archaeological excavations) and 2015.

Keywords: archaeological heritage, urban and spatial planning, urban integration, integrated protection/ conservation, Zadar

INTEGRAZIONE DEL PATRIMONIO ARCHEOLOGICO DI ZARA NEL CONTESTO URBANO

SINTESI

L'articolo analizza l'integrazione urbana del patrimonio archeologico nella città di Zara, attraverso lo studio della storia cittadina e dello sviluppo urbano, un'analisi storica sulla ricerca archeologica e sulla protezione del patrimonio archeologico, e un'indagine approfondita sui principali materiali e documenti di pianificazione urbana e territoriale, in relazione al patrimonio archeologico. La storia della ricerca archeologica, della protezione e conservazione del patrimonio archeologico, e della pianificazione urbana e territoriale a Zara non è stata ancora studiata in maniera sistematica e scientifica; essa copre un arco di tempo che va dalla fine del XIX secolo (primi scavi archeologici), ai giorni nostri.

Parole chiave: patrimonio archeologico, pianificazione urbana e territoriale, integrazione urbana, protezione integrata, Zara

INTRODUCTION

The paper examines and analyses urban integration of immovable archaeological heritage and the relation between urban planning and in situ preservation of archaeological heritage in the town of Zadar. The analysis of the process of urban integration consists of three units: 1) a brief review of history and urban development of the town, from ancient Illyrian period until today, as a historic, spatial, and value context of urban integration of archaeological heritage, 2) the history of archaeological research and archaeological heritage protection and preservation divided in four characteristic periods from the late 19th century to 2015, and 3) analysis of relevant developed urban or spatial-planning documents of different levels in relation to archaeological heritage, from the first regulation plans, from the first half of the 20th century, until 2015.

Thus far, there has been no systematic research focused on the integration of archaeological heritage in Zadar. This topic was only partially covered by experts and researchers who researched certain aspects of integration of archaeological heritage. From the standpoint of urban planning, some researchers addressed this topic, including Dražen Arbutina who researched Bruno Milić's work and efforts on urban planning in Zadar; Ines Merčep whose paper researched the competition for the reconstruction of the historic core (1953); Antonija Mlikota whose doctoral thesis researched the post-war construction and reconstruction of the town until 1967; and Damir Magaš who researched the town's spatial development until 1981 (Arbutina, 2000; 2002; Magaš, 1982; Merčep, 2005; Mlikota, 2013; Rukavina & Bojanić, 2012). Likewise, the papers by urban planners Josip Seissel, Dragan Boltar, and Vladimir Ivanović are important contributions to this aspect (Boltar, 1961; Ivanović, 1971; Seissel, 1954). From an archaeological standpoint, integration of archaeological heritage is touched upon in texts written by Mate Suić, Ivo Petricioli, Šime Batović, and other archaeologists. The conservation aspect of integration of archaeological heritage is addressed in texts by Grga Oštrić, Ksenija Radulić, Pavuša Vežić, Tomislav Marasović, Miljenko Domijan and others (Domijan, 1989; Marasović, 1985; Oštrić, 1989; Radulić, 1970; Vežić, 1986, 1988, 1990, 1997). The only systematically and scientifically covered topic that the conducted research relies on is the history of Zadar (M. Suić, I. Petricioli, Nada Klaić et al) (Klaić & Petricioli, 1976; Suić, 1981; 2003).

The following research is based on scientific processing of published archaeological research, conservation research and records of interventions on architectural (archaeological) heritage in Zadar, documents from the Conservation Department in Zadar, publications and articles on urban planning and architecture in Croatia, document sources, archival sources (urban and spatialplanning documents), online sources, and interviews with archaeologist Smiljan Gluščević, PhD and Barbara Peranić, archaeologist and conservator.

The conducted research was considerably hindered by the lack of any previous systematic research. For instance, there are no complete maps of archaeological topography (results of conducted archaeological excavations), nor are there maps or inventories of visible archaeological remains. The results of numerous archaeological excavations have not been published and a multitude of documents are missing at the competent conservation department. There has not been sufficient research of the overall history of archaeological research in Zadar, the history of archaeological heritage protection and preservation or the history of urban and spatial planning (developed urban and spatial-planning documents). The legacy of most architects who were engaged in the post-war reconstruction of Zadar is in disarray and uninvestigated. All of these limitations impede research.

In the contemporary period in many European countries archaeological heritage is recognized as a non-renewable resource that needs to be preserved and integrated in the contemporary life.1 Historical, often unfavorable, relationship between urban planning and protection and preservation of archaeological heritage is gradually changing by the realization that archaeological heritage is an important factor of spatial identity and spirit of place which contributes to the quality of life. Archaeological heritage promotes social cohesion, community identity, development of cultural tourism and other benefits for the town. Its protection, preservation in situ, presentation and interpretation, use and enhancement that includes urban integration is encouraged. As an example of the contemporary management and integration of archaeological heritage in Europe and in the Mediterranean the case of Spain is highlighted, where in many towns (Mérida,² Tarragona, Barcelona, Zaragoza, Málaga, Cartagena, etc.) urban integration of archaeological heritage in contemporary life is being conducted based on the identification of archaeological heritage as a spatial and development resource.

The paper is based on a doctoral research entitled *Archaeological heritage integration method in urban planning,* beginning as part of the scientific project «Urban and Landscape Heritage of Croatia as part of European Culture» (2009–2013), and ending in 2015 as part of the scientific project «Heritage urbanism (HERU)

¹ Protection and preservation of archaeological heritage at the international and European level is regulated primarily by numerous protection related documents which define professional conservation principles; by documents relating to urban and regional planning and by documents on environment protection which recognize cultural heritage as one of its components (Rukavina, Obad Šćitaroci, Petrić, 2013; Rukavina, 2015).

² Management and urban integration of the archaeological heritage in Mérida was investigated as a case study and an example of good practice in the doctoral research *Archaeological heritage integration method in urban planning* (Rukavina, 2015).

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Figure 1: Roman period (1st-2nd century) (Petricioli, 1958, 66)

- Urban and Spatial Models for Revival and Enhancement of Cultural Heritage».³

HISTORICAL AND URBAN TOWN DEVELOPMENT – OVERVIEW

The Zadar town area has been continuously inhabited from prehistoric times, spanning over almost 3000 years. Archaeological research and findings indicate that the Zadar peninsula was continuously inhabited from the 9th century B.C. The peninsula's defensive position and natural harbour were the main reasons for inhabitation. Numerous Greek ceramic artefacts dating from the most ancient times to the Hellenistic Period bear witness to the strong commercial ties between the local Illyrian population and southern Italy and Greece. At the time Zadar was one of the strongest Liburnian centres on the Adriatic (Durman et al., 2006, 304; Petricioli, 1962, 9).

The first Roman settlement was formed during Caesar's time when Italic settlers began inhabiting the peninsula, whereas its colonial status and urban physiognomy developed under Emperor Augustus. The town was named *Colonia Iulia Iader*, after its founder. The town did not play a major role during Roman times, but archaeological remains bear witness to substantial economic and cultural development. Following the principles of Roman urban planning, the town was divided into blocks within an orthogonal grid plan which for the most part corresponds to the current layout on the peninsula. The town centre containing a forum was located in the western part of the peninsula, with an adjoining *capitolium* and temple, forming a unique spatial complex (whose remains are partly visible today). The very beginning of forum construction dates back to the beginning of the colony itself in 27 B.C., whereas its final appearance was shaped during 3rd-century reconstruction. The town was surrounded by walls constructed under Emperor Augustus with at least three gates, the main of which was a triumphal arc (remains visible on Petar Zoranić square and Emperor Augustus passageway). On the north-eastern part of the peninsula, near the harbour, there was a market place (emporium), and an amphitheatre outside the town walls (figure 1). The peninsula most probably also housed a theatre, although this theory is yet to be archaeologically tested. The town was equipped with a sewer and water-supply system, as well as various public facilities. Numerous finds of floor mosaics, sculpture fragments and ornaments, and painted walls indicate a high standard of living of wealthier citizens. Outside the town walls there were necropolises, agricultural estates (villae rusticae), two aqueducts that supplied the town with fresh water (remains visible in Ivan Zadranin street, Franko Lisica street, the town cemetery, and Gaženica - the industrial

³ Project *Heritage Urbanism* (2014–2018) is financed by Croatian Science Foundation (HRZZ-2032), which is being carried out at the Faculty of Architecture University of Zagreb. Further information: http://www.arhitekt.unizg.hr/znanost/HERU/default.aspx.

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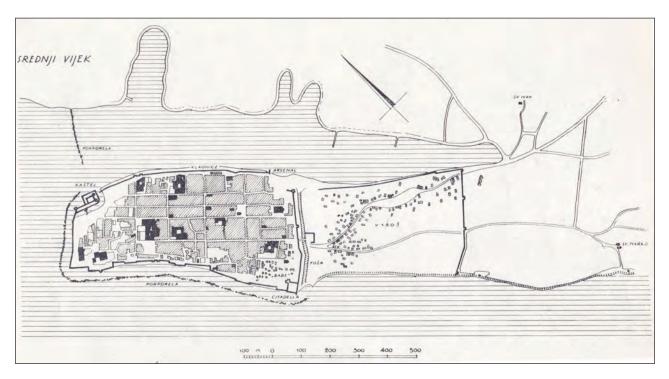


Figure 2: Zadar in the middle ages (Petricioli, 1958, 67)

part of the town), whereas the entire town territory (*ager*) was divided into *centuriae*, whose traces have survived to this day (parts of contemporary grid plan, dry-stone walls, land subdivision). In Late Antiquity, in the 5th and 6th centuries, the town saw the construction of numerous early-Christian churches logically incorporated in its ancient tissue (some have survived to this day and some were discovered during archaeological and conservation research) (Durman et al., 2006, 304–305; Giunio, 2001;2008a; Petricioli, 1962, 4).

During the Migration Period Zadar avoided destruction, and after brief Ostrogoth rule in 535 it became the capital of Byzantine Dalmatia and the seat of the imperial governor. In the early 9th century, Zadar bishop Donat was the head of the delegation that surrendered the Dalmatian cities to Charlemagne (only to be returned to Byzantium in 810). It was during this period that St. Donat's church was built, one of Zadar's most famous buildings. In the 10th century Dalmatian cities spark the interest of the Venetians who succeeded in occupying Zadar for the first time, if only for a short while (Durman et al., 2006, 306; Petricioli, 1962, 4).

In the early centuries of Croatian history Zadar maintained a connection with Croatian rulers whose rule it began to accept in the 11th century. Croatian influence was increasingly stronger in this still mostly Byzantine town. The 12th and 13th centuries were a time marked by constant battles between Zadar and Venice⁴, which conquered the town several times, and the changes in government between Venice and Croatian-Hungarian kings (Durman et al., 2006, 306; Petricioli, 1962, 4–5).

The medieval urban Zadar area included the entire Roman town on the peninsula, with the most part of the Roman grid plan preserved. In 1346 the Venetians renovated the *Kaštel* fortress at the entrance to the town harbour and dug a moat, which meant tearing down surrounding buildings to create a glacis for defensive purposes. In the 15th century, in place of the former tower on the southern town corner, the fortress *Citadela* was built and a moat was dug along the south-eastern town wall (figure 2) (Durman et al., 2006, 306; Petricioli, 1962, 11; Vežić, 1990, 7–43). The remains of *Kaštel* and *Citadela* were incorporated in the more recent historical construction and are still partially visible owing to conservation efforts.

In 1409 Venice purchased Zadar and Dalmatia from the Croatian-Hungarian king, causing the town to stagnate after imposing restrictions on economic activities. The stagnation intensified after the Ottoman surge in the 16th century. Due to the development of artillery, it was necessary to modernise the town walls and build a new fortification system (most of which have been preserved to this day). The town suburb of Varoš was destroyed and the people moved inside the town walls to enable the construction of *Forte*, a large rampart serving as the

⁴ Periods of Venetian rule: 1116–1181, 1205–1358 (town rebelion against Venice: 1164, 1167-1170, 1181, 1242, 1311–1313, 1345, 1357) (Petricioli, 1962, 4–5).



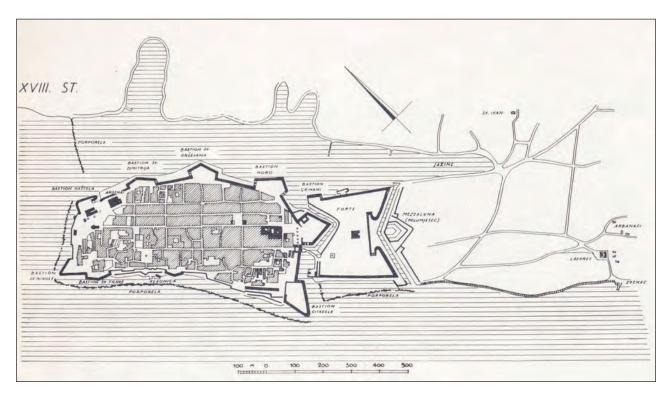


Figure 3: Zadar in the 18th century (Petricioli, 1958, 68)

external fortification belt toward the interior, whereas the medieval town walls were fortified with bastions and partially rebuild. In the early 16th century the entire area outside the Zadar peninsula was conquered by the Ottomans who continued to battle Zadar all through the 17th century. In the 17th and 18th centuries two canals were dug along the *Forte* rampart and a new fortress was build called *Mezzaluna* (later demolished). Economic circumstances had improved somewhat in the 18th century, although the town's recovery was negligible (figure 3) (Petricioli, 1962, 6, 11, 13).

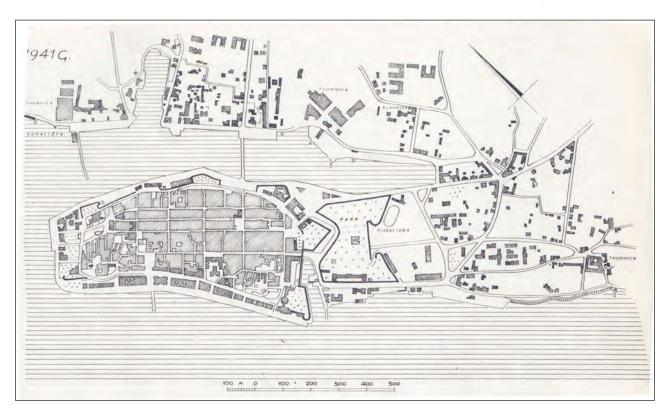
After the fall of Venice in 1797, Zadar came under Austrian rule, only to be conquered by the French in 1806. Austrian rule was re-established in 1813 and lasted until the end of WWI when it was taken over by Italy. Under Austrian rule Zadar became the administrative centre of Dalmatia, which stimulated the town's overall development. During this period the south-western town walls were demolished (1874), followed by the construction of the new shore, whereas the town's urban structure for the first time began spreading outside the peninsula. (figure 4) (Petricioli, 1962, 6–7, 13; 1965, 197).

After WWII and severe destruction caused by Allied forces (bombing destroyed 80% of structures on the peninsula), Zadar was returned to Croatia to form a part of Yugoslavia, thereby entering a time of reconstruction, economic recovery and rapid urban development. The socialist period was marked by: industrial development (industrial zone Gaženica), commercial and tourist development (tourist zones Puntamika, Borik, etc.), transport infrastructure development (harbour, railway, airport), spatial expansion of the town over the entire area of the ancient Roman *ager*, a rapid surge of population, as well as illegal and unplanned construction on the broader town area (Magaš, 1982; Merčep, 2005, 68).

The period of transition and shifting to a market economy began in 1991 after Croatia declared independence. The town once again suffered destruction during the War of Independence (1991–1995) impeding the course of its development. Only during the recent years has the town begun to recover (tourism, culture, trade, infrastructure), whereas according to the 2011 census it has a population of 75 062.

HISTORY OF ARCHAEOLOGICAL RESEARCH AND ARCHAEOLOGICAL HERITAGE PROTECTION AND PRESERVATION IN ZADAR

The history of archaeological research and archaeological heritage protection and preservation in Zadar can be divided according to intensity, character, and applied methodology into four distinct periods: beginnings of archaeological excavations pre-WWII, town reconstruction between 1945 and 1975 (integration of archaeological monuments), the period between 1975 and 1991, and the contemporary period post-1991.



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Figure 4: Zadar 1941 (Petricioli, 1958, 69)

Beginnings of archaeological excavations pre-WWII

The beginnings of archaeological research in Zadar can be traced back to the time of Austrian administration and the town's gradual economic recovery, as well as construction activities in the 19th century. The conservator of Zadar monuments at the time was Carlo Federico Bianchi who has left a multitude of records on ancient remains found during construction on the Zadar peninsula (remains of ancient Roman streets, of structures/ architecture, mosaics, sculptures, and graves) (Suić, 1970, 242-245). The Archaeological museum in Zadar was founded in 1832, whereas the first archaeological excavation was conducted in 1877 by Frane Bulić and Alois Hauser at the location of St. Donat's church. It was then discovered that the church is partly built on the forum pavement which remained visible (Batović, 1964, 679; Suić, 1948, 201; 1970, 246). Archaeological excavation of the pre-Romanesque Stomorica Church and the Church of St. Peter the Elder began in 1880 and 1886, respectively (Petricioli, 1958, 57; Petricioli & Vučenović, 1970). Excavations at Petar Zoranić Square were supervised by archaeologist Josip Bersa⁵ in 1908 when the remains of ancient Roman and medieval town gates, walls, and a small early-medieval church were discovered (Batović, 1964, 679; Suić, 1948, 200; 1970, 242). Some of the finds (the base of the ancient Roman triumphal arch) were conserved and remain visible *in situ*.

Small-scale excavations continued under Italian administration (1918-1943). Between 1928 and 1930 excavations were conducted in the area south-east of St. Donat's Church, leading to the discovery of a new surface of the forum pavement⁶ while demolishing some of the existing buildings to "liberate" a monument (a church rotunda), also several test pits were excavated aiming to determine the exact surface of the forum (Batović, 1964, 680; Suić, 1948, 201; 1970, 246). Sites also examined during this period were the ancient Roman necropolis near Benkovac road and Great St. Mary's Church remains while digging a shelter within town walls (Batović, 1964, 680; Vežić, 1975). Archaeological excavation was supervised by Italian archaeologist Luigi Crème, the director of the Archaeological museum in Zadar at the time.

Town reconstruction between 1945 and 1975 – integration of archaeological monuments

After WWII, when virtually the entire historic part of Zadar lay in ruins and town reconstruction was to

⁵ Director of the archaeological museum at the time.

⁶ Discovered surface remained visible – collection of stone monuments at the archaeological museum.

begin, archaeologists were faced with an unusual situation. Archaeologists and conservators⁷ planned a comprehensive systematic research of ruined town areas prior to the commencement of reconstruction and new construction, while conservator Grga Oštrić was vehemently advocating for the prevention of new construction on the peninsula in order to ensure sufficient time for research and development of a construction plan (Suić, 1977, 40).

The Zadar administration at the time passed a regulation ordering that prior to any new construction in the historic centre – *old town*, archaeological excavation must be conducted at investor's cost. However, the regulation was not enforced, leaving the salvaging of archaeological data to the efforts of the Archaeological museum in Zadar or the former History Institute in Zadar.⁸ Excavations would start too late, after building plans had already been designed and important details, which would otherwise have been preserved, had to be sacrificed (Petricioli, 1958a, 91).

Practice has shown that necessary archaeological interventions during foundation digging and similar occasions add considerably to the cost of construction, and more often than not demand changes to the original design for some buildings, due to discovered remains. Consequently, this led to the conclusion that archaeological excavations should be conducted prior to construction, in all areas with planned development. Previous failures have shown that not even preliminary construction plans can be made without a detailed knowledge of the town's archaeological topography, or without evaluation of discovered remains. Archaeologists took advantage of the situation, conducting extensive research on a broader area of the ancient Roman forum complex (Suić, 1977, 40).

The research of the forum complex began as early as 1948 (with test-pit excavations), continuing in 1949 and 1952 (Batović, 1964, 6; Suić, 1948, 202–204). Systematic excavation of the complex was intensified between 1964 and 1967 when the clear surface of the forum and the surrounding area was excavated, as well as the partial remains of the forum's integral parts (taverns, basilica, *capitolium* with temple). The excavation of the north-eastern edge of the forum, near the cathedral belfry, was conducted in 1971 (Suić, 1981, 204, 206).

The previously mentioned rescue excavations during foundation digging for new buildings on the peninsula began in the 1950s, albeit with limited scope and without a research plan, provided important data for defining the virtually unknown *archaeological topography* of the ancient, late-ancient, and early-medieval town. Some of the more important finds on the peninsula include: pavements of several ancient Roman streets, sewer system, market place (emporium), granary (horreum), remains of ancient, late-ancient, and medieval walls and gates, ancient Roman residential buildings (domus), cisterns, private bathhouse complex (balneum) in Široka Street (Calle Larga), and public bathhouse (thermae). Outside the peninsula, research of centuriation, aqueducts, villae rusticae and ancient Roman and late-ancient necropolises was conducted (Batović, 1964, 681; Batović, 1980; Belošević, 1967; Ilakovac, 1964; 1982; Nedved, 1980; Suić, 1955; 1956; 1981). Archaeological research of the remains from late-ancient and medieval periods was likewise conducted: medieval town walls, Kaštel fortress at harbour entrance, St. Mary's Church and convent, St. Thomas' early-Christian basilica, pre-Romanesque Stomorica Church, St. Ursula's Church on Puntamika peninsula, St. Peter the Elder's Church, early-Christian cemetery basilica (St. John's) (Jeras-Pohl, 1975; Miletić & Štrkalj, 1977; Petricioli, 1958b, 56-63; 1965; Petricioli & Vučenović, 1970; Petricioli & Vežić, 1975). At the time archaeological excavations were supervised by archaeologists from the Archaeological museum - Mate Suić, Šime Batović, Boris Ilakovac, and art historian Ivo Petricioli,9 later joined in the museum by archaeologist Branka Nedved.

Numerous mentioned finds discovered on the peninsula were, at the time, preserved in situ, remained visible and integrated into new construction, open or public spaces (south-eastern town walls and gates, remains of the *horreum*, basin from private bathhouse, public bathhouse, remains of an ancient Roman building in Kraljevski Dalmatin Street, Stomorica Church, remains of the Kaštel fortress, remains of medieval town walls, remains of early-Christian St. Thomas' basilica). At the level of urban planning, this was the beginning of the partial integration of the forum complex. Another important contribution to integration and preservation of archaeological heritage during the 1970s was given by Zadar conservator Ksenija Radulić who was a strong advocate for the completion of urban integration of the forum complex (Radulić, 1970).

Period between 1975 and 1991

After 1975, archaeological research in the town subsided, and those that were conducted were mainly rescue excavations. The excavations were conducted by either the Archaeological museum in Zadar or the

⁷ Dalmatian Institute for Conservation (*Konzervatorski zavod za Dalmaciju*) founded a committee in Zadar in 1946. In 1952, the Zadar conservation office (*Konzervatorski ured u Zadru*) is founded which in 1954 becomes an independent institution (today's *Konzervatorski odjel u Zadru*) (Dinić, 2006, 65-67).

⁸ Today's Institute for Historical Sciences at the Croatian Academy of Sciences and Arts in Zadar (Zavod za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Zadru).

⁹ Employed at Archaeological museum 1949–1954. Between 1955 and 1958 employed as expert associate at the History Institute in Zadar and from 1958 employed at the Faculty of Philosophy in Zadar (http://info.hazu.hr/hr/clanovi_akademije/osobne_stranice/ivo_petricioli).

Institute for the Protection of Cultural Monuments in Zadar (conservation research of individual monuments). Excavations were carried out at the following locations: cathedral complex (1977–1983), St. Clement's Church (1977–1978), Citadel (1979–1983), forum (1984), St. Marina's Church (1988), whereas rescue excavations were conducted at: necropolis at Ivan Zadranin Street (1975/1976), Kaljska Street (1985), ancient Roman Relja necropolis (1989–1990, 850 graves), town market place, St. Dominic's monastery (Fadić, 1999; Gluščević, 1990; 2001; Nedved, 1980; Vežić, 1986, 171; Vežić, 1988; 1990; Ministry of Culure – Conservation Department in Zadar, interview with dr. sc. Smiljan Gluščević, Archaeological Museum in Zadar). Protected cultural and historical area of the town was proclaimed in 1978.

During this period preserved finds included the remains of St. Clement's Church (at Arbanasi), St. Marina's Church (at Gaženica) and the medieval Citadel, whereas the visible remains of ancient Roman aqueduct were integrated into the layout of a new residential complex (Ivan Zadranin st. / Ante Starčević st.).¹⁰

Contemporary period post-1991

Archaeological researches in the Zadar post-1991 consist mostly of rescue excavations.11 The following archaeological excavations have been conducted: garden at Zadar Seminary (1992-93), garden at St. Mary's convent (1995), cemetery basilica¹² (1995), Šimun Kožarić Benja Street, Relja necropolis (1998-99, 2005-06, 2008, 2009), Varoška Street (2000), capitolium - John Paul II Gymnasium (2002), St. Nichola's Church (2004, 2006), cathedral (2006–07), forum – Pope John Paul II Square (2006–07), Petar Zoranić Square (2006–07), puppet theatre (2007), R. Bošković Street (2007), Citadel (2008) (Alihodžić, 2009; 2010; Brusić, 2008; Fadić, 2007; 2007a; 2007b; Fadić & Štefanac, 2011; Giunio & Jurić, 2004; Giunio, 2007; 2008; 2014; Gluščević, 2001; Gusar & Vujević, 2009; Jurić 2008; 2008a; Vežić, 1997; Vučić, 2008; 2010). Underwater archaeological excavation of ancient Roman dock at Kolovare was conducted in 2007 and the International Centre for Underwater Archaeology was founded in the same year (Glušćević, 2008).

In the contemporary period, the remains that were preserved *in situ* and left visible include the remains of the ancient Roman mosaic in St. Mary's convent, remains of early-Christian mosaic in the cathedral, remains of early-Christian cemetery basilica, and the remains of *capitolium* substructions in the new gymnasium building, discovered during rescue excavations, whereas renovations were conducted at Petar Zoranić Square (visible remains of ancient and medieval town gates), and John Paul II Square (visible remains of ancient Roman basilica and medieval town wall).

Although archaeological excavations in Zadar began in late 19th century, a more substantial research of the town was prompted by WWII destruction. For the most part, archaeologists took advantage of the opportunity to conduct excavations prior to the commencement of construction and, wherever possible, enabled in situ conservation and integration of numerous archaeological remains (forum, town walls, bathhouse, horreum, basin belonging to private bathhouse, St. Thomas' early-Christian basilica, Stomorica, St. Anastasia's (St. Stošija's) Church in Puntamika, Kaštel, residentialbuilding mosaics in Kraljevski Dalmatin Street). An example of urbanistic integration of archaeological area at the time would be the ancient Roman forum. Post-1975 archaeological excavations subsided because the town reconstruction had mostly been completed and the research focused on individual monuments (St. Marina, St. Clement, the cathedral, the Citadel), and rescue excavations prompted by town expansion (necropolises). The contemporary period is defined by continued rescue excavations, as well as neglect, abandonment, and even devastation of previous conservation efforts (public bathhouses, horreum, ancient Roman basin, ancient Roman residential building, aqueduct, Kaštel, town walls, St. Thomas' Church, St. Marina's Church, St. Clement's Church, St. Anastasia's Church at Puntamika).¹³ Failure to recognize archaeological heritage as a development resource, and the lack of strategy for its management in the contemporary period led to the decay and endangerment of the town's archaeological heritage.

Aside from the still uncompleted urban integration of the forum complex remains, other instances of presentation and integration of archaeological heritage in Zadar are not examples of (systematic) urbanistic integration, but rather of individual conservation efforts/projects to preserve and integrate archaeological heritage. (figure 5. and 6.)

ANALYSIS OF URBAN-PLANNING DOCUMENTS IN RELATION TO ARCHAEOLOGICAL HERITAGE

Analysis and evaluation of relevant urban and spatial planning documents of Zadar, developed between 1939 (first regulation plan) and 2015, is conducted in relation to preservation and enhancement of archaeological heritage and its urban integration. As of yet there have been no similar analyses of Zadar's urban and spatialplanning documents. The goal is to determine the treatment of archaeological heritage in relevant urban and spatial-planning documents which have dictated

¹⁰ Positions of residential buildings were defined by the traces of the aqueduct and the ancient road.

¹¹ Archaeological excavations were conducted by archaeologists from the Archaeological Museum in Zadar (*Arheološki muzej Zadar*), archaeologists-curators at the Museum of Ancient Glass (*Muzej antičkog stakla*), and Zadar University archaeologists.

¹² Legally protected in 2003 (MK, Registar kulturnih dobara Republike Hrvatske).

¹³ For more detail: Rukavina, 2015 (doctoral thesis Archaeological Heritage Integration Method in Urban Planning).



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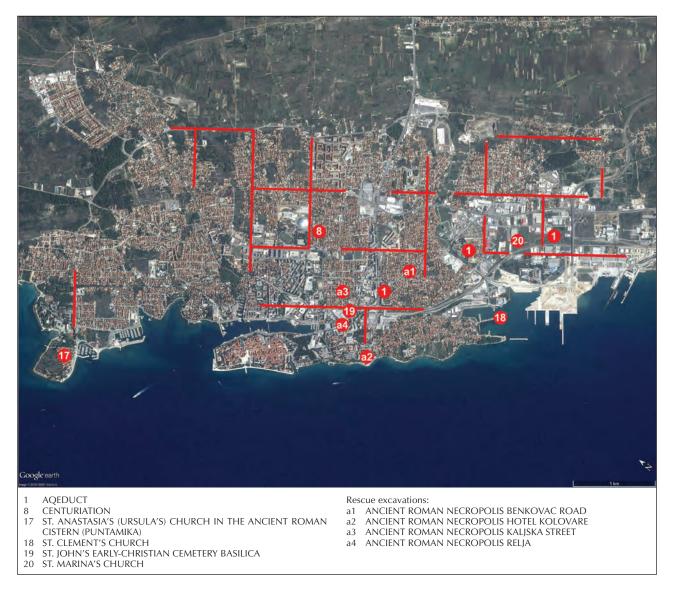
Figure 5: Visible erchaeological remains and rescue excavations on the Zadar peninsula

Zadar's spatial development in the 20th and early 21st centuries, and their influence on the preservation of immovable archaeological heritage.

Qualitative analysis criteria for the evaluation of urban-planning documents

For the purpose of urban and spatial planning documentation analysis and evaluation in relation to the preservation and enhancement of archaeological heritage and its urban integration, the defined criteria can be divided into three groups: 1) criteria relating to endangerment of archaeological heritage by planned interventions – group A, 2) criteria relating to protection measures of overall archaeological heritage – group B, and 3) criteria relating to individual archaeological finds/sites (e.g. forum, ancient Roman street grid, walls, *centuriation*, and the like) – group C.

The number and variety of defined criteria for the evaluation and analysis of urban and spatial-planning



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Figure 6: Visible archaeological remains and rescue excavations outside the Zadar peninsula

documents (22 criteria in total, table 1.) have been influenced by numerous factors: first and foremost, different historical contexts of planning and protection of architectural heritage, which involves the development of professional standpoints and methods, plans of various scales, implementation of previously planned interventions, various plan scopes, as well as legal, economic, political, social, and cultural contexts of the planning process.

The analyzed criteria are classified according to impact on the archaeological heritage in the two groups of categories - favorable and unfavorable in relation to the archaeological heritage. Evaluation of the particular plan (favorable, partly favorable, partly unfavorable and unfavorable) in relation to the archaeological heritage is obtained by representation of the group of criteria (A; B; C) and the number of relevant criteria in a particular category (favorable and unfavorable) for the each plan (table 1).

Piano regolatore di Zara, 1939 (Paolo Rossi de Paoli)

The first developed plan relating to archaeological heritage on the Zadar peninsula (historic town core) is evaluated as partly unfavourable because, aside from the planned regulation on the modern-day *John Paul II Square*, no major interventions on urban tissue were planned (Arbutina, 2000) (figure 7). The planned regulation was related to the ancient Roman forum and basilica and would have most probably damaged the archaeological remains preserved underground. The plan was never realised due to the outbreak of WWII.

Table 1: Comparison	of analysed urban	planning documents	according to defined criteria
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C affirmation of traces of Roman centuriation partly *						narthu	*	

Key:

A – criteria relating to endangerment of archaeological heritage by planned interventions B - criteria relating to protection measures for overall archaeological heritage C- criteria relating to individual archaeological finds/sites. n/a - not applicable brackets – plan was not officially adopted

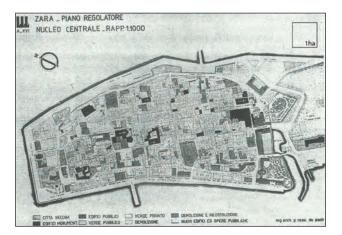


Figure 7: Regulation plan, historic town core, detail, 1939 (Arbutina, 2000, 139)

In relation to overall archaeological heritage, the plan is evaluated as partly unfavourable (planned smallscale interventions in the archaeological area, planned interventions at ancient Roman forum area).

Regulation plan of Zadar, 1947 (Milovan Kovačević, Zdenko Strižić, Božidar Rašica)

The first plan that proposed the spatial solution for the reconstruction of the devastated Zadar peninsula post WWII were influenced by functionalist views on the town (CIAM, Le Corbusier). It did, however, retain the ancient Roman grid plan, albeit with an entirely new structure, ensuring ventilation, insolation, and vegetation, whereas the old historic town was represented only by isolated monuments (Arbutina, 2002, 33; Merčep 2005, 69–70). It did not regulate the archaeological heritage protection, and its implementation would have had severely adverse consequences for the preserved underground archaeological remains (modern construction techniques). The plan was not implemented, but it did, however, serve as a basis for numerous demolitions and removal of historic buildings (figure 8).

In relation to overall archaeological heritage, the plan is evaluated as unfavourable (an entirely new structure planned in the archaeological area, the integration and preservation of possible new archaeological finds is not regulated). Regulation plan for Zadar historic town core, 1955 (Bruno Milić, Faculty of Civil Engineering, Architecture and Geodesy at Zagreb University, Institute for Urbanism)¹⁴

Based on the results of public urban-planning competition¹⁵ from 1953 calling for solutions for the reconstruction of Zadar's historic town core, architect Bruno Milić developed in 1955 a regulation plan for Zadar's historic town core, based on a synthesis of the three winning designs (Arbutina 2002, 38). In relation to archaeological heritage, Milic's plan provided for urban integration of the part of the ancient Roman forum and its reuse as new town square within a typological reconstruction of lost spatial relations and a medieval-town scale. The plan also affirmed the ancient Roman grid plan. The presentation of archaeological remains of medieval and renaissance town walls (north-western and south-western walls) was also planned (UZ FA IUSPLA Bruno Milić). The plan did not regulate the conservation of archaeological finds in other parts of the peninsula (figure 9).

In relation to the overall archaeological heritage, the plan is evaluated as partly favourable (planned urban integration of the ancient Roman forum remains; affirmation of ancient Roman grid plan; planned presentation of medieval and renaissance walls). The plan did not provide for the possible new archaeological finds, or their integration and preservation.

Zadar town centre construction plan, 1961¹⁶

As Milić's plan did not generate any detailed urbanplanning studies, and the immediate vicinity of the churches of St. Donat and St. Anastasia, as well as the ancient Roman forum remained unbuilt, a new urbanistic and architectural competition was announced, calling for ideas for the development of a section of the forum and Široka Street (Boltar, 1961, 40). After the competition, an expert advisory committee was founded for the construction of the peninsula centre, which developed the construction plan based on competition entries.¹⁷ The plan provided for urban integration and uncovering of a part of the ancient Roman forum and its reuse as the central town square surrounded by a contemporary buildings with various uses, within a typological reconstruction of lost spatial relations and a medieval-town

¹⁴ The plan was not officially adopted and it was a synthesis of three equally excellent, first-prize winning works in the 1953 competition. Three equally valuable awards were awarded to: Berislav Kalođera and associates, Bruno Milić and Miroslav Kollenz and associates, Vladimir Ivanović, Radovan Miščević, Branko Petrović, and Branko Vasiljević and associates (*Urbanistički institut NRH*) (Arbutina, 2002, 35; Merčep, 2005, 72-74).

¹⁵ The programme for the competition were developed by the Yugoslav (today's Croatian) Academy of Sciences and Arts (architects Josip Seissel, Andrija Mohorovičić, Drago Galić, archaeologist Mate Suić and conservator Grga Oštrić) (Boltar, 1961, 40; Merčep, 2005, 70; NOO Zadar, 1953).

¹⁶ Expert advisory committee for the construction of the peninsula centre, based on the synthesis of competition entries, 1959.

¹⁷ The members of the Committee (Odbor pri Savjetu za urbanizam i građevinarstvo Narodni odbor Općine Zadar) were members of the judging panel (Zvonimir Tišina, Dragan Boltar, Ninoslav Kučan, Zdenko Sila, conservator Grga Oštrić and government representatives Albin Švorinić and Ante Sorić), architects Josip Seissel, Andrija Mohorovičić and Mladen Kauzlarić. First prize winner was a group of

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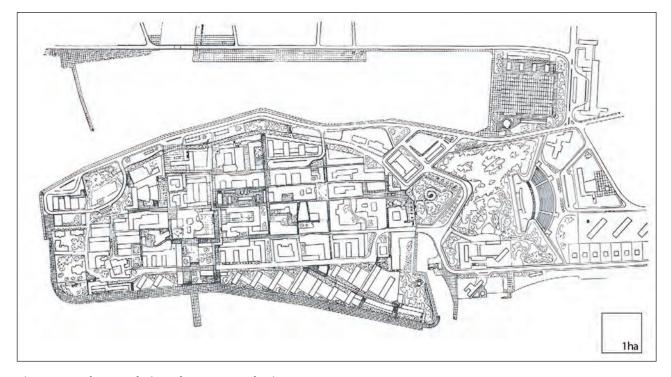


Figure 8: Zadar Regulation plan, 1947 (Arbutina, 2002, 34)

scale.¹⁸ Based on the plan, the reconstruction of the central part of the peninsula was mostly completed (structures A, B, C, D, E, H¹⁹, I, were built according to the plan, figure 10).

In relation to the overall archaeological heritage, the plan is evaluated as partly favourable (planned urban integration of the ancient Roman forum remains). It did not provide for the possible new archaeological finds, or their integration and preservation.

Zadar masterplan, 1973 (team leader Vladimir Ivanović, Croatian Institute for Urban Planning²⁰)

The Zadar masterplan adopted in 1973 emphasises the importance of architectural and archaeological heritage and defines the general measures for its protection²¹ in the town area, whereas the integral part of the plan also includes map 5. *General plan for the protection of archaeological sites, architectural monu-*



Figure 9: Zadar historic town core regulation plan – photomontage of scale-model photo, 1955 (Arbutina, 2002, 58)

authors including Vladimir Ivanović, Grozdan Knežević, Zdenko Kolacio, Mirko Maretić, Josip Uhlik, and the second prize winners included Bruno Milić and Marija Širola. The Institute for Urbanism (*Zavod za urbanizam*) at the Faculty of Civil Engineering, Architecture and Geodesy at Zagreb University (today's University of Zagreb Faculty of Architecture) was in charge of the study and the coordination of construction at central Zadar peninsula in 1961 (Boltar, 1961; UZ FA IUSPLA Dragutin Boltar).

^{18 &}quot;Interventions in the square shall focus on its use, which is attractive from both historical and urban aspects –being the heart of the town. Here the Roman forum will be clearly outlined – it can even be separated by archaeological fragments to evoke an ancient Roman porticus – much like the two main Roman streets (*Cardo Maximus* and *Decumanus*)..." (Boltar, 1961, 41).

¹⁹ Built in disregard of the construction plan.

²⁰ Urbanistički institut SRH

^{21 &}quot;Protection, presentation, and integration of archaeological sites into contemporary life is to be conducted on the basis of scientific criteria of archaeology. Prior to the commencement of any type of construction in any particular archaeological zone, it is necessary to investigate every such site, and on the basis of archaeological and conservation methods and criteria establish the significance and value

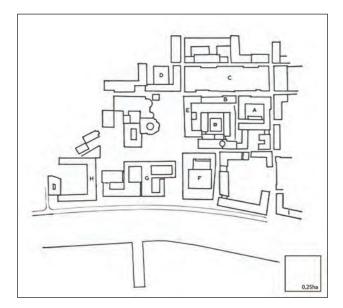


Figure 10: Centre construction plan, 1961. Use of buildings according to plan: A, B residential buildings with shops on ground floor toward Široka Street; H, I residential buildings; C mixed-use (residential, business, commercial, public, service); D mixed-use (residential, business, commercial, public - cinema); E tourist and service; G public and tourist use (archaeological museum); F public (Boltar, 1961, 41)

ments, agglomerations of ambiental value, and the old cemetery which included six value categories applied to buildings and town areas, as well as archaeological sites in town areas outside the peninsula. The plan prescribed *active protection* (integrated protection) of architectural heritage, and the development of the urban-conservation plan for the historic core²², but did not provide a detailed regulation of the protection of architectural and thereby archaeological heritage (protection measures were not specified for individual monuments outside the peninsula - they were to be determined for each separate monument in cooperation with conservators). For the area outside the peninsula, the plan provided for a new grid plan, which to a small degree corresponds to the ancient Roman centuriation (figure 11).

In relation to the overall archaeological heritage, the plan is evaluated as partly favourable (general protection measures – protection, presentation, and integration of archaeological heritage; obligation of conducting archaeological research of archaeological areas prior to construction, as a basis for determining the conditions for new construction; obligation of developing a detailed urban-conservation plan for the historic town core; inventories of archaeological areas and sites, prescribed active protection of architectural heritage).

Zadar masterplan, 1989 (concept authors Aleksandar Bašić, Ivan Čižmek, Nives Kozulić, Tomislav Valerjev, Croatian Institute for Urban Planning²³ and the Zadar Institute for Urban Planning²⁴)²⁵

The Zadar 1989 masterplan highlights historical heritage as a resource, and proposes its inclusion in economic and social spheres and its integration into spatial and functional solutions of the contemporary town. In this way, the revitalization and promotion of cultural and historical values of heritage will be foreseen. The masterplan foresees the protection of archaeological sites from new construction wherever possible, whereas particularly significant sites are to be preserved and presented in situ. The plan prescribes the creation of a detailed plan which would include the entire area of the Zadar peninsula (49 ha). It also acknowledges the preserved traces of ancient Roman centuriation outside the historic zone, as a basis for spatial enhancements (street and pedestrian network) of areas affected by unplanned and illegal construction, as well as a spatial and organisational element of the planned industrial zone (Gaženica)²⁶ (figure 12). There was no substantial implementation of the masterplan due to the outbreak of war (1991–1995) and the changes in political and economic systems.

In relation to overall archaeological heritage, the plan is evaluated as favourable (prescribes detailed protection measures – preservation of archaeological finds/sites from future construction wherever possible; presentation and *in situ* conservation of significant archaeological sites; proposal for urban integration of archaeological heritage; affirmation of *centuriation* traces; obligation to develop a detailed urban-conservation plan for the historic town core).

of particular site and the conditions under which new structures can be realised in a particular archaeological zone" (HDA, Generalni urbanistički plan Zadar, 1972).

²² The plan was not developed.

²³ Urbanistički institut SRH.

²⁴ Zavod za urbanizam Zadar, founded in 1975, today's Zavod za prostorno uređenje Zadarske županije.

²⁵ Amendments to the masterplan 1991/1992 and 1998.

^{26 &}quot;Area of centuriation, mostly built-up,... In this area, the orthogonal plan of the centuriae should be affirmed, wherever conditions allow, whether as a dirt-road, path, tree-lined path, building line, and the like. Archaeological sites marked in graphic materials are to be protected from new construction wherever possible, and in any case, thoroughly investigated and documented. Particularly significant finds are to be preserved and presented in situ" (MGIPU, Generalni urbanistički plan Grada Zadra, 1989).

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Figure 11: Zadar masterplan (Land use plan), 1973. Legend: yellow – residential area, orange – tourist area, red – central area, purple – industrial area (Urbanistički institut SRH, 1987, 34)

Zadar County spatial plan, 2004 (coordinator Nives Kozulić, team leader Nevena Rosan, Physical Planning Institute of Zadar County²⁷)²⁸

Although the plan is still valid, it only formally regulates the protection and preservation of archaeological heritage (prescribed general measures for the protection of archaeological heritage defined by the Croatian Act on the Protection and Preservation of Cultural Goods).²⁹

The plan does not recognize the spatial value of archaeological heritage as a development resource. The masterplan was repealed by 2011 amendments, leaving the regulation of town development, and its historic core especially, solely to the spatial/physical plan, without the means to adequately regulate the conservation and enhancement of the historic core and archaeological heritage (figure 13).

In relation to the overall archaeological heritage, the plan is evaluated as partly unfavourable (general protection measures stipulated by the Croatian Act on the Protection and Preservation of Cultural Goods; protection left solely to competent conservation department; no application of *integrated protection* principle – no defined measures for the protection of archaeological heritage from the point of view of spatial/urban planning; no concrete guidelines for

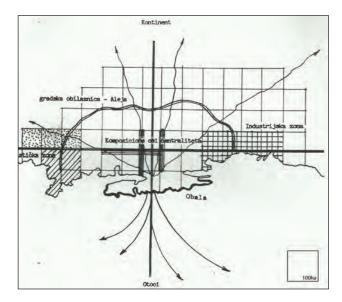


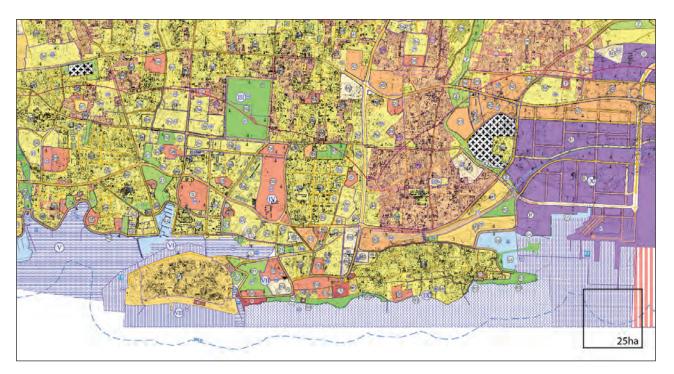
Figure 12: Zadar masterplan, 1989, concept (MGIPU, Generalni urbanistički plan Grada Zadra, 1989)

the protection/conservation of particular finds/sites – their use, presentation, or urban integration).

²⁷ Zavod za prostorno uređenje Zadarske županije

²⁸ Amendments, 2008 and 2011.

²⁹ Article 316 and 318 (2008) and article 318 (2011) (Gradsko vijeće Grada Zadra, 2008; Gradsko vijeće Grada Zadra, 2011; Zakon o zaštiti i očuvanju kulturnih dobara NN 69/99, 151/03, 157/03, 87/09, 88/10, 61/11, 25/12, 136/12, 157/13, 152/14).



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Figure 13: Zadar County Spatial Plan, map 5. Development and organization of the settlement – cut-out, amendments 2011. Legend: (S) residential, (M) mixed use, (K) business, (D) public, (T) tourist, (Z) green, (R) sport and recreation, (I) industrial (Gradsko vijeće Grada Zadra, 2004, www.grad-zadar.hr)

Synthesis and overview of analyzed urban and spatial planning documents

Seven urban and spatial-planning documents have been analyzed (amendments excluded), developed between 1939 and 2015, on the basis of 22 criteria listed in Table 1. The criteria are divided in three groups: endangerment of archaeological heritage by planned interventions (group A, 3 criteria), measures for the protection of archaeological heritage (group B, 14 criteria), planned guidelines for particular finds/sites (group C, 5 criteria). Taking into account the defined criteria, in relation to archaeological heritage in the town, the 1947 plan is evaluated as unfavourable, the plans from 1939 and 2004 as partly unfavourable, and those from 1955, 1961, and 1973 as partly favourable. The only plan favourable for archaeological heritage is the one from 1989. This plan foresees the preservation of archaeological sites from future construction wherever possible, conservation and presentation of particularly significant archaeological sites, inclusion of archaeological heritage in economic and social spheres and its integration into spatial and functional solutions of the contemporary town (planned urban integration).

1939 and 1947 plans do not regulate the protection and preservation of archaeological heritage. The 1950s plans show a continuous development of expert standpoints and planning methods, until the 1990s when principles of integrated protection, which includes urban planners in the protection of archaeological heritage, slowly fade. Records and maps of archaeological sites and areas, as well as measures for the protection of archaeological heritage have been an integral part of adopted plans since 1973. The 1973 and 1989 plans provided for urban integration of archaeological heritage, prescribe general measures for the protection of archaeological heritage, which were more detailed in the 1989 plan, whereas both plans prescribe developing the urban-conservation plan for the Zadar peninsula as a mean of preserving and guiding the completion of reconstruction and revitalization of historic town core (never developed). The 1973 plan prescribes active (integrated) protection of architectural heritage. Not one plan applied a systematic approach to the integration of archaeological heritage (visible or underground), whereas the current plan (from 2004, amendments from 2008 and 2011) does not acknowledge archaeological heritage as the town's spatial and development resource, provides almost no regulation on the issue and does not prescribe development of more detailed plans.

CONCLUSION

The research results on urban integration of archaeological heritage in Zadar include:

- 1) The history of archaeological research and archaeological heritage protection and preservation in Zadar, divided in four periods: beginnings of archaeological excavations pre-WWII, town reconstruction between 1945 and 1975, period between 1975 and 1991, and the contemporary period post-1991.
- 2) The analysis and evaluation of the relevant urban plans in relation to enhancement and preservation of archaeological heritage and its urban integration according to defined criteria.
- 3) The defined three groups of criteria for the evaluation of urban and spatial planning documents: 1 criteria relating to endangerment of archaeological heritage by planned urban interventions, 2 criteria relating to protection measures for overall archaeological heritage, and 3 criteria relating to individual archaeological finds/sites.

By synthesizing the research results, an innovative approach to the protection of historic area in the modernist period (1950–1975) is recognized. The approach can be regarded as a management model which included urban integration of archaeological heritage related to town reconstruction following WWII. This period saw the beginning of urbanistic integration of the ancient Roman forum complex, as well as individual integration of numerous archaeological remains (south-eastern town walls and gates, remains of the horreum, basin from private bathhouse, public bathhouse, remains of ancient Roman residential building, remains of pre-Romanesque Stomorica Church, of the Kaštel fortress, of medieval town walls, of early-Christian St. Thomas' basilica, etc.). This management model included: interdisciplinary cooperation between expert archaeologists, conservators, and urban planners on the protection of archaeological heritage within an urban context; an important role of scientific and educational institutions (Academy of Sciences and Arts and the Faculty of Architecture at the University of Zagreb); competitions in 1953 and 1959, used as the basis for developing urban plans (1955, 1961); a deviation from urban-planning principles of modernist architecture and urbanism, as well as numerous archaeological, conservation, historical and other scientific research. The aspect of conservation of

archaeological heritage in this period, despite certain mistakes, is one of the value factors of post-war reconstruction of Zadar (to this day the definitive scientific evaluation of the process has not been conducted).

Research of the urban integration of archaeological heritage can be conducted in other towns in Croatia with rich archaeological heritage that have also suffered WWII devastation (e.g. Pula, Rijeka). These towns have also failed to complete the reconstruction and revitalization of the historic town core, nor have they systematically approached the issue of integration of archaeological heritage.

Croatia has a long tradition of acknowledging the protection of architectural and archaeological heritage in the context of urban and spatial planning, beginning in practice in the 1950s (post-war reconstruction of Zadar), and in theory in the 1960s, anticipating numerous principles of contemporary conservation principles which have later become internationally accepted and known as *integrated protection*.

After the change in the political system in 1990 and the past 25 years of adjusting to new conditions (transitional period) in Croatia, the previously developed and implemented principles of integrated (active) protection have not been sufficiently evaluated and are only formally accepted in the planning process. The contemporary period is defined by a lack of interdisciplinary cooperation between experts (archaeologists, conservators, urban and spatial planners), and other participants in the complex issue of preserving architectural/archaeological heritage in an urban context, as well as the failure to recognize archaeological heritage as an non-renewable spatial resource.

Identified management model of archaeological heritage in Zadar represents the adequate technical and scientific basis for the development of contemporary management model by adjusting it to the present context and by supplementing it with the contemporary principles of archaeological heritage protection and preservation.

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URBANA INTEGRACIJA ARHEOLOŠKE DEDIŠČINE V ZADRU

Marko RUKAVINA Univerza v Zagrebu, Fakulteta za arhitekturo, Kačićeva 26, 10000 Zagreb, Hrvaška e-mail: mrukavina@arhitekt.hr

Mladen OBAD ŠĆITAROCI Univerza v Zagrebu, Fakulteta za arhitekturo, Kačićeva 26, 10000 Zagreb, Hrvaška e-mail: mos@arhitekt.hr

POVZETEK

Članek raziskuje urbano integracijo arheološke dediščine v mestu Zadar s pomočjo analize zgodovine in urbanega razvoja mesta, zgodovine arheološke raziskave in varstva ter ohranitve arheološke dediščine in analize relevantnih dokumentov urbanističnega ali prostornega načrtovanja v povezavi z arheološko dediščino. Zgodovina arheološke raziskave, varstva in ohranitve arheološke dediščine ter urbanističnega in prostornega načrtovanja v Zadru še vedno niso sistematično znanstveno raziskovani, zajemajo pa obdobje med poznim 19. stoletjem (prvi arheološki izkopi) in letom 2015.

Ključne besede: arheološka dediščina, urbanistično in prostorno planiranje, urbana integracija, integralna zaščita/ ohranitev, Zadar

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