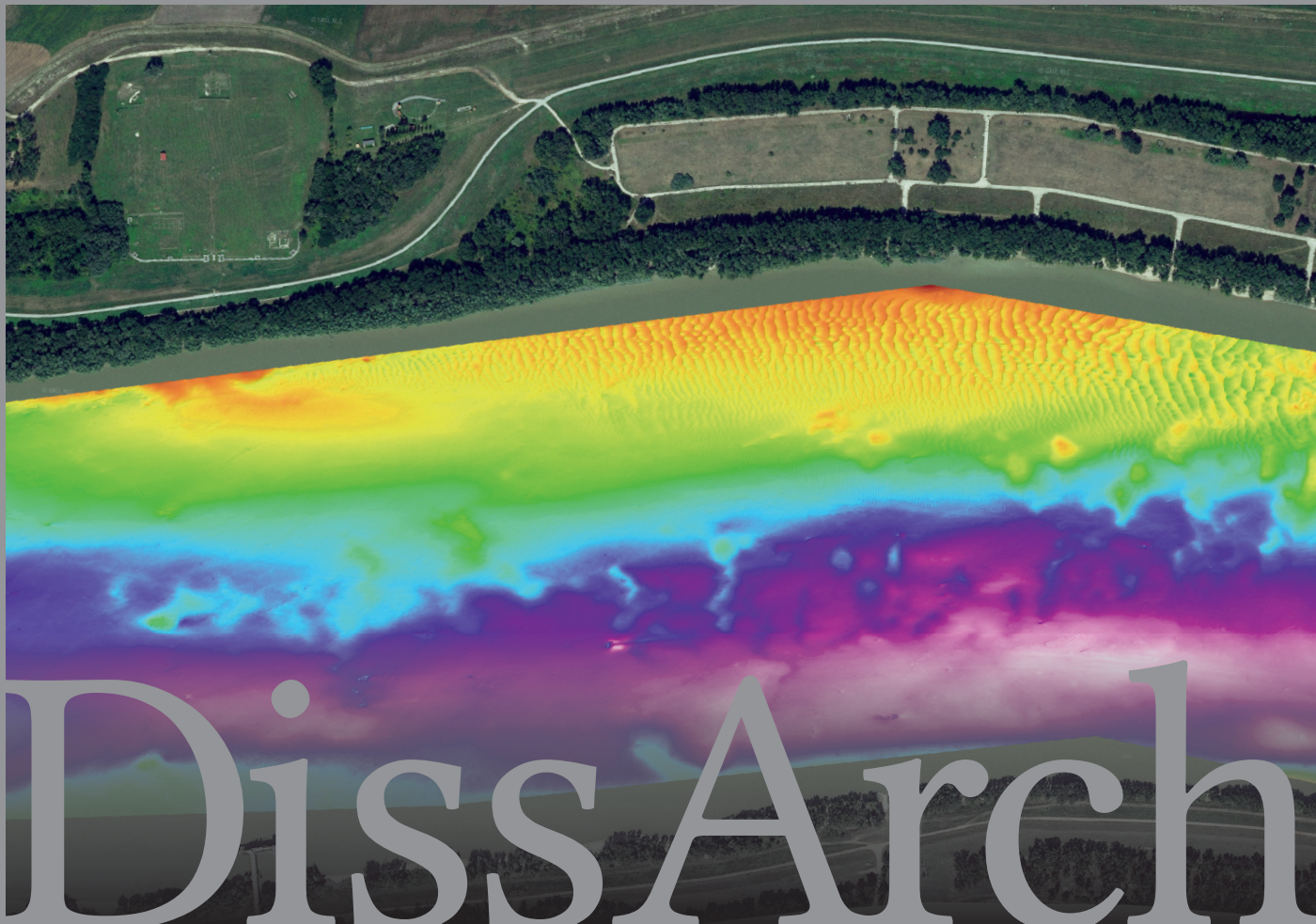


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ex Instituto Archaeologico

Universitatis de Rolando Eötvös nominatae



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CONTENTS

WATER DIVIDES – WATER CONNECTS: ROMAN MILITARY, COMMERCIAL AND CULTURAL CONTACTS BETWEEN THE MIDDLE DANUBE REGION AND THE BLACK SEA

Lajos JUHÁSZ 7

Water Divides – Water Connects: Roman military, commercial and cultural contacts between the Middle Danube Region and the Black Sea

Chiara CENATI 9

Aequora Danubii cunctis transnare sub armis: A new interpretation of the poem CLE 427

Nikola RUSEV 25

Trimammium: The Roman limes fortress and the necropolis

Miroslava DAŇOVA – Klaudia DAŇOVA – Ján RAJTÁR 51

The Danube riverbed near the Roman fort at Iža-Leányvár: Results of investigations, 2019–2022

Varbin VARBANOV 63

Evidence of fishing from the excavations of the Roman fortress of Sexaginta Prista (Ruse, Bulgaria)

Svetlana VELIKOVA 75

Medieval life along the Roman limes at the Danube, Ruse Region

1ST NATIONAL CONFERENCE OF ARCHAEOLOGY STUDENTS

Dániel HÜMPFNER – Bence PÁRKÁNYI – Rita Helga OLASZ 87

Introduction

Rita SULIMAN 89

Egyptian influence on Late Bronze Age (1600–1200 BC) ivory artefacts from the kingdoms of Ugarit and Qatna

Mirtill ÁRVAI	105
Some Thoughts on five Mycenaean Terracotta Figurines from the Collection of the Museum of Fine Arts in Budapest	
Bence PÁRKÁNYI	119
Not all Gorgons are Greek: A red-figure kylix fragment in the collection of the Museum of Fine Arts, Budapest	
Virág Veronika SZÁNTÓ	131
Representation and object: <i>Pyxis</i> on the sarcophagus of Titus Aelius	
Dániel HÜMPFNER	147
New data on the settlement history of the so-called <i>villa</i> , a Roman period building, at Testvérhegy	
Rita Helga OLASZ	167
Child graves from Brigetio	
Márton SZABÓ	189
Imported ceramics from the Roman camp at Almásfüzitő	
Ferenc BARNA	211
Gestempelte Ziegel aus den Ausgrabungen von Komárom/Szőny-MOL-Kiskertek (Brigetio) im Jahr 2015	
Regina Viktória CSORDÁS	257
From the table to the grave? The question of animal sacrifices in Avar cemeteries on the Little Hungarian Plain	
Kata SZATHMÁRI	279
Possible ways of use of medieval and early modern bone tools based on results of use-wear analysis, experimental archaeology, and ethnographic parallels	

ARTICLES

Attila PÉNTEK – Ferenc CSERPÁK – Krisztián ZANDLER – Szilvia GUBA	297
First Open-Air Mousterian Site in the Mátra Mountains (North Hungary): Preliminary Results from Szurdokpüspöki-Lapos-tanya	

Kristóf István SZEGEDI – Annamária BÁRÁNY – Julia BLUMENRÖTHER – Endre DOBOS – Tibor MARTON – Gergely PÁLL-BARNA – György LENGYEL	321
Szekszárd-Palánk and the postglacial recolonization of the Pannonian Basin	
Eszter SOLNAY – Zita HRABÁK – Péter HORNOK – Péter KISS – Zsuzsanna M. VIRÁG – Zsuzsanna SIKLÓSI	353
Pottery technological analysis of the Copper Age Transdanubia (Western Hungary)	
Gábor SÁNTA	381
Ceramic Depositions, Ritual Features, and Irregular Burials of the Tumulus Culture in Hungary	
Ákos MENGYÁN – Ferenc KRISTÁLY	413
Pots for a purpose? Interdisciplinary analysis of small amphorae from the Late Bronze Age cemeteries of Maklár (Northeast Hungary)	
Attila MRENKA	447
A peculiar Late Bronze Age find from Sopron-Warischberg	
János Gábor TARBAJ	459
Late Bronze Age Arrowheads from Transdanubia and Beyond: Distribution, Chronology, Bronze Technology, and Use-Wear	
Ábel GARCZIK	543
New data on base marks of Late La Tène <i>situlae</i>	
Máté Róbert MERKL – Gábor CSÜLLÖG – Gabriella DARABOS – Ilona PÁL – Maria HAJNALOVA – Enikő Katalin MAGYARI	563
The vegetation of the Roman province of Pannonia based on wood charcoal, pollen, anthracological and carpological studies (1st–5th century AD)	
Dávid BARTUS	611
Roman Bronze Figurines Depicting Iuppiter from Brigetio	
Radu PETCU – Ingrid PETCU-LEVEI	633
A bronze statuette of the Héros Horseman (Thracian Rider) discovered near Tomis (Palazu Mare), Moesia Inferior	
Kata DÉVAI – István FÓRIZS	645
On the functionality of <i>vasa diatreta</i> : The case of the cage cup fragments from Gorsium	

Linda DOBOSI	663
Pieces of gaming equipment from Roman Pannonia: The Collection of the Kuny Domokos Museum in Tata (Hungary)	
Bence GULYÁS – Tamás CZUPPON	699
A stirrup type with Byzantine provenience in Central and Eastern Europe	
Alin FRÎNCULEASA – Daniel GARVĂN – George TROHANI – Elena RENȚA – Mirela MIHON – Cristian MANAILESCU – Oana GAZA – Doru PACESILA – Alexandru PETRE – Erwin GÁLL	713
Absolute dating of the Early/Pre-state Medieval date burial features in Muntenia (the 7th–14th century AD)	
Attila TÜRK – Flórián HARANGI	743
A 13th-century headwear fragment with metal threads from southeastern Hungary and the Bulgarian connections of Árpád Age headdresses	

FIELD REPORTS

Dávid BARTUS – Melinda SZABÓ – Rita Helga OLASZ – Ákos MÜLLER – Bence SIMON – Szilvia JOHÁCZI – Lajos JUHÁSZ – Tibor NÉGYÖKRŰ – Kitti IVANCSICS – László BORHY – Emese SZÁMADÓ	763
Excavations in the legionary fortress of Brigetio in 2025	
Bence SIMON – Szilvia JOHÁCZI – Ákos MÜLLER – Bence PÁRKÁNYI – Lőrinc TIMÁR	781
Pilisszentiván-Hárs-erdő 2025: New buildings and finds from a Roman village in the northwestern hinterland of Aquincum	
Attila Botond SZILASI – Attila TURI – Rita RAKONCZAY	791
2000 years of settlement horizons in the area of the second inner courtyard of the <i>Neue Residenz</i> in Salzburg	

THESIS REVIEW ARTICLES

Nóra SZABÓ	827
Change and transformation during the transition from the Middle to the Late Bronze Age along the capital region of the Danube: Settlement structure analyses based on particular sites from the Vátya III – Koszider Period and the Early Tumulus Culture	

2000 years of settlement horizons in the area of the second inner courtyard of the *Neue Residenz* in Salzburg

Preliminary report on the excavations in 2023–2025

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Abstract: Archaeological excavations have been underway since September 2023 in the southern inner courtyard (*Innenhof*) and within the *Neue Residenz* in downtown Salzburg. These investigations have uncovered remains from a wide range of periods—from modern times back to the 1st century AD—offering valuable insights into Salzburg’s ancient, medieval, and post-medieval history. The complete excavation of the nearly 2,000 m² has significantly improved our understanding of the urban settlement structure of Roman, medieval, and Baroque Salzburg, contributing to the reconstruction of the topography of the municipium of Iuvavum and, subsequently, of medieval and early modern Salzburg.

Keywords: Salzburg, *Neue Residenz*, Iuvavum, Noricum, urban archaeology, building archaeology

Introduction

In autumn 2023, archaeological work began in the second inner courtyard of the *Neue Residenz* (Figs 1–2),¹ which today also houses the Salzburg Museum, as part of its expansion and renovation programme. The excavation was carried out in cooperation between ArchaeoProtect Ltd., ArchaeoJedi Ltd., and the Salzburg Museum. The project was directed by Attila Botond Szilasi, assisted by archaeologists Rita Rakonczay and Attila Turi, with the participation of archaeology students from Eötvös Loránd University (ELTE), Pázmány Péter Catholic University (PPKE), the University of Pécs, and the University of Szeged (SZTE).

The building, which dates back to the second half of the 16th century, lies in the very centre of the modern city, directly adjacent to the cathedral; consequently, Baroque, medieval, and ancient remains were expected in this area (Fig. 3). Removing the concrete floor marked the beginning of an excavation

1 [SZILASI et al. 2023](#), 268–269.

campaign lasting more than two years, aimed at the systematic investigation and documentation of the city's 6–7 m thick sequence of settlement horizons across an area of approximately 2,000 m². Beneath roughly one metre of modern fill, features from the post-mediaeval, medieval, and ancient periods were uncovered. These were documented not only through photography and total station measurements, but—where of particular significance—also through georeferenced 3D surveys.

In the second phase of the project, we were able to extend our research into smaller zones inside the building, where we primarily discovered features associated with earlier phases of the structure, dating from the 16th–17th centuries.

The historical background of the *Neue Residenz*

The origins of the building can be traced back to Wolf Dietrich von Raitenau, Archbishop of Salzburg (1587–1612). His extensive construction projects transformed much of the city and had a profound impact on its present-day appearance. Work on the so-called *Neubau*—the *Neue Residenz*—began as early as 1588, but was halted shortly thereafter and only resumed in 1592.² The completion of the complex brought about significant changes in this central part of the medieval city. Formerly, the medieval cathedral stood here, surrounded by the graveyard, and to its east—directly attached to it—stood the archbishops' residence, in use since the 12th century.

The cemetery was first partially removed to make way for a covered passage connecting the old and new residences. The passage itself, however, was demolished in 1597. The area underwent a further dramatic transformation when the medieval cathedral—partially destroyed by fire in 1598—was not repaired but replaced by a new Baroque cathedral.³

The *Neue Residenz*, the archbishop's new residence, today consists of two inner courtyards and the surrounding wings (Fig. 4). The northern, or first, courtyard as well as the eastern wing of the southern second courtyard can be attributed to the construction activities of Wolf Dietrich. At that time, the second inner courtyard did not yet exist; sources indicate that a garden belonging to the residence occupied this area. The second courtyard was created during the tenure of Archbishop Max Gandolph von Kuenburg (1668–1687), when the south and west wings were constructed in the third quarter of the 17th century, connecting the new extensions to the previously completed structures around the northern courtyard.⁴



Fig. 1. The *Neue Residenz* from the east-west direction (photo: Rita Rakonczay).



Fig. 2. The second inner courtyard before the excavation (photo: ArchaeoProtect Ltd.).

2 SCHLEGEL 1952, 137.

3 KELLER 2016, 77–78.

4 SCHLEGEL 1952, 137.



Fig. 3. The *Neue Residenz* and its surroundings (ArchaeoProtect Ltd.).

Archaeological excavation

Excavations in the second inner courtyard began in September 2023, and the final feature was uncovered on 8 October 2025. The processing of the finds—washing, restoration, and inventorying—is currently underway. The aim of this study is to present the excavated features in an interpreted form. The dating of the archaeological remains is based primarily on the large quantity of coins recovered during the excavation. Using the resulting chronological framework, this study outlines the various settlement features and horizons in chronological order.

In addition to the numismatic material, elevation data and the relative chronology of the numerous uncovered walls played a key role in dating the buildings. The description of the archaeological phenomena is organised by period, with subchapters structured according to the main characteristics of each settlement phase, such as the road network, buildings, water management, and related aspects.

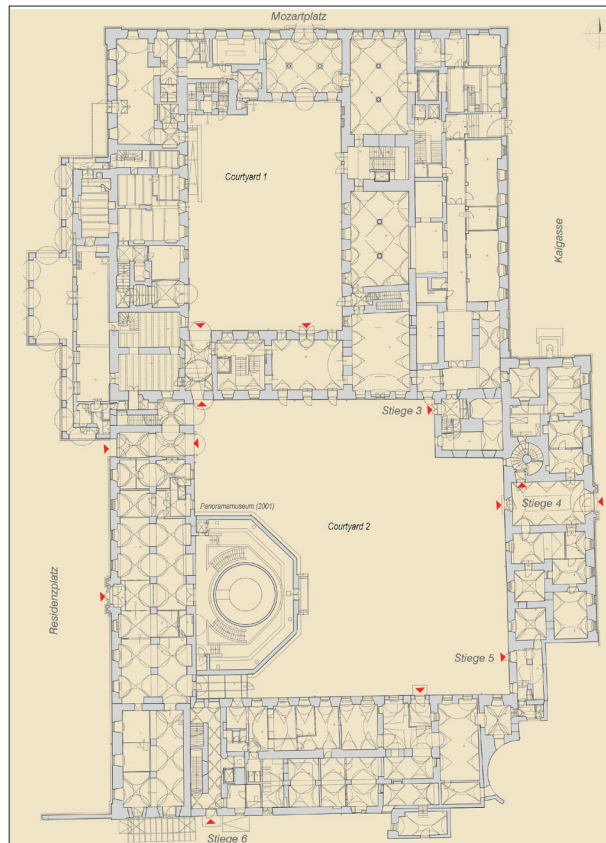


Fig. 4. Plan of the ground floor of the *Neue Residenz* (after WEIXLER 2021).

Iuvavum municipium

Iuvavum was situated in the western part of the Roman province of Noricum, beneath what is now the city of Salzburg. The precise date of its foundation remains uncertain, but it is generally assumed to have been established during the reign of Emperor Claudius, when it was granted the status of a municipium. No sources indicate whether the settlement ever advanced to colonia status. The following section outlines the most significant developmental phases of the city between the 1st and 4th centuries.

Iuvavum municipium in the 1st century

During the excavations several major occupation horizons were identified belonging to the 1st century AD. Based on the stratigraphy and associated finds, the earliest layers and features can be dated to the period surrounding the foundation of the city.

First settlement horizon of the 1st century

Here we encountered a massive sandy layer covering the entire area, in which we also observed numerous archaeological features. Most of these were post holes and timber foundations, which, when examined from above, revealed details of several buildings.

The earliest archaeological features of the excavated area

Two structures with identical orientation (east–west) were discovered in the central and western parts of the excavation area. The larger building measures approximately 9×7 meters (Fig. 5).



Fig. 5. Archaeological phenomena from the 1st century (ArchaeoProtect Ltd.).

Its foundation walls form a regular rectangle. Parallel to its sides, there are three supporting posts on both the south and north sides. The entire building had a wooden beam structure. The base of the construction is formed on all sides by wide beams, most likely joined together. The jointing at the corners is evidenced by the handle-like overhangs visible at the south-east and south-west corners of the foundation ditch. The interior walls of the building were supported by 40-centimeter-wide posts, which were slightly deepened into the subsoil on the inside of the building. There is a space/corridor (or passageway) approximately 1 meter wide between the outer and inner walls. In terms of its floor plan, it is very similar to the form of Gallo-Roman temples excavated in numerous locations from the Augustus and Tiberius Periods.⁵ Unfortunately, its exact function and internal structure cannot be determined precisely, as the intense disturbances of earlier periods make it difficult to interpret. Several wells, mostly from the Flavian Period, as well as the structural elements of the earlier buildings dug into the sandy layer covering the entire site, make the interpretation difficult. The insignificant grayish storage vessel fragments found in the filling of the beam foundations surrounding the building do not help with the accurate dating. There are ceramic fragments characteristic of the Celtic period, but also early Roman pottery forms. Pottery fragments that can be connected to the Celtic cultural horizon were also found in the main posthole under the northeast corner of the building. The only clue lies in the internal chronology of the excavation. Based on the foundation of Iuvavum, the different younger features that cut through the building, and the destruction layers covering it, we can roughly date the construction and use of the building to between the time of Claudian and Tiberian.

The building located east of this house is much smaller and much more modest in terms of its structure. During the excavation, a roughly square, 3 × 3 meter timber-founded building was discovered in the southeast corner with the imprint of a deeper post. Its orientation and direction are the same as those of the larger building. Its contemporaneity can only be determined with certainty based on stratigraphic observations.

5 Mautern: ROSAMILIA – THALER 2025; Frauenberg bei Leibnitz: DOLENZ *et al.* 2024, 206; Burgstall bei St. Margarethen: GROH – SEDLMAYER 2005, 92.



Fig. 6. 1–5 – Urns found in the 1st-century graves (photo: ArchaeoProtect Ltd.).

In this horizon, scattered around these two buildings, several early cremation graves were discovered in the western part of the excavation area. A total of four smaller disturbed graves were excavated (Fig. 6). With one exception, all of them were only partially preserved. They were largely destroyed by later land levelling prior to the Flavian period and partly by disturbances in later periods. Preliminary anthropological examinations indicate that the ashes were cremated at a low temperature of 300–600°C. This was clear evidence from the large size and fragmentation of the remains. All the graves were urn burials. In two cases, the bones were placed in a bowl, in one case in a smaller cup-shaped vessel, and in one case in a footed cup. In one of the graves, the urn also contained burnt goat and pig bones. The ceramics show a well-defined horizon. The footed cup shows the earliest form. Its tempering and shape reflect the type of characteristic of vessels from the end of La Tène D2a–b (Cup typ Wederath):⁶ a fine tempered vessel with a thin base, an elongated shape, and a ring narrowing at the base. The other grave vessels show shapes characteristic of the early Roman period. They are mainly gray, hard-fired household vessels. In addition, there is a typically high presence of hand-formed or slowly wheel-thrown bowls with indented rims. Based on the finds, we can date the graves to the earliest period of Iuvavum.

The thick layer of leveling sand can be found across almost the entire excavation area. It covers the entire early Claudian and Tiberian period layers. In terms of its age, it was created sometime between the Tiberian and Flavian periods, preparing the area for large-scale construction during the Flavian period. The large-scale timber-foundation buildings of the later period were also documented in this layer (Fig. 7). These were mostly documented in the western and central parts of the excavation area. There were no traces of them in the eastern part of the excavation, where there were mostly workshops from the Flavian period, densely built next to each other. Therefore, we can assume that they may have been used at the same time as the workshops, or at least there was a short period of time when they may have stood together. Unfortunately, except for a few larger pits,

6 See among others: MIRON 1991, 163.

bronze smelting furnaces, wells, or workshop pits, no finds were found in the fill of the house foundations that would help with precise dating. However, ceramic fragments dating mostly to the middle or second half of the first century were found in the pits next to the larger buildings. The buildings consist of narrow beam foundations and post holes supporting the roof. Their full size and extent cannot be determined due to the high degree of disturbance. Based on the partially available elements, we are dealing with at least three larger *Fachwerk* (half-timbered) outbuildings with internal partition walls. Their function is unclear. Based on parallels, they may have been larger storage buildings, stalls, or other agricultural buildings. In the early Roman period, these appeared in large numbers on the outskirts of settlements, mainly in areas related to economic activity.

Based on this, it can be concluded that this area was likely home to typically wooden houses and other functional farm buildings. The idea of wooden structures is supported by the fact that no mortar debris was found in the large sandy layer mentioned above, except in cases that were certainly the result of later disturbances. It cannot be determined whether these buildings belonged to the period immediately preceding the town or to the town's construction. This horizon also included graves, which were discussed above. It is worth mentioning because it indicates that during this period, the area certainly did not belong to the city in the strict sense of the word; it may have been an outer part of Iuvavum, where buildings were scattered.

The next significant horizon of the 1st century, which is also archaeologically identifiable, can be dated to the second half of the century, specifically to the Flavian period. Within this phase, several building units have been distinguished, each of which will be presented individually.

Buildings

Metalworking workshop

The largest and most intact area is the workshop area excavated in the southeast corner of the courtyard. During the excavation, a total of seven distinct rooms were identified (Fig. 8). The walls of the building were uniformly constructed of wattle and daub, but differences appeared in the foundations: the outer walls were stone-built up to a height of nearly one meter, whereas the interior partition walls lacked full stone foundations and consisted only of a foundation beam, reinforced with larger stones at the corners.

Four of the rooms were particularly noteworthy, as they contained ovens of different types that could be excavated and doc-



Fig. 7. Aerial photograph of the timber-founded building excavated on the western side of the site (photo: ArchaeoProtect Ltd.).



Fig. 8. Detail of a metalworking workshop with the furnaces from the 1st century (photo: ArchaeoProtect Ltd.).

umented in detail. A common feature of these interior spaces was that they had either terrazzo or some form of rammed earth flooring, while the corridor-like space connecting the rooms appears to have lacked any flooring. In the three southernmost rooms, which were adjacent to each other, a furnace was found in each room built directly on the floor. The primary materials used in all cases were brick, stone, and mortar.

A comparable design, though larger in scale, has been documented at Envy in the canton of Vaud, Switzerland, where it was interpreted as a smelting furnace.⁷ Similar examples are also known from depictions, including the Catacombs of Domitilla in Rome.⁸ Given the known functions of these parallels, the finds from the site are particularly significant. The associated tools and semi-finished products further confirm that this area functioned as a metalworking workshop.

The building on the eastern side of the excavated area in the Innenhof

In the middle of the *Innenhof*, on its eastern side, a significant portion of another building was uncovered (Fig. 9). Unfortunately, only two sections could be excavated, preventing documentation of the building to its full extent. Nevertheless, eight distinct rooms were identified, allowing an in-depth examination of both the internal layout and the structural characteristics of the building.

The most interesting part is the interior layout. The arrangement of the rooms resembles that of the adjacent workshop, with interior spaces organized around a central, corridor-like area. The building's structural features also show notable parallels. The exterior walls were founded on substantial stone foundations upon which wattle-and-daub walls were erected. Like the workshop, the interior partition walls lacked full stone foundations and rested on simple foundation beams, with corners reinforced by larger stones. One of the partition walls remained almost completely intact, allowing its structure to be clearly observed.



Fig. 9. Detail of the metalworking workshop in the eastern part of the courtyard: terrazzo floor and rammed earth floor, 1st century (photo: ArchaeoProtect Ltd.).

The function of this building remains unclear, as no definitive evidence of its use has been found. However, a well located immediately next to the house may provide some clues. It is most likely that the well belonged to the same household as the workshop. The upper filling layer of the well contained a large quantity of semi-finished white marble and stone fragments, alongside abundant construction debris, likely deposited during later building activity. It cannot be ruled out that the household unit was a former stonemason's workshop.

The function of this building remains unclear, as no definitive evidence of its use has been found. However, a well located immediately next to the house may provide some clues. It is most likely that the well belonged to the same household as the workshop. The upper filling layer of the well contained a large quantity of semi-finished white marble and stone fragments, alongside abundant construction debris, likely deposited during later building activity. It cannot be ruled out that the household unit was a former stonemason's workshop.

Only one intermediate room can be identified as a kitchen, distinguished by its rammed clay floor and the presence of a single oven. The stratigraphy covering the buildings provides information about their later history. The workshop in the northern part of the excavation area was overlain by a thick layer of burnt red clay, interpreted as a destruction layer. In contrast, the building between walls from the later period, which may have had a residential function, appears to have undergone systematic demolition.

7 [MUTZ 1976](#), 7.

8 [MUTZ 1976](#), 45.

In the context of the 1st-century horizons, another noteworthy layer is a more substantial sandy deposit. This layer is typically found directly over the deconstruction horizon of the workshops dated to the Flavian Period. It likely represents a levelling layer created during the 2nd-century construction over the sites of previously demolished structures. A significant coin was discovered within this layer, minted during the sixth consulship of Emperor Trajan. Its excellent state of preservation suggests that it had been in circulation for a relatively short period. Consequently, the levelling, undertaken in connection with significant construction activity, was probably carried out no later than the reign of Emperor Hadrian.

Water supply

The question of water supply in the 1st-century settlement is relatively straightforward to address, as the evidence is abundant. Many wells from this period were uncovered, with a notable concentration along the western edge of the *Innenhof*, where five wells were in close vicinity. Their early date is indicated by the fact that all were subsequently overlain by the 2nd-century settlement horizon, and they were typically filled with construction debris, suggesting their deliberate abandonment. The dense clustering of wells can likely be attributed to the workshops in this area, which would have required substantial amounts of water for their activities.

Iuvavum municipium in the 2nd–3rd centuries

Before discussing the 2nd century, the question of the city's boundaries is worth considering. The 1st century building remains in the area showed signs of heavy industrial activity. These observations indicate that, at the time, the urban area was situated between the river and the workshop district, implying that the settlement was positioned considerably closer to the river than in its present configuration. We did not find any traces of continuation towards the eastern side of the excavated area, which could have two reasons. It could either be the result of the demolition caused by later construction, or there was no construction at that time. In this later case, we managed to identify the actual edge of the city, but this cannot be stated with complete certainty. This theory is supported by the findings of Paul Karnitsch, who processed a significant portion of the sigillata material found in Iuvavum. He mentions that the earliest pieces are concentrated in a certain area, namely the inner city east of the *Neue Residenz*, which is located in the immediate vicinity of the Salzach River.⁹ While in the first century the site was typically occupied by buildings used for economic and industrial activities, this changed significantly in the 2nd century. The city became noticeably larger, and downtown residential buildings replaced the previous structures. These structures were systematically demolished and only stone buildings with terrazzo floors were erected in their place. As was the case in the first century, it is worth presenting them one by one.

Buildings

Southeastern building

It should be noted that in the late Roman period, in only rare cases has the floor level survived, and we were typically only able to distinguish these houses based on their walls. In addition, due to the fourth-century construction, and the fact the walls were occupied continuously later, it is not possible to determine exactly how many buildings may have stood here, but there were without a doubt at least two. In one of the cases the floor level remained intact over a larger area, which belonged to a rectangular interior space, almost certainly a room. In this room was a massive, thick, and heavily calcified layer on both the floor and the walls. The exact reason for this is unknown,

9 KARNITSCH 1971, 14.

but it is possible that it was used as a calcareous pit during the 4th-century construction. We were unable to examine it in its entirety, as it was heavily damaged by a modern power cable duct and a well built in the 16th century.

Southern building

The building discovered in the southern part of the courtyard, directly to the west of the previous building, had not only a complete floor but also walls 1.5 meters high. Inside the building was a large interior room and a much smaller room, which was apparently added later, as evidenced by its raised floor (Fig. 10). This room was filled with construction debris from the fourth century, perhaps the rubble from the demolition of the building, and a later building was brought up on top of it, which will be discussed later. The walls were whitewashed, with no interior paintings of any kind. In the former room, roughly in the middle, another phenomenon was discovered: a base stone carved from white marble, with a foundation made of crushed stone and mortar under the floor. Its function is unknown, but it may have been the base of an altar. The fact that the building may have had cult significance is further reinforced by the pit found next to it.

The location of the pit was interesting at the first glance, as it was in the narrow space between the previously mentioned building and another residential structure to the north. It was regular in shape, a rectangle with rounded corners. A large quantity of artifacts was found at the bottom of the pit: many *terra sigillata* vessels, grey storage vessels, a striped jug, a lamp, several glassware, and a large quantity of coins, including an Augustus *denarius* (Fig. 11). Most of these were whole vessels, but they were not arranged in a regular pattern, so they could not be identified as grave goods, and no human remains were found. Another interesting phenomenon was observed on the *terra sigillata* vessels. Namely, a piece had been cut out of the rim of each vessel in a regular arc. This was presumably a deliberate and sacred act. Based on this, it can be assumed that the above mentioned building may have functioned as a sanctuary and that the material from the pit may have come from there. Based on their type, we can speak of an early collection of finds, typically identifiable as forms used in the 1st century. Most of them had stamps, and in many cases, the stamp was LM VIR. The abbreviation was changed depending on the size of the container. This stamp can be dated to the early imperial period between the reigns of Claudius and Titus and appears on several *terra sigillata* from northern Italy in Iuvavum.¹⁰ Given its early date, it can be inferred that the ceramic assemblage was utilized at this location at a later period and was likely acquired contemporaneously



Fig. 10. Detail of the building on the southern part of the excavated area with a marble base, 2nd century (photo: ArchaeoProtect Ltd.).



Fig. 11. Structural deposit between the two buildings (photo: ArchaeoProtect Ltd.).

¹⁰ KARNITSCH 1971, 58.



Fig. 12. 1–8 – Glassware, *terra sigillata*, and gray storage vessels from the structural deposit (photo: Zsuzsanna Horváth).

or within a closely related timeframe. There are four types: Consp. 20 and 34, which were made in northern Italy, and Drag. 29 and 18, which were made in southern Gaul, but the Italian pieces make up the majority. Several *terra sigillata* vessels were decorated with graffiti. In all cases, they carried the monogram: LCS. Unfortunately, the full name was not written. The name appeared in several places in Iuvavum, and it also appears on a fragment of an amphora from this excavation, in a similarly abbreviated form. The name has not yet been deciphered, but in the case of the letter L, the praenomen Lucius has been suggested.¹¹ Based on this information and the fact that we also discovered tree imprints on the side of the pit, it is possible that the owner of the name or his family hid the finds here. He may have lived in one of the buildings mentioned above, or he may have owned property in the city centre (Fig. 12).

11 WEDENIG 2014, 341.

Residential building in the middle of the Innenhof

In the middle of the excavation area, north of the previously mentioned building a larger section of a building was uncovered. Unfortunately, only the foundation walls of the building could be documented, so there is no precise information about its interior spaces. However, in one corner, where a small section of the standing wall remained, an exciting feature came to light: a fragment of a fresco on the wall. The background was white, and painted dots were used on the lower part of the wall to imitate marble. In the middle of the wall, there were cells painted alternately with green and black paint. Between the two cells, a yellow and red three-legged candelabra was depicted. Above the legs was a small image, also painted in red and yellow, of oval shape with wavy lines flowing out of it, presumably representing some kind of sun, but this cannot be stated with certainty.

Peristyle house

Of most importance is the residential building, which was found in the northern part of the courtyard and in the central section. This building has been best preserved in its original form throughout the entire excavation. The courtyard was bordered by an arcade on the north, east and south sides. In contrast, the western edge was only surrounded by a barrier wall. Massive conglomerate (local) stone foundations were built into the wall between the corridor and the courtyard, which can be interpreted as column bases. Although the identification of the building was primarily facilitated by the recovered column bases, nothing remains of the columns themselves. Inside today's building, a presumed part of a column base came to light. The design of the building is typical of the Roman era, and numerous examples can be found in both Italy and Pannonia. The most striking examples can be found in Pompeii, where, due to the unfortunate catastrophe that befell the city, the buildings have been preserved in such a condition that they can be studied in great detail. There are also examples of peristyle gardens with similar floor plans.¹² In all cases, the rooms were grouped around the central courtyard. In the remaining parts of the corridor, the terrazzo floor has been preserved almost across its entire surface. A layer of rubble is spread across the floor, most likely related to the destruction of the building. The finds varied, including early terra sigillata, fragments of a mortarium from the 3rd century and a fragment of a stove tile, which may have been mixed into the layers of the building and its corridor as a result of later disturbances, as it was cut through by an early modern wall. One of the most exciting finds, a bronze boat, was discovered in the northeast corner of the courtyard. It was found not far from the entrance of this room. The find consisted of a bronze disc and a cast, hollow half-boat, which was fastened with iron nails. It probably decorated a door, as there are excellent analogies for this in the former Herculaneum area, where similarly shaped objects have been found attached to doors. In Herculaneum, the object was identified as a candlestick holder and linked to the owner's profession (Fig. 13).¹³

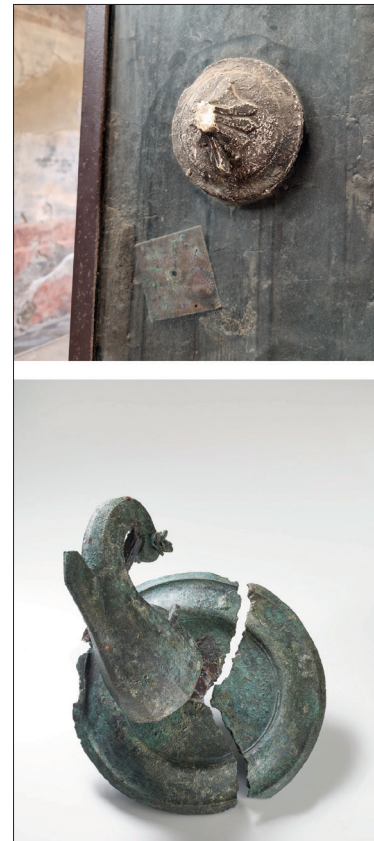


Fig. 13. The door decoration from Herculaneum (up) and from Iuvavum (down) (photo: Rita Rakonczay and Landesmuseum Salzburg).

¹² WILKINSON 2017, 81–82. Fig. 19.

¹³ SIRANO 2022, 158–162.

In addition to the massive walls, a canal dated to the 18th century also ran through the roman building. To the east of the corridor, the walls and some of the floors of several rooms were documented. The original floor level was found in a total of three places: in the corridor and in two rooms to the north. Two adjacent rooms in the northern part of the courtyard were partially preserved (Fig. 14).

Two rooms in the building are notable, in which so-called hypocausts were discovered under the floors. One is uncovered in the north wing of the peristyle house. A complete row of heating tiles (*tubuli*) was also discovered in the ascending part of the wall above the floor. The bricks were in rather poor condition and heavily fragmented. This may also reflect later disturbance, as a substantial overlying layer contained Roman-period debris together with pottery fragments dating to the 16th–17th centuries. In addition, the foundation trench of the western wall of the *Neue Residenz* also destroyed the underfloor heating. Huge slabs of conglomerate stones were laid under the terrazzo. Underneath the stone slabs were the columns that supported the floor. These were made of irregularly shaped conglomerate stone instead of the usual stone or brick columns. They stood on a mortar floor with rather

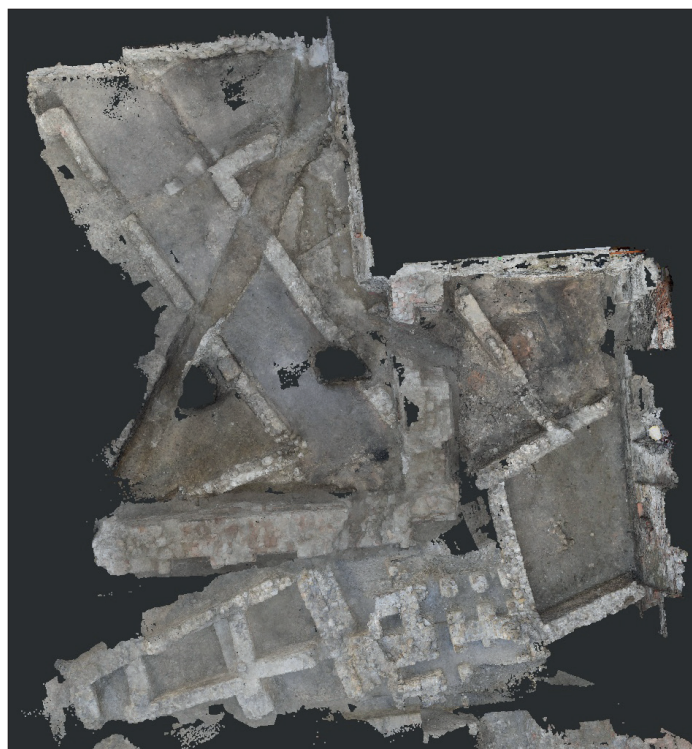


Fig. 14. Detail of the peristyl house, 2nd–3rd centuries (photo: ArchaeoProtect Ltd.).

weak support. Part of a corridor was also found in the western part of the inner courtyard of the residential building. Due to the severe disturbance, it is not possible to determine whether this area was completely enclosed, as there were no pillar bases in the surrounding wall of the courtyard. Underfloor heating was also documented in the west wing of the building. *Tubuli* were visible as well on the standing walls, and large stone slabs were laid under the floor, as they were in the northern part of the building. These were also placed on irregularly shaped large conglomerate stone columns. The arrangement of the stone columns was also irregular, and no system could be identified. Since the floor in this area was intact and was not dismantled, it was obvious that the underfloor heating had originally been laid out in such an irregular manner according to plan.

Significant frescoes were discovered on the walls of the peristyle house. This was observed on several walls. These were systematically documented and removed using appropriate restoration methods. In the north-east corner of the courtyard, two details were discovered on the standing walls: on two sides of the same wall, in two different rooms. The smaller one in the southern side of the wall was red on white background. It was repeatedly visible that the fresco had been renewed; up to two or three layers could be observed. The other fresco has been preserved on a much larger surface on the northern side of the wall. The basic design remains unchanged, in this instance, also a larger red field on a white background, but here the red colour is additionally covered by spots of different colours, which is a form of imitation of marble slabs or other types of stone slabs.¹⁴

This mural has been renewed several times, twice in total, by applying a thin layer of plaster to the previous image and then painting over it with the new image.

In the west wing, a large area of frescoes was documented *in situ* on the wall which shows a type of marble imitation. Several small marks were found on the frescoes. Presumably traces of renovation work to roughening the surface for a new plaster layer.

Particularly noteworthy is an occurrence found in the north-eastern part of the courtyard beneath a severely disturbed soil level in the east wing of the peristyle house. A vessel was discovered here that was probably placed there during the construction of the building. It is a typical Roman jug, and since the entire vessel was found directly beneath the floor, it is possible that it was a structural deposit (foundation deposit?) (Fig. 15).



Fig. 15. A foundation deposit (photo: ArchaeoProtect Ltd.).

The street network in the 2nd century

Little is known about the street network of Iuvavum, which is due to the fact that only fragments of the city have been unearthed. For this reason, only a few sections of roads have been excavated. During this excavation, another small section was discovered. A massive layer of compacted gravel was found in the western part of the excavated area. In addition, it was observed that two residential buildings were aligned parallel to this feature, which extended for a long distance in a northwesterly direction. This suggests that we are dealing with the foundations of a road. This is further supported by the fact that no similar layer was found in other areas of the excavation, and it was fairly regular, as the edges of the two residential buildings on this side were also aligned in a straight line, which is understandable in the case of streets (Fig. 16).

The issue of water supply

The 2nd century also saw changes in this regard. The number of wells decreased significantly. One well can be dated with certainty to this period based on stratigraphy; it was located in the residential building with an inner courtyard. However, it can also be said that when this building was constructed, the well was already out of use, or perhaps it was buried at that time. Another interesting feature of the well was that a larger pit was dug out first, which was filled with gravel-like soil after the



Fig. 16. Detail of the street in the southwestern part of the excavation area, running in a southeast–northwest direction, 2nd–3rd centuries (photo: ArchaeoProtect Ltd.).

well itself was lined out with stone. This can be identified as a filter cistern, in which case the heavily gravel-filled exterior served as filter for the water. It is worth mentioning that in all Roman wells, the lining was made of crushed limestone. There was a difference in their shape, as in two cases it was circular, while in the others it was a square with rounded corners. The solution to the water supply certainly changed, as evidenced by the marked decrease in the number of wells and the bronze tap found in the southeastern part of the courtyard. Presumably, this was when they gradually switched to using piped water.

Outlook for the 3rd century

The examination of the 3rd century proved to be quite difficult. A fundamental complicating factor was that the significant construction projects of the 4th century often disturbed even the earliest levels, with many earlier buildings being completely demolished and levelled. For the most part, this period could only be captured in the form of artifacts. The best example of this is the coated grinding bowls found in the courtyard of the inner courtyard residential building, which typically appeared in the 3rd century. It is also possible that this period could not be clearly separated stratigraphically simply because the buildings and levels changed so minimally, compounded by significant late Roman landscaping.

Iuvavum municipium in the 4th century

Architectural issues

First, the differences between the architectural solutions are worth mentioning. In this regard, we can primarily examine the walls, as we were only able to partially inspect the individual buildings, which means that it is not possible to determine an accurate floor plan. There were no differences in the raw materials used; in all cases, the walls contained crushed limestone laid in thick mortar. We did not find any bricks in the walls, and based on the small amount of roof tiles, it can be concluded that the roofs were not always covered with them. In the case of the 1st-century horizons, roof tiles were completely absent.

It is not possible to make comprehensive conclusions about differences in masonry techniques, as we were unable to examine the upper walls of the late Roman buildings, only the foundations. The walls of 2nd-century buildings were typically narrow, and the stones were laid in a regular pattern, with attention to the adequate quality of the surfaces.

In contrast to earlier periods, the walls of the 4th century were much more irregular, with much less attention paid to the faces. In addition, it was not uncommon for earlier walls, fragments of frescoes, or even ceramic vessels to be incorporated into the new structures. In one of the walls of a building with underfloor heating found in the southern part of the *Innenhof* an almost completely intact terra sigillata bowl (Drag. 37) was also built into the wall (Fig. 17).



Fig. 17. Drag 37 *terra sigillata* from the rubble of a 4th-century wall (photo: Zsuzsanna Horváth).

Buildings

Underfloor heating building on the eastern side of the Innenhof

There are many questions surrounding the 4th-century Iuvavum. Modern disturbances and construction work have generally led to the partial or complete destruction of late Roman settlements. In view of these facts, it is quite a fortuitous event that the excavations uncovered the remains of two large, floor heated buildings and a stone-slab-covered walkway from this period. The paved walkway may have been an inner courtyard or an open space. In the central area of the second courtyard, between the two early modern walls, a part of a building from the 4th century was discovered immediately after the demolition of the early modern layers. Only minimal traces of the standing parts of the building and the floor have been preserved, but underneath there were considerable remains of underfloor heating. The heating system was renovated several times and probably expanded: the south side of the hypocaust was presumably completed later than the northern side. This is indicated by the fact that the wall of the hypocaust was broken through to create a heating duct, and the composition of the terrazzo is different on both sides. In addition, the northern half of the hypocaust had already been destroyed by the late Roman wall, while the columns of the hypocaust in the southern half were built onto this wall. The floor was supported by columns made of rubble stones set in mortar. The floor was found on stone slabs, and no terrazzo layer was observed—although only a small area of the floor was visible (Fig. 18).

The central wall of the heating system was shaped like a cross and probably also served as an internal partition wall. This is backed by the presence of hypocaust columns on both the north and south sides of this wall. In addition, several sections of a previously constructed wall were reused. However, walls from earlier buildings were also disturbed during the construction of the hypocaust. One example is one of the end walls of the peristyle house.



Fig. 18. Detail of the underfloor heating building from the 4th century on the eastern side of the excavation area (photo: ArchaeoProtect Ltd.).

Another interesting observation was that walls from the 4th century were frequently added to the peristyle house, which shows that it was certainly still standing during the late Roman period in unknown conditions, and raises the question of what function this building had. The late Roman use is also confirmed by the buildings excavated in the north-eastern corner of the courtyard. The structure, which was part of a late Roman building conversion, also intersects the underfloor heating. This wall was built directly onto the suspected original southern end wall of the peristyle house.

This building was constructed in the 4th century, as demonstrated by the numerous coins of Constantine found in its vicinity. Also noteworthy is the layer of rubble that is laying between the columns of the underfloor heating system, which was probably the rubble of the late Roman building. It is also almost certain that the underfloor heating system of the building was deliberately calculated and filled in. The fact that this rubble was laid down to the floor without any space between

the columns suggests that this was intentional. It can be assumed that the floor was also broken up at this time. It is not known for certain whether a new floor was then laid on top of it, as the later layers were completely destroyed by the recent destruction. Unfortunately, disturbances caused by later medieval and modern buildings have prevented further research into this late period of the city. The reason for the deliberate removal of the underfloor heating is unknown. On one hand, it can be assumed that the underfloor heating could not be maintained, on the other hand, it could be related to the depopulation of the city in the 5th century. However, the underfloor heating could have been removed earlier. It is certain that the underfloor heating was deliberately removed and filled with construction debris, as evidenced by the fact that the space between the columns was completely filled, which rules out the possibility that it was caused by a collapse. In addition, the columns were found intact, with only their tops damaged, evidently due to later disturbances. We were able to date the layer using a coin, which can be considered among the latest in the Roman horizon of the excavation. It is a *follis* bearing the following imperial title: DN CONSTANTIUS PF AUG. Based on the inscription, this is Emperor Constantius II, who reigned from 337 to 361 AD. The coin was found in the layer between the columns. Due to the wear and tear of the coin, it is likely that the filling took place later, probably at the end of the 4th century, and this did not mean the complete demolition of the building, but unfortunately, we have no information about its further fate.

Building with underfloor heating in the southern part of the Innenhof

In the southern part of the courtyard, a massive layer of rubble was uncovered after the modern layers were removed. This layer was used to fill in the underfloor heating. In the southern part, the wall of the building was completely destroyed, so its exact dimensions are unknown. The building was founded on the aforementioned structure from the 2nd century. The eastern and northern end walls were built directly onto the walls of the earlier sanctuary-like building and also cut through the floor. They are almost two and a half times as thick as the walls of the previous building, although the foundation walls are usually wider than the standing walls. However, the width of the standing walls is unknown. The southern end wall of the south wing of the New Residence has already been demolished. The western end wall was also cut into the floor. During the construction of the hypocaust, the walls were demolished, in some cases down to the level of the 4th-century hypocaust floor, and then covered with a uniform terrazzo, after which the columns were erected. The columns are made of different materials. While those in the western part are made of bricks, those in the eastern part were made of mortared blocks covered with plaster. The brick pillars measure 20 × 26 cm and are uniform, while the quarry stone columns are irregular and measure approximately 30 × 50 cm. The reason for this is not yet known, and there were no signs of later expansion. A particularly interesting phenomenon was observed in the south-eastern corner. Here, the floor had subsided significantly, which was subsequently repaired. The sunken floor was filled with rubble to the appropriate level and then four regular columns were erected in a square plan, presumably in place of the earlier columns that had been demolished due to the subsidence. Unfortunately, no walking level was preserved here either, so that nothing of the building above ground level could be seen. The brick columns were partially demolished and may have been reused for other construction work. They were probably demolished when the underfloor heating was removed. As with the other late Roman hypocausts, the reason for the demolition is unknown (Fig. 19).

Covered inner courtyard

Immediately east of the building just described, a very interesting phenomenon came to light beneath the early modern levelling layer: a limestone surface covered with stone slabs. In addition, there was a thin surrounding wall, which formed a well-documented structure despite numerous modern disturbances. Its function is unknown, and it is not entirely clear to which building it be-



Fig. 19. Underfloor heating in the building from the 4th century located in the southern part of the excavation area (photo: ArchaeoProtect Ltd.).

longed. To the east of it, modern and contemporary disturbances have led to very short sections of walls from the 4th century. The enclosed courtyard was also significantly damaged by modern concrete shafts. In addition, there were several modern objects here whose boundaries were not visible in the upper documentation areas. No direct connection between the courtyard, which was paved with stone slabs, and the building heated by hypocausts could be established, as it could only be identified at the level of the foundation walls. However, it is precisely for this reason that we cannot draw any definitive conclusions. The stone paving was enclosed on the north side by a wall based on several walls built in the 1st to 3rd centuries, some of which had been partially demolished. In one section, a layer of mortar was poured onto the earlier walls, which probably formed the basis for the standing wall, which has not survived. Further north, but parallel to this wall, was the wall that must have been the southern end wall of the building with underfloor heating, although the direct connection has unfortunately been destroyed by the early modern wall (Fig. 20).

Fresco fragments in a pit in the eastern part of the courtyard

Two objects from the 4th century were documented on the eastern edge of the courtyard. A section of a wall ran in a T-shape, but its function is unknown, and no other



Fig. 20. Detail of covered inner courtyard from the 4th century (photo: ArchaeoProtect Ltd.).

sections were found. A thick layer of rubble was also uncovered next to the wall: a pit had been filled with large fragments of frescoes and stucco. These probably came from a building. It was not possible to determine which building they came from or whether the rubble was created during the demolition of the building or during the renovation of the interior. However, the fact that they were deliberately dug into a pit makes the latter theory seem more likely. The pit is cut off from the wall of the *Neue Residenz*, so unfortunately only part of it has been preserved.

The changed function of the inner courtyard residential house

In connection with the cityscape of the 4th century, the phenomenon documented in a room of the peristyle house in the north-eastern corner of the *Innenhof* is important. In this area, two ovens were installed on the inner dividing wall of the building, on both sides of the wall, in the west and east, built next to each other. The oven wall and oven plate on the west side of the wall are partially preserved. An oven in slightly better condition was found on the east side of the wall. Here, too, the oven wall and plate were recovered. In addition to bronze tongs, several pieces of bronze slag were also found, indicating metalworking. The dating to the 4th century is based on the burnt workshop layer around the ovens. Several bronze coins minted by Emperor Constantine the Great were found in it. It is also significant that the ovens were probably built onto the existing walls, as they were built on the foundation of said walls. The terrazzo floor was not found in this room of the peristyle house, as it was probably removed during the construction of the ovens. The traces of plaster on the walls indicate the original walkway, which was higher than the ovens. These suggest that in parts of the building, the residential function was replaced by workshop activity in the 4th century, although not in the entire building. The exact date of this change is unknown.

The question of the 4th-century street system

The issue of the street system at that time was mentioned in the description of the second century, but it is worth mentioning it here in a few sentences. Based on the orientation of the buildings, there is no significant difference in their placement, so the question arises as to how much the street network has changed compared to previous centuries. Although no fourth-century street level has survived, there is another, smaller courtyard to the north of the *Innenhof* discussed in this article, where a similar full-surface excavation was carried out. In this case, a section of road paved with basalt stones was found, which is perpendicular to the street section discussed earlier.¹⁵ Of course, it cannot be stated with certainty that the section of road we uncovered was definitely in use in the 4th century, as the upper layers had already been destroyed by the former Panorama Museum building that stood here. However, it is certainly worth suggesting that it was also in operation in the 4th century.

The issue of water supply

Numerous questions arose during the late period of the town, which are quite difficult to answer due to the circumstances of the excavation. The issue of water also falls into this category. Unfortunately, no information has been found on this subject. Certainly, no wells dating from this period have been found. From this, it can be concluded that wells were not used in this area at that time. Of course, this does not rule out the possibility that the wells were located outside the excavation area, and it is also possible that the previously built water drainage system continued to be used, but we have no information about this either.

15 KOVACSOVICS 2002, 121.

Early Middle Ages (5th–9th centuries)

Although the foundation of medieval Salzburg dates back to the 7th century, and the city has served as an archiepiscopal centre since 798, no archaeological traces of these early periods have been identified in the *Neue Residenz* area.¹⁶ The primary reason for this appears to lie in the ground levels: unlike in the Roman period, when major construction projects involved substantial raising of the terrain, the medieval and Baroque floor levels were almost identical to present-day street levels. Consequently, from the early Middle Ages onward, surface features such as floors, paved streets, or squares have not been preserved, leaving only deeply dug objects and wall foundations.

What is particularly striking, however, is the complete absence of finds from this early period. This is notable because this part of the city may have been inhabited from the early Middle Ages, given the nearby cathedral, which also dates to the 8th century. No traces of the early cathedral have been discovered either; it was likely entirely demolished during the construction of the 12th-century cathedral.¹⁷ It is therefore probable that later urban developments completely destroyed these earliest components of medieval Salzburg.

High Middle Ages (10th–13th centuries)

The remains of the medieval and early modern settlements were found in a far more mosaic-like pattern than those of Roman Iuvavum. From the 5th century onwards, no significant changes or rises in ground level were observed—at least within the territory of the *Neue Residenz*.

Dating the finds from this period remains challenging, as the majority of walls cut into the Roman layers cannot be dated by associated artefacts. Relative dating of the walls provides some guidance, but the surviving medieval wall sections have been mainly preserved only in fragments due to later large-scale construction. Approximate dating has therefore relied primarily on apparent differences in masonry techniques between periods. Roman walls were generally 60–90 cm wide and mostly constructed of crushed limestone, laid in mortar typically containing large pebbles and sometimes exhibiting a yellowish hue. In contrast, early modern masonry generally used local stone, so-called conglomerate stones, and incorporated levelling bricks and brick dust in the mortar.

Some wall sections at the surface, however, were made of limestone, approximately 1 m wide, contained no bricks, and used a more calcareous, gravel-free mortar without brick dust. These walls generally did not belong to any independently identifiable building but were incorporated into early modern structures as secondary features. On this basis, they can be associated with medieval buildings in the area, although precise dating within the Middle Ages has not yet been possible.

Buildings

Church buildings

Most of the written and pictorial sources are silent about what may have been in the area in the early Middle Ages. However, we know for sure that the chapel of St. John (*Johannes von Stubenberg*) stood here, which, according to written sources, fell victim to Wolf Dietrich's construction projects.¹⁸

16 We have very little archaeological evidence this early period in other parts of the city as well (KOVACSOVICS 2001, 93–98).

17 KELLER 2016, 76.

18 STAINHAUSER 1873, 78. Johann Stainhauser, Wolf Dietrich's historian, reported as follows: "Den 20. dito bemeltes Jahrs hat man aus Bevelch der Erzbischoven das Kirchl bei sant Johannes zu Stubenberg abgebrochen." [On the 20th of the aforementioned year, the church of St. John of Stubenberg was demolished by order of the archbishop.].

The location of the former hospital chapel is still uncertain, and we do not know of any archaeological remains that can be linked with certainty to the church mentioned above. Recent building research has located the church in the south-eastern corner of the *Neue Residenz*, where a semicircular apse wall is visible in the building's floor plan.¹⁹ This interpretation has been rejected by earlier research, including that of Johannes Graf Moy. Moy argued that the apse is not oriented to the east, which contradicts both medieval traditions and earlier cityscapes. For example, a 1553 image of Salzburg depicts an east-facing church with a polygonal apse and a tower on the west side.²⁰

Fortunately, the excavation affected the area, as the staircase (*Stiege 5*) in the eastern wing had to be uncovered entirely due to the construction of a lift shaft. Here, a massive fill mixed with organic materials was found, which also contained human bones. However, the bones were not arranged in anatomical order and were very disturbed. If we accept the identification of the semicircular apse, the cemetery graves should be aligned in this area, but the small number of bones found does not support this. However, a fragment of a Gothic red marble tombstone, later built into a wall, may indicate the proximity of a church (Fig. 21).

The excavation revealed a massive, 100 cm wide wall dating back to the Middle Ages, but not more precisely. The approximately 2 m-high, 4 m-wide, U-shaped massive wall foundation may have served as a structure connected to the chapel.

Secular buildings

Written sources mention medieval town houses (*etliche Heüser*) and the so-called *Seckauerhof* building in the area. No clear remains of these have been found in either the courtyard or the interior. Only one or two sections of wall may date back to the Middle Ages, but they do not form an identifiable building. Presumably, the remains of these buildings were also found in the first inner courtyard in the 2000s.²¹

Water supply

The only relatively well-dated object from the High Middle Ages was a stone-lined well (Fig. 22). The square well (295 × 290 cm)



Fig. 21. Gothic red marble tombstone secondarily built into a post-medieval wall (photo: ArchaeoProtect Ltd.).



Fig. 22. Stoned-line well from the High Middle Ages, from the 12th–13th centuries (photo: ArchaeoProtect Ltd.).

19 WEIXLER 2021, 119.

20 MOY 1969, 207.

21 KOVACSOVICS 2002, 126. Fig. 17; KOVACSOVICS 2009a, 254. Fig. 12.

had a dry-stone lining and narrowed towards the bottom, measuring approximately 110 × 125 cm at the bottom. A small number of 12th–13th century graphite ceramics, mainly pots, were found in the uniform fill of the approximately 2 m-deep well, which helped date the phenomenon. The well was partly dug into the Roman layers and partly into a massive—probably medieval—fill layer.

16th century

Most of the 16th-century finds can be linked to the new residence built by Wolf Dietrich and its predecessor. This period includes the walls of the second inner courtyard and the floor levels inside the building. Dating is often problematic here as well, as the investment affected only the modern fillings in the interior. In more fortunate cases, we were able to go down to the previous floor level. However, these floor levels were not removed, so the dating of the floors and walkways was possible only through relative chronology.

Buildings

Secular buildings

Two massive walls ran parallel across the courtyard in an L-shape, with their crowns appearing almost immediately under the modern fill (Fig. 23). The two sides of the cast wall were built of conglomerate blocks and bricks, while the space between them was filled with broken stones and mortar. The mortar mixed with brick dust and small pebbles was rather grey in colour. The walls were 1.8 m wide, with recesses facing each other. On the outer surface of the approximately 6 m high walls, board marks were also visible, indicating a formwork construction technique. The walls had a trench, but it narrowed from top to bottom. The southern wall was also L-shaped, but the eastern wing of the building was partially built on top of its remains, so it could not be documented on the surface. On the western side, a large wall pillar was also connected to the northern wall. A niche-like recess was observed in the north-south section of the northern wall, which may have been the location of a doorway. However, no floor level or debris from the rising walls was found.

The dating of the masonry was aided by the earlier gravestones and building elements (door frames, cornices) that were built into it secondarily. Noteworthy examples include a fragment of a gravestone depicting the crucifixion of Christ, bearing the coat of arms of Archbishop Matthias Lang von Wellenburg (1519–1540), and a piece of a Romanesque window decorated with dogtooth ornament, made of red marble.

Since the secondary carvings cannot be dated earlier than the mid-16th century, and the wings of the building associated with Wolf Dietrich were already built on top of them, the walls can be dated to sometime in the second half of the 16th century. We know from written sources that the construction of the *Neue Residenz* began as early as 1588, but the archbishop had it stopped and left unfinished. The archbishop's historian, Johann Stainhauser, writes about the stage of construction of this predecessor building at that time: "... die Böden sambt den Stiegen, die schon alberait gemacht gewesen, wider eingeschlagen und verneuert worden, und ist gleichsamb den Erzbischofen dises Gepeis ein Unluft ankummen, daß es in villen Sachen, Fenstern und Andern, wie augenscheinlich, unverfettigt stecken blieben."²² According to the historian, the stairs and floors of the building had already been completed at that time, but after construction was halted, the windows and many other things remained unfinished.

The excavated remains suggest that these walls were later systematically demolished, presumably when construction of the *Neue Residenz* began again in the 1590s. This is supported by extensive

22 STAINHAUSER 1873, 32–33.



Fig. 23. 1–5 – The massive post-medieval walls across the *Innenhof* in an L-shape (photo: ArchaeoProtect Ltd.).

excavation along the southern wall line, from which a large quantity of artefacts dating from the turn of the 16th and 17th centuries were recovered. The dating of the object is also supported by two Nuremberg counting tokens from around 1600 found inside it.

The incompleteness also explains why they dug down to the Roman layers at a depth of 6 m and what the inward-facing niches might have been used for. Presumably, a building with a basement was planned here, but only the two main walls were completed. However, the area between the walls had not yet been excavated, and the Roman layers had not been destroyed there. The niches would certainly have provided space for the cellar windows.

The identification of the walls as a previous building is supported by a late 18th-century description, which refers to the southern courtyard as the *alte Neue Residenz*, i.e. the older new residence. In contrast, the northern courtyard and wings are referred to as the *neue Neue Residenz*, or newer new residence.²³ Since both archaeological and historical data show that the northern courtyard

23 HÜBNER 1792, 180–181. “Das ganze Gebäude besteht eigentlich aus zwei Abtheilungen, oder zwei durch ein Mittelgebäude abgesonderten Vierecken, wovon das obere gegen den Michaelisplatz, sonst der neue Neubau, und das untere an der Domkirche der alte Neubau genannt wurde.” [The entire building actually consists of two parts, or two squares separated by a connecting central wing, the upper one facing St. Michael’s Square [now Mozartplatz], the newer new residence, and the lower one facing the cathedral, the older new residence.]

was built first,²⁴ this source can only be interpreted to mean that at the end of the 18th century, the former location of the predecessor building of the new residence was still known.

Presumably, details of this building were also found in the eastern wing of the northern building complex. A thick, approximately 100 cm wide, rubble-stone wall was found here, connected to brick floors on both the south and north sides (Fig. 24). In this section, only a small area was open for research, reaching the first floor levels, so our knowledge is limited for the time being. In another room, further sections of rubble-stone and brick walls were found, which could also be identified as parts of a previous building, as the present building was built on top of them. This wall was connected to a brick floor with at least two periods in the north, and a stone-slab walking surface in the south. The former was probably an interior space, while the latter could be identified as the inner courtyard of the earlier building. The findings can be linked to the archaeological remains excavated in the first inner courtyard: two parallel, early modern walls were found here, which Wilfried Kovacsovics initially identified as the walls of the predecessor building of the *Neue Residenz*,²⁵ but later changed his mind and interpreted them as foundation walls of the corridor connecting the old and new residences.²⁶ We do not consider the latter to be correct, as the remains of the corridor were found on *Residenzplatz* in 2007, which did not form a continuous foundation wall, but were supported by large pillars, presumably dividing the open corridor into arcades.²⁷

Water supply

Two well-like structures can also be linked to the 16th-century period. Both are very deep, brick-lined recesses. The southern one, located in the courtyard, is a huge (370 × 420 cm) object with dry stone lining. The mouth of the pit is funnel-shaped, narrowing towards the bottom, and then the walls continue straight in the last section. Its lower part had a diameter of 290 cm and a total depth of 4.8 m. Unfortunately, its superstructure was destroyed or did not exist. No traces of a vault or arch could be observed on it. A minimal amount of 16th-century pottery was found in its fill (Fig. 25).



Fig. 24. Remains of the predecessor building: walls and brick floors (photo: ArchaeoProtect Ltd.).



Fig. 25. Post-medieval well or water cistern in the southern part of the *Innenhof* (photo: ArchaeoProtect Ltd.).

24 SCHLEGEL 1952, 138; WEIXLER 2021, 73.

25 KOVACSOVICS 2002, 129.

26 KOVACSOVICS 2009a, 255.

27 SCHLEGEL 2009, 57, Fig. 46.

The northern feature was discovered in the central section of the present-day building, in the interior. This more regular, circular object with an irregular square exterior was made of large conglomerate blocks. A sloping drain or chute was observed in its upper part. No traces of a vault were found here either. The interior of the object was approximately 150 cm, while the square excavation was 250 × 330 cm, and 6.8 m deep (Fig. 26). Several layers could be distinguished in the fill: the upper two layers were very poor in finds, while the lower layers yielded increasing numbers. The last 2 m of fill contained a wealth of finds from the late 15th and early 16th centuries: a set of glazed bowls, unglazed pots and their lids, jugs and pitchers were unearthed (Fig. 27). In addition to a few coins that cannot be identified at this time, two cloth seals were found, one of which can be dated to around 1500 and is an import from Augsburg.²⁸ A detail of a medieval lead-framed window *in situ* was also found at the site.

Austrian research generally defines these structures as cesspits. Similar structures were also uncovered during excavations at the *Alte Residenz*, although in almost all cases, the arches covering the pits or their remains were also found.²⁹ These structures were probably built before the construction of the *Neue Residenz*. Based on the finds, the northern structure was still in use in the first half of the 16th century, but was later filled in, perhaps during Wolf Dietrich's construction work. The dating of the southern structure is uncertain due to the lack of finds. It may have been a water collector created for the construction work that began at the end of the 16th century. Its identification as a rubbish pit is made uncertain by the complete absence of rubbish.

17th century

The remains associated with the building erected by Wolf Dietrich are among the most significant findings of the excavation, con-



Fig. 26. Post-medieval well in the middle wing (*Mitteltrakt*) (photo: ArchaeoProtect Ltd.).



Fig. 27. 1–3 – Pottery finds from the post-medieval well (photo: Zsuzsanna Horváth).

28 Many thanks to Maxim Mordovin for his definition!

29 KOVACSOVICS 1991, 16–36.

tributing to our understanding of the building complex that can still be seen today. In the inner courtyard, the foundation walls of the wings surrounding the courtyard can be attributed to this period. The interior parts, on the other hand, include earlier walls and walkways that can be linked to the building.

Buildings

The wings surrounding the second inner courtyard

The walls of the four wings of the second inner courtyard contributed to the reconstruction of the building history of the southern building complex. All four walls of the courtyard differed from each other, and the wall of the staircase in the north-eastern corner also differs from the others.

Based on written and pictorial sources, previous research agreed that the northern wing must have been completed first, as it was part of the earlier northern building complex.³⁰ The wall found here did indeed appear more archaic than the others. The wall, made of large broken stones, contained no bricks, and had a relatively uniform structure, with only a few later alterations and re-bricking.

The 2021 building research agreed with the earlier theory that the eastern wing was also linked to Wolf Dietrich.³¹ Here, it was observed that the north-facing wall of the previous building was incorporated into a later wall built of conglomerate blocks and bricks. The structure of the later wall (Fig. 28) was very similar to that of the 1588 building, and its foundation footing also corresponded to the height of the demolished earlier building. For this reason, not much time likely elapsed between the construction of the two walls.

The dating of the north-eastern staircase has always been questionable. Historical research previously believed that the staircase could be interpreted as an extension of the eastern wing of the northern building complex, and that this building was the predecessor building known from sources.³² Here, it was possible to establish that the western and southern walls of the staircase were probably built at the same time. Unfortunately, the connection to the northern and eastern wings of the building was severely disrupted in both places, so it was not possible to examine it. However, the staircase wall was definitely built after the 1588 building, as it cut through the wall of the earlier



Fig. 28. Foundation wall of the eastern wing (photo: ArchaeoProtect Ltd.).

30 WEIXLER 2021, 73.

31 WEIXLER 2021, 95, Fig. 173.

32 MOY 1969, 201; SCHLEGEL 1952, 137.

building. The exterior wall face is irregular. It is probably contemporary with the cellar under the staircase, whose excavated floor level has been dated to the time of Wolf Dietrich.³³

Based on historical data, the construction of the south and west wings can be linked to the work of Archbishop Max Gandolph von Kuenburg.³⁴ The foundation wall of the south wing appeared to be uniform: mortar and building materials were poured into wooden formwork in a narrow foundation trench for the heterogeneous wall, made of stone and brick. The traces of the formwork were visible along the entire length of the wall. Unfortunately, the connection between the south and east wings could not be investigated due to 19th-century alterations. However, the junction between the south and west wings was observed during excavation: the south wing was added to the west wall at a later date. It is important to note, however, that the wall of the western wing had been severely disturbed by the construction of the Panorama Museum in 2001, so only a small section on the south and north sides could be investigated. Three buttresses, which had been added to the wall at a later date, were uncovered on the north side. Ten arcades can be seen on the ground floor of the west wing, of which the eight southern arches have now been bricked up. The buttresses fit into the line of the arcades and presumably supported the weight they carried (Fig. 29).

According to sources, research suggests that a garden existed in this area at the beginning of the 17th century,³⁵ surrounded by a wall. Examination of the ascending walls revealed that the former wall of the garden was incorporated into the western façade wall of the west wing.³⁶ However, based on the excavation results, it cannot be ruled out that the eastern wall of the west wing was the garden wall, and that the arcade arches still preserve remains of that era. However, when the garden wall was incorporated into the façade of the west wing, the addition of three further storeys may have justified the reinforcement of the foundations with large buttresses to support them. However, this is somewhat contradicted by a 17th-century depiction of the garden wall, which does not show the arcades.³⁷

Cellar in the central wing (Mitteltrakt)

A large cellar was also discovered in the eastern part of the central wing, separating the north and south courtyards. Its original walls (Fig. 30) were made of large broken



Fig. 29. The massive buttresses, which support the weight of the ground-floor arcades (photo: ArchaeoProtect Ltd.).



Fig. 30. The original walls of the 16th-century cellar (photo: ArchaeoProtect Ltd.).

33 WEIXLER 2021, 94, Fig. 172.

34 SCHLEGEL 1952, 137.

35 MOY 1969, 206.

36 WEIXLER 2021, 95, Fig. 173.

37 WEIXLER 2021, 64, Fig. 140.

stones and ashlars. In one part, the original floor level could also be observed: a river pebble covering. The cellar was located at the corner of the southern and eastern wings of the northern building complex, but was later significantly rebuilt: the cellar was divided into two larger parts by an L-shaped wall. Based on the masonry technique (conglomerate blocks and bricks), this must have happened sometime in the first half of the 17th century. This wall was very similar to the foundation of the eastern wing of the courtyard, so it may have been built at the same time, around 1602. Based on the finds unearthed from the cellar, it was filled in by the 18th century at the latest, and its use was permanently discontinued.

Eastern wing

Research was possible in the two northern sections of the eastern wing of the second inner courtyard. Two earlier floor levels were uncovered in the southern section. The earlier level was a brick floor (Fig. 31), which extended under the current partition walls, and the partition walls were built on the floor. Based on this observation, the middle section may have once been a large space connected to the brick floor. The partition walls that can still be seen today, and the spaces they create, were probably built sometime in the 18th century, as they appear on a floor plan dating from 1784, according to the current layout.³⁸ Presumably, the excavated younger floor level was already adapted to the 18th-century layout. Although we did not dismantle the brick floor, its dating is somewhat uncertain. But as it was connected to the earliest walls of the building, it can be assumed to date back to the period of Wolf Dietrich.

Church of St. Salvator

In the southern part of the east wing (*Stiege 5*), several wall remains dating back to the early modern period were also uncovered. One of the latest was a U-shaped brick structure, which was later built onto the western façade of the eastern wing. The earlier rubble wall, probably of medieval origin, was raised and incorporated into an early modern wall. The eastern wall of the tract was very heterogeneous: it incorporated a medieval wall and a Roman wall, oriented east-west. In one section, there was no wall at all, but a brick arch was visible (Fig. 32).

The 1784 map shows the Church of St. Salvator in this section: a single-nave chapel with a straight sanctuary closure (Fig. 33). We know from sources that Wolf Dietrich's successor, Archbishop



Fig. 31. Brick floor of the eastern wing (*Osttrakt*) from the earlier period (photo: ArchaeoProtect Ltd.).



Fig. 32. Eastern profile of the *Stiege 5* with the brick arch and remains of the Roman wall (photo: ArchaeoProtect Ltd.).

38 WEIXLER 2021, 120, Fig. 201.

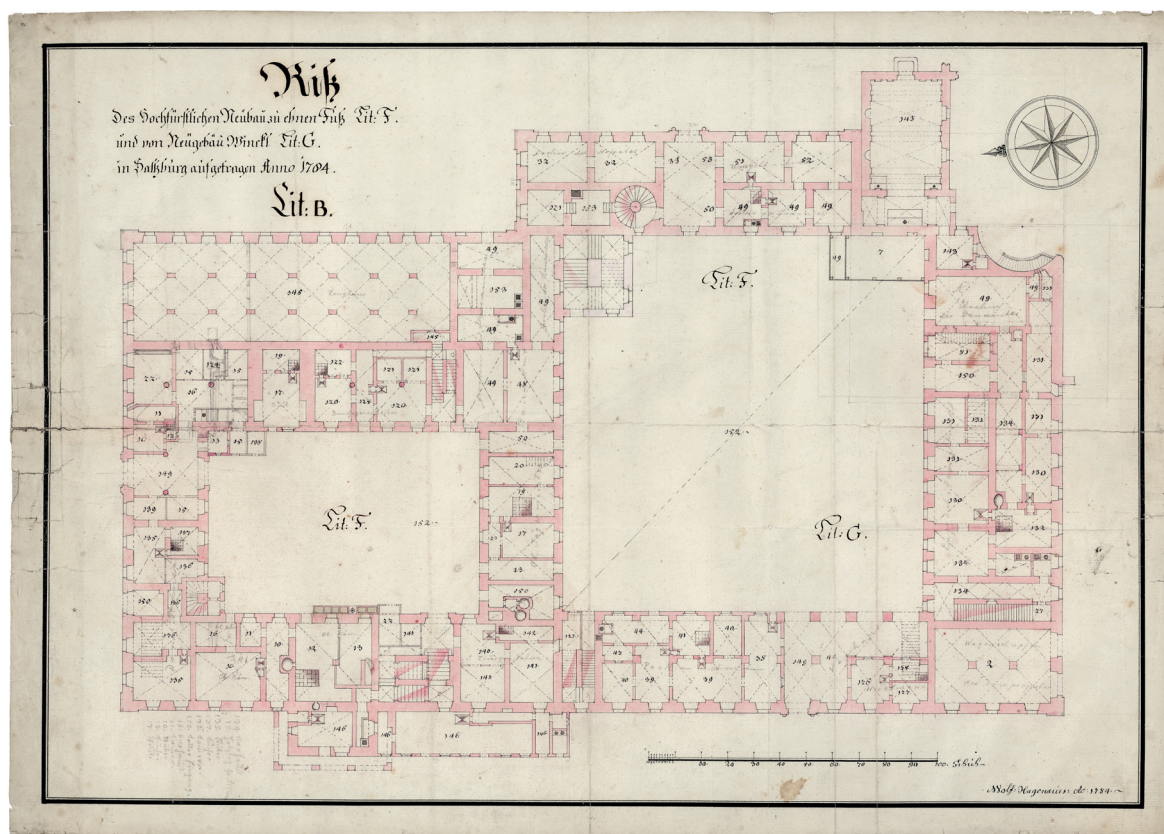


Fig. 33. Ground-floor plan of the *Neue Residenz* from 1784. In the southeast corner of the building, the church of St. Salvator is marked (Landesarchiv Salzburg).

Marcus Sitticus (1612–1619), had it built on the site of the Chapel of St. John of Stubenberg.³⁹ On the floor plan, the sanctuary of the chapel covered the entire room, but excavations suggest that in the first period, it was only an extension of the triumphal arch. These demolished walls are also marked on the floor plan, and we found the northern wall during the excavation. Presumably, in a later period—before 1784—the walls of the sanctuary were extended to the north and south. The excavated U-shaped wall is probably related to this later period, as it is consistent with the foundation of the main altar shown on the floor plan.

Armoury

Archaeological excavations were also possible in the eastern wing of the northern, first inner courtyard. In addition to the aforementioned remains of the previous building, a uniform walking surface of river pebbles was found, connected to the main walls of the tract on the south and east sides. Traces of paint were also observed on the lower 50–80 cm section of the walls in these areas: remnants of frescoes depicting yellow-painted wall pillars (Fig. 34). Traces of the pillars were also found on the southern, eastern and western walls of the tract. Although the adjoining gravel walkway was visible only in the southern sections, we assume it once covered the entire tract. It was prob-

39 HÜBNER 1792, 186. “Sein Nachfolger Marcus Sitticus erbaute auf dem Grunde der abgebrochenen Spitalkirche die Kirche zum heil. Salvator, nahm auch einen Theil von dem Neugebäude dazu, und versetzte aus der Pfarrkirche die im Jahre 1613 von ihm eingeführte Bruderschaft Corporis Christi, oder die sogenannte rothe Bruderschaft dahin.” [His successor, Marcus Sitticus, built on the foundations of the demolished hospital church, dedicated to St. Salvator, which also occupied part of the new residence, and moved the Corporis Christi brotherhood, or the so-called red brotherhood, which he had founded in 1613, from the parish church to there.]

ably destroyed during World War II, when the north-eastern corner of the building was bombed down to the ground floor (Fig. 35).⁴⁰

This assumption is supported by the 1784 floor plan of the building, which depicts this area as a vaulted hall divided into three naves by seven pairs of pillars.⁴¹ The built foundations of the seven pillars on the eastern side were also uncovered during the excavation. The seven pillars on the western side may have been built on top of an earlier wall, presumably belonging to the previous building.

Researchers have been working on identifying this hall since the 20th century. Richard Schlegel identified it as an armoury, while Johannes Graf Moy identified it as a decorative stable. According to a description from 1792, the armoury was located on the ground floor of the northern building complex, but it was no longer in use in 1792.⁴² Although the description does not specify its location within the northern building complex, as there is no other suitable area on the 1784 floor plan, it can be identified as the ornate great hall in the eastern wing.

The date of construction of the representative hall is still uncertain. What is certain is that the hall existed in this condition in 1784, but the date of construction remains unclear. Previous historical research dates the construction of the armoury to around 1602,⁴³ which is not contradicted by the 1792 description. The gravel walkways are connected to the earliest walls of the building in other places as well, and no other uniform walkway has been found in this area, so we can assume that the gravel pavement, the foundations of the pillars and the painted wall pillars are all related to Wolf Dietrich's construction work.

Courtyard

The excavated wall foundations thus support the earlier idea that the second inner courtyard was built in stages: first the north wing was built, then probably not long after the east wing was added. The western and then the southern wings were probably built in the third quarter of the 17th century,



Fig. 34. Fresco fragments and the surface of river pebbles of the Armoury (photo: ArchaeoProtect Ltd.).



Fig. 35. The north-eastern corner of the *Neue Residenz* during the Word War II (after Moy 1969).

⁴⁰ MOY 1969, Fig. 2.

⁴¹ WEIXLER 2021, 120, Fig. 201.

⁴² HÜBNER 1792, 181. "Im ersteren [Viereck] befand sich noch vor wenigen Jahren im Erdgeschosse ein sehr artig eingerichtetes Zeughaus, gleichsam ein kleiner Abriß des k. k. Arsensals zu Wien." [A few years ago, the ground floor of the first four-winged building housed a beautifully furnished armoury, similar to the imperial and royal arsenal in Vienna.].

⁴³ SCHLEGEL 1952, 139.

finally enclosing the former garden area and thus creating the southern second inner courtyard. However, no paved courtyard floor was found during the excavation. It is conceivable that the earlier floor levels were demolished when the courtyard pavements were renewed, as the height of the doorways facing the courtyard did not change. It is therefore likely that the level of the courtyard pavement has not risen since the second half of the 17th century. However, the excavation revealed a uniform layer approximately 100 cm thick, mixed with organic materials, which, based on the finds recovered from it, can be dated to the turn of the 17th and 18th centuries. Its uniform presence in the area suggests that the layer may have been the filling of the former garden.

18th century

Buildings

In the 18th century, no new buildings were erected on the site of the *Neue Residenz*, but changes were made to the existing building.

East wing

The brick floor excavated in the central section of the east wing was disturbed by the foundations of a later floor level. The original floor level, which was probably also a brick floor, has not been preserved, only the beams supporting the floor level and their locations. The timbers were carved into the earlier brick floor as a secondary measure. The beam grooves are already aligned with the current layout and partition walls (Fig. 36). Presumably, the large hall, built at the beginning of the 17th century, was divided into five rooms sometime in the 18th century—two larger rooms were created on the eastern side of the wing and three smaller ones on the western side. A door opening that was later bricked up was also found in the walls of the southern rooms, which can probably be linked to the same period.

Water network

Two sewer systems from this period were found in the courtyard.

Sewer system dating from before 1784

A south-west to north-east oriented sewer was found in the northern part of the courtyard, which ran into the cellar excavated in the eastern part of the north wing (Fig. 37). The sewer was made of conglomerate blocks and covered with large stone slabs. The dating of the sewer was aided by archaeological stratigraphy: it had already been dug into the courtyard fill dating from the 17th century. On the other hand, the 1784 floor plan shows a sewer system in the courtyard leading to one of the cellar rooms in the north wing (Fig. 38). Based on the illustration, the excavated sewer



Fig. 36. Foundation of the brick floors from the 18th century (photo: ArchaeoProtect Ltd.).



Fig. 37. Remains of an 18th-century sewer (photo: ArchaeoProtect Ltd.).

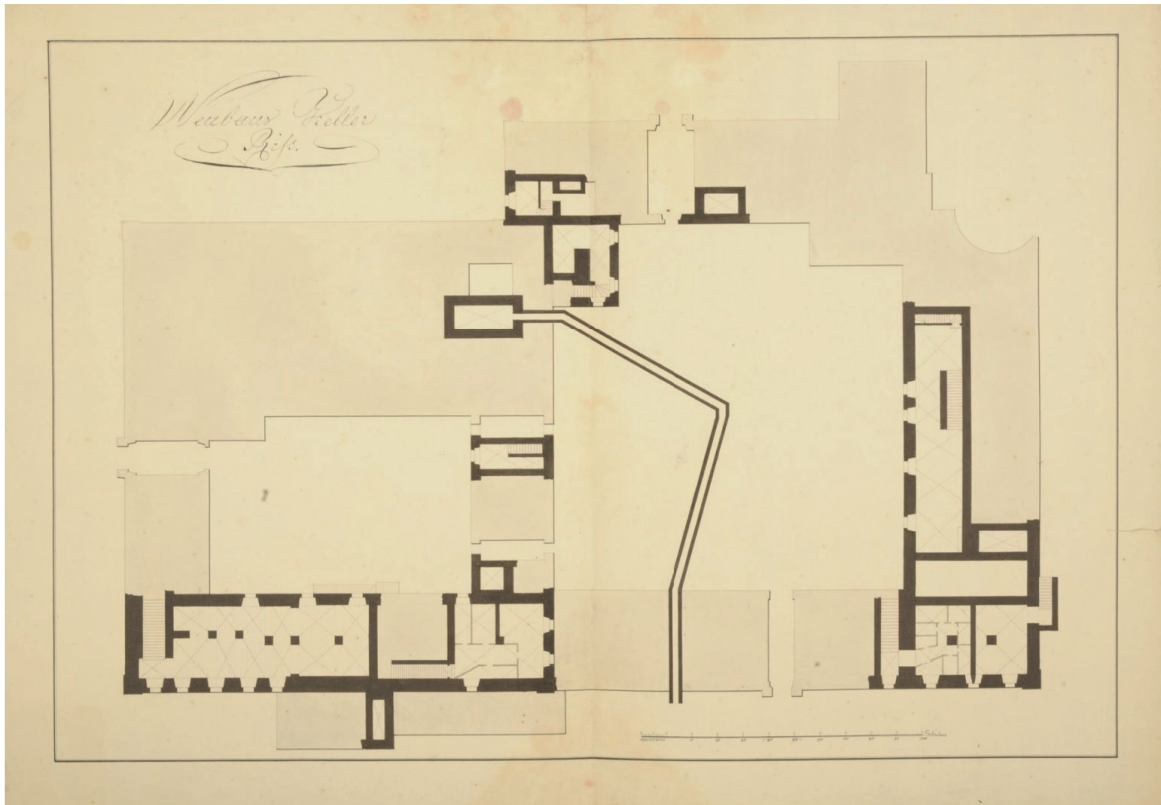


Fig. 38. Basement plan 1784 marked the sewer system (Salzburg Museum, Inv. no. 5525-49).

system may have been part of the 18th-century sewage system of the *Neue Residenz*.

Baroque sewer in the southern part of the courtyard

In the south-western corner of the courtyard, the remains of a sewer with brick walls and red marble slabs were found (Fig. 39). The sewer sloped northwards and based on the excavated remains, was subsequently routed under the southern wing of the building. Unfortunately, the Panoramamuseum, built in 2001, completely destroyed most of it, so only a small section of its line could be observed.



Fig. 39. Baroque sewer with red marble slabs (photo: ArchaeoProtect Ltd.).

The date of the canal is still uncertain. A religious medal from the 18th–19th century was found in its fill. And the feature is already marked on a map from 1815 (Fig. 40). This canal carried water from the *Festungsberg*—the Salzburg castle hill—through the *Kaigasse* to the old town of Salzburg, all the way to the fountain on *Residenzplatz*. It probably supplied the fountain with water in the 19th century, and today the modern water network follows the same route. In 2007, during excavations at *Residenzplatz*, a significant section of the canal was discovered.⁴⁴

⁴⁴ HÖGLINGER 2009, 11.



Fig. 40. The Baroque sewer marked on a map from 1815 (Stadtarchiv Salzburg, Plansammlung 1.717).

19th century

No significant alterations or reconstructions can be attributed to this period, as any changes likely affected the upper walls and floors, which were beyond the scope of the investigation.

Water network

Cesspit in the south-eastern corner

In the southeastern corner of the second inner courtyard, a rectangular structure covered with a brick vault was uncovered, initially identified as a cellar (Fig. 41). The fill of the two-part structure yielded primarily 19th-century material, consisting mostly of remnants of Baroque stoves. A brick drain was also discovered in the eastern wall, which had been later cut into the wall of the courtyard's eastern wing. The excavated remains suggest that the structure may have functioned as a cesspit. Fortunately, dating was facilitated by a floor plan from the 1850s (Fig. 42), which depicts the cesspit and the associated sewer system. Interestingly, no physical traces of the sewer system were found, likely because it had been completely destroyed by later piping.



Fig. 41. Cesspit from the 19th century (photo: Archaeo-Protect Ltd.).

20th century

The final phase in the history of the courtyard is characterized by modern utilities and sewer trenches. The excavation revealed no evidence of significant construction during this period. Among the 20th-century features, one object stands out as particularly illustrative of the changing function of the courtyard.

Refuse disposal

Rubbish pit

In the northeastern corner of the courtyard, adjacent to the staircase on the south side, a small rubbish pit measuring approximately 1 × 1 m was uncovered (Fig. 43). This feature is particularly noteworthy due to the extraordinary abundance of finds it contained. The fill consisted of newspaper fragments and a complete series of medicine vials labeled *Salzburger Apotheke*, some of which still retained traces of their contents. In addition, numerous fragments of porcelain pottery were recovered, along with an exceptional collection of pieces from a 17th-century stove featuring a spreading pattern, likely discarded into the pit during one of the renovations in the early 20th century.

Summary

An area of approximately 2,000 square meters in downtown Salzburg has revealed nearly 2,000 years of the city's history. Archaeological remains preserve the city's development from Celtic settlement through the Roman and medieval periods up to the modern era. The excavation has helped clarify the urban topography of the Roman city of Iuvavum between the 1st and 4th centuries and, after a brief hiatus, the layout of medieval Salzburg.

It has also been possible to trace changes in topography during the Roman period. In the 1st century, the outskirts of the urban settlement—including workshops—were located in this area. By the 2nd and 3rd centuries, it had become a densely populated zone, likely close to the city centre. This pattern persisted into the 4th century, despite large-scale construction activities.

Knowledge of the early medieval city in this area remains limited, with the earliest finds dating only to the 12th–13th centuries. However, research has provided substantial insights into the later period. It has become evident that Wolf Dietrich's construction projects significantly altered the

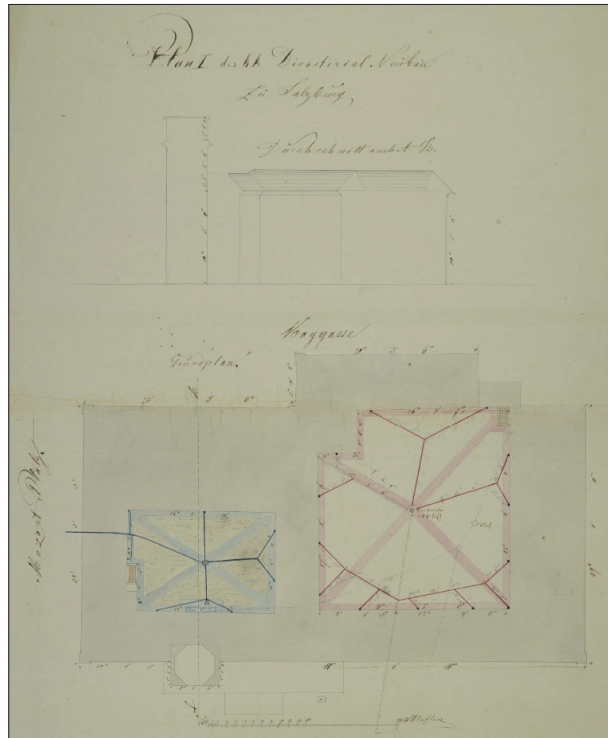


Fig. 42. Map of the sewer system from 1850 (after WEIXLER 2021, 124, Abb. 209).



Fig. 43. Rubbish pit from the 20th century (photo: ArchaeoProtect Ltd.).

earlier medieval cityscape here, leaving only one or two unidentifiable wall sections. The excavation has also yielded extensive information about the construction history of the *Neue Residenz*, which written sources trace back to 1588. Archaeological analysis has clarified the chronology of the second inner courtyard and, through the excavation of former floors and levels, has made it possible to reconstruct aspects of the interior layout.

The work is, however, still ongoing. The interpretation and dating of the excavated layers and objects, as well as the processing of the finds, are only in their initial stages. It is hoped that the systematic study of the excavation will eventually provide more precise information for mapping the topography of both Roman Iuvavum and medieval and Baroque Salzburg.

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References

- DOLENZ, H. – EBNER-BAUR, D. – SCHINDLER KAUELKA, E. 2024: Forschungen im norisch-römischen Zentralraum Magdalensberg-Zollfeld 2002–2022. In: Horvath, J. – Groh, S. – Trobel, K. S. – Belak, M. (eds): *Roman urban landscape. Towns and minor settlements from Aquileia to the Danube*. Opera Instituti Archaeologici Sloveniae 47. Ljubljana, 183–224. https://doi.org/10.3986/9789610508281_10
- GROH, S. – SEDLMAYER, H. 2005: *Der norische Kultplatz am Frauenberg (Österreich)*. Protohistoire Européenne 9. Montagnac.
- HÖGLINGER, P. 2009: Archäologie am Residenzplatz. In: Hofer, N. (ed.): *Der Residenzplatz. Fenster zu Salzburgs Geschichte*. Fundberichte aus Österreich, Materialhefte A.10. Wien, 8–17.
- HÜBNER, L. 1792: *Beschreibung der hochfürstlich-erzbischöflichen Haupt- und Residenzstadt Salzburg und ihrer Gegend* 1. *Topographie*. Salzburg.
- KARNITSCH, P. 1971: *Sigillata von Iuvavum. Die reliefizierte Sigillata im Salzburger Museum Carolino Augusteum*. Salzburg.
- KELLER, P. 2016: Zur liturgischen Nutzung des romanischen Salzburger Doms. *Mitt(h)eilungen der Gesellschaft für Salzburger Landeskunde* 156, 75–103.
- KOVACSOVICS, W. K. 1991: Aus dem Wirtshaus zum Schinagl – Funde aus dem Toskanatrakt der Salzburger Residenz. *Salzburger Museum Carolino Augusteum – Jahresschrift* 35/36, 7–40.
- KOVACSOVICS, W. K. 2001: Salzburg im Frühmittelalter. Zur Frühzeit der Stadt aus archäologischer Sicht. *Beiträge der Mittelalterarchäologie in Österreich* 17, 91–102.

- KOVACSOVICS, W. K. 2002: Die archäologischen Untersuchungen im ersten Innenhof der Neuen Residenz. In: Marx, E. – Laub, P. (eds): Die Neue Residenz in Salzburg. Vom „Palazzo Nuovo“ zum Salzburg Museum. *Jahresschrift des Salzburger Museums Carolino Augusteum* 47–48, 113–132.
- KOVACSOVICS, W. K. 2009a: Die archäologischen Untersuchungen in der Neuen Residenz. In: Marx, E. – Laub, P. (eds): Das Salzburg Museum in der Neuen Residenz. *Jahresschrift des Salzburg Museum* 52, 243–264.
- MIRON, A. 1991: Die späte Eisenzeit im Hunsrück-Nahe-Raum. Mittel- und spätlatènezeitliche Gräberfelder. In: Haffner, A. – Miron, A. (eds): *Studien zur Eisenzeit im Hunsrück-Nahe-Raum*. Trierer Zeitschrift für Geschichte und Kunst des Trierer Landes und seiner Nachbargebiete 13. Trier, 151–169.
- MOY, J. G. 1969: Beiträge zur Geschichte des „Neubaues“ in Salzburg. *Mitt(h)eilungen der Gesellschaft für Salzburger Landeskunde* 109, 185–220.
- MUTZ, A. 1976: Römisches Schmiedehandwerk. *Augster Museumshefte* 1, 5–45.
- PLESNIČAR-GEC, L. 1997: *Antične freske v Sloveniji I. The Roman Frescoes of Slovenia I*. Ljubljana.
- ROSAMILIA, S. – THALER, J. 2025: Ein gallo-römischer Umgangstempel in Mautern? Neue Grabungsergebnisse aus Mautern an der Donau, Niederösterreich (2021–2024). In: Bíró, Sz. – Horváth, B. (eds): *Archaeology of Roman Sanctuaries. Proceedings of the International Conference held between 3rd –4th October 2024 at the Iseum Savariense in Szombathely*. Szombathely, 241–263.
- SCHLEGEL, R. 1952: Fragmente zur Geschichte der Bautätigkeit Erzbischof Wolf Dietrich von Raitenau. *Mitteilungen der Gesellschaft für Salzburger Landeskunde* 92, 130–146.
- SCHLEGEL, W. 2009: Die mittelalterliche Hofkapelle der erzbischöflichen Residenz. Ein Beitrag zu ihrer Baugeschichte. In: Hofer, N. (ed.): *Der Residenzplatz. Fenster zu Salzburgs Geschichte*. Fundberichte aus Österreich Materialhefte A.10. Wien, 56–59.
- SIRANO, F. 2022: *Parco archeologico di Ercolano*. Ercolano.
- STAINHAUSER, J. 1873: Das Leben, Regierung und Wandel des Hochwürdigsten in Gott Fürsten und Herrn Wolff Dietrichen gewesten Erzbischofen zu Salzburg. *Mitteilungen der Salzburger Landeskunde* 13, 21–126.
- SZILASI, A. – TURI, A. – RAKONCZAY, R. 2023: KG. Salzburg, SG. Salzburg. *Fundberichte aus Österreich* 62, 268–269.
- WEDENIG, R. 2014: Zum Kenntnisstand der Namengraffiti aus Iuvavum – Salzburg. In: Lang, F. – Kastler, R. – Kovacsovics, W. K. – Traxler, S. (eds): *Colloquium Iuvavum 2012. Das municipium Claudium Iuvavum und sein Umland Bestandsaufnahme und Forschungsstrategien*. Salzburg, 337–359.
- WEIXLER, W. 2021: *Neue Residenz Salzburg. Bauhistorisches Gutachten*. Segerwiesen.
- WILKINSON, P. 2017: *Pompeii. An archaeological guide*. London–New York–Oxford–New Delhi–Sydney. <https://doi.org/10.5040/9781350987555>

