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Antička stubišta uz kopnena vrata Dioklecijanove palače

The Roman staircases next to the mainland gates of Diocletian's palace

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Istraživači Dioklecijanove palače su još davno uočili da su s obje strane kopnenih vrata postojala antička stubišta kojima se penjalo na gornji kat građevina položenih uz perimetralne zidove. Međutim, svatko od njih je imao različitu predodžbu njihova izgleda. U ovom će se radu, po prvi put, na temelju novih nalaza, rekonstruirati kako su izvorno izgledala ta antička stubišta.

Researchers into Diocletian's Palace have long observed that Roman staircases existed on both sides of the mainland gates. They led to the upper floor of the buildings located along the perimeter walls of the Palace. However, those researchers had a different notions of their appearance. In this paper, the original appearance of the Roman staircases shall be reconstructed for the first time on the basis of new finds.

Cljučne riječi: rimsko stubište, rimska vrata, obrambeno dvorište, Dioklecijanova palača, Split

Key words: Roman staircase, Roman gate, defensive courtyard, Diocletian's palace, Split

Dioklecijanova palača u Splitu, približnih dimenzija 180 na 220 metara, sagrađena je na obali velike uvale nedaleko od Salone, glavnog grada rimske provincije Dalmacije. Bila je utvrđena zidovima i kulama sagrađenim od velikih blokova bijelog vapnenca iz kamenoloma obližnjeg otoka Brača. Njeni zidovi, u donjem dijelu deblji od 2 metra, velikim su se dijelom sačuvali u punoj visini jer su sve do 17. stoljeća imali ulogu obrambenih zidina grada Splita, koji je u 7. stoljeću nastao unutar Palače. Od 16 antičkih kula, dobro su se sačuvale tri ugaone, a djelomično i neke kule na zapadnom zidu koji se u srednjem vijeku našao unutar tadašnjeg grada.

Do nedavno je među istraživačima Palače vladalo mišljenje da je gornji kat građevina položenih uz perimetralne zidove iza polukružnih otvora bio raščlanjen malim pravokutnim prostorijama prateći tlocrt istih prostorija - *cubicula* u prizemlju. Međutim, Ivo Vojnović je na temelju vlastitih istraživanja dokazao da kat iznad *cubicula* nije imao pregrada okomitih na vanjski zid.¹ Usprkos tvrdnji Konstantina Porfirogeneta,² koji je u svom opisu Palače istaknuo da na zidovima nije bilo stražarske šetnice ili obrambene terase, Hébrard³ je na vrhu zidova nacrtao obrambenu terasu. Međutim ta je terasa u koliziji s velikim otvorima na prvom katu perimetralnih zidova jer se obrambena šetnica uvijek nalazi iznad punog platna zida. Georg Niemann⁴ i Jerko Marasović⁵ su smatrali da su građevine uz vanjske zidove bile pokrivene dvostrešnim krovom (sl. 1) koji se oslanjao na završni vijenac. Gornja površina tog završnog vijenca, grubo obrađena u laganom pokosu prema vani, koja je danas vidljiva na nekoliko mjesta, dokazuje da iznad njega nije bilo nikakvog parapeta koji je nacrtao Hébrard.

Postojanje jedinstvenog prostora iza polukružnih otvora prvog kata vanjskih zidova sjevernog i srednjeg dijela Palače navodi na zaključak da je riječ o natkrivenom obrambenom ophodu koji se protezao neprekinuto, izuzevši obrambena dvorišta uz kopnena vrata. Iz tog se ophoda ulazilo na prvi kat kula jer se pouzdano zna da izvorno prizemlje i kat kula nisu

Diocletian's Palace in Split, with approximate dimensions of 180 by 220 meters, was constructed on the shore of a large cove not far from Salona, the capital city of the Roman province of Dalmatia. It was fortified with walls and towers made of large, white limestone blocks from the quarry on the nearby island of Brač. Its perimeter walls, thicker than 2 meters at their lower part, have largely been preserved in their full height, because until the 17th century they served as the defensive walls for the city of Split, which emerged inside the Palace in the 7th century. Of the sixteen Roman towers, the three corner towers are well preserved, while some towers on the western wall, which remained inside the medieval city, have been partially preserved.

Until recently, the prevailing view among Palace researchers was that the first (upper) floor of the structures along the perimeter walls, behind the semi-circular openings, was divided into small rectangular rooms following the disposition of the same rooms - *cubicula* - on the ground level. However, based on his own research, Ivo Vojnović demonstrated that the floor above the *cubicula* did not have partitions perpendicular to the external wall.¹ Despite the assertions made by Constantine Porphyrogenitus,² who stressed in his description of the Palace that there were no parapet walks nor defensive terraces atop the walls, Hébrard³ drew a terrace on the walls. However, this terrace collides with the large openings on the first floor of the perimeter walls, because the parapet walk is always above the full pane of a wall. Georg Niemann⁴ and Jerko Marasović⁵ believed that the structures on along the external walls were covered with a double-pitched roof (Fig. 1) which rested on the terminal cornice. The upper surface of this terminal cornice, coarsely worked with a slight outward slope that is today visible at several places, proves that there was no parapet above it as drawn by Hébrard.

1 Vojnović 2011. U kući Ježina, koja je sagrađena uz sjeverni zid Palače, a nalazi se istočno od sjeverozapadne ugaone kule, Vojnović je, između velikih, antičkih, polukružnih prozora pronašao unutrašnje lice pilona od kamenih blokova tlocrtno dimenzije dvije na dvije rimske stope koji strši s unutarnje strane antičkog zida. Na vrhu pilona je pronašao i oštećeni impost. Iste elemente je kasnije pronašao i u sjeveroistočnom uglu palače (Vojnović 2013) Niemann je slične kamene blokove pronašao na više mjesta između polukružnih prozora perimetralnih zidova te je usprkos tome što je na nekim mjestima pronašao i njihovo unutrašnje lice, donio pogrešan zaključak da se radi o vezi poprečnih zidova s perimetralnim zidom Palače (Niemann 1910, 15 i 16). Vojnović je svojim nalazima dokazao da poprečni zidovi na gornjoj razini građevina uz perimetralne zidove nisu postojali.

2 Konstantin 2003.

3 Hébrard, Zeiller 1912.

4 Niemann 1910.

5 Marasović 1997.

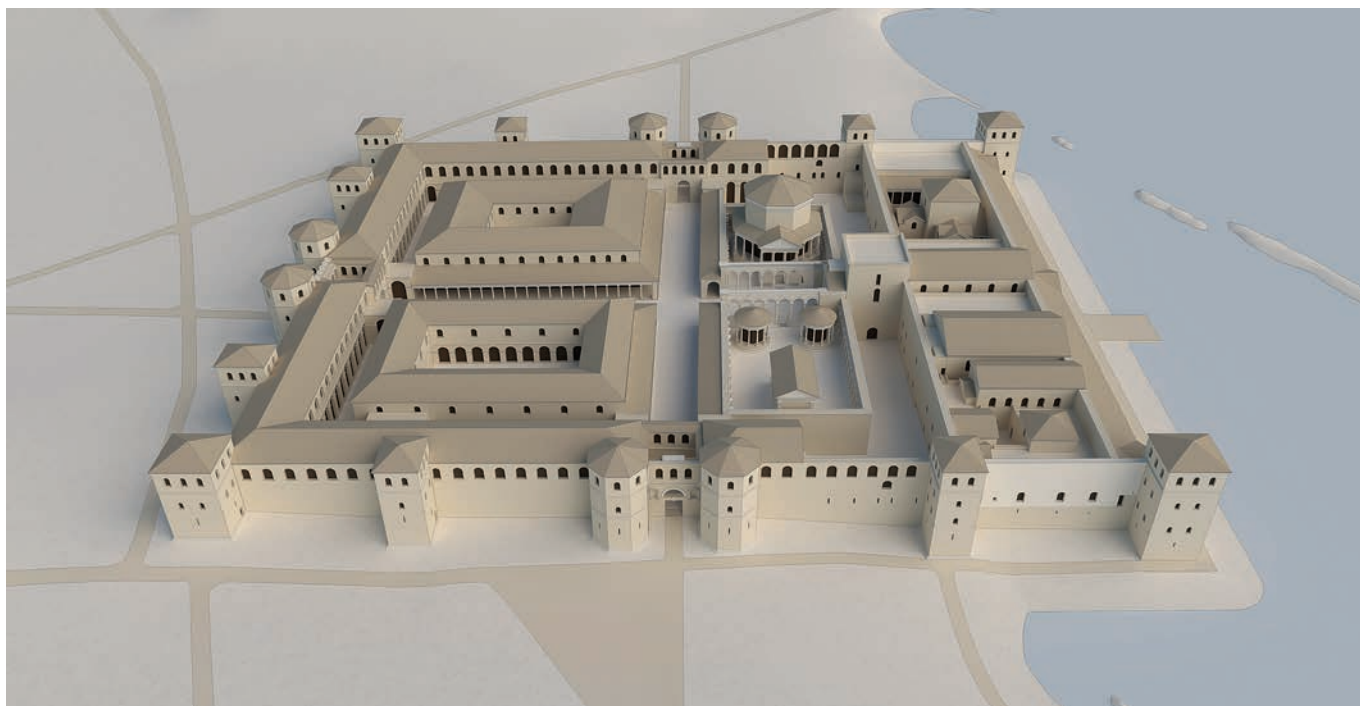
1 Vojnović 2011. In the Ježina house, which was built next to the Palace's northern wall and which is located east of the north-west corner tower, Vojnović found the internal face of a pylon made of stone blocks between large, Roman semi-circular windows. The pylon has floor-plan dimensions of two by two Roman feet and juts from the inside of the Roman-era wall. He found a damaged impost atop the pylon. He later found the same elements in the Palace's north-west corner (Vojnović 2013). Niemann had found similar blocks at several places between the semi-circular windows of the perimeter walls, and despite finding their internal face as well at a few places, he erroneously concluded that these were linked to the walls that were perpendicular to the Palace's perimeter wall (Niemann 1910, 15 and 16). With his finds, Vojnović proved that there were no perpendicular walls on the upper levels of the structures adjacent to the perimeter walls.

2 Konstantin 2003.

3 Hébrard, Zeiller 1912.

4 Niemann 1910.

5 Marasović 1997.



Sl. 1.
Dioklecijanova palača 305. godine – pogled sa zapada
(rekonstrukcija J. Marasović, dopunila K. Marasović, 3D model
R. Vidović)

Fig. 1.
Diocletian's Palace in 305 AD – view from the west
(reconstruction by J. Marasović, supplemented by K. Marasović,
3D model by R. Vidović)

bili povezani internim stubištem. Stubišta koja su povezivala prvi i drugi kat kula bila su smještena unutar debljine zida što potvrđuju njihovi ostaci na više mjesta.

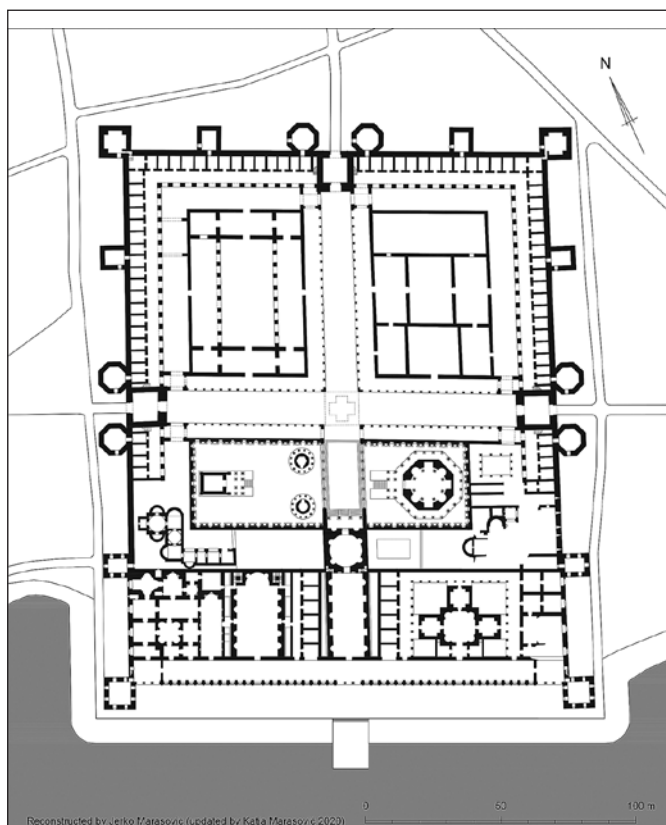
Palača je imala četvora vrata: troja reprezentativna prema kopnu i četvrta manjih dimenzija prema obali na jugu.⁶ Ona kopnena su bila naročito dobro utvrđena. Osim dvaju oktogonálnih kula koje su ih štitile s vanjske strane postojala su dvoja vrata (vanjska i unutarnja) između kojih je bilo obrambeno dvorište. U razini prizemlja dvorište je bilo okruženo debelim zidom, dok je na katu na sve četiri strane bio obrambeni hodnik rastvoren prema dvorištu s po tri polukružna otvora. Na vanjskom pročelju Palače, kao i na onomu koje gleda prema glavnim gradskim ulicama, hodnici su bili rastvoreni s pet istih takvih prozora. Sve je sagrađeno od kamenih blokova u istoj tehnici u kojoj su bili izgrađeni perimetralni zidovi i kule. S obje strane obrambenih dvorišta postojala su stubišta kojima se pristupalo obrambenom hodniku dvorišta, ali i spomenutom natkrivenom obrambenom ophodu perimetralnih zidova Palače (sl. 2). Od šest takvih stubišta do danas su se djelomično sačuvala samo dva: jedno koje se nalazi zapadno od sjevernih vrata Palače u sklopu samostana sv. Martina te drugo koje se nalazi sjeverno od zapadnih vrata i koje vodi u crkvu Gospe od Zvonika.

The existence of a one long room behind the semi-circular opening on the first floor of the external walls in the northern and central sections of the Palace points to the conclusion that this was a covered defensive walkway that extended without interruption, with the exception of the defensive courtyards of the mainland gates. The first floor of the tower was accessed from that walkway, because it is known for certain that the original ground level and upper floor of the towers were not connected by an internal staircase. The staircase that connected the first and second floors of the tower was built into the wall itself, which is confirmed by their remains at several places.

The Palace had four gates: three imposing ones facing the mainland and a fourth, with smaller dimensions, facing the seashore in the south.⁶ Those facing the mainland were particularly well-fortified. Besides two octagonal towers that protected them from the outside, there were two gates (external and internal) between which there was a defensive courtyard. The courtyard was encircled by a thick wall at the ground level, while on the first floor level there was a defensive corridor on all four sides open toward the courtyard with three semi-circular openings on each side. On the Palace's external façade, as on that side which looks over the city's main streets,

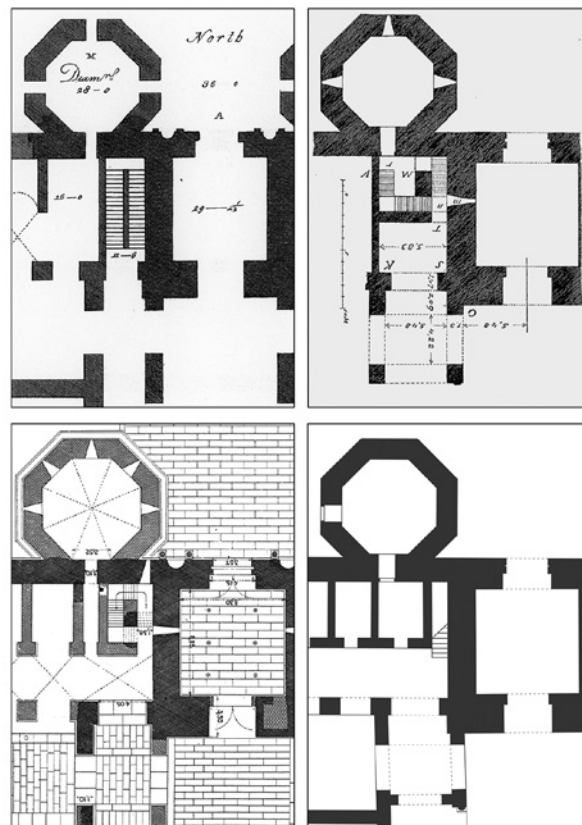
6 Marasović 2019.

6 Marasović 2019.



Sl. 2.
Rekonstrukcija tlocrta
Dioklecijanove palače (prema
J. Marasović, dopunila K.
Marasović 2020.)

Fig. 2.
Reconstruction of the floor-
plan of Diocletian's Palace
(based on J. Marasović,
supplemented by K.
Marasović 2020.)



Sl. 3.
Antičko stubište zapadno
od sjevernih vrata Palače: a)
Adam 1764., b) Niemann 1910.,
c) Hébrard, Zeiller 1912. i d) J.
Marasović 1997.

Fig. 3.
Roman staircase west of the
Palace's northern gate: a)
Adam 1764., b) Niemann 1910,
c) Hébrard, Zeiller 1912 and d)
J. Marasović 1997.

ANTIČKO STUBIŠTE ZAPADNO OD SJEVNIH VRATA PALAČE

Već su Adam,⁷ Niemann i Hébrard uočili da su s obje strane obrambenih dvorišta Palače postojala stubišta kojima se penjalo na gornji kat građevina položenih uz perimetralne zidove. Oni su ispod postojećeg stubišta koje vodi u crkvu sv. Martina nad sjevernim vratima Palače, kao i ispod onoga koje vodi u crkvu Gospe od Zvonika nad unutarnjim vratima zapadnog obrambenog dvorišta, uočili postojanje antičkog svoda od opeke koji je izvorno nosio stubište strmijeg nagiba. U svojim su knjigama dali različita rješenja tih stubišta. Adam je predložio dvokrako stubište, Niemann trokrako, a Hébrard četverokrako. Jerko Marasović je, prilikom obnove samostana sv. Martina 1993.,⁸ u podu prizemlja, ispod spomenutog antičkog svoda, pronašao nekoliko kamenih stuba prvog kraka stubišta iz čega je zaključio da su izvorno na tom mjestu postojala dva kraka stubišta, jedno iznad drugoga (sl. 3). Visina

the corridors were opened with five identical windows. All of this was constructed from stone blocks in the same technique used on the perimeter walls and towers. There were stairs on both sides of the defensive courtyard that were used to access the defensive corridors, as well as the aforementioned covered defensive walkway on the Palace's perimeter walls (Fig. 2). Of the six staircases of this type, up to the present only two have been partially preserved: one situated west of the Palace's northern gate inside the St. Martin's Convent and the other situated north of the western gate which leads to the Church of Our Lady of the Campanile.

THE ROMAN STAIRCASE WEST OF THE PALACE'S NORTHERN GATE

Robert Adam,⁷ George Niemann and Ernest Hébrard had already observed that there were stairs on both sides of the Palace's defensive courtyards, used to climb to the upper

⁷ Adam 1764.

⁸ Marasović 2009, str. 122.

⁷ Adam 1764.



Sl. 4.
Originalne antičke kamene stube prvog kraka antičkog stubišta u sklopu samostana sv. Martina (Marasović 2009, 122.)

Fig.4.
Original Roman stone steps from the first flight of the Roman staircase inside St. Martin's Convent (Marasović 2009, 122)

pronađenih kamenih stuba je 24 cm, a širina 31 cm (sl. 4). U istim istraživanjima otkriveno je južno lice kamenog luka otvora kroz koji se ulazilo u stubište. Taj je isti kameni luk Niemann zabilježio sa sjeverne strane (sl. 5a). Nalazi se u zidu sagrađenom u tehnici *opus mixtum*⁹ koji je odvajao prostor trijema sjevernog *decumana* od *cubicula* položenih uz sjeverni zid Palače. Neposredno zapadno od ulaza u stubište, u tom se zidu sačuvalo nekoliko radijalno položenih opeka luka ulaznih vrata prvog *cubicula* zahvaljujući kojima se može odrediti visinski i tlocrtni položaj tih vrata. Svi spomenuti elementi su restaurirani i prezentirani unutar poslovnog prostora u prizemlju samostana sv. Martina (sl. 5b).

Antičko stubište širine 135 cm je bilo smješteno između zapadnog zida sjevernog obrambenog dvorišta, sagrađenog u tehnici *opus quadratum*, širine 237 cm i istočnog zida prvog *cubicula*, sagrađenog u tehnici *opus mixtum*, širine 75 cm. Oba bočna zida su se do danas sačuvala u velikoj mjeri.

U zidu između antičkog stubišta i *cubicula* pronađen je, u istraživanjima 1993. godine,¹⁰ donji dio antičkih vrata širine 97 cm kojima se iz *cubicula* ulazilo u prostor ispod prvog kraka stubišta. Na zidovima tog prostora nema ležajeva za zidani svod pa se može zaključiti da je prvi krak antičkog stubišta bio

floor of the structures resting against the perimeter walls. They observed the existence of Roman- vault made of brick that originally bore staircase with a steeper incline below the existing stairs that lead to the Church of St. Martin above the Palace's northern gate. They also observed the existence of a similar vault below the stairs that lead to the Church of Our Lady of the Campanile above the interior gate of the western defensive courtyard. In their books, they provided different solutions for these staircases. Adam had proposed a double-flight, Niemann a triple-flight, and Hébrard a quadruple-flight staircase. Jerko Marasović, during the reconstruction of the St. Martin's Convent in 1993,⁸ found several stone steps from the staircase's first flight in the floor beneath the aforementioned Roman vault. He concluded that a staircase with two flights, one above the other, had existed there (Fig. 3). The height of the stone steps he had discovered is 24 cm, and their width 31 cm (Fig. 4). The southern face of the stone arch of the opening through which the staircase was accessed was discovered in the same excavations. Niemann had already discovered the other, northern face of the same arch. (Fig. 5a). The arch is situated in wall constructed in the *opus mixtum* technique⁹ that divided the portico of the northern *decumanus* from the *cubicula* set along the Palace's northern wall. Just west of the entrance to the staircase, several radially set bricks from the arch of the first *cubiculum*'s entrance door have been preserved, and thanks to them one may determine the height and ground-plan position of this door. All of these elements have been restored and are presented inside the shop on the ground level of the St. Martin's Convent (Fig. 5b). The Roman staircase with a width of 135 cm was situated between the western wall of the northern defensive courtyard, made in the *opus quadratum* technique with a width of 237 cm, and the eastern wall of the first *cubiculum*, made in the *opus mixtum* technique at a width of 75 cm. Both side walls have largely been preserved up to the present day. During excavations in 1993,¹⁰ part of a Roman door with a width of 97 cm was found in the wall between the Roman staircase and the *cubiculum*, which was used to enter the room below the first flight of the staircase from the *cubiculum*. There are no imposts for the vault in the room, so one may conclude that the first flight of the Roman staircase had a wooden construction, except for those first several

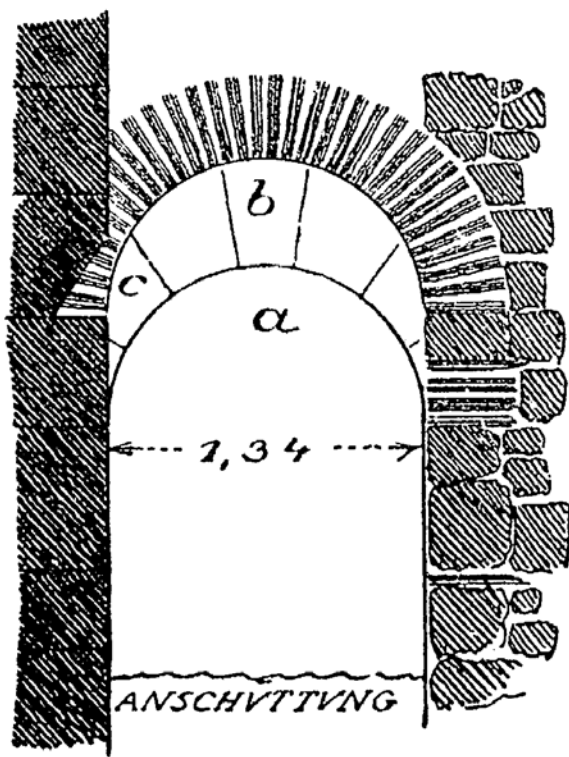
9 U Dioklecijanovoj palači zidovi u tehnici *opus mixtum* se sastoje od naizmjeničnih redova lomljenog kamena visine 100 do 150 cm i po četiri reda opeke kvadratnog tlocrta dimenzije 35 do 36 cm debljine 3 do 4 cm u debelom sloju vapnenog morta s ulomcima drobljene opeke.

10 Marasović 2009, 121 -123. Projekt obnove, D. Marasović, V. Marčić, Arheološka istraživanja T. Rismondo, Zavod za zaštitu spomenika kulture u Splitu.

8 Marasović 2009, p. 122.

9 In Diocletian's Palace, the walls made in the *opus mixtum* technique consist of alternating courses of broken stones with a height of 100 to 150 cm and four courses each of square bricks with dimensions of 35 to 36 cm, thickness of 3 to 4 cm in a thick layer of limestone mortar containing crushed brick fragments.

10 Marasović 2009, 121-123. Restoration project by D. Marasović, V. Marčić, Archaeological research by T. Rismondo, Cultural Monument Protection Department in Split.



Sl. 5.
Ulaz u antičko stubište
iz trijema sjevernog
decumana u sklopu
samostana sv. Martina, a)
sjeverna strana - Niemann, b)
južna strana
(foto: K. Marasović)

Fig. 5.
Entrance to the Roman
staircase from the portico
of the northern *decumanus*
inside St. Martin's Convent
complex, a) northern side –
Niemann, b) southern side
(photo: K. Marasović)



Sl. 6.
Ostaci antičkih vrata s
jednstrukim lukom od
opeke kojima se pristupalo
gornjem kraku antičkog
stubišta u sklopu samostana
sv. Martina
(foto: K. Marasović)

Fig. 6.
Remains of a Roman door
with a single brick arch, used
to access the upper flight of
the Roman staircase, now
part of St. Martin's Convent
(photo: K. Marasović)

od drvene građe, osim onih prvih nekoliko spomenutih stuba koje su bile od kamena. Na zidovima postoje razni oslonci izdubeni u kamenu od kojih bi neki visinski odgovarali položaju antičkog podesta, ali zbog njihove izuzetno grube izvedbe ne može se sa sigurnošću tvrditi da su izvorni antički.

U istom zidu između stubišta i *cubicula*, u visini prvog kata samostana, neposredno uz sjeverni zid Palače, sačuvao se negativ vrata u kojima je završavao prvi krak antičkog stubišta. Opeke luka tih vrata nisu sačuvane, ali je sačuvana njihova vanjska kontura od blokova sedre jer su ta vrata svojim gornjim dijelom zadirala u svod *cubicula* koji je poput većine svodova u Palači sagrađen od sedre. Na južnom kraju istog zida, sačuvala su se na nešto višoj razini još jedna antička vrata kroz koja se ulazilo na gornji krak stubišta. Ta ista vrata su i danas u funkciji i kroz njih se ulazi u postojeće stubište koje vodi u crkvu sv. Martina. Svod tih vrata nije horizontalan već je nagnut prema zapadu jer je u cijeloj visini zadirao u svod *cubicula*. Ta dvojna vrata prema stubištu imaju dvostruki luk od opeke.

Postojanje tih dvaju vrata na pola visine antičkog *cubicula* navodi na zaključak da je u njemu postojala međukatna konstrukcija preko koje se prelazilo iz donjeg kraka antičkog stubišta u gornji. Materijalna potvrda o postojanju takve drvene međukatne konstrukcije pronađena je u zidu stubišta

aforementioned steps that were made of stone. There are various supports on the walls carved into the stone, of which some may be corresponded in height to the position of the Roman landing, but due to their exceptionally coarse craftsmanship it cannot be stated with certainty that they originated in the Roman era.

The contour shape of the door at which the first flight of the Roman staircase ended has been preserved in the same wall between the staircase and the *cubiculum*, at the height of the abbey's first floor, immediately adjacent to the Palace's northern wall. The bricks of this door's arch have not been preserved, but their external contours made of tufa blocks has been preserved, because this door's upper section protruded into the *cubiculum*'s vault, which like most vaults in the Palace was made of tufa. At the southern end of the same wall, another Roman door used to enter the upper flight of the staircase was preserved. This same door is still used today, as it leads to the existing staircase that go to the Church of St. Martin. This door's vault is not horizontal, rather it has a westward slant because its entire height protruded to the *cubiculum*'s vault. Those two doors to the staircase had a double arch of bricks.

The existence of these two doors at half the height of the

sjeverno od zapadnih vrata Palače, o čemu će biti riječi u sljedećem poglavlju. Razina završnog podesta prvog kraka stubišta je oko 130 cm niža od početnog podesta drugog kraka što upućuje na zaključak da su na međukatnoj konstrukciji unutar *cubicula* postojale dodatne stube koje su savladavale tu razliku, a što će detaljnije biti opisano u sljedećem poglavlju.

Prostor prvog kraka stubišta osvjetljavao je prozor u sjevernom zidu Palače položen neposredno ispod svoda gornjeg kraka, izvrsno sačuvan do danas (sl. 7). Isto tako dobro sačuvan je i prozor u istočnom zidu stubišta prema obrambenom dvorištu sjevernih vrata Palače koji je osvjetljavao početni podest drugog kraka antičkog stubišta (sl. 8).

U razini prizemlja i u podrumu samostana sv. Martina sačuvala su se, na sjevernom zidu prvog *cubicula* (ujedno i sjevernom zidu Palače), vrata koja su vodila u prizemlje oktogonalne kule, što su zabilježili i raniji istraživači. U istoj osi, iznad nekadašnjeg bačvastog svoda *cubicula* koji nije sačuvan, sačuvala su se i vrata prvog kata oktogonalne kule.

Prateći nagib prvog kraka stubišta od 38 stupnjeva, koji određuju dimenzije pronađenih stuba visine 24 cm i širine 31 cm, može se rekonstruirati geometrija tog prvog kraka. Svod gornjeg kraka stubišta još je strmiji i iznosi 43 stupnja pa ako se pretpostavi da su stube bile visoke 24 cm njihova širina bi bila 26 cm. Te su stube vodile do razine obrambenog hodnika sjevernih vrata te prema vratima prvog kata oktogonalne kule i natkrivenom obrambenom ophodu sjevernog zida Palače.

U ranom srednjem vijeku sjeverni dio Palače je neko vrijeme bio napušten te je današnja razina poda zbog toga viša od antičke za gotovo 2 metra.¹¹ Gornji krak antičkog stubišta ostao je u funkciji za pristup crkvi sv. Martina i oktogonalnoj kuli što je glavni razlog zbog kojeg se njegov svod sačuvao do danas. Donji krak je ostao ispod nasipa te je zamijenjen s novim stubištem koje je sagrađeno na prostoru nekadašnjeg antičkog trijema. To se srednjovjekovno rješenje uz stanovite promjene sačuvalo do danas, a postojeće kamene stube su ugrađene prilikom uređenja crkve sv. Martina u prvoj polovini 20. stoljeća (sl. 9 i 10).

ANTIČKO STUBIŠTE SJEVERNO OD ZAPADNIH VRATA PALAČE

Sjeverno od zapadnih vrata Palače u velikoj su se mjeri sačuvali ostaci drugog antičkog stubišta koji dodatno doprinose razumijevanju izvornog rješenja. Stubište je smješteno između zapadnog obrambenog dvorišta i prvog *cubicula* sjeverno od njega. I ovdje je stubišni prostor širok 135 cm, a zid prema *cubiculu* je deo 75 cm. Već su raniji

Roman *cubiculum* points to the conclusion that it had a wooden mezzanine construction used to cross over from the lower to the upper flight of the Roman staircase. A physical confirmation of the existence of such a wooden mezzanine construction was found in the wall of the staircase north of the Palace's western gate, which will be discussed in the following section. The level of the terminal landing of the staircase's first flight is approximately 130 cm lower than the initial landing of second flight, which points to the conclusion that there were additional steps on the *cubiculum*'s mezzanine wooden floor which bridged this difference, which will be described in greater detail in the following section.

The area of the staircase's first flight was illuminated by a window on the Palace's northern wall, set directly beneath the upper flight's vault and exceptionally well-preserved to this day (Fig. 7). Just as well preserved is the window in the eastern wall of the staircase facing the defensive courtyard of the Palace's northern gate, which lit the initial landing of the Roman staircase's second flight (Fig. 8).

The original ground level door of the Roman octagonal tower is preserved in the first *cubiculum*'s northern wall (also the Palace's northern wall), today in the cellar of St. Martin's Convent, something that had also been noted by earlier researchers. The door to the first floor of the octagonal tower has also been preserved in that same axis, above the *cubiculum*'s former barrel vault.

By following the 38-degree incline of the staircase's first flight dictated by the dimensions of the discovered steps with a height of 24 cm and width of 31 cm, it is possible to reconstruct that first flight's geometry. The vault of the staircase's upper flight is even steeper at 43 degrees, so it one assumes that the steps were 24 cm high, their width would have been 26 cm. These stairs led to the defensive corridor on the upper level of northern gate's defensive courtyards and toward the door of the octagonal tower's first floor and the covered defensive walkway of the Palace's northern wall. In the early Middle Ages, the northern part of the Palace was abandoned for a time and the present-day ground level is therefore almost 2 meter higher than it was in the Roman era.¹¹ The upper flight of the Roman staircase remains in use to access the Church of St. Martin and the octagonal tower, which is the primary reason why its vault has been preserved to the present day. The lower flight remained below the fill and has been replaced by a new staircase that was constructed in the area of the former Roman portico. This solution from the medieval era has, with certain changes, been preserved to the present. The existing stone steps were installed during the renovation of St. Martin's Church in the first half of the 20th century (Fig. 9 and 10).

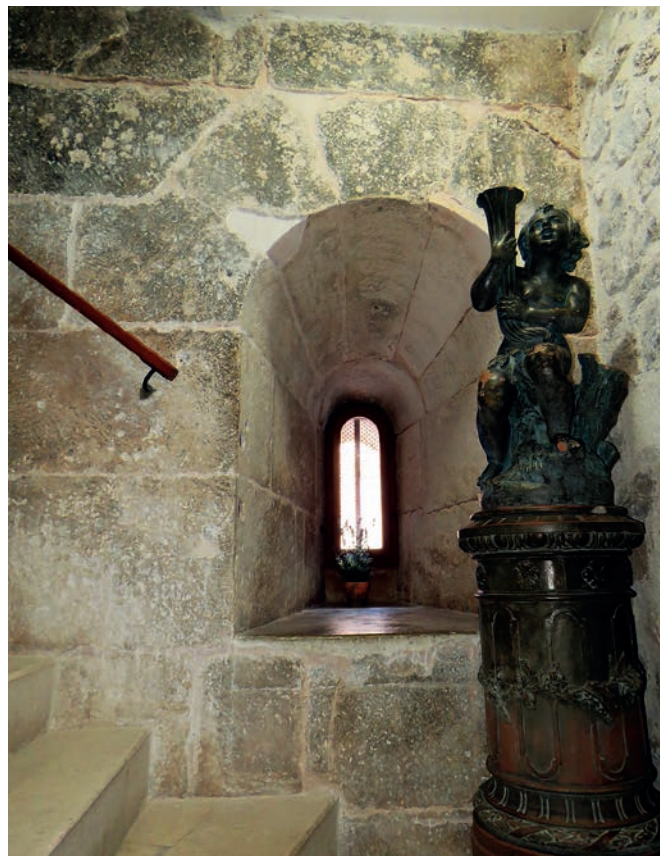
¹¹ Marasović, Marasović 2012.

¹¹ Marasović, Marasović 2012.



Sl. 7.
Prozor prvog kraka antičkog stubišta u sjevernom zidu Palače u sklopu samostana sv. Martina (foto: Ž. Bačić)

Fig. 7.
Window on the first flight of the Roman staircase in the Palace's northern wall, now part of St. Martin's Convent (photo: Ž. Bačić)



Sl. 8.
Prozor na početnom podestu gornjeg kraka antičkog stubišta u sklopu samostana sv. Martina (foto: K. Marasović)

Fig. 8.
Window at the initial landing of the Roman staircase's upper flight, now part of St. Martin's Convent (photo: K. Marasović)

istraživači zabilježili antički svod od opeke koji je nosio gornji krak stubišta, kao i kameni luk na početku tog svoda.¹² Ti su se elementi izvrsno sačuvali do danas ispod stubišta koje vodi u crkvu Gospe od Zvonika. Godine 2000., prilikom uređenja prostorije smještene ispod svoda stubišta, a koja pripada stanu kuće prislonjene s vanjske strane zapadnog zida Palače, ukazala se prilika za detaljno dokumentiranje antičkih ostataka (sl. 11). Osim snimaka spomenutih elemenata izrađen je i arhitektonski snimak zida između stubišta i *cubicula* sagrađenog u tehnici *opus mixtum* gdje su se sačuvali glavni elementi za rekonstrukciju antičkog stubišta.¹³ Svi ti elementi su objedinjeni 2020. u studiji koja se temelji na najnovijem arhitektonskom snimku sklopa zapadnih vrata Palače.¹⁴

12 Niemann 1910; Hébrard, Zeiller 191; Marasović 1997.

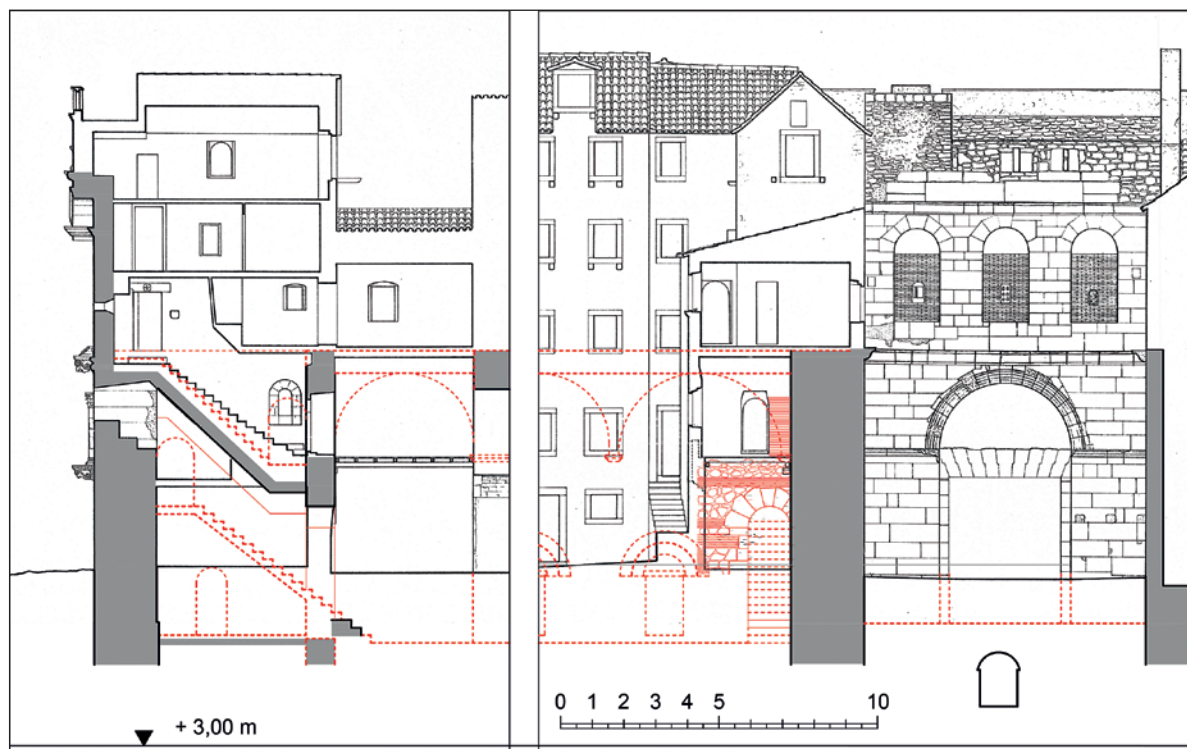
13 Arhitektonski snimak je izradila Martina Driscoll, dipl.ing. građevine iz Washingtona u sklopu US/ICOMOS International Summer Intern Program koji je realizirala u Mediteranskom centru za graditeljsko naslijeđe, Arhitektonskog fakulteta Sveučilišta u Zagrebu pod mentorstvom Katje Marasović.

14 Marasović 2020. Studija se temelji na arhitektonskom snimku koji

THE ROMAN STAIRCASE NORTH OF THE PALACE'S WESTERN GATE

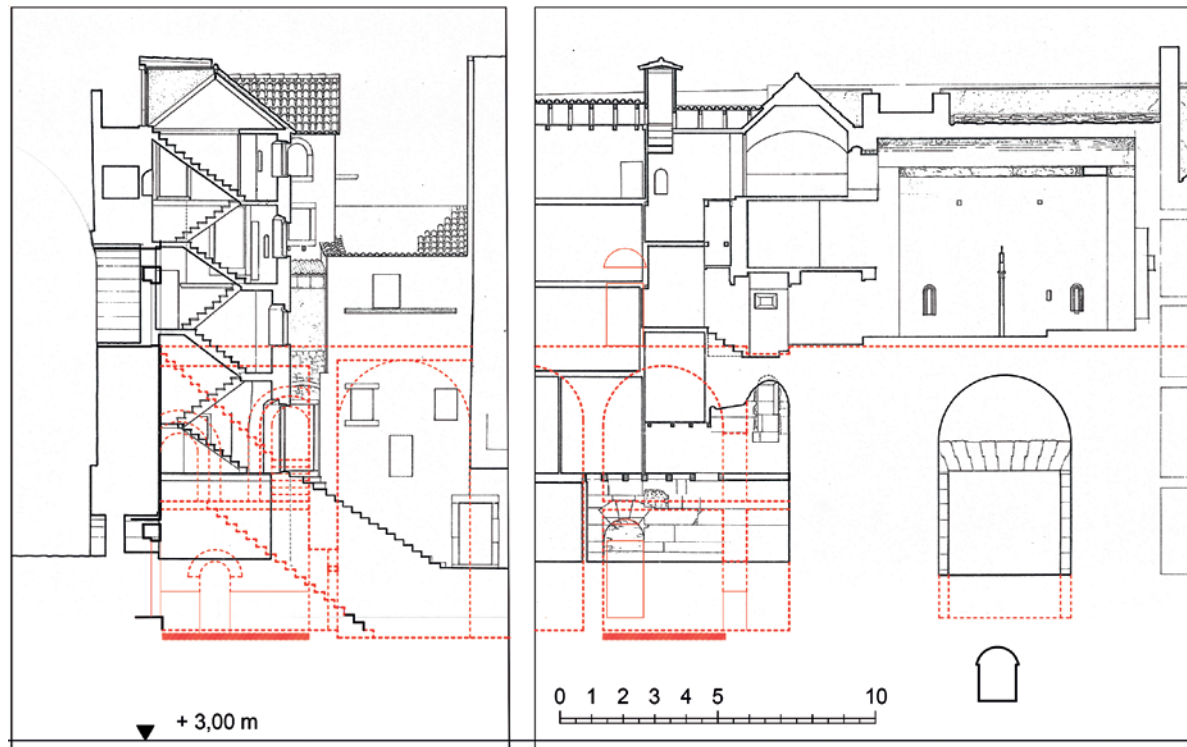
The remains of another Roman staircase north of the Palace's western gate have largely been preserved, which additionally contributes to a better understanding of the original solution. The staircase was situated between the western defensive courtyard and the first *cubiculum* north of it. Even here the staircase is 135 cm wide, while the wall toward the *cubiculum* is 75 cm thick. Earlier researchers had already recorded the Roman vault made of brick which bore the upper flight of the staircase, as well as the stone arch at the beginning of that vault.¹² These elements have been very well preserved to this day below the staircase that leads to the Church of Our Lady of the Campanile. In 2000, renovation of the room situated beneath the staircase vault, which belongs to an apartment in the house resting against the external side of the Palace's western wall, presented an opportunity to document

12 Niemann 1910; Hébrard, Zeiller 191; Marasović 1997.



Sl. 9.
Sklop samostana sv. Martina, presjeci: a) sjever – jug, kroz stubište i trijem, b) zapad – istok, kroz trijem – arhitektonski snimak postojećeg stanja iz 1991. (Konzervatorski odjel u Splitu) s označenim sačuvanim antičkim strukturama (K. Marasović)

Fig. 9.
St. Martin's Convent complex, cross-sections: a) north-south, through the staircase and portico, b) west-east, through the portico – architectural survey of existing situation in 1991 (Conservation Department in Split) with preserved Roman structures marked (K. Marasović)



Sl. 10.
Sklop samostana sv. Martina, presjeci: a) sjever – jug, kroz *cubiculum* i trijem sjevernog *cardus*, b) zapad – istok, kroz *cubiculum* i stubište - arhitektonski snimak postojećeg stanja iz 1991. (Konzervatorski odjel u Splitu) s označenim sačuvanim antičkim strukturama (K. Marasović)

Fig. 10.
St. Martin's Convent complex, cross-sections: a) north-south, through the *cubiculum* and portico of the northern *cardus*, b) west-east, through the *cubiculum* and staircase – architectural survey of existing situation in 1991 (Conservation Department in Split) with preserved Roman structures marked (K. Marasović)



Sl. 11.
Prostorija ispod antičkog svoda gornjeg kraka stubišta sjeverno od
zapadnih vrata Palače (foto: K. Marasović)



Fig. 11.
Room beneath the Roman vault of the upper flight of the staircase
north of the Palace's western gate (photo: K. Marasović)

Vrata u kojima je završavao donji krak stubišta bila su prema *cubiculu* obrubljena okvirom od dva reda opeke i bila su smještena uz sami zapadni zid Palače. Zahvaljujući nekoliko sačuvanih radijalno položenih opeka luka može se precizno rekonstruirati visinski i tlocrtni položaj tih vrata. Na istočnom kraju istog zida nazire se donji dio vrata kroz koji se ulazilo na gornji krak stubišta. Gornji dio vrata, koji je zadirao u svod *cubicula*, na ovom se mjestu nije sačuvao, ali njihov se izgled može pretpostaviti na temelju usporedbe s odgovarajućim vratima iz prethodnog poglavlja. Treća vrata koja su vodila u prostor ispod prvog kraka stubišta mogu se pretpostaviti na mjestu postojećih zapadnih vrata prizemlja koja imaju kameni okvir od gotičkih elemenata u sekundarnoj upotrebi. Otvor tih vrata ima istu širinu i nalazi se približno na istom mjestu kao i odgovarajuća vrata u sklopu samostana sv. Martina (sl. 12).

Na istom zidu, unutar nekadašnjeg *cubicula*, sačuvale su se dvije kamene konzole, različitog stupnja očuvanosti, koje je

su izradili Hrvoje Matić, mag.ing.arh. i Nino Skupnjak, bacc.ing.aedif. iz tvrtke SKIMI64 d.o.o., Ivana Cankara 40, 42202 Trnovec B. u prosincu 2019. godine.

the Roman remains in thorough detail (Fig. 11). Besides the recording of these elements, an architectural survey was taken of the wall between the staircase and the *cubiculum* constructed in the *opus mixtum* technique, where the main elements for reconstruction of the Roman staircase have been preserved.¹³ All of these elements were put together in a 2020 study based on the most recent architectural survey of the complex at the Palace's western gate.¹⁴ The door at which the lower flight of the staircase ended was bordered in the direction of the *cubiculum* with two courses of brick is immediately adjacent to the western wall of the Palace. Thanks to several preserved radially-set bricks of the

¹³ The architectural survey was done by Martina Driscoll, a civil engineer from Washington, as part of the US/ICOMOS International Summer Intern Program which was implemented by the Mediterranean Architectural Heritage Centre, Architecture Faculty of the University of Zagreb, under the mentorship of Katja Marasović.

¹⁴ Marasović 2020. The study is based on the architectural survey done by Hrvoje Matić, M.S. (arch.) and Nino Skupnjak, bacc.ing.aedif. from the company SKIMI64 d.o.o., Ivana Cankara 40, 42202 Trnovec B. in December 2019.



Sl. 12.
Sjeverni zid stubišta
Zapadnih vrata -
Rekonstrukcija na fotografiji
postojećeg stanja (K.
Marasović)

Fig. 12.
Northern wall of the
staircase at the Western
Gate – Reconstruction on
photograph of existing
situation (K. Marasović)

još davno uočio Jerko Marasović, a koje su razjasnile kako se iz donje razine stubišta prelazilo na gornju. Jedna je konzola sačuvana gotovo u potpunosti, dok je druga odsječena (sl. 13). Te su konzole nosile drvenu međukatnu konstrukciju unutar *cubicula* koja je povezivala dva kraka stubišta. I ovdje je podest na početku gornjeg kraka stubišta viši od poda međukatne konstrukcije i to za oko 140 cm pa je unutar *cubicula* moralo postojati šest stuba koje bi savladale tu visinsku razliku. Može se pretpostaviti da su te stube bile položene okomito na zid između stubišta i *cubicula* te da su dvije od tih stuba bile položene unutar debljine zida kako bi se što bolje iskoristio prostor.

Kao i u sklopu samostana sv. Martina, na zidovima prostorije ispod prvog kraka stubišta nema tragova oslanjanja svoda stubišta pa se i ovdje može zaključiti da je taj prvi krak bio od drvene građe. S obzirom na velike sličnosti dvaju antičkih sačuvanih stubišta, nagib prvog kraka stubišta se

arch, the height and floor-plan position of this door can be precisely reconstructed. The lower section of another door used to access the upper flight of stairs can be discerned on the eastern end of this same wall. The door's upper section, which protruded into the *cubiculum*'s vault, has not been preserved here, but its appearance may be presumed on the basis of a comparison with the corresponding door from the preceding section. The third door that led to the room below the first flight of the staircase may be presumed to have been at the position of the existing western door on the ground level, which had a stone frame with Gothic elements in secondary use. The span of this door is the same and it is situated at roughly the same position as the corresponding door within St. Martin's Abbey (Fig. 12).

Two stone brackets in varying conditions were preserved on the same wall inside the former *cubiculum*. They had long ago been observed by Jerko Marasović, and they explain how the upper flight of the staircase was accessed from the lower flight. One of the corbels has been almost entirely preserved, while the other is severed (Fig. 13). These corbels bore the wooden mezzanine construction inside the *cubiculum* which linked the two flights of stairs. Even here the landing at the beginning of the staircase flight is higher than the floor of the mezzanine construction by roughly 140 cm, so there must have been six steps inside the *cubiculum* that would have been used to resolve this difference in height. It may be assumed that these steps were set perpendicularly against the wall between the staircase and the *cubiculum* and that two of these steps were inserted into inside the wall itself in order to better utilize that space.

As in St. Martin's Convent, there are no traces of the staircase vault resting against the walls of the room beneath the first flight of stairs, so here as well one may conclude that this first flight had a wooden construction. Given the great similarity between the two preserved Roman staircases, one may assume that the incline of the first flight followed the model of the staircase at the northern gate. The vault of the staircase's second flight has an incline of 40 degrees, i.e., 3 degrees less than the corresponding staircase at St. Martin's Abbey.

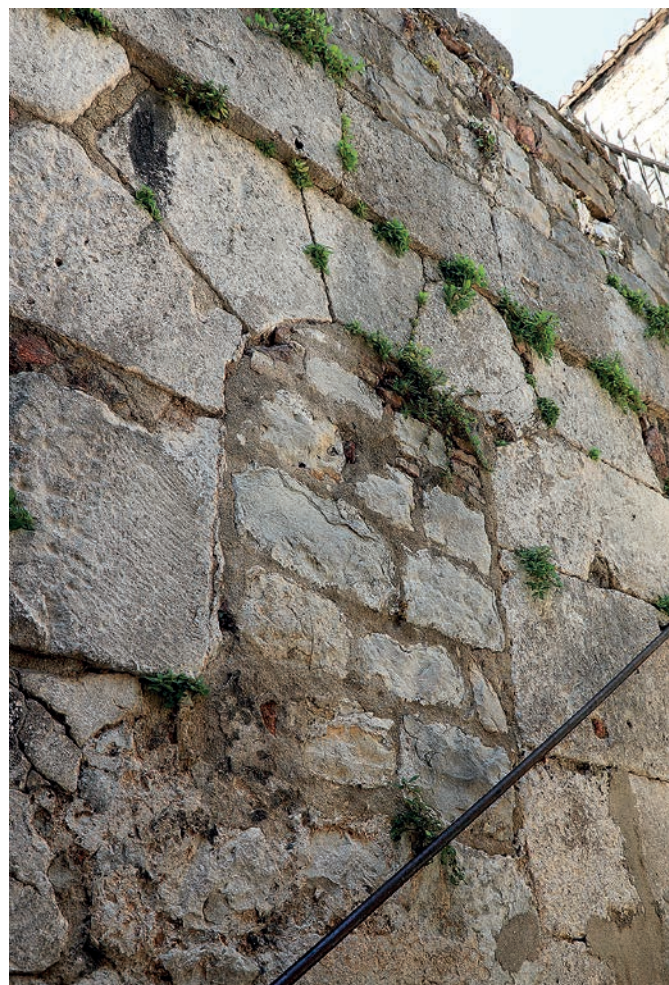
The first flight of the staircase in this instance did not have a window, because the octagonal towers at the western gate were placed closer to one another in comparison to those at the northern gate, so that no free space remained on the Palace's western façade for a window. However, the window at the initial landing of the staircase's second flight toward the defensive corridor has been well preserved to this day, although it has been walled (Fig. 14).

As opposed to the Palace's northern part, where the Roman level is almost two meters lower than the medieval, the fill is considerably smaller in the wider area of the western gate due to the continuity of its use. Namely, despite good protection afforded by the Palace's mainland gates, it would appear



Sl. 13.
Originalne antičke konzole
u prvom *cubiculu* sjeverno
od zapadnih vrata koje su
nosile drvenu međukatnu
konstrukciju (foto: K.
Marasović)

Fig. 13.
Original Roman bracket
corbel in the first *cubiculum*
north of the western gate
that bore the wooden
mezzanine construction
(photo: K. Marasović)



Sl. 14.
Prozor prema obrambenom
dvorištu zapadnih vrata
gornjeg kraka antičkog
stubišta (foto: Ž. Bačić)

Fig. 14.
Window on the upper flight
of the Roman staircase
facing the defensive
courtyard at the western
gate (photo: Ž. Bačić)

može pretpostaviti po uzoru na onaj stubišta sjevernih vrata. Svod drugog kraka stubišta ima nagib 40 stupnjeva tj. 3 stupnja manje od istovjetnog stubišta u sklopu samostana sv. Martina.

Prvi krak stubišta u ovom slučaju nije imao prozor jer su oktogonalne kule zapadnih vrata položene bliže jedna drugoj, u odnosu na one sjevernih vrata, tako da nije ostao slobodan prostor na zapadnom pročelju Palače za smještaj prozora. Međutim, prozor na početnom podestu drugog kraka stubišta prema obrambenom dvorištu se izvrsno sačuvao do danas, ali je zazidan (sl. 14).

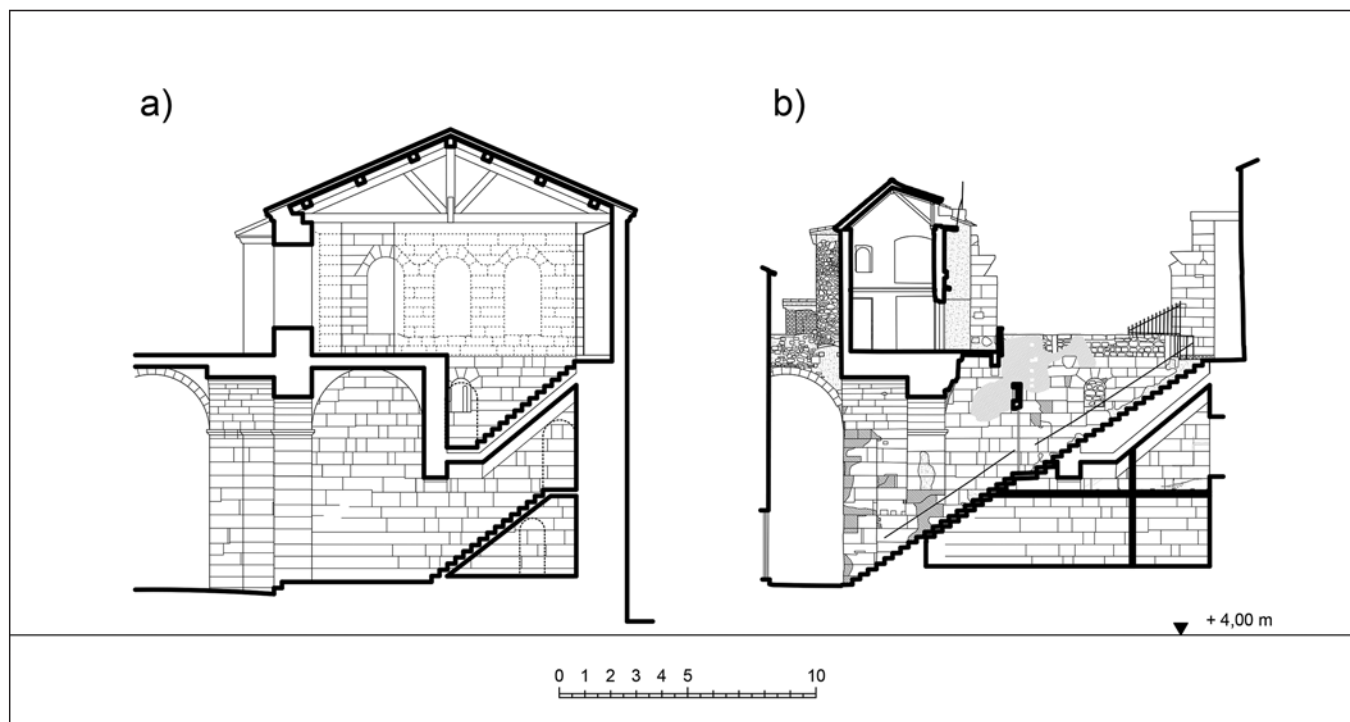
Za razliku od sjevernog dijela Palače, gdje je antička razina gotovo dva metra niža od srednjovjekovne, na širem području zapadnih vrata nasip je značajno manji zbog kontinuiteta u korištenju tog prostora. Naime, usprkos dobroj zaštiti kopnenih vrata Palače, izgleda da su u 7. stoljeću, kada je Palača postala zaklonom solinskim izbjeglicama, istočna i

that in the 7th century, when the Palace became a shelter for refugees from Salona, the eastern and northern gates were entirely walled, on which various researchers agree.¹⁵ The main mainland entrance to the city was the Palace's western gate, which was given the name *Porta franca*, i.e., the 'Free Gate' or 'Open Gate'. A Roman sliding grill for this gate was mentioned until the 16th century.¹⁶ The St. Theodor's church, which at the end of the 11th century was situated in the interior corridor of the defensive courtyard¹⁷ (later the Church of Our Lady of the Campanile) and the defensive corridor above the external

15 Fisković 1966; Belamarić 1998; Rapanić 2007; Marasović, Marasović 2012.

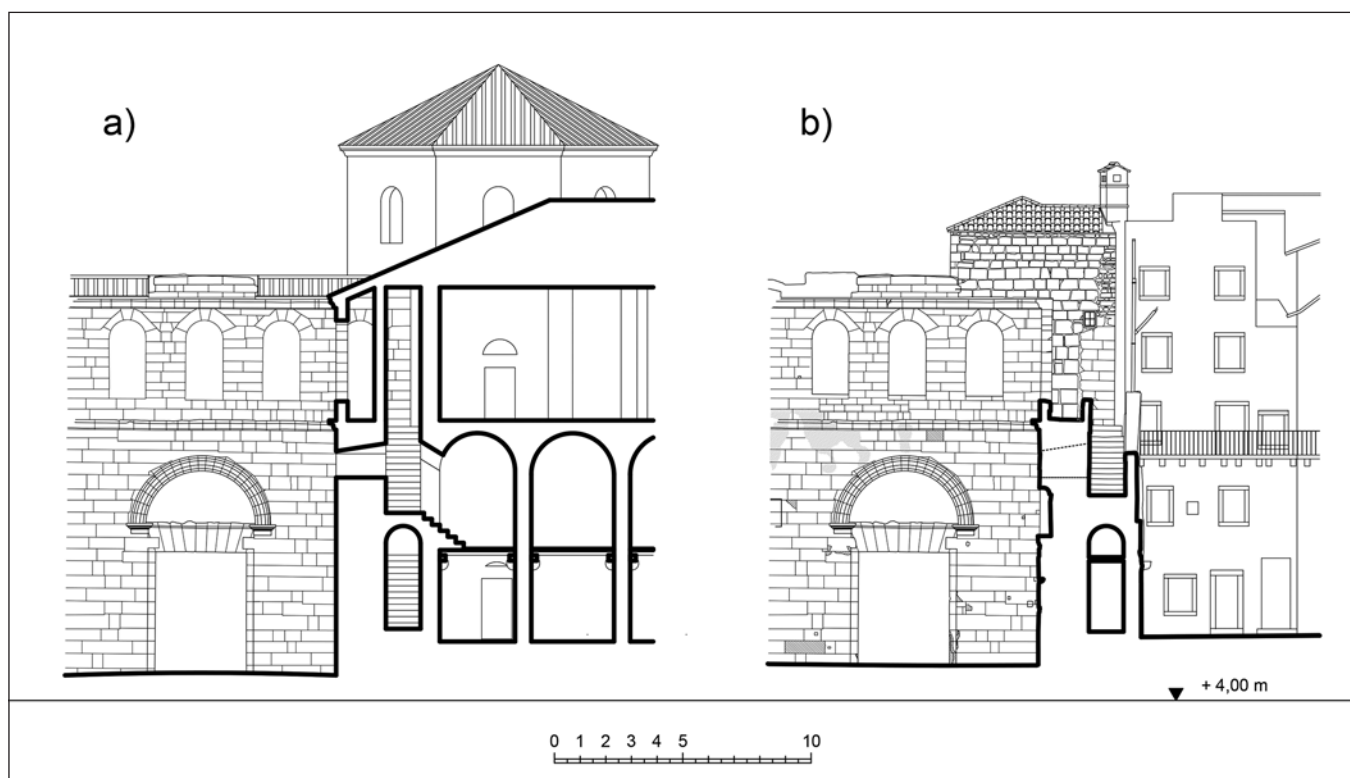
16 Fisković 1966, pp. 28-30.

17 Belamarić 1991, 18.



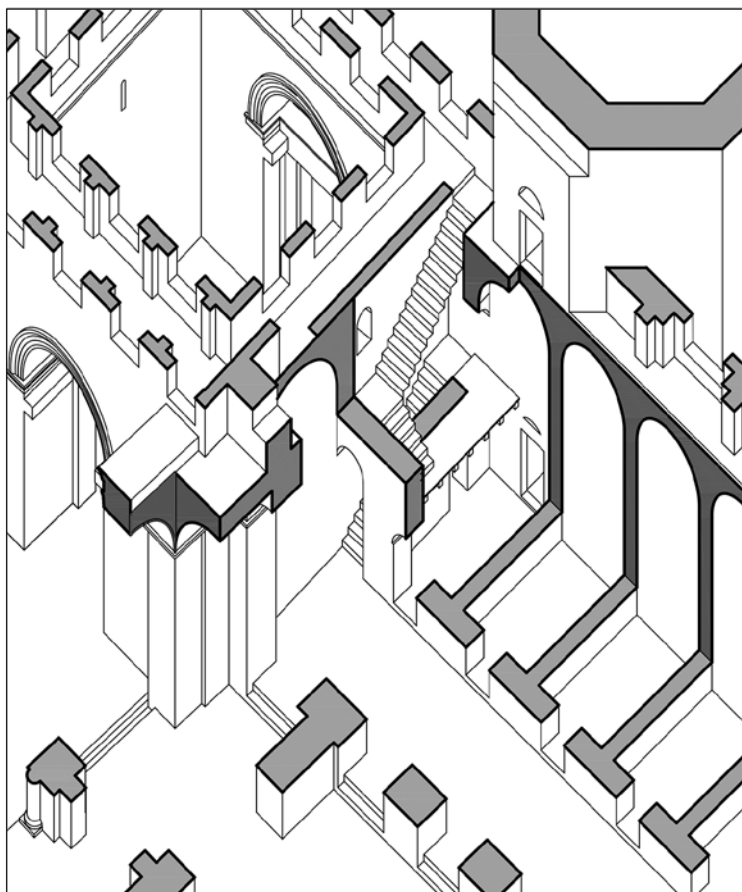
Sl. 15.
 Stubište sjeverno od zapadnih vrata Palače – uzdužni presjek,
 a) Antika (rekonstrukcija K. Marasović), b) arhitektonski snimak
 postojećeg stanja (SKIMI 64 d.o.o)

Fig. 15.
 Staircase north of the Palace's western gate – longitudinal
 cross-section., a) Roman (reconstruction by K. Marasović), b)
 architectural survey of existing situation (SKIMI 64 d.o.o)



Sl. 15.
 Stubište sjeverno od zapadnih vrata Palače – poprečni presjek,
 a) Antika (rekonstrukcija K. Marasović), b) arhitektonski snimak
 postojećeg stanja (SKIMI 64 d.o.o)

Fig. 15.
 Staircase north of the Palace's western gate – perpendicular
 cross-section, a) Roman (reconstruction by K. Marasović), b)
 architectural survey of existing situation (SKIMI 64 d.o.o)



Sl. 17.
Rekonstrukcija antičkog
stubišta sjeverno od
zapadnih vrata Palače
(K. Marasović)

Fig. 17.
Reconstruction of the
Roman staircase north of the
Palace's western gate
(K. Marasović)

sjeverna vrata zazidana u potpunosti, u čemu su suglasni razni istraživači.¹⁵ Glavni kopneni ulaz u grad bila su od tada zapadna vrata Palače koja su zato i dobila naziv *Porta franca* tj. *Slobodna vrata - Otvorena vrata*. Klizna rešetka tih vrata se spominje sve do 16. stoljeća.¹⁶ Crkvi sv. Teodora, koja je krajem 11. stoljeća smještena u unutarnji hodnik obrambenog dvorišta¹⁷ (kasnije Gospe od Zvonika) i obrambenom hodniku iznad vanjskih vrata pristupalo se antičkim stubištem položenim sjeverno od tog obrambenog dvorišta. Prilikom izgradnje gotičke palače Nikole Papalića sredinom XV. stoljeća uz zapadno pročelje Palače (danas na zapadnoj strani Narodnog trga),¹⁸ antičko stubište je moralo biti preuređeno jer je pet *cubicula* sjeverno od antičkog stubišta preuređeno u dvorište te palače. Prvi krak stubišta je zbog toga napušten, a sagrađen je novi na prostoru trijema

gate were accessed via the Roman staircase set north of that defensive corridor. During construction of a Gothic palace next to the Palace's western façade (today at the western side of Narodni square) by Nikola Papalić in the 15th century, the Roman staircase had to be remodelled, because the five *cubicula* north of the Roman staircase were transformed into a courtyard for this palace. The first flight of the staircase was thus abandoned, and a new one was built in the location of the portico of the western *cardo*. The present-day staircase that leads to the Church of Our Lady of the Campanile is the result of remodelling in the 17th century and it has a gentler incline than the Roman staircase¹⁸ (Fig. 15 and 16).

CONCLUSION

Up to the present, six Roman staircases have been preserved inside Diocletian's Palace: the two described in this paper and four in the Palace's southern section. Those preserved out of the latter are: one of two staircases in the large hall of substructure 6A, followed by the one in the north-east corner of the substructure in chamber 22D, the monumental staircase that leads from the Vestibule's substructure to the Peristyle and one of two staircases which lead from the Tablinum to the Vestibule's roof. Besides these, the staircases built into the tower walls have also been preserved, and the staircase built into the Mausoleum's wall that leads to the cornice on the upper row of columns has also been superbly preserved. All of these staircases are characterized by the considerable height of the steps (from 22 to 25 cm) and the great incline of the flights (from 34 to 43 degrees), which are typical of both Antiquity and the Middle Ages.

Based on a detailed analysis of the results recorded by earlier researchers and new, thus far unpublished findings, the two staircases used to climb to the upper level of the structures adjacent to the perimeter walls of Diocletian's Palace can be reconstructed to a considerable extent. Within a relatively small floor-plan, the staircases overcame the height difference of approximately 9 meters with two flights placed one above the other. The upper flight was accessed from the lower flight across a wooden mezzanine construction of the first *cubiculum* situated next to the staircase. The upper flight was borne by a brick vault, while it may be assumed that the lower flight had a wooden construction. The width of the staircase of 135 cm allowed two persons to pass each other. The flights had a considerable incline of 38 to 43 degrees, and the dimensions of the stone steps discovered in St. Martin's Convent are 24 cm (height) by 31 cm (width). The height of the staircase area was also small. Inside St. Martin's Convent, it is only 213 cm from

15 Fisković 1966; Belamarić 1998; Rapanić 2007; Marasović, Marasović 2012.

16 Fisković 1966, str. 28-30.

17 Belamarić 1991, 18.

18 Bužančić 2011, Kečkemet 197., str. 173.; Fisković 1981, 138.

18 Marasović 2020.

zapadnog *carda*. Današnje stubište koje vodi u crkvu Gospe od Zvonika rezultat je preuređenja iz 17. stoljeća i ima blaži nagib nego ono antičko¹⁹ (sl. 15 i 16).

ZAKLJUČAK

Unutar Dioklecijanove palače do danas se sačuvalo šest antičkih stubišta: dvojica opisana u ovom članku te četvorica u južnom dijelu Palače. Od tih posljednjih, sačuvana su: jedno od dvaju stubišta uz veliku dvoranu substrukcija 6A, zatim ono u sjeveroistočnom uglu substrukcija u prostoriji 22D, monumentalno stubište koje iz substrukcija Vestibula vodi na Peristil te jedno od dvaju stubišta koja su iz Tablinuma vodila na krov Vestibula. Osim spomenutih djelomično su se sačuvala stubišta u debljini zidova kula, a izvrsno je sačuvano i stubište u debljini zida Mauzoleja koje vodi na vijenac gornjeg reda stupova. Sva ta stubišta karakterizira velika visina stube (od 22 do 25 cm) i veliki nagib kraka (od 34 do 43 stupnja) što je uobičajeno za antičko i srednjovjekovno razdoblje.

Na temelju detaljne analize rezultata istraživanja ranijih istraživača te novih, do sada neobjavljenih, nalaza mogu se u velikoj mjeri rekonstruirati dva stubišta kojima se penjalo na gornju razinu građevina uz perimetralne zidove Dioklecijanove palače. Unutar relativno malog tlocrta, stubišta su savladavala visinsku razliku od oko 9 metara s dva kraka postavljena jedan iznad drugoga. Iz donjeg kraka se prelazilo u gornji preko drvene međukatne konstrukcije prvog *cubicula* položenog uz stubište. Gornji krak je nosio svod od opeke, dok se za donji može pretpostaviti da je imao drvenu konstrukciju. Širina prostora stubišta od 135 cm omogućavala je mimoilaženje dviju osoba. Krakovi su imali veliki nagib od 38 do 43 stupnja, a dimenzija pronađenih kamenih stuba u sklopu samostana sv. Martina iznosi 24 cm (visina) na 31 cm (širina). Visina stubišnog prostora je također mala. U sklopu samostana sv. Martina iznosi svega 213 cm od vrha stube do vrha svoda, a i visina nekih vrata je nešto veća od 210 cm do vrha luka. Prostor stubišta je toliko skučen da je trebalo umetnuti još jedan krak od 6 stuba na drvenom katu *cubicula* kako bi se savladala visinska razlika od oko 130 do 140 cm. Kako bi se osiguralo prirodno osvjetljenje i ventilacija stubišnog prostora na najpovoljnijim su mjestima postavljeni prozori. Iz svega iznesenog je vidljivo da su stubišta s minimalnim dimenzijama ispunila svoju funkciju, da nisu morala zadovoljiti nikakve estetske zahtjeve i da su očito bila namijenjena samo vojnicima.

Oba stubišta imaju iste elemente, pa čak i neke iste dimenzije, ali svakako nisu identična. Razlog tomu je

the top of the steps to the top of the vault, and the height of certain doors is something greater than 210 cm to the tip of the arch. The staircase area was so confined that another flight of six steps had to be added on the wooden mezzanine of the *cubiculum* in order to resolve the height difference of roughly 130 to 140 cm. In order to ensure natural lighting and ventilation of the staircase area, windows were placed at the most suitable places. Based on all of these aspects, it is apparent that the staircases fulfilled their function with minimum dimensions, they did not have to meet any aesthetic criteria and they were only intended for use by soldiers.

Both staircases have the same elements, and even some of the same dimensions, but they are certainly not identical. The reason for this lies in the irregularity of Diocletian's Palace. In terms of its ground-plan, the Palace deviates from orthogonality. If a perpendicular axis is set in the ground plan from the southern to the northern wall, which are parallel, the eastern wall deviates from it by 3 degrees, and the western wall by 1 degree, while the axis of the *cardo* is 2 degrees. In its cross-section, the Palace rigidly adheres to the configuration of the terrain, so, for example, the difference in elevation from the highest point on the street in the northeast and the street level at the western gate is greater than three meters. The terminal cornice of the perimeter walls does not run horizontally, rather from north-east to the western gate it declines by more than one meter. The staircases of the mainland gates, like many other elements in the Palace that are multiply repeated, adhere to the same model, but they were adapted to the specific aspects of individual locations, so that they deviate in terms of dimensions and floor-plan angles. Based on the basic elements of the staircases and their mutual relationships, which are examined in this paper, it is possible to reconstruct the remaining four staircases next to the Palace's mainland gates with considerable precision.

The two Roman staircases have been preserved in large extent to the present day thanks to the uninterrupted continuity of their use. For centuries they ensured a connection between the street level and the upper levels of the perimeter walls and facilitated access to the upper floors of the octagonal towers that defended the Palace and the city. By the same token, they facilitated access to the churches which were situated in the Roman defensive corridors of the upper level. The vaults of the upper flights of the Roman staircases have been preserved at both locations and today they bear staircases with gentler inclines. The first flight had to be replaced with a new one, built at a more suitable place in order to better complement the medieval urban development of small residential units and narrow streets inserted into the Roman grid. This situation, with the necessary maintenance and improvements, has been preserved to the present day.

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nepravilnost Dioklecijanove palače. Tlocrtno Palača odstupa od ortogonalnosti. Ako u tlocrtu postavimo okomicu na južni i sjeverni zid, koji su međusobno paralelni, istočni zid od nje odstupa 3 stupnja, zapadni 1 stupanj, a os *cardo* 2 stupnja. U presjeku Palača strogo prati konfiguraciju terena pa je tako npr. visinska razlika između najviše točke ulice na sjeveroistoku i razine ulice u zapadnim vratima veća od tri metra. Završni vijenac perimetralnih zidova ne ide horizontalno već od sjeveroistoka do zapadnih vrata pada više od jednog metra. Stubišta kopnenih vrata, kao i mnogi drugi elementi u Palači koji se višekratno ponavljaju, projektirana su prema istom uzorku, ali su prilagođena specifičnostima pojedine lokacije tako da odstupaju u dimenzijama i u kutovima tlocrta. Na temelju osnovnih elemenata stubišta i njihovih međusobnih odnosa, koji su istraženi u ovom radu, moguće je s priličnom preciznošću rekonstruirati i ostala četvora stubišta uz kopnena vrata Palače.

Dvoja antička stubišta kopnenih vrata u velikoj su se mjeri sačuvala do danas zahvaljujući neprekinutom kontinuitetu u njihovom korištenju. Ona su stoljećima osiguravala vezu između razine ulice i gornje razine perimetralnih zidova te pristup gornjima katovima oktogonalnih kula s kojih se branilo Palaču i grad. Isto tako ona su osiguravala pristup crkvama koje su se smjestile u antičkim obrambenim hodnicima gornje razine. Svod gornjeg kraka antičkog stubišta se sačuvao na obje lokacije i danas nosi kamena stubišta blažeg nagiba. Prvi je krak morao biti zamijenjen novim, sagrađenim na povoljnijem mjestu kako bi se što bolje uklopio u srednjovjekovni urbanizam malih stambenih jedinica i uskih ulica umetnutih u antički raster. Takvo se stanje, uz nužna održavanja i poboljšanja, sačuvalo do danas.

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