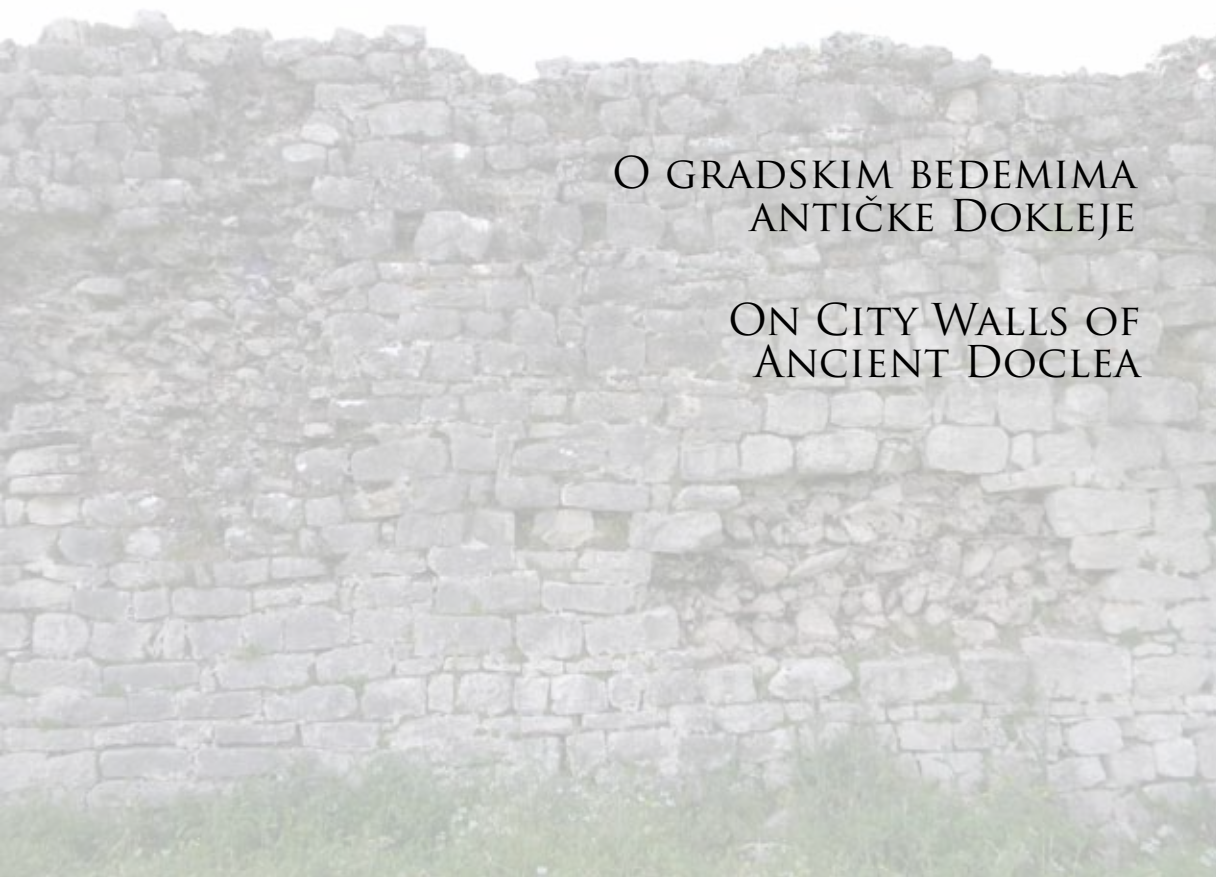


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O GRADSKIM BEDEMIMA  
ANTIČKE DOKLEJE

ON CITY WALLS OF  
ANCIENT DOCLEA





## O GRADSKIM BEDEMIMA ANTIČKE DOKLEJE

## ON CITY WALLS OF ANCIENT DOCLEA

Idealni uslovi ravne nizije u današnjem naselju Rogami, iznad mjesta gdje se rijeka Zeta pridružuje Morači, bili su većim dijelom razlog da se s početka I vijeka n.e. na tom mjestu obrazuje rimski grad Dokleja. Njegovo gradsko područje, i pored toga što je prirodno zaštićeno rijekama koje ga okružuju sa tri strane dubokim i širokim koritima, bilo je utvrđeno jakim bedemima.

Rad se temelji na rezultatima dobijenim sa snimanja gradskih bedema i vidljivih arhitektonskih objekata Dokleje, koja su obavljena 2012. god<sup>1</sup>. Njime se iznose razmišljanja potaknuta terenskim zapažanjima nastala tom prilikom.

Osim sačuvanih djelova bedema, koji će se nadalje pobliže analizirati, snimljeni su objekti koji su konzervirani i nalaze se u ograđenom prostoru na lokalitetu: forum (*VIP*<sup>2</sup>), civilna bazilika (*VIII*), kapitolni hram (*IX*), velike i male terme (*VI* i *X*) (T. 5). Koristeći starije crteže i planove, a na osnovu orijentacionih tačaka koje su uzete na terenu, uspjeli smo uklopiti u planu i objekte koji su istraživani sa kraja XIX vijeka, a koji su danas u ruševinama ili prekriveni nasipom željezničke

1 U periodu od 1. do 10. marta 2012. god. vršena su snimanja organizovana od strane JU Muzeji i galerije Podgorice. Instrument koji je korišćen pri snimanju je totalna stanica marke Leica TCR407. Pogodno vrijeme i vegetacioni period kada je rastinje nisko, a krošnje drveća redukovane, uslovalo je da na osnovu dvije reperne i šest pomoćnih koordinatnih tačaka sprovedemo planirane radove. Osim snimanja plana antičkog grada, radilo se na analizi i fotografisanju ugroženih djelova bedema. Ovom prilikom autori se žele zahvaliti svima koji su učestvovali i pomogli u opisanim aktivnostima.

2 Radi lakšeg snalaženja i poredbene analize dalje u tekstu, i na planu prikazanom na T. 5 preuzeta je numeracija objekata kao i slova za obilježavanje lokacija na trasi bedema, prema planu iz Sticotti 1999. Novo numerisana mjesta nastavila su istom logikom odnosno obilježavanje je vršeno latiničnim malim slovima. Sve oznake u tekstu date su u kurzivu.

The ideal conditions of flat lowlands in today's Rogami area, above the place where the river Zeta joins the river Morača, were largely the reason why in the early first century the Roman city Doclea was established there. Though naturally protected by rivers that surround it on three sides with deep and wide riverbeds, its urban area was also fortified with strong walls.

The work is based on the results obtained from the surveying of the city walls and visible architectural structures which were carried out in 2012<sup>1</sup>. It presents the thoughts that were triggered by field observations made on that occasion.

In addition to the preserved parts of the town walls that will later be closely analyzed, some conserved objects were recorded and are located in a fenced area at the site: forum (*VIP*<sup>2</sup>), civil basilica, capitol temple (*IX*), small and large thermaes (*VI* and *X*) (Pl. 5). Using old drawings and plans, and based on the orientation points taken at the field, we were able to fit into the plan the objects that were studied

1 PI "Museums and Galleries of Podgorica" organized survey which was done in the period from the 1<sup>st</sup> till the 10<sup>th</sup> of March, 2012. The instrument used was the total station Leica TCR407. Perfect weather conditions and growing period when vegetation is low and tree tops are small, allowed us to carry out the planned work with two fixed and six additional coordinate points. Apart from the surveying of the ancient city, we also worked on the analysis and taking photos of vulnerable parts of the walls. On this occasion, the authors wish to thank everyone who participated and helped in the described activities.

2 For the ease of reference and comparative analysis, in the text below and plan shown in Pl. 5, the numeration of objects as well as the characters used for marking locations on the route of the wall, were taken over according to the plan given by Sticotti 1999. New places use the same numeration logic and the marking is done in Latin lowercase. All tags in the text are given in italics.

pruge: slavoluk (*I*), prvi hram (*II*), drugi hram (*III*), vila (*IV*), hram Dijane (*V*), i ranohrišćanski objekti (*XI* i *XII*). Za objekat *XV* u južnom dijelu grada orijentacione tačke nije bilo moguće snimiti tako da je objekat izostavljen iz plana (T. 4). Na ovom mjestu ističemo da su greške očekivane u tačnom položaju svih objekata koji nisu upotpunosti vidljivi na terenu.

Cilj pomenutih snimanja jeste stvaranje jedinstvog plana nalazišta na osnovu kojeg bi se odredile tačne proporcije bedema i položaj objekata unutar grada. Topografsku sliku danas remeti savremena infrastruktura, asfaltni put, te pruga koja je 1947/1948 god. izgrađena preko lokaliteta. U jugozapadnom dijelu gradskog areala Dokleje, nalazi se deponija građevinskog šuta i otpada koja se nažalost ubrzano uvećava. Među zonama i djelovima nalazišta koji su najugroženiji nalazi se i obujmni zid te se u tome uvidjela nužnost njegovog snimanja. Bedem je s jedne strane stradao stalnim korišćenjem lokaliteta kao majdana, a sa druge rad vertikalnog podlokavanja obala rijeka pri čemu su najveća propadanja, načinjena erozijom obala, zabilježena na jugozapadnom i jugoistočnom dijelu grada.

Od objave Stikotijeve *Die römische Stadt Doclea in*

in the late nineteenth century and that are now in ruins and covered by the railway embankment: triumphal arch (*I*), the first temple (*II*), the second temple (*III*), villa (*IV*), the Temple of Diana (*V*), and early Christian buildings (*XI* and *XII*). The orientation points for object *XV*, which is in the southern part of the city, were not recorded so the object was omitted from the plan (Pl. 4). At this point, we emphasize that errors are to be expected when exact positions of all objects that are not completely visible on the ground are concerned.

The goal of the aforementioned surveying is to create a unique site plan which would be used to determine the exact proportions of the ramparts as well as the positions of objects within the city. Today's topographic picture has been disrupted by modern infrastructure, an asphalt road and a railroad that was built over the site in 1947/1948. In the south-western part of Doclea's urban area there is a dump of construction debris and waste and it is unfortunately increasing rapidly. There is also a city wall among the endangered parts of the site, so we found it necessary to record it. On one side the wall was destroyed because of the constant use of the site as a mine. On the other side it was destroyed by vertical undermining of the river



Sl. 1 - Unutrašnji izgled sjevernog bedema

Fig. 1 - The inside of northern city wall



*Montenegro* 1913. godine nije učinjen veliki pomak u sagledavanju vremena izgradnje te građevinskih karakteristika gradskog bedema Dokleje. Dobijena osnovna fortifikaciona shema je često preuzimana iz pomenutog djela bez provjera ili prikupljanja novih podataka. Zidanje odbrambenog sistema predstavlja značajnu etapu u životu Dokleje i spoznaje dobijene ovim radom, iako neznatne, daju smjernice za dalja proučavanja na tom planu.

Prvi plan grada objavio je 1882. god. F. Saski i time udario temelje topografskih prikaza antičke Dokleje (T. 1.1). Na planu je ucrtao osnovne gabarite bedema, rov ispred njegovog sjeveroistočnog dijela, tragove bastiona kod ušća potoka Širalije u Zetu, nekoliko urušenih objekata unutar grada. Takođe je označio i mjesto gdje se pretpostavlja antički most na Morači kao i pravac pružanja akvadukta (Saski 1882: 74-77, Pl. XIII). Nakon tri godine iskopavanja, u periodu od 1890. do 1893. god. P. Rovinski je načinio plan koji objavljuje tek 1909. god. (Ровинский 1909: 18). I pored toga što je plan poprilično šematizovan, na njemu su zabilježeni svi do tada otkriveni i poznati objekti (T. 1.2). Istraživanja engleske ekspedicije, koja su organizovana 1983. god. pronikla su urbanističku mapu grada koja se bazirala na objektima i ruševinama, i njihovom smiještanju unutar gradskih zidina (T. 2.1). Stoga, gradski bedem je izveden sumarno, samo skiciran dok su neki segmenti, poput položaja mosta, dati proizvoljno (Munro *et al.* 1896: Pl. IV). Gotovo istovremeno sa prethodnim planovima, radilo se na izradi karte grada koja je postala najkompletnija karta Dokleje (T. 3.1) (Sticotti 1999). Svi prethodni planovi su zasigurno pomogli pri upotpunjavanju iste, a početke odnosno pripreme za Stikotijev plan vidimo i u dokumentima Luke Jelića gdje se nalaze skice i nacrti grada<sup>3</sup>. Skoro cijeli vijek

<sup>3</sup> Plan prikazan na T. 2.2 pronađen je među dokumentima arhiva Luke Jelića u Arheološkom muzeju u Splitu. Osim njega pronađena je i skica na kojoj su ucrtane kule na sjevernom bedemu i skicirani pravci prostiranja istog. Podatke i plan nam je ljubazno ustupila Tatjana Koprivica, viši naučni istraživač Istorijiskog instituta Crne Gore, te joj na tome svesrdno zahvaljujemo.

Velika je zasluga Piera Stikotija i arhitekata Ćirila M. Ivekovića i Luke Jelića što su zatečeno stanje snimili, mada se kroz arheološku literaturu izrada plana, koji je objavljen u Stikotijevoj knjizi, obično pripisuje samom autoru. U uvodu knjige Stikoti navodi da se L. Jelić bavio topografijom ruševina, skicama i planovima. On je bio zajedno sa Stikotijem

banks. The largest decay, caused by coastal erosion was recorded in the southwestern and southeastern parts of the town.

Since the publication of Sticotti's *Die Stadtrömische Doclea in Montenegro* in 1913 there has not been made much progress in determining the time of construction and engineering characteristics of the city walls of Doclea. The obtained basic fortification scheme has often been taken over from the abovementioned work without any checking or collection of new data. The building of city defense system represents a significant milestone in the life of Doclea and insights obtained from this work, although minor, give directions for further research in this area.

The first city plan was published in 1882 by F. Saski, thus laying the foundation of topographical display of ancient Doclea (Pl. 1.1). In the site plan he charted the basic dimensions of the city walls, a ditch in front of its north-eastern part, and traces of a bastion at the mouth of creek Širalija and the Zeta river. He also marked several ruined objects in the city, the assumed location of an ancient bridge over the Morača, and direction of the aqueduct (Saski 1882: 74-77, Pl. XIII). After three years of excavations from 1890 to 1893 P. Rovinski made a plan and it was published in 1909 (Ровинский 1909: 18). Although the plan is quite schematized, it includes all previously discovered and known objects (Pl. 1.2). British research expedition which was organized in 1983 gave an plan of the city, which was based on the buildings and ruins, and their positions inside the city walls (Pl. 2.1). Therefore, the city walls were outlined, only sketched with some segments, such as the position of the bridge, given arbitrarily (Munro *et al.* 1896: Pl. IV). Almost simultaneously with the previous plans, a map of the city was being created, and it has become the most complete map of Doclea (Pl. 3.1) (Sticotti 1999). All previous plans had definitely helped in completing the map, and the beginnings, or preparations, for Sticotti's plan can be seen in the documents of Luka Jelić, where sketches and outlines of the city can be found<sup>3</sup>. For almost a

<sup>3</sup> The plan given in Pl. 2.2 was found among the documents in the archive of Luka Jelić in The Archaeological Museum in Split. Except for that plan, a sketch which shows towers on the northern city walls and a layout of the fortification. The plan and all the data were kindly lent by Tatjana Koprivica, a

Stikotijev plan je prerađivan i dopunjavan, i kao takav korišćen<sup>4</sup>. Dijelom je na planimetriji rađeno 2007. god. kada se radilo na istraživanju reljefa Dokleje iz čega je proizašao plan kombinovan sa satelitskim snimcima (Baratin 2010: Fig. 6, Fig. 7). Novi planovi sa snimanja totalnom stanicom prikazani na T. 3.2 i T. 4 pokazali su mala odstupanja od Stikotijevog plana. Nezaobilazno je na ovom mjestu istaći značaj Stikotijevog plana koji je utoliko veći kad se sagleda da su u periodu od njegovog objavljivanja do danas pojedini podaci, uslijed sistematske devastacije Dokleje, zauvijek izgubljeni.

Prostor uokviren gradskim zidovima obuhvata površinu od 25,4 hektara. Zidovi su podignuti su uz sam rub obala rijeka te gradu daju nepravilan podužni oblik. Sjeverozapadni sjeverni i sjeveroistočni dio platoa Dokleje utvrđen je moćnim vertikalnim bedemom širine 2,20/3,70m, na kojem su postavljane pravougaone kule. Trasa bedema koja prati tok rijeke Morača, i naročito tok Zete, najslabije je očuvana i ona je sazidana manje masivnim zidom. Jednoobraznost gradnje koju su primjetili prvi istraživači ukazuje da su najvjerojatnije rađeni u jednoj epohi. Na osnovu prostiranja glavnih rimskih ulica i razmaka na zidovima moguće je pretpostaviti ulazne kapije kod mjesta *a, m3, g1, m1-m2*. Pri opisu bedema i njegovog prostiranja, koji će uslijediti u narednim redovima, koristiti gradski plan prikazan na tabli T. 5.

Ulazak u grad omogućen preko zapadne kapije, u današnje vrijeme je blago strm. Na samom ulazu s jedne i druge strane propinju se dva brijega na kojima su bili izvedeni visoki bedemi. Ovakav reljef je najvjerojatnije postojao u antici i takav prirodan pad omogućavao je pogodno mjestu za odbranu zapadne kapije *a*, odakle je vodila glavna ulica grada

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na Duklji u septembru 1892. godine i planovi u njegovim dokumentima o tome svjedoče. U izradi plana učestvovao je i arhitekta Č. Iveković koji je Duklju posjetio 1902. god. za kojeg se u istom uvodu navodi zahvalnica za nove planove i crteže. Ne ulazeći dalje u problem autorstva plana u tekstu on će se imenovati kao Stikotijev.

<sup>4</sup>Jedan od takvih planova prikazan je u prvom broju Zbornika Nova Antička Duklja i pogrešno pripisan Munrou (Pett 2010: 14, Fig. 3) što se među ostalim vidi i po neizbrisanim oznakama kod pretpostavljenog mosta na Morači i na sredini južnog bedema.

century, Sticotti's plan was modified and amended, and used as such<sup>4</sup>. To some extent, there were some works on planimetrics in 2007 while a research of Doclea's terrain was being conducted, which as a result produced a plan combined with satellite images. New plans which were surveyed using a total station and shown in Pl. 3.2 and Pl. 4, showed small deviations from Sticotti's plan. At this point, it is inevitable to lay stress upon the importance of Sticotti's work, which is even bigger if we consider the fact that since its publishing until today, some data, due to systematic devastation of Doclea, have been lost forever.

The space framed by the city walls covers an area of 25.4 hectares. The walls were put up alongside the very edge of river banks and give the city its longitudinal irregular shape. North-western, north, and north-eastern parts of Doclea's plateau are fortified by a powerful vertical wall, 2.20/3.70m wide with rectangular towers placed on it. The part of the bulwark which follows the river Morača, and especially the river Zeta, is the least preserved and it was constructed with a less massive wall. The uniformity of construction that the first researchers noticed indicates that they were most probably built during the same period. Based on the layout of the main roman streets and spaces in the walls, it is possible to assume the positions of entrance gates at *a, m3, g1, m1-m2*. While reading the description of the fortification, which is to be

senior researcher in The Historical Institute of Montenegro, and we wholeheartedly thank her for that. Great merit goes to Piero Sticotti and architects Cyril M. Iveković and Luka Jelić for recording the state in which they found the site, although throughout archeological literature on plan development, published in Sticotti, it is usually attributed to the author. In the introduction of his book, Sticotti says that L. Jelić dealt with the topography of the ruins, and with drawings and plans. He was with Sticotti in Doclea in September 1892 and plans in his documents testify this. In plan development C. Iveković was also involved. He visited Doclea in 1902 and Sticotti also thanks him for the introduction of new plans and drawings. Without going further into the problem of authorship, the plan will be named as Sticotti's in the text.

<sup>4</sup> One of those plans is given in the first issue of Collection of Works - New Ancient Doclea and is mistakenly attributed to Munro (Pett 2010: 14, Fig. 3). That can be seen by the marks that have not been erased and which point to the assumed bridge over the Morača river and to the middle of the southern city walls.

- *decumanus*. Sem prirodne pogodnosti, zapadni prilaz je bio dodatno zaštićen s južne strane kulom *b* a sa sjeverne zidom u obliku bastiona.

Kapija je pretrpjela velika oštećenja tokom iskopavanja sa kraja XIX v. Rovinski je prilikom radova pronašao djelove nadvratnika-sidrišta kapije kao i veliki broj kamenih blokova sa natpisima, dio stuba i ulomak statue koji su izgleda bili uzidani u nju (Sticotti 1999: 53-54). Munro i njegova ekspedicija su pri iskopavanjima takođe primjetili da je kapija izgrađena od materijala sa različitih djelova grada, među kojima su pronašli bazu konjaničke statue. Sjeverno od samog ulaza opisali su jak zid izgrađen od velikih fino oklesanih kvadratnih blokova (Munro *et al.* 1896: 6, 11). Sve podatke revidirao je Stikoti i zaključio da je u kapiju bilo ugrađeno preko dvadeset spolija sa natpisima i to većinom nadgrobnih spomenika sa obližnje nekropole Lovišta, a ima i počasnih i carskih natpisa vjerovatno sa foruma, hramova i drugih javnih zgrada koji se datuju u rasponu od I do III v. Najmađi pronađen natpis je počasno postolje cara Valerija iz 254 godine. Tako je na osnovu ovog natpisa uslijedilo nekoliko pretpostavki od kojih je prva da su zid i kapija u drugoj polovini III v. naknadno obnovljeni, odnosno zakrpljeni. Manje vjerovatna su nagađanja da kapija nije postojala na tom mjestu i da se ujedno sa zidom sjeverno od nje izgradila iznova ili da se ciljno porušila pa ponovo sazidala kao svečani ulaz za podizanje slavoluka (Sticotti 1999: 55-57).

Trenutno stanje na terenu ne dozvoljava ni u okvirnim crtama opis zapadne kapije grada. Razgradnja cijelog područja kod mjesta *a* je načinjena vađenjem kamena, proširenjem puta kao i erozijom brijega. Južno od pretpostavljene kapije nalazi se kružno ulegnuće (moguće od spomenutih iskopavanja), nagomilano kamenje i recentni šut. Od jakog zida, sjeverno od ulaza kojeg opisuje Munro, je sada ostao trag očuvan u temeljima kojem nedostaje spoljašnje lice. Sa sjeverne strane odmah pored asfaltnog puta oburdao se jedan veći kameni blok. U osnovi tj. temeljima zida je sačuvano nekoliko sličnih kamenih blokova. Primjećuje se da se pravac nastavlja u luku i prati konfiguraciju terena poput bastiona kako je to Stikoti opisao i nacrtao.

found in the following lines, please use the urban city plan shown in Pl. 5.

The entrance into the town through the west gate is slightly steep at present time and there is a hill on each side of it with tall walls built on both of them. Such terrain is likely to have existed in ancient times and such a natural decline allowed for the perfect place as a defense of the western gate *a*, where the main street of the city begins - *decumanus*. Besides the natural advantages and a strong wall, the western entrance was further protected with tower *b* on the south side, and a wall in the shape of a bastion on the north side.

The gate has undergone heavy damage during the excavations at the end of XIX c. During his work, Rovinski found parts of a transom-anchor of the gate and a large number of stone slabs with inscriptions, a part of a pillar and a fragment of a statue that seem to have been built into it (Sticotti 1999: 53-54). During their excavations, Munro and his expedition also noticed that the gate was built of materials from different parts of the city, among which they found the base of an equestrian statue. To the north of the entrance they described a strong wall built of large fine-cut square blocks (Munro 1896: 6, 11). All the data was reviewed by Sticotti and he concluded that over twenty *spolia* with inscriptions were built into the gate. Most of them are tombstones from the nearby cemetery Lovišta, but there are also some honorary and royal inscriptions and probably from forums, temples and other public buildings which are dated in the range of I to III c. The youngest inscription found is the honorable stand of the emperor Valerius from 254 AD. Thus, based on this inscription, several assumptions were made, first of them saying that the wall and the gate were subsequently renewed and patched. Less probable is the other speculation, according to which there was no gate at that location, and that, along with a wall standing north to it, it was built over, purposely destroyed and rebuilt again as a ceremonial entrance for the raise of the triumphal arch.

Because of the current situation at the site, the description of the western gate of the city cannot even be outlined. Degradation of the whole area at location *a* was done due to stone extraction,



Cijelo područje od *a* do *b* je zbog nasipa pruge znatno narušeno. Bedem je očuvan samo u jednom segmentu, a osim njega sačuvana su i četiri kamena bloka, vjerovatno od temelja bedema ili kule. Kulu *b* koja je ucrtana na Stikotijevom planu pokriva nasip i cijeli nivo je na tom području snižen. Vjerovatno su bedem i zemlja u toj oblasti poslužili kao materijal prilikom izgradnje nasipa za prugu, posebno za premošćavanje dubokog korita potoka Širalija preko kojeg je pruga prešla. Istoj svrsi su izgleda poslužile velike količine oblutaka na šta ukazuju krateri registovani u brijegu sjeverno od pravca bedema. Okolnosti koje su dovele da je kompletni plato doveden do ispod nivoa temelja ne daju nadu ni da će buduća arheološka iskopavanja donjeti bilo kakve rezultate na tom dijelu. Jedini očuvani dio bedema iz navedenih razloga visi na temeljima i takva paradoksalna situacija nam omogućava da kažemo nešto više i o temeljima gradskih zidova. Temelj zida je ukopan plitko, oko 0,50 m dok njegova stopa i sa unutrašnje i spoljašnje strane izlazi 0,15 m do 0,20 m izvan lica zida. Dobijeni podaci se slažu sa podacima koje je objavio Sticotti (Sticotti 1999: 49), a razlog zbog kojeg je iskopan plitak temeljni rov je prostiranje stabilnog tla. U iskopanom temeljnom rovu graditelji su nabacali lomljeno kamenje i zalili ga krečnim malterom te je na malteru sa dna temelja ostala očuvana crvenkasta zemlja - zdravica.

Odmah sjeverno prije ulaza *a*, uz bedem krivudavom trasom do kule *d* pružala se nekada ulica koja je početkom XX v. bila u upotrebi (Sticotti 1999: 61) dok je sada prekinuta željezničkom prugom. Put, širine između 5 i 6 m, uz obalu riječnog korita ima kvalitetno sazidan podzid koji onemogućava da se sa te strane obrušava. Istovremeno prateći pravac obale Širalije između ulice i bedema su nastala tri proširenja na kojima su postavljene kule *b*, *c*, *d*. Komunikacija je vjerovatno antička kao i podzid koji je uočen nakon snimanja te nije ucrtan na planu.

Istočno od mjesta *b* bedem nakon blage krivine na mjestu *r* ide pravolinijski do *s* gdje se pravac izmješta. Originalni pravac pružanja nije sačuvan svom dužinom, i negdje je uočljiv samo u temeljnoj zoni. Između dva povećća komada bedema vidi se objekat koji se nalazi u pravcu pružanja bedema. Od objekta su ostala sačuvana samo dva zida u

road expansion, and the erosion of the hill. To the south of the assumed gate, there is a circular dent (possibly due to the aforementioned excavations), piled up rocks and recent debris. To the north of the entrance which Munro describes, there is a trace of the strong wall which lacks the outer face, now preserved in the foundations. On the north side, right next to the paved road, a larger stone block has crumbled and there are a few similar stone blocks preserved in the base (i.e. foundations) of the wall. It has been noticed that the direction continues in an arch-like shape and it follows the configuration of the terrain such as bastions, just like Sticotti has drawn and described.

The whole area from *a* to *b* has significantly been damaged due to the railway embankment. The bulwark has been preserved only in one segment and besides that, there are four stone blocks which are probably part of the bulwark's foundation or the tower. Tower *b*, which was drawn on Sticotti's plan, is covered by the embankment and the level is lowered in that area. Probably the wall and land in the area served as a material for railway embankment construction and especially to bridge the deep basin of creek Širalija over which the railroad passes. Large quantities of pebbles have obviously served the same purpose as indicated by the craters found in the hill north of the line of the city walls. The circumstances caused the whole plateau to be brought below ground level and not to give any hope that future archaeological excavations will bring any results in that field. The only preserved part of the city walls hangs on the base and such a paradoxical situation allows us to say something more about the foundations of the city walls. The foundation wall is buried shallowly, about 0.5m and its foot, both on its inner and outer side, is 0.15m to 0.20m beyond the face of the wall. The data obtained is in accordance with data published by Sticotti (Sticotti 1999: 49) and the reason why the base trench was shallowly dug is the spreading of stable ground. In the base trench, the builders threw broken stones and poured lime mortar over it. Now, on the mortar, at the bottom of the base, red solid soil – has been preserved.

Just before the entrance *a*, to the north, along the city walls and following a winding route up to tower *d*, there used to be a street which was used





*Sl. 2 - Kula c, spoljašnji izgled sa sjevera*  
*Fig. 2 - Tower c, the outside view from the north*

temeljnoj zoni, koji se spajaju pod pravim uglom. Površina zidova ima malter sa puno sitnog kamena i kreča u sebi. Podatak da objekat ulazi u trasu bedema govori da je mlađi i da je nastao naknadno, nakon razgradnje bedema.

Nije isključeno da na mjestu *s* gdje se zid sa obje strane sužava, bio jedan od manjih antičkih prolaza na sjevernom bedemu. Naime na tom dijelu bedema ima nekoliko manjih prolaza, ali vjerovatno da je većina probijena zbog stambenih kuća koje se vide i na Stikotijevom planu od kojih su tri i danas naseljene. Na pomenutom mjestu postoji prolaz koji služi kao pristup kamenoj kući i objektu za smještaj ekipe. Iza kuće bedem je prezidan međom. Nakon opisanog prolaza bedem ide istom širinom do mjesta *u*. U tom prostiranju registrovana je jedna kula *c* (sl. 2) do koje se, uslijed velike aglomeracije šuta, ne vidi spoljnje lice bedema.

Ispred kule pravougaone osnove, dimenzija 6,5 x 3m, nalazi se rov koji je većim dijelom zatrpan. Cijela sjeverna strana kule je obrušena, i u rovu se nalazi pet velikih kvadratnih blokova. Kvadratni blokovi su činili temeljnu zonu kule i najmasivniji koji je sačuvan *in situ* ima širinu 0,55, dužinu 0,80

at the beginning of the XX c. (Sticotti 1999: 61). Now, it has been cut by a railroad. The road, 5-6 meters wide, along the river bed has a quality-built retaining wall which prevents land sliding. While following the route of the bank of creek Širalija, three extensions with towers *b*, *c*, and *d* have been built between the street and the walls. The road is probably ancient as well as the retaining wall which was noticed after the recording, so it is not marked on the plan.

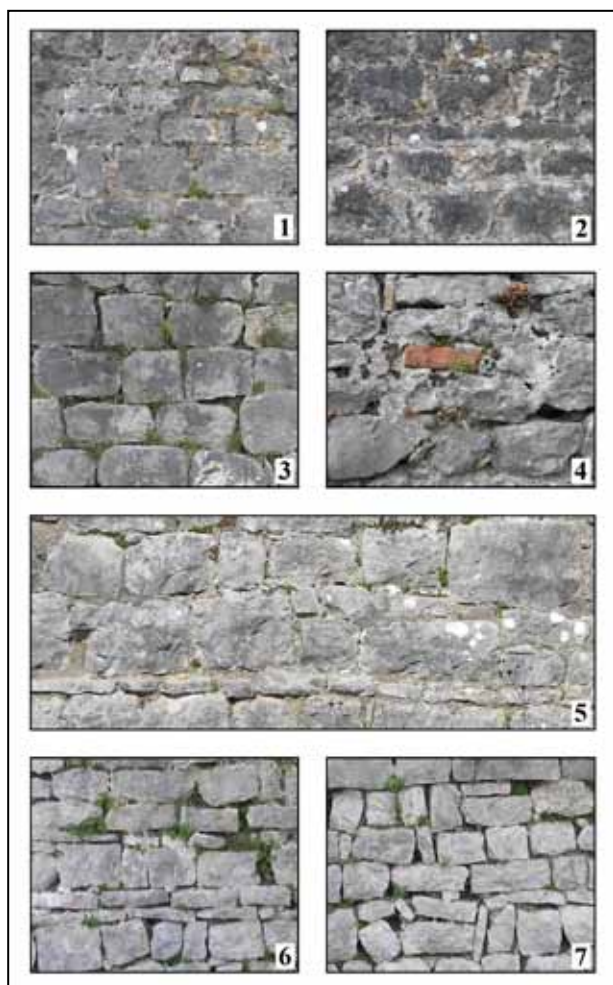
To the east of place *b*, the town wall, after a slight curve at the point *r*, goes straight up to *s*, where the line is relocated. The original direction has not been preserved in this full length and at some places it is visible only in the base zone. Between two larger pieces of the bulwark, there is an object located in the direction of it. As for this object, only two walls in the base zone which meet at a right angle, have been preserved. The surface of the wall has mortar with lots of small stones and lime in it. The fact that the object enters the route of the wall shows that it is younger and has subsequently been formed, after the decomposition of the city walls.

It is possible that in the place *s* where the wall narrows to the both sides, was one of the smaller ancient passages in the northern rampart. In fact, in this part of the rampart there are a few small passages but probably most of them were made because of residential houses that are seen in Sticotti's plan, in three of which people still live. At this location, there is a passage that serves as access to a stone house and a building which accommodate the research team. Behind the house, the wall was reconditioned by retaining wall. After the described passage, the wall continues with the same width until *u*. There, tower *c* has been recorded (Fig. 2) to which, due to large agglomerations of debris, the external face of the wall cannot be seen.

In front of the rectangular tower, 6.5 x 3m, there is a trench that was mostly buried. The entire north side of the tower has fallen down and there are five large square blocks in the trench. Square blocks were part of the base zone of the tower and the most massive that has been preserved *in situ* is 0.55m wide, 0.80m long and 0.60m tall. Pieces in the trench have larger dimensions, especially the length, which ranges up to 2m. Sticotti also noted

i visinu 0,60m. Obrušeni komadi u rovu imaju veće dimenzije, naročito dužinu koja se kreće do 2m. Stikoti je takođe primjetio da su se u donjoj i temeljnoj zoni kula po pravilu zidalo sa velikim kamenim blokovima (Sticotti 1999: 50, sl.21) mada je ista tehnika zidanja registrovana i na nekim djelovima bedema. Na kamenim kvadrima kule ozidani su zidovi od manjih tesanika pa se dobijeno jezgro zalilo malterom i rječnim oblucima.

Lice kule nije očuvano da bi se uočio da li je na drugačiji način zidano. Kao što se u tekstu navelo najbolje očuvana i najmasivnija strana bedema (SZ, S i SI) je zidana istovjetno. Rađena je zidanjem unutrašnjeg i spoljašnjeg lica sa pravougaonim pritesanim kamenjem u pravilnim horizontalnim redovima. Jezgro zida se ispunjavalo trpancem koji se sastojao od lomljenog kamena, oblutaka i krečnog maltera. Ovakav način zidanja je zabilježen i kod drugih objekata Dokleje. Za većinu građevinskog materijala tj. kamena upotrebljenog za izgradnju bedema, se pretpostavlja da vodi porijeklo sa brda Spuž i Miljat (Sticotti 1999: 49).



that it was the rule to use large stone blocks to build the lower and the base zone of a tower (Sticotti 1999: 50, Fig. 21). The same logic of building is also found in some parts of the city walls. Over the stone blocks of the tower, walls have been made and the core was filled with smaller hewn stones with mortar and river pebbles.

The face of the tower has not been preserved so we cannot see if it was built differently. As stated in the text, the best preserved and most massive side of the rampart (SW, S and SI) was built identically. It was built so that its inner and outer faces have rectangular cut rubble in regular horizontal rows and the core of the wall is filled with crushed stones, pebbles and lime mortar (riprap). This type of building has been recorded in other structures of Doclea. Most building materials (i.e. stones used to build walls) are assumed to originate from Spuž and Miljat hills (Sticotti 1999: 47-49). In general, small and medium-sized roughly hewn rectangular stone blocks measuring approximately 0.30 x 0.20m (Fig. 3,1-3) were used. But, there are also exceptions. Often, horizontal rows of narrow stones can be found in walls (Fig. 3,5 and 3,6). Sporadically, and more to fill the gaps between the stone blocks, bricks appear, placed both vertically and horizontally (Fig. 3,4). While in some places, proper horizontal line was not followed, but the gaps were filled with stones of various sizes and shapes (Fig. 3,7). Most walls are nicely grouted; gaps or joint fillers are complete (Fig. 3,1; 3,4 to 5) although in some areas they have fallen off (Fig. 3,3; 3,6 to 7). In some places, traces of the tools which were used for grouting can be found (Fig. 3,2).

At point *t*, where the outer wall surface begins to break, and 0.60 m above the ground, an interesting *spolia* was found. An Attic - Ionic base was built into the wall structure. It is placed upside down (Fig. 4) and hewn so that it cannot be noticed that it was once an architectural decoration. It is clear that it was the utility of this *spolia* that was

*Sl. 3, 1-7 - Izdvojene osnovne tehnike zidanja bedema*

*Fig. 3, 1-7 - Featured basic techniques of building the city walls*





*Sl. 4 - Baza stuba uzidana u spoljašnje lice sjevernog bedema*

*Fig. 4 - The base column built into the outer face of the northern city wall*

Opisan način gradnje manjim i srednjim ugrubo tesanim kvaderima dimenzija oko 0,30 x 0,20m (sl. 3,1-3) je generalan i ima izuzetaka. Nerijetko se u zidnim platnima javljaju horizontalni redovi uskih podužnih kamena (sl. 3,5 i 3,6). Sporadično, i više da bi se uklopile praznine među kamenim kvadrima, pojavljuju se i opeke, koje se postavljaju i vertikalno i horizontalno (sl. 3,4). Dok se na nekim mjestima nije pratio pravilan horizontalan red već su se praznine popunjavale kamenjem raznih dimenzija i oblika (sl. 3,7). Zidovi su takođe većinom lijepo fugovani, praznine odnosno fuge su se u potpunosti popunile (sl. 3,1; 3,4-5) mada su na nekim djelovima i otpale (sl. 3,3; 3,6-7). Negdje su vidljivi i tragovi alatke s kojom se fasada zida fugovala (sl. 3,2).

Na mjestu *t* gdje zid počinje da se lomi u spoljnjem zidnom platnu, na 0,60m od tla uočena je interesantna spolija. U zidnoj strukturi bedema uzidana je atička baza stuba (Attic – Ionic base) postavljena naopako (sl. 4) i isklesena tako da se ne primjećuje da je nekada bila arhitektonski ukras. Jasno je da se prilikom ugradnje ove spolije gledalo na utilitarnost spomenutog kamena. Širina bazne ploče odnosno plite je 0,60m, prečnici torusa se nisu mogli tačno izmjeriti, dok je sačuvana visina baze 0,23m. Ukupna visina baze bila je 0,25m od kojih je 0,07m iznosila plinta, 0,06m donji torus, 0,01m profilna traka, 0,04m je išlo na skocij-kaneluru, zatim 0,01m na profilnu traku i na kraju 0,06m na gornji torus (sačuvano samo 0,04m). Torusi baze su karakteristično ukrašeni tako da

important. The base plate (i.e. plinth) is 0.60 m wide, the diameters of the torus could not accurately be measured, and the preserved height of the base is 0.23 m. The total height of the base was 0.25, with 0.07m for the plinth, 0.06m for the lower torus, 0.01m for lower fillet, 0.04 m for scotia, 0.01 m for upper fillet, and finally 0,06m (preserved only 0.04m) for the upper torus. The tori of the base are decorated so that they make up two wreaths twisted in different directions.

Starting from *t* the wall is broken three times and in some way it makes a curve (Fig. 1) where the most complete segment of bulwark is now preserved. At the ends of this piece of the wall, we can see a cross section of the wall, which allows us to determine the method of construction and composition of the interior wall of the rampart (Fig. 5). As the wall faces were built in rows, so was the riprap gradually filled with stone and mortar with a lot of lime in it. Generally speaking, the upper part of riprap has smaller pebbles, while the lower part is mainly made of large pebbles and bigger parts of crushed stone. On the inner side of the wall, two lines of holes made for wooden beams can be seen. The lower line has seven holes with the distance of 1.15m to 1.30m between each other and is located at 1.10m above the ground level. The openings are rectangular in shape, with the most common dimensions of 0.20m x 0.25m. The five openings in the upper line have the same shape and dimensions, and they are located at 2.8m above the ground. The openings are located at greater distances, ranging

prave dva vijenca upletena ka različitim stranama.

Od mjesta *t* zid se tri put lomi i na neki način pravi krivinu (sl. 1) gdje je sačuvana danas najkompletnija particija bedema te ćemo se na njoj malo više zadržati. Na krajevima ovog komada bedema vide se presjeci kroz bedem koji nam omogućuju da odredimo način izgradnje i sastav unutrašnjosti bedemskog zida (sl. 5). Kako su i lica zidana u redovima tako je i trpanac postepeno zapunjavao kamenom i malterom sa puno kreča u sebi. Uopšteno govoreći gornji dio trpanca u profilu bedema ima više sitnijeg oblutaka dok donji dio je mahom rađen od većih oblutaka i krupnog lomljenog kamena. Sa unutrašnje strane zida uočljiva su dva niza otvora za drvene grede. Donji niz ima sedam otvora međusobne udaljenosti od 1,15m do 1,30m i nalazi se na 1,10m od nivoa tla. Otvori su pravougaonog oblika najčešćih dimenzija 0,20m x 0,25m. Istog oblika i dimenzija su otvori u gornjem nizu koji se nalazi na 2.8m od tla i čini ga pet šupljina. Otvori se nalaze na većoj razdaljini 2,30-2,80m mada to nije pravilo kod ostalog dijela bedema gdje je evidentiran manji razmak, te se ne može izvući generalizacija u postavljanju istih. Međutim zapažena je važna razlika između ova dva niza – otvori u gornjem nizu su se protezali cijelom širinom bedema tako da se otvori nalaze i na spoljašnjem licu zida dok su se otvori donjeg niza završavali u zidnoj masi bedema. To povlači i pitanje funkcije ovih greda. Stikoti je predložio da su služili za noseće grede na kojima je postavljan

from 2.30 to 2.80m and as it is not the norm for the rest of the wall where smaller distances have been recorded, we cannot draw generalizations for their setting. But the important difference observed between these two sets is that the openings in the top row stretch through the entire width of the wall so that they are also located on the outer face of the wall, while the lower openings end in the wall. This implies the question about the function of these beams. Sticotti suggested that they were used for the supporting beams on which the floor of a walking path was placed. Something like a wooden scaffold gallery which spread through the interior of the city walls and Sticotti gave a reconstruction drawing (Sticotti 1999: 51, Fig.19, Fig.20). G. Hodza, who dealt with Doclea's city walls only indirectly, has expressed the opinion that the openings for the beams are actually the remains of a wooden framework which was used to reinforce the wall (Hoxha 2003: 32-33). It is actually about certain kind of wall armouring which was mentioned by the Roman architect Vitruvius who points out that for the walls to be stronger it is best to place scorched beams made of olive wood (Vitruvius 2006: 26). As the holes in the lower line do not spread through the entire wall and there are no vertical beams, it is our opinion that the purpose of the beams has to do with the construction of a guard's hall which is made on the inner side of the city wall. The beams were probably used as a scaffold in building the upper level of the wall.



Sl. 5 - Sjeverni bedem, detalj unutrašnjeg zidnog platna i presjeka kroz bedem

Fig. 5 - The northern city wall, detail of interior face of the wall and cross-section through the city wall





Sl. 6 - Ostaci kruništa bedema sa sačuvanim malternim površinama

Fig. 6 - The remains of the city wall crenellation with preserved mortar surfaces

pod hodne staze, nešto poput drvene konzolne galerije koja se pružala unutrašnjom stranom bedema i dao crtež rekonstrukcije (Sticotti 1999: 51, sl.20). G. Hodža koji se bedemom Dokleje bavio samo posredno, je iznio mišljenje da su otvori za grede ustvari ostaci drvene rešetkaste konstrukcije kojom je ojačavan bedem (Hoxha 2003: 32-33). Tu se zapravo radi o nekoj vrsti armature zida koju spominje i rimski arhitekta Vitruvije koji ističe da bi zidovi bili čvršći najbolje bi bilo postaviti opaljene grede od maslinovog drveta (Vitruvije 2006: 26). Iz prethodno iznesenog zapažanja da se donji niz otvora nije prostirao kroz cijelu zidnu masu kao i da nisu otkrivene vertikalne grede mišljenja smo prije da je svrha greda vezana za konstrukciju stražarskog hodnika koji je napravljen sa unutrašnje strane gradskog zida. Grede su vjerovatno poslužile i za skelu prilikom zidanja gornjeg nivoa bedema.

Nije jasno kako je krunište bedema bilo riješeno, da li je imao grudobran i kako je on izgledao. Na vrhu najočuvanijeg dijela bedema nalazi se po sredini rov nastao vađenjem trpanca dugačak 5,60m, širok oko 0,90m i 0,85m dubok (sl. 6,1). Iz tog razloga krunište je devastirano. Od presudnog značaja za ovu temu su tri manje omalterisane površine pri spoljnjem licu bedema uočene u razdaljini od 6m (sl. 6,1). Malter, sa velikim procentom kreča u

It is not clear how the crenellation walls were solved, whether it had a breastwork, and how it looked. On the top of the best preserved part of the walls, in the middle there is a trench formed by removing riprap, whose length is 5.60m, 0.90m width, and 0.85m deep (Fig. 6,1). For this reason, the crenellation was destroyed. The crucial importance of this topic is three small mortar surfaces at the outer wall face, detected from a distance of 6m (Fig. 6,1). Mortar, with a high percentage of lime in it, is placed on a layer of small stones and bricks, and then nicely cemented. The biggest area is of an irregular shape and dimensions of 0.60 x 0.70m (Fig. 6,2-3). Mortar surfaces, all the same alignment, show that in this part of the wall there was no existence breastwork (unless it had the merlons, while mortar surfaces could belong to the areas between the merlons). The height from the highest point of the walls to the ground level from the outer side of the wall is 5.05m. The calculated height of the upper series of openings to the ground is 3.40m with the thickness of the beam and paths of about 0.30 to 0.40m. That is how we get the area from the bottom of the walking path to the top of the walls which was 1.20m.

The remains of the pedestrian path and battlement, due to degradation of the wall and large vegetation on it, were not noticed in other parts of the walls.

sebi, je postavljen na sloju sitnog kamenja i opeke i potom lijepo zamalterisan. Najveća površina nepravilnog je oblika i dimenzija 0,60 x 0,70m (sl. 6,2-3). Omalterisane površine, sve iste nivelete, govore da na ovom dijelu bedema nije postojalo grudobrana (osim malo vjerovatno da je imao zupce a da malterne površine pripadaju djelovima između zubaca grudobrana). Visina od najviše tačke bedema do nivoa tla sa spoljnje strane bedema je 5,05m. Izračunata visina od gornjeg niza otvora do tla iznosi 3,40m s obzirom na debljinu grede i staze od oko 0,30-0,40m, dobijamo da je prostor od dna šetne staze do vrha bedema bio 1,20m.

Ostaci hodne staze i grudobrana, usled degradacije bedema i velikog rastinja na njemu, nisu se primjetili u ostalim djelovima bedema. Stikoti na dva crteža prikazuje kako je bedem izgledao u presjeku. Na jednom opisuje zid kod Širalije i navodi visinu do 3m i grudobran od 1m visine (Sticotti 1999: 51, sl.20). Srazmjerno podacima koje smo iznjeli ovakva rekonstrukcija nije moguća. Na istočnoj strani bedema govori o visini bedema od 6m (Sticotti 1999: 51). Na crtežu po razmjerniku koji je dat, ukupna visina zida dostiže do 8m od kojih 1m ide na grudobran. Zanimljivo ali širina zida na istom crtežu je valjano data - oko 3,60m, dok se u tekstu ova vrijednost nigdje ne pominje (Sticotti 1999: sl.28). Saski je izračunao približno tačnu širinu bedema od 4m dok za visinu navodi vrijednost od 7m iznad ravni tla (Saski 1882: 75).

Visina istočnog bedema danas nije sačuvana u pomenutim gabaritima. I pored neslaganja u mjerama visine i širine bedema Stikotijevi opisi i crtezi mogu poslužiti za predloge rekonstrukcije. Na osnovu svih sakupljenih podataka predlažemo da se kod Širalije do mjesta *u* nalazio niži bedem visine 5m i širine 2,20. Na tom dijelu nije postojao grudobran već se kao stražarska staza koristio drveni hodnik sa unutrašnje strane a 1,20m visine do kruništa bedema omogućio bi dovoljan pregled sa nje.

Od *u* bedem (koji Stikoti naziva istočnim) je za 1,40-1,50m u širinu masivniji, i viši izgleda za 2m. Stoga je pored vojničkog prolaza – hodnika sa unutrašnje strane bedema na samom vrhu postojala je još jedna šetna staza. Širina bedema omogućavala je pored staze i postojanje grudobrana kojeg Stikoti

Sticotti showed on two drawings, how the wall looked in the cross section. On one of his drawings he describes a wall near Širalija and specifies the height of 3m and 1m height of bulwark (Sticotti 1999: 51, Fig. 20). Proportional to the data that we presented, such a reconstruction is not possible. On the eastern side of the walls, he mentions the height of 6m (Sticotti 1999: 51). While on the scale, given on the drawing, the total wall height reaches 8m of which 1m goes to the breastwork. Interestingly, but width of the wall on the same drawing is correct - about 3.60m, while in his work, this value is not mentioned anywhere (Sticotti 1999: Fig. 28). Saski had calculated the approximate width of the wall - 4m, while the stated value of the height is 7m above ground level (Saski 1882: 75).

The height of the eastern wall has not been preserved in the outlined dimensions. Despite the differences in measures of height and width of the walls, Sticotti's descriptions and drawings can be used for the reconstruction proposals. Based on all collected data, we suggest that near Širalija until the *u* place, there was a lower wall with the height of 5m and width of 2.20m. In this part, there was no breastwork, and for the guard path, a wooden trail corridor was used from the inner side. The height of 1.20m from the wall battlement, could allow a sufficient view from it.

From *u*, wall (which is called the Eastern by Sticotti) is 1.40 to 1.50m more massive in width and 2m in height. Therefore, near the passage of the military path - a hallway from inside the walls, at the top, there was another walking path. Wall width, by the paths allowed the existence of a breastwork which Sticotti mentioned. On one of the photographs of the eastern wall, the line that probably represents a line of breastworks is seen (Sticotti 1999: Fig.19).

Once again we emphasize that the thickness of the north-west and north walls from *o* to *u* place is about 2.20m from which to *g* is being more massive and is 3.70m. Thickening of the wall is done at once with right angle and grouted. The northeastern part of the town until Morača was the only directly related to the plains and without barriers exposed, and this was obviously the reason for building the broadest and the most monumental Doclea city walls. Close to the thickening on *m3* there is a gap

spominje. Na jednoj fotografiji istočnog bedema vidi se linija koja vjerovatno predstavlja liniju grudobrana (Sticotti 1999: sl.19).

Još jednom naglašavamo da je debljina sjeverozapadnog i sjevernog bedema od *o* do mjesta *u* 2,20m od kojeg do *g* biva još masivnija i iznosi 3,70m. Zadebljanje zida je urađeno izjedna pod pravim uglom i isfugovano. Sjeveroistočni dio grada je sve do Morače bio jedini direktno povezan sa ravnicom i bez prepreka izložen, te je to bio očito povod za zidanje najšireg i najmonumentalnijeg zida gradskog bedema Dokleje. Odmah pored zadebljanja na mjestu *m3* se nalazi pukotina u zidu kroz koju danas prolazi asfaltni put. Pukotina, zabilježena u vremenu prvih istraživanja Dokleje (Sticotti 1999: 61) je na pravom mjestu odakle treba očekivati drugu glavnu komunikaciju u gradu – *cardo*. U bedemu postoji još manjih otvora naročito u sjeveroistočnom uglu, ali na osnovu njih nismo mogli zaključiti da li je postojalo još manjih kapija u trasi bedema ili su naknadno probijeni.

Do mjesta *e* bedem ide pravolinijski. Spoljašnje lice zida ovog dijela trase je zatrpano nagomilanim šutom tako da se snimilo samo unutrašnje lice. Rušenje je tolikog obima da su dvije kule (*d* i *e*) potpuno prekrivene ili uništene te im se nisu mogli pronaći obrisi. Na samoj krivini *e* sa unutrašnje strane izgrađena je kuća, probijen uski prolaz do nje, i odmah pored, istočno od iste, u bedemu je napravljena štala. Poslije ovog pružanja do sledeće krivine *f* bedem ne ide apsolutno pravolinijski i takođe je narušen prolazima i izgradnjom još dvije kuće. Ni kod krivine *f* nije registrovana kula ucrtana na Stikotijevom planu. Od istog mjesta zid pravolinijski teče do sjeveroistočne ivice grada *g*. I na ovom segmentu gradskih zidina prizidane su kuće koje su snimljene na planu Stikotija, mada ima još tri nova objekta rađena tik jedan uz drugi.

Pored izgradnje stanbenih objekata uz ili unutar bedema devastacija je vršena razgradnjom zida koji je korišćen kao majdan. Praksa je izgleda bila da se vade tesanici iz lica zidova te su danas zidna platna ogoljena. U jednom dijelu bedema pala je granata, što se primjećuje po velikim komadima zida koji su na sve strane razbacani i time je razrušeno unutrašnje lice zida. Bedem je sačuvan u visini od 4,20-4,50m a duboki dupli rov označen kod

in the wall which now runs through an asphalt road. The gap, recorded during the first excavations on Doclea (Sticotti 1999: 61) is on the right place where we should expect another major street in the town - *cardo*. In the city wall, there are small gaps, particularly in the north-east corner, but we could not conclude whether there were other smaller gates in the wall or were made subsequently.

To the place *e* the wall is going straight. Outer face of the wall of this part of the route is covered with piled up debris, therefore only the inner face is recorded. The demolition was of such a scope so that the two towers (*d* i *e*) were completely covered or destroyed and its outlines could not be found. On the curve of *e* from inside, the house is built, a narrow passage is dug to it, and next to it, nearly on the east, and barn was built within the walls. After this extension, to another curve *f*, the wall does not go absolutely straight and it is also marred by passages and building of another two houses. The curve *f* does not have a tower registered on Sticotti's plan. From the same place the wall runs straight to the northeastern edge of the town *g*. And on this segment of the city walls, there were houses rebuilt, that were recorded on Sticotti's plan. There are also three new objects constructed next to each other.

Apart from the construction of residential objects or within the walls, the devastation was carried out by decomposition of the wall which was used as a mine. The practice seems to be to remove stone block from the face of the walls so the wall material is now exposed. In one part of the city wall a grenade fell, which is noted by a large wall pieces that are scattered in all directions and thus the inner face of the wall was destroyed. The wall was preserved to a height of 4.20 to 4.50m and the deep doubled trench is marked by Sticotti as *k-k* and is chaotic and cluttered. It also has houses and barns built within it. Northeast corner of the town *g* changed the look by building the house. Abandoned one-story house is built into the corner of the wall. On this place there is a passage, while a wide city wall was used as the stairs that led to the first floor of the house. At each corner except for *g*, a tower was constructed (*d, e, f*) (Sticotti 1999: 62).

Today the most vulnerable parts of the city walls, mostly preserved in fragments directions in the base, are east, south and southwest. Due to coastal



Stikotija *k-k* je ispeturan, zatrpan, u njemu takođe ugrađena kuća i štala. Sjeveroistočni ugao grada *g* je izgradnjom kuće promijenilo izgled. Napuštena jednospratna kuća je ugrađena u ugao bedema, na tom mjestu postoji i prolaz a široki gradski zid je iskorišćen za stepenice koji su vodile na sprat kuće. Na svakom uglu sem kod *g* bila je sazidana po jedna kula (*d,e,f*) (Sticotti 1999: 62).

Danas najugroženiji djelovi gradskih bedema, sačuvani u fragmentima većinom kao pravci u osnovi, jesu jugoistočni, južni i jugozapadni. Zbog erozije obale, strme strane rijeka Zete i Morače su se približile, negdje i probile prvobitnu trasu pružanja bedema (na planu obilježeno linijom ljubičaste boje). Situacija je bila slična i sa samog kraja XIX v. budući da Munro nije primjetio tragove utvrđenja na tim stranama niti su oni uctani na objavljenom planu (Munro *et al.* 1896: 3, Pl. IV). Stikoti je najbolje zabilježio i detaljno prenio na plan po kojem vidimo ipak da je erozija izbrisala zidove i da su se mnogi podaci izgubili u razdoblju od jednog vijeka, između pisanja njegovog i ovog rada.

Sjeveroistočni ugao grada *g* izveden je skoro pod pravim uglom i od njega se pruža u tragovima uočen, zid debljine 2m. Ispod zida sačuvan je podzid i međa napravljeni kaskadno. Podzid je solidno zidan naslaganim pritesanim kamenjem, a na dva mjesta zabilježeni su ozidani djelovi zida moguće *in situ* ili komadi nekog zida ponovno iskorišćeni i ugrađeni u njega. Smatramo da je podzid, kao i suhameda ispod njega, urađen u cilju konsolidacije tla i bedema izviše, o čemu će biti više riječi. Kod *g1* se nije mogla uočiti kapija koju je Stikoti zabilježio, jer područje sada strmo pada ka ivici platoa. Od građevine *XIII* koja je kod Stikotija opisana kao čvrsta kula koja je branila pretpostavljeni most *B* i akvadukt (Sticotti 1999: 42, 62) nisu se pronašli nadzemni ostaci. Cjelokupna putanja bedema od *g1* do *v* sačuvana je u desetak fragmentovanih pravaca od kojih neki idi upravno (sjever-jug) na pravac pružanja bedema ili ga negiraju i ulaze u njegovu putanju. Snimljeni zidovi su širine između 0,50m i 1m. Nije lako objasniti trenutnu situaciju na terenu u ovoj deonici bedema. Na planovima Saskia i Jelića na tom mjestu je pravolinijski uctan bedem (T. 1.1, T. 2.2). Stikoti pominje zid na strani Morače, širine od 1,9-2,10m u temeljima i 1-1,20 pri pronađenom vrhu zida (Sticotti 1999:

erosion, the steep sides of the rivers Zeta and Morača got closer and in some places and broke through the original route of the city walls (in the plan marked by purple line). The situation was similar at the end of XIX century, since Munro did not notice the traces of fortifications on these parts, nor are they drawn in the published plan (Munro *et al.* 1896: 3, Pl. IV). Sticotti recorded and with details put in the plan all the data, by which we see, that the erosion wiped out the walls, and that many of the data is lost during the period of one century, between his and this work.

Northeast corner of the town *g* is derived almost at a right angle and from it, in traces, can be seen a wall of 2m thickness. Below the wall, a retaining wall and a boundary wall are preserved and made as a cascade. Retaining wall is solidly built by piled hewn stones, and on the two sites there were recorded rebuilt parts of the wall, possibly, *in situ*, or parts of a wall re-utilized and combined into it. We believe that the retaining wall and below it a dried boundary wall, were done to consolidate the ground and walls above it, and we will add more details about this furthermore. In *g1* the gate could not be seen as Sticotti noted, because the area is now falling steeply towards the edge of the plateau. From the building *XIII*, which Sticotti described as a solid tower which defended the supposed bridge *B* and aqueduct (Sticotti 1999: 42, 62), there were no remains found above the ground. Complete route of the city walls from *g1* to *v* is preserved in a dozen fragmented directions, some of which go straight up (north-south) to the direction of the city wall or contradict and enter into its route. The surveyed walls have a width of 0.50m and 1m. It is not easy to explain the current situation on the terrain in this section of the bulwark. In the plans of Saskia and Jelić, at that point, a straight wall is drawn (T 1.1, T 2.2). Sticotti mentioned a wall on the side of Morača, with a width of 1.9 to 2.10m in the foundation and from 1 to 1.20m found at the top of the wall (Sticotti 1999: 48). This kind of wall is not registered. Additional confusions, apart from the walls that go straight up to the bulwark, are the objects next to *v*. They are located, at the very edge of the shore, they are very fragmented and their walls do not exceed a width of 0.80m. Due to the situation on the terrain, we cannot answer any



48). Takav zid nije registrovan. Dodatnu zabunu pored zidova koji idu upravno na bedem unose i objekti kod *v*. Nalaze se uz sam rub obale, jako su fragmentovani i zidovi im ne prelaze širinu od 0,80m. Usljed situacije na terenu ne možemo odgovoriti ni na pitanja da li su objekti unutar il izvan grada ili prizidani uz bedem. Isto tako, od *v* do *n* nije moguće utvrditi tragove bedema. Na tom potesu bi trebalo pretpostaviti ulaz u grad *m2* i pristup rijeci *m1*.

Položaj drugog mosta preko Morače Stikoti smiješta kod *n*. Po njemu građevina *XIV* je služila za utvrđenje mosta *E* a njegov prilaz je bio na neki način povezan sa *m2* tj. sa južnom kapijom grada (Sticotti 1999: 63-64). Cijelo područje je danas umnogome razoreno proširenjem pristupa rijeci odakle se vadio šljunak i prijete mu i dalja uništenja. Od konstrukcije *XIV* sačuvan je samo jedan zid koji ide pod pravim uglom. Konstrukcija se spaja sa visoko izvedenim zidom ispod kojeg su kaskadno sagrađene dvije međe. Obala je do te mjere strmo odlomljena da se pravac jedne međe nije uspio snimiti. Očuvani zid konstrukcije *XIV* ima debljinu 0,60m otuda nije dovoljno jak da bi poslužio za utvrđenje mosta ili da je od njega direktno vodio most kako je prikazano na Stikotijevom planu. To dokazuje i otkrivena stopa mosta odmah pored istočno od konstrukcije, sa kojom je očigledno bila povezana blago lučnim zidom. Stopa odakle je išao stub i luk mosta, ukupne širine od 6,90m, izmjenila je pravac ucrtan kod Stikotija (T. 3.2). U presjeku osnove, stopa ima pravougaon oblik sa na krajevima isturena dva dijela, svaki 1,90m širine. Na nižoj terasi i sa druge strane obale nisu pronađeni slični ostaci mosta. Međe koje sada stoje na ivici platoa, mogu biti i antičkog porijekla, sagrađene u cilju učvršćivanja nestabilnog tla sklonog vertikalnom obrušavanju. Napominjemo, cijela oblast je narušena, prekopana, zidovi stoje na strmim liticama tako da nije moguće rekonstruisati kako je u antici taj prostor, koji je vjerovatno i tada bio pristup rijeci ispod mosta, izgledao.

Od gore opisane konstrukcije *XIV* nastavlja se pružanje bedema do *p* i posvjedočeno je sa nekoliko komada zida širine 1-1,20m i pojedinačnih pravaca u osnovi. Trasu bedema upotpunjuju podzidi i međe koji su zidani ispod nje. Podzidi i međe su zidani slaganjem krupnog neobrađenog kamena i

questions whether the objects are within or outside the city walls or built to the wall. Similarly, from *v* to *n* it is not possible to determine traces of the walls. There should be assumed to be the entrance to the city *m2* and access to the river *m1*.

The position of the second bridge over Morača, Sticotti puts on the *n*. The building *XIV* served as a bridge *E* fortification, while its access was somehow related to *m2*, i.e. with the south gate of the town (Sticotti 1999: 63-64). The whole area is now largely devastated by expanding the access to the river where gravel was taken out, and further destruction is threatening. Since the construction *XIV*, has preserved only one wall that runs in right angle. The construction is combined with a highly derived wall below which two boundaries are built as a cascade. The bank is broken off steeply so the route of one of the boundaries has failed to be surveyed. Preserved wall of the construction *XIV* has a thickness of 0.60m, therefore it is not strong enough to be used for fortify the bridge or that it directly led the bridge as shown in Sticotti's plan. This proves the detected foot of the bridge, next to, on the east of the construction, with which it was apparently connected by a slightly arched wall. The foot from where the pillar and arch spread, with a total width of 6.90m, has changed the direction charted by Sticotti (Pl 3.2). In the cross section of the foot base, it has a rectangular shape with the protruding two ends, each 1.90m wide. On the lower terrace and the other side of the coast there are no similar remains of the bridge found. The boundary walls which now stand on the edge of the plateau and some spread up the foot of the bridge may be of an ancient origin, built in order to strengthen the unstable soils prone to vertical dive. Do note, the whole area has been damaged, dug; the walls are on the sheer cliffs. Therefore it is not possible to reconstruct how the area looked like in the ancient period, which was most probably the access to the river below the bridge in those times.

From the above-described construction *XIV* the city walls continues to spread until *p*, and it is attested by a few pieces of the wall with a width from 1 to 1.20m and individual routes in the base. The route of the wall is completed by retaining walls and boundaries that have been built under it. Boundaries and retaining walls were built by piling

oblutaka, pukotine su se zapunile sitnim kamenjem i ulomcima opeke te je za rezultat dobijen čvrst suhozid. U podzidima su se primjetile i spolije fino islesenog kamena kao i veći komadi zidova takođe naknadno ugrađeni u njih. Nerazumljiva bi bila razgradnja bedema u vjekovima nakon prestanka života Dokleje, a da se ispod njih zidao podzid ili međa. Izgradnja suhozida na rubu obale može imati samo praktičnu funkciju, da bi spriječila osipanje i spiranje tla. Iz navedenih razmatranja smatramo da su se podzidi i međe sagradili tokom bitisanja Dokleje, moguće istovremeno kada i bedemi, kako bi se spriječio podlokavanje i spiranje obala rijeka jer erozija tla je svakako bila veliki problem i u antici.

Bedem kod *p* skreće sjeverno, praveći oštar ugao koji je i pored spiranja sačuvao svoje obrise. Od južnog ugla grada *p* počinje najugroženiji dio gradskih zidina Dokleje - zapadni bedem. Uzrok tome je podlokavanje obale Zete u čijem su koritu danas vidne velike srušene gromade obale. Na četiri mjesta snimili smo ivice platoa koje prijete da će nastaviti da se obrušavaju. Zidovi su očuvani u



Sl. 7 - Kula *h*, spoljašnji izgled sa zapada  
Fig. 7 - Tower *h*, the outside view from the west

large rough stones and pebbles, cracks have been filled up with small stones and fragments of bricks and therefore as a result sturdy stone wall is built. In the retaining walls, *spolias* were noticed made of nicely carved stone; larger pieces of the walls were also later incorporated into them. Beyond the understanding would be a degradation of the city walls in the centuries after the end of life of Doclea, while building the retaining wall or a boundary below it. Building a dry stone wall at the edge of the river bank can only have practical function, to prevent dispersal and soil washing. From these considerations we believe that the retaining walls and boundaries were built during the life of Doclea, possibly at the same time as city walls, in order to prevent the washing and undermining of river banks, for erosion was certainly a large problem in ancient times.

The bulwark at *p* turns north; making a sharp angle which is preserved its contours despite the erosion. From the southern corner of town *p*, begins the most vulnerable part of Doclea city walls - western rampart. The reason for that is undermining banks of Zeta and in its bed huge hunks of bank are visible. On four sites we surveyed the plateau edges which threaten to continue to dive. The walls are preserved in traces to the maximum width of 0.90m and at only a few places until *o*. That the wall along the river Zeta was significant besides recorded traces in its base shows a photograph published by Sticotti (Sticotti 1999: Fig. 12) and in addition, a devastated piece next to *z* which was accidentally retained by a small tree. The wall, with calculated width of 1m, is solidly built with large stone blocks and the work radiates with the same way of building as the city wall on its north side.

At the mouth of Širalija into Zeta (*o* on the city's plan), there is a protruded area often mentioned in literature as a bastion. Bastion fortification was, by Sticotti, partially ruined by landslides of the river banks therefore the reconstruction of its base was not possible (Sticotti 1999: 52). The current situation is too fragmented and the only preserved part of the bastion left is one wall, width of 1.20m. On the north of it, the ground level it is dug and destroyed in the range of ten meters, after which there is a fairly well preserved wall. Mostly on the outer side of the wall to *h*, there is gathered debris.

tragovima maksimalne širine 0,90m i to na svega par mjesta sve do *o*. Da je bedem uz rijeku Zetu bio znatan osim snimljenih tragova u osnovi pokazuje i fotografija objavljena od strane Stikotija (Sticotti 1999: sl.12) kao i obrušeni komad kod *z*, koji je slučajno zadržan stablom manjeg drveta. Zid, izračunate širine od 1m, je solidno rađen krupnim tesanicima i nalikuje istom načinu zidanja kao kod sjevernog gradskog zida.

Kod ušća Širalijske u Zetu (*o* na gradskom planu) nalazi se isturen prostor često pominjan u literaturi kao bastion. Bastionsko utvrđenje je za Stikotija bilo dijelom obrušeno odronom obale te njegova rekonstrukcija osnove nije moguća (Sticotti 1999: 52). Postojeće stanje je isuviše fragmentovano i od bastiona je ostao sačuvan samo jedan zid širine 1,20m. Sjeverno od njega nivo tla je prokopan i uništen u rasponu od desetak metara nakon kojeg ravnomjerno nastavlja dosta dobro sačuvan zid. Većinom se na spoljnoj strani zida sve do *b* nagomilao šut. Sa unutrašnje strane se uočava ista tehnika gradnje kao kod sjevernog i sjeveroistočnog dijela bedema. Njegova širina od 2,20m je također identična sjevernom bedemu do zadebljanja *u*. Pravougaona kula *b*, dimenzija 6 x 3,5 m, prislonjena je uz bedem i devastirana naročito sa zapadne strane (sl. 7). Istovjetan način zidanja kao kod kule *c* okarakterisan je ugradnjom velikih kamenih blokova u donji i temeljni dio kule. Primjećeno je da trpancu ima više lomljenog kamena, što nije bio slučaj kod kule *c*. Takođe, zapazilo se da u profilu trpanca ima jedan nivo odnosno tanki sloj sitnih oblutaka, kamenih opiljaka i maltera koji razdvaja identičnu ispunu trpanca. Kula po sredini, u pravcu istok zapad, ima zid dužine 2,80m i širine 1m čija su lica ugrubo ozidana. Zbog ovog zida unutar kule Stikoti je opisuje kao kulu sa dvije prostorije (Sticotti 1999: 52). Pretpostavljamo da zid nije bio pregradni, već da je služio kao stepenište za gornji etaž kule. Nakon kule i jednog maljeg probijenog prolaza bedem nastavlja u istoj širini i u tragovima dolazi do mjesta gdje smo započeli opis bedema, kod zapadne kapije grada.

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Snažan sjeverni zid, dupli rov koji je iskopan ispred njegove sjeveroistočne strane, nepristupačnost mjesta sa zapadne, južne i istočne strane tvorili su

On the inner side, same building technique is noticed as in the northern and northeastern parts of the ramparts. Its width of 2.20m is also identical to the northern bulwark until the thickness *u*. The rectangular tower *b*, with dimensions of 6 x 3.5 m, leans against the city wall and is destroyed especially from the west (Fig. 7). Same building manners as in tower *c* are characterized by installing the large stone blocks in the bottom and a fundamental part of the tower. It is noticed that in the riprap there is more broken stone which is not the case with the tower *c*. It was also observed that in the riprap profile, there is a level or a thin layer of small pebbles, stone chippings and mortar that separates the identical filling of riprap. The tower in the middle, on the east west, has wall with a length of 2.80m and a width of 1m, with faces roughly built in. Because of this wall inside the tower, Sticotti described it as a tower with two rooms (Sticotti 1999: 52). We assume that the wall was not dividing but it served as stairs to the upper floors of the tower. After tower and a smaller broken through passage the wall continues in the same width and comes in traces to where we started the description of the city walls, near the western gate of the city.

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A strong north wall, a double trench that was dug in front of its north-east side, inaccessibility to the spot from western, southern and eastern sides formed the fortification system that enabled the preconcerted defense of the town from hostile army, and siege engines. Builders of the walls knew the danger of advanced corners which Roman architects gave special attention (Vitruvius 2006: 26) therefore on each vulnerable corner they built a curve and strengthen it with the tower. The enemy has thus been visible from all sides and the guard's paths with breastwork and corridors along the bulwark provided better coordination and organization of the army on the crenellations of the city wall. Building the city walls of Doclea represented a major construction project which was organized in a short period of time. Accordingly, a question is raised: What actually caused the building of the city walls of such a large scale, i.e. in which period Doclea needed the city walls of these dimensions?



fortifikacioni sistem koji je omogućio smišljenu odbranu grada od neprijateljske vojske i opsadnih sprava. Graditeljima bedema je bila poznata opasnost izbačenih uglova na koju su rimske arhitekture obraćali naročitu pažnju (Vitruvije 2006: 26) te su na svakom ugroženom uglu izgradili krivinu i ojačali je kulom. Neprijatelj je time bio vidljiv sa više strana a stražarske staze sa grudobranom i hodnicima uz bedem su pružili bolju kordinaciju i organizaciju vojske na kruništu gradskog zida. Izgradnja bedema Dokleje predstavljala je veliki građevinski poduhvat koji je organizovan u kratkom vremenskom periodu. Shodno tome, nameće se pitanje šta je zapravo uslovalo zidanje bedema velikih razmjera, odnosno u kojem periodu je Dokleji bio potreban bedem ovih dimenzija?

Datovanje većine arhitektonskih objekata Dokleje nije izvršeno direktno sa podacima dobijenim arheološkim iskopavanjima. Hronološki su se vezali za vrijeme kraja I i početka II v. kada grad dobija statut municipijuma. Stoga dileme o vremenu njihovog nastanka i naknadnim urbanističkim intervencijama ostaju otvorene, što se ogleda i na primjeru gradskih zidova.

Bedemi Dokleje se ni na jednom mjestu nisu precizno datovali. Više posredno, računajući na spolije ugrađene u zapadnoj kapiji grada, datovali su se prije III v. Kao analogiju kasnoantičkih bedema Skodre G. Hoxha na dva mjesta navodi Dokleju (Hoxha 2003: 36, 166). No izvedena paralela na osnovu tehnike gradnje zidova naročito otvora za grede, nije prihvatljiva i o paralelama između Dokleje i Skodre u tom pogledu ne možemo govoriti. Kao što smo naveli gore u tekstu poseban značaj pri datovanju bedema se pak pridaje nadgrobnim i drugim kamenim spomenicima koji su upotrijebljeni kao građevinski materijal prilikom kasnije tkz. "obnove zapadne kapije". Među njima se ističe počasno postolje Valerija iz 254 god. koje je poslužilo kao *terminus post quem* obnove (Sticotti 1999: 56). Pitanje je da li ugradnju spolija možemo uvijek objasniti krpljenjem, obnovom i naknadnim intervencijama. Nije neuobičajena pojava da se pri izgradnji i zidanju objekata koriste nadgrobni i javni kameni spomenici bez uvažavanja njihove prvobitne funkcije. Tako su se krajem II v., usled opasnosti od prodora germanskih plemena Kvada

The dating of most architectural structures of Doclea was not done directly with the data obtained by archaeological excavations. Chronologically they were tied to the end of I and II century, when the city gets statute of *municipium*. Therefore, doubts about the time of their formation and subsequent urban interventions remain open, which is reflected in the example of the city walls.

The city walls of Doclea have never been dated precisely. More indirectly, by counting the *spolia* built into the west gate of the town which is dated in III century. As an analogy of late ancient walls of Skodra, G. Hoxha mentions Doclea in two places (Hoxha 2003: 36, 166). But the parallels made on the basis of techniques of building the walls, especially for the beam hole is not about the parallels between Doclea and Skodra and in this respect we cannot talk about similarities. As mentioned above a special significance for the dating of the city walls is given to tombstones and other stone monuments which are used as building materials during the later so-called reconstructed western gate. Among them is an honorary podium of Valery from 254 AD which served as *terminus post quem* reconstruction (Sticotti 1999: 56). The question is whether the installation of *spolia* could be always explained by the covering, reconstruction and subsequent interventions. It is not uncommon that during the construction and building the objects, tombstones and public stone monuments were used without considering their original functions. Thus, at the end of the II century, due to the danger of invasion of Germanic tribes Quadi and Marcomanni, western and eastern city walls of Salona were built using the stone monuments from Salona necropolis (Piplović 2005: 1-3). In the same light, we should be considering the base pole (Fig. 4) taken during the building of the city walls from some public building of Doclea. If we accept the assumption that the gateway was built not reconstructed by usage of *spolia*, we would determine the start of wall building, possibly after the mid of III century.

Many Roman cities had city walls during the first centuries AD, but more in the service of their civil dignity, not only as a defense system. Merely in the second half of III century and later in the eastern and western provinces of the Empire, the city walls



i Markomana, zapadni i istočni bedemi Salone sagradili korišćenjem kamenih spomenika sa salonitanskih nekropola (Piplović 2005: 1-3). U tom svjetlu treba posmatrati pronađenu bazu stuba (sl. 4) uzetu prilikom zidanja bedema sa neke javne građevine Dokleje. Ukoliko bi prihvatili pretpostavku da je kapija sagrađena a ne obnovljena upotrebom spolija, odredili bi i početak zidanja bedema i to u vrijeme nakon sredine III stoljeća.

Mnogi rimski gradovi jesu imali gradske zidove tokom prvih vijekova nove ere ali više u službi njihovog građanskog dostojanstva nego sa stanovišta odbrambenog sistema. Tek se u drugoj polovini III v. i kasnije u istočnim i zapadnim provincijama Carstva zidaju bedemi u velikom obimu. Istorijske prilike i reorganizacija vojske uslovili su da se način utvrđivanja izmjeni počev od vladavine Konstantina i doba tetrahrije što se opaža na cijeloj teritoriji Carstva (Petrikovits 1971: 178-179, 189). Karakteristike kasno-rimske fortifikacije jesu jaka gradnja zidova, isturene kule i duboki rovovi da bi se opsadne sprave držale podalje od zidova grada. Kule pravougaone osnove zabilježene u Dokleji se takođe javljaju u drugoj polovini III v. pa sve do V v. (Petrikovits 1971: 203). Ne smijemo zanemariti činjenicu da se, i pored toga što ne postoje direkne sličnosti u načinu izgradnje, bedem Skodre koji je teritorijalno najbliži Dokleji, datuje u kraj IV - početak V v. (Hoxha 2003: 42, 166). U istom vremenu, se na osnovu keramičkog materijala uočio izvjesni procvat i unutar zidina Dokleje (Drašković, Živanović 2011: 80-81).

Vojska u Dokleji nije imala veliku ulogu i razlog tome je njen relativno miran život u unutrašnjosti provincije (Гарашанин 1967: 152-153). Tek krajem IV i u prvim godinama V v., kada Zapadni Goti prolaze kroz provinciju Prevalis, možemo govoriti o nestabilnim prilikama koje su zahtjevale odbranu grada, no u kojoj mjeri se to odnosilo na Dokleju istorijski izvori ne govore. Velika sredstva potrebna za zidanje bedema moraju dovesti njegovu izgradnju u vezu sa vladavinom nekog od rimskih careva. Za sada, na osnovu iznesenog i samo u okvirima hipoteze predlažemo da se gradnja bedema Dokleje odvijala pod patronatom nekog od rimskih careva u vremenu druge polovine III i tokom IV v. Već u V v. gradski centar Dokleje prestaje sa nekadašnjim životom, javne građevine

of a large scale were built. Historical circumstances and the reorganization of the army caused the method of fortification to be changed starting from rule of Constantine and Tetrarchy as observed throughout the Empire (Petrikovits 1971: 178-179, 189). Characteristic of late Roman fortifications are strong building of the walls, advanced towers and deep trenches so that the siege engines were kept away from the city walls. Rectangular base towers recorded at Doclea site also occurred in the second half of the III until V century (Petrikovits 1971: 203). We must not ignore the fact that, even though there are no direct similarities in the building techniques, the city wall of Skodra, which is territorially the closest to Doclea, has been dated in the end of IV - beginning of V century (Hoxha 2003: 42, 166). During the same period, on the basis of ceramic material, a certain flourish within city walls of Doclea, has been noticed (Drašković, Živanović 2011: 80-81).

The army in Doclea had a huge role, because of its relatively quiet life in the inland provinces (Гарашанин 1967: 152-153). Only in the late IV and early years of V century, when the Western Goths pass through the province of Prevalis, we can state about the unstable situation that required a defense of the city, but to which extent it is not referred in the Doclea historical resources. Large resources necessary for building the walls must bring its construction in connection with a rule of a Roman emperor. For the time being, on the basis of before mentioned and only in the framework, we suggest the hypothesis that the construction of city walls of Doclea took place under the patronage of a Roman emperor in the second half of III and during IV century. In the V century, the town center of Doclea stops its former life, the public buildings lose the original functions and the basic impression is that life is reduced in the eastern part of the town. Doclea, probably largely devastated by the Goths, led by Alaric, was gradually abandoned and has lived through several decades as an episcopal complex located in the northeast part of town.

The building of the city walls changed the town landscape, and gained an internal unity and community organization within it. The town of Doclea has changed visually and in content therefore the importance of the research on the

gube prvobitne funkcije i osnovni utisak je da se život redukuje u istočnom prostoru grada. Dokleja, najvjerojatnije poharana većim dijelom od strane Gota predvođenih Alarihom, se postepeno napušta i još nekoliko decenija živi kroz episkopski kompleks smješten u sjeveroistočnom dijelu grada.

Izgradnjom bedema izmjenio se pejzaž grada a dobilo unutrašnje jedinstvo i organizacija zajednice unutar njega. Grad Dokleja se promjenio vizuelno i sadržajno te značaj istraživanja gradskih zidina biva utoliko veći. Današnjom ubrzanom urbanizacijom prigradskog naselja ponovno se mijenja pejzaž Dokleje ali ovog puta negirajući njeno postojanje i nastavljajući sa tradicijom razgradnje i pustošenja ovog lokaliteta. Devastacija nekada velikog rimskog grada *Doclea* nije prekinuta i to je suština.

city walls becomes more significant. Having in mind nowadays rapid urbanization of suburban settlements, Doclea landscape has been changing again but this time by denying its existence, and continuing with the tradition of degradation and devastation of this site. The devastation of once colossal Roman city of Doclea is not stopped and that is a fact.

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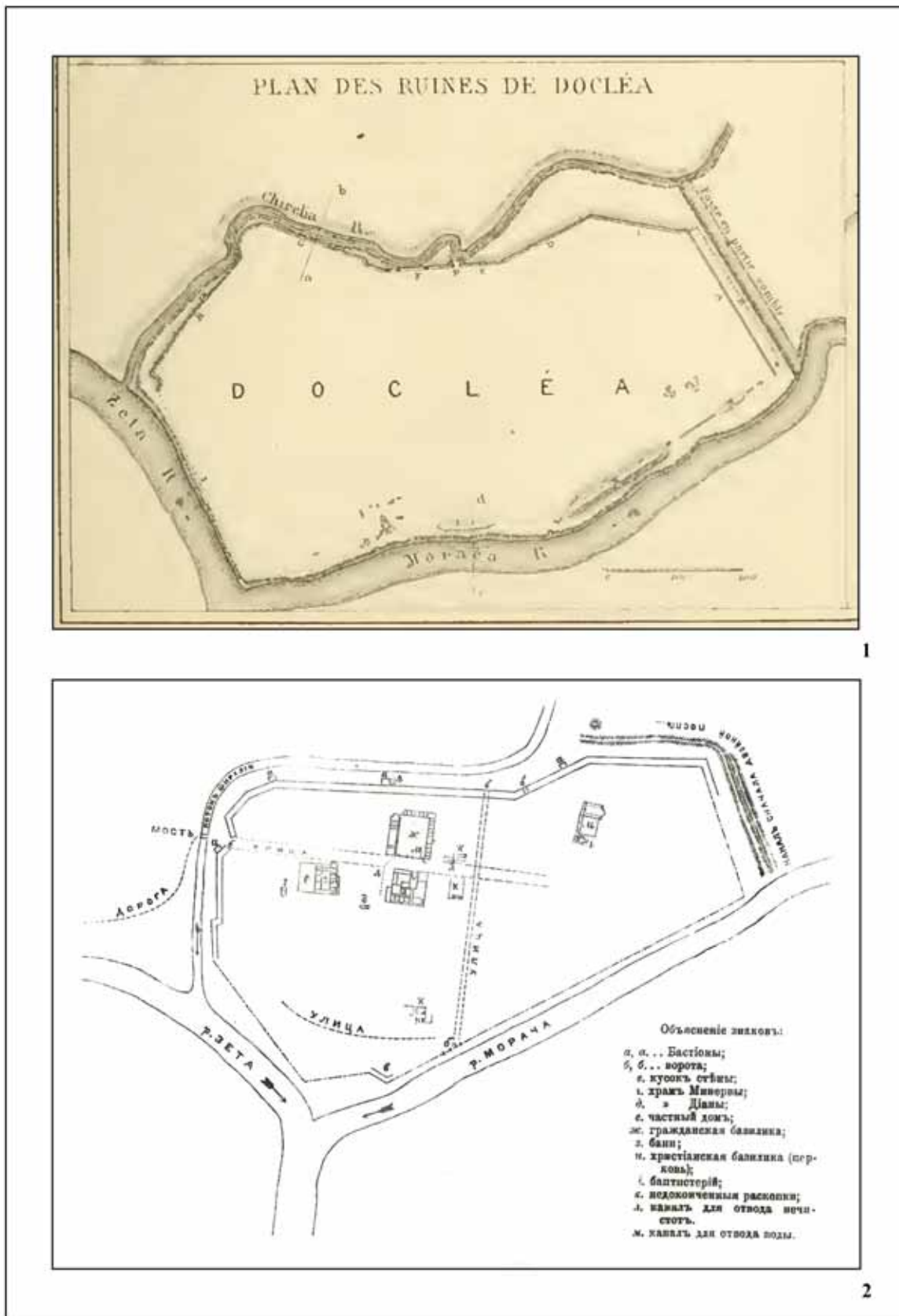


Tabla 1. Plan Dokleje: 1 - prema F. Saskiu (Saski 1882), 2 - prema P. Rovinskom (Ровинский 1909)  
 Plate 1. Doclea Plan: 1 - by F. Sasaki (Saski 1882), 2 - by P. Rovinski (Ровинский 1909)

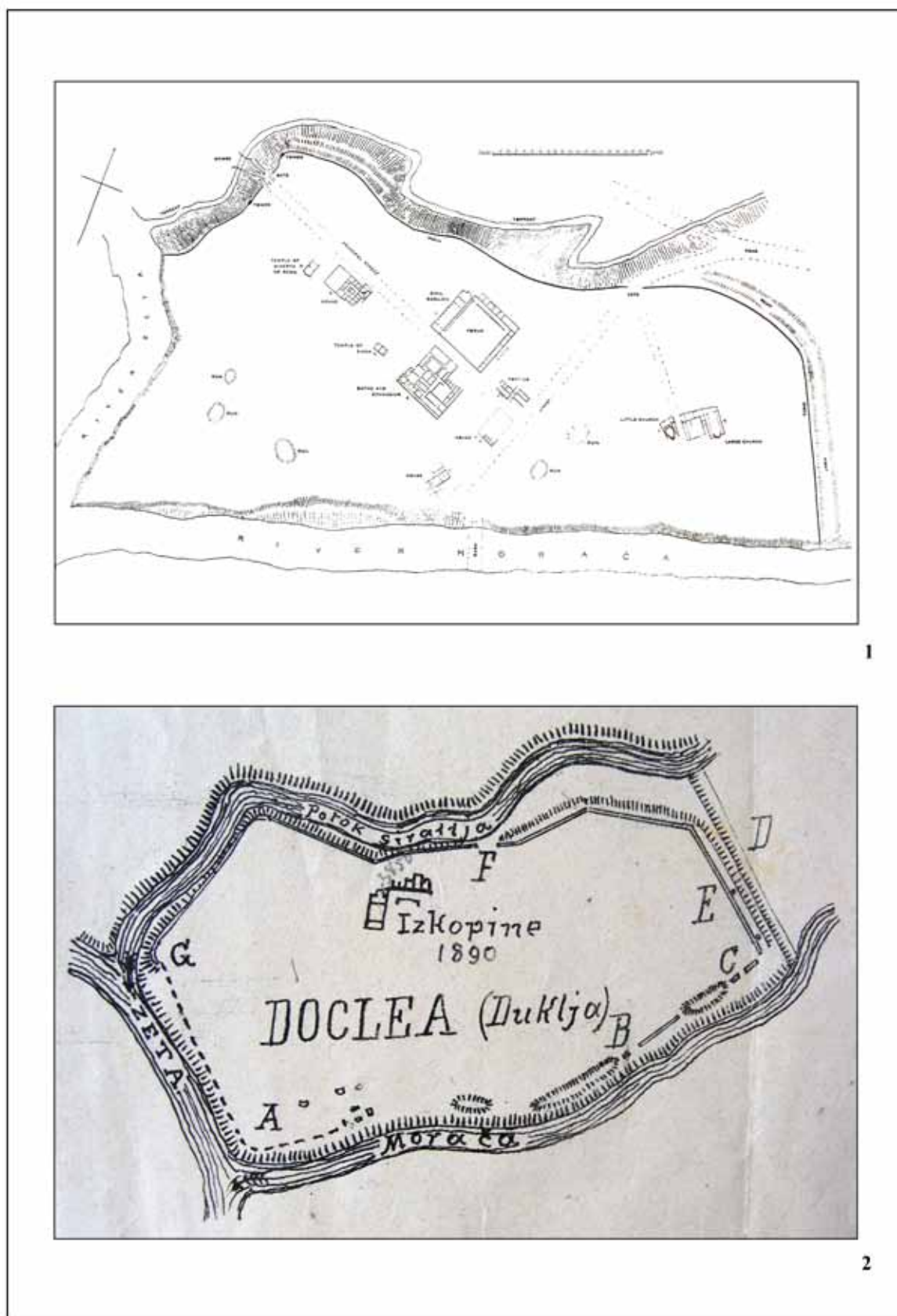
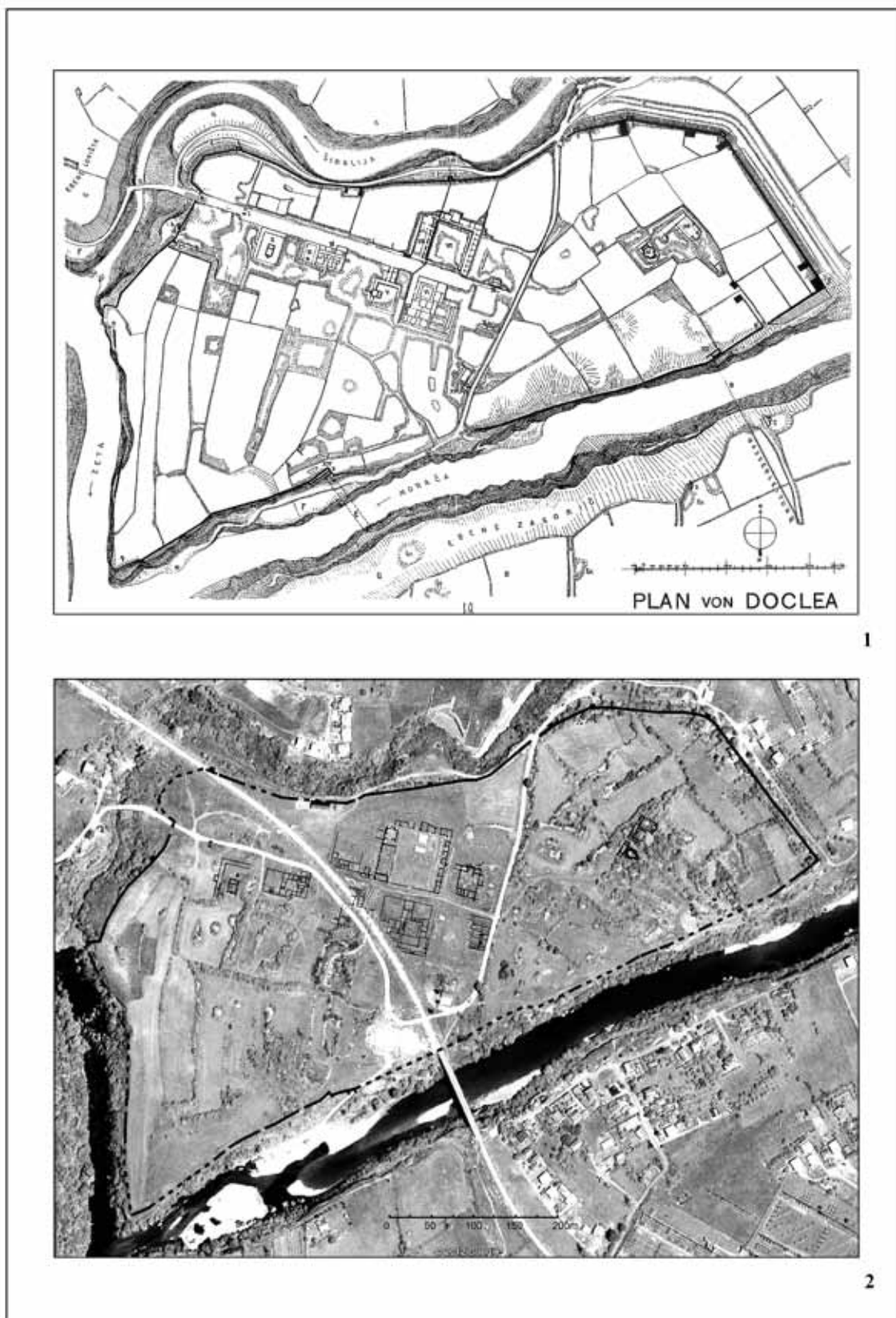


Tabla 2. Plan Dokleje: 1 - prema J.A.R. Munrou (Munro et al. 1896), 2 - na skici L. Jelića 1892. god.  
 Plate 2. Doclea Plan: 1 - by J.A.R. Munro (Munro et al. 1896), 2 - outline of L. Jelić, 1892



**Tabla 3.** Plan Dokleje: 1 - prema P. Stikotiju (Sticotti 1999), 2 - nastao preklapanjem plana dobijenog nakon snimanja 2012 i satelitskog snimka

**Plate 3.** Doclea Plan: 1 - by P. Sticotti (Sticotti 1999), 2 - formed by overlapping the plan obtained after 2012 surveying and a satellite image



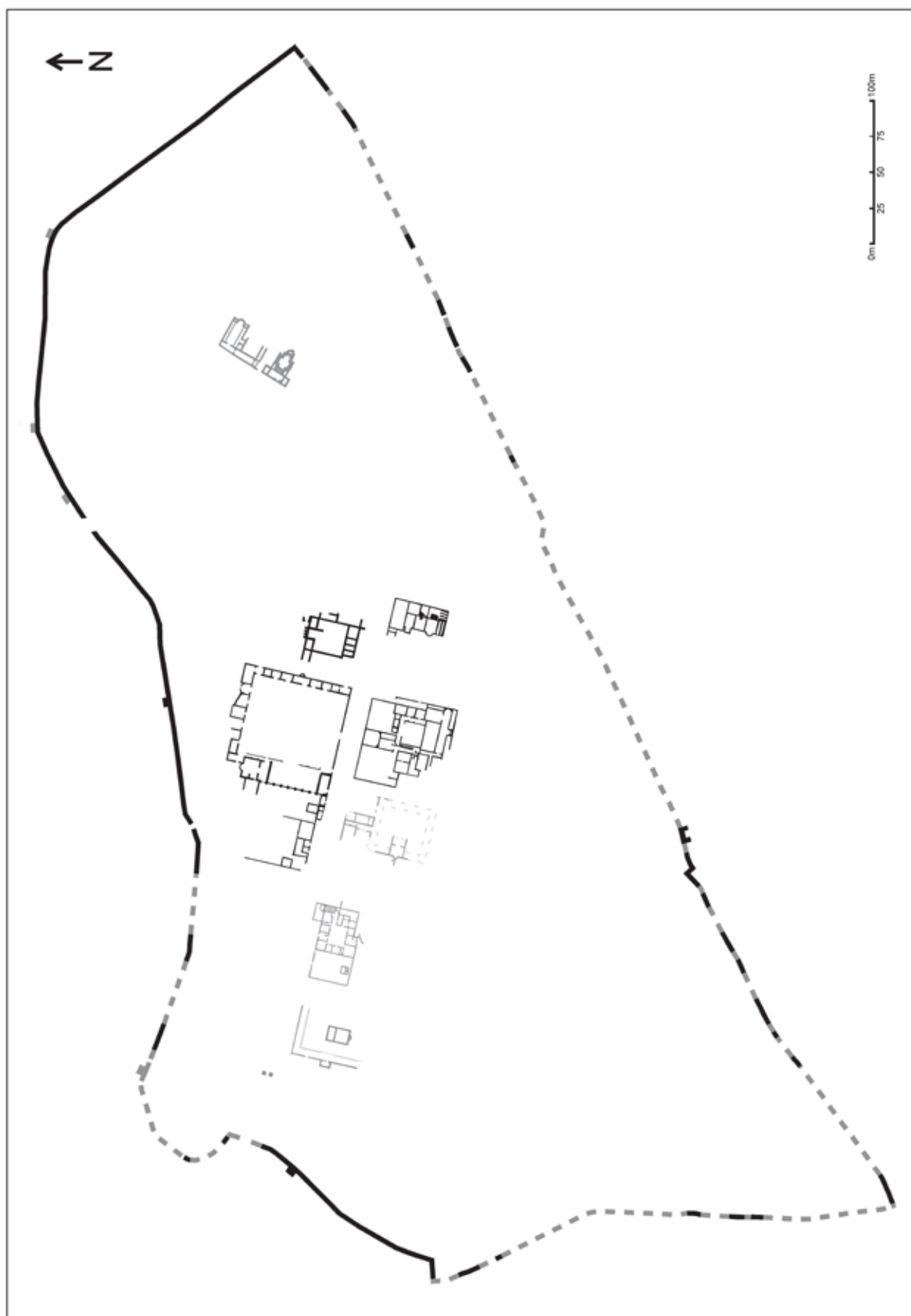


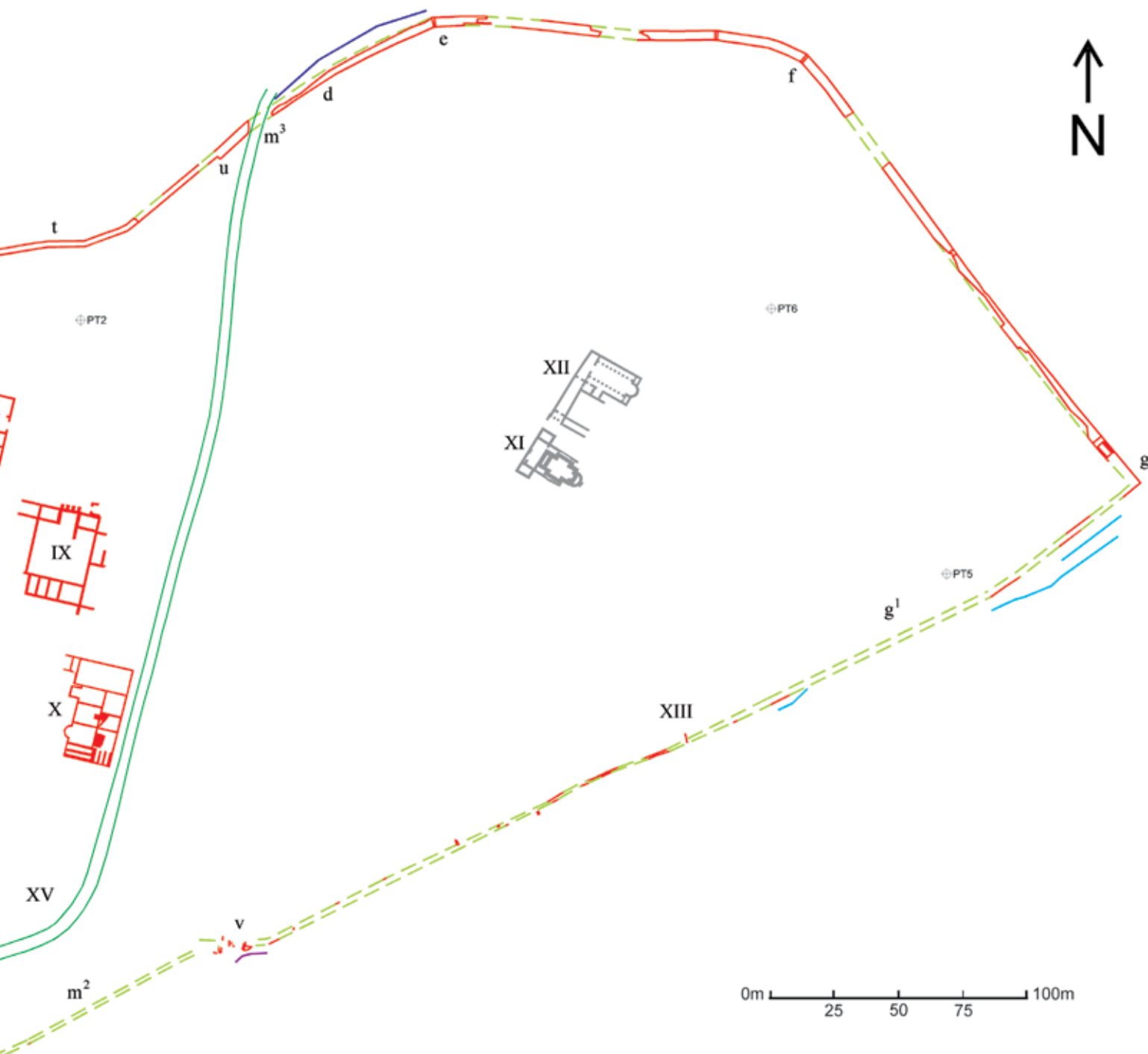
Tabla 4. Plan Dokleje nakon snimanja 2012. god.

Plate 4. Doclea Plan: after 2012 surveying

**Tabla 5.** Situacioni plan Dokleje sa snimljenim i prikupljenim podacima 2012. god.

**Plate 5.** Situation plan of Doclea with surveyed and collected data, 2012





| KOORDINATE FIKSNIH TAČKA |             |             |        |
|--------------------------|-------------|-------------|--------|
| TAČKA                    | Y           | X           | H      |
| RP1                      | 6604394.149 | 4703467.416 | 49.877 |
| RP2                      | 6604328.207 | 4703528.861 | 49.852 |
| PT1                      | 6604422.240 | 4703467.573 | 47.103 |
| PT2                      | 6604560.571 | 4703547.694 | 48.336 |
| PT3                      | 6604184.047 | 4703487.813 | 48.480 |
| PT4                      | 6604514.245 | 4703277.368 | 50.073 |
| PT5                      | 6604893.747 | 4703447.720 | 46.658 |
| PT6                      | 6604820.691 | 4703557.294 | 50.130 |

|  |  |
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|  | snimljeni pravci zidova                |
|  | rekonstruisani pravci bedema           |
|  | snimljeni pravci međa i podzida        |
|  | područja nagomilanog šuta              |
|  | uklopljeni objekti prema Sticotti 1999 |
|  | trasa asfaltnog puta                   |
|  | trasa željezničkih šina                |
|  | najugroženiji djelovi obale            |