

The villa rustica in Dobrika (Madona) Bay on the Brijuni Islands

Begović, Vlasta; Schrunk, Ivančica

Source / Izvornik: **Prilozi Instituta za arheologiju u Zagrebu, 2010, 27, 249 - 266**

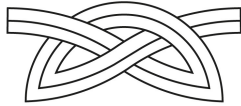
Journal article, Published version

Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

Permanent link / Trajna poveznica: <https://um.nsk.hr/um:nbn:hr:291:555737>

Rights / Prava: [Attribution 3.0 Unported](#)/[Imenovanje 3.0](#)

Download date / Datum preuzimanja: **2024-12-20**



INSTITUT ZA
ARHEOLOGIJU

Repository / Repozitorij:

[RIARH - Repository of the Institute of archaeology](#)

Villa rustica u uvali Dobrika (Madona) na otočju Brijuni

The villa rustica in Dobrika (Madona) Bay on the Brijuni Islands

Prethodno priopćenje
Antička arheologija

Report
Roman archaeology

UDK/UDC 904:728.8(210.7Brijuni)“652“
711.423.032(210.7Brijuni)

Primljeno/Received: 01. 05. 2010.
Prihvaćeno/Accepted: 09. 12. 2010.

VLASTA BEGOVIĆ
Institut za arheologiju
Ljudevita Gaja 32
HR-10000 Zagreb
vbegovic@iarh.hr

IVANČICA SCHRUNK
University of St. Thomas
St. Paul; Minnesota 55105,
USA
idschrunk@stthomas.edu

Rimska villa rustica u uvali Dobrika (dio uvale Madona) na Brijunima izgrađena je u podnožju histarske gradine na brdu Petrovac. Prva villa rustica skromnih dimenzija i jednostavnog tlocrta sagrađena je u 2. st. pr. Kr. Nju je sredinom 1. st. pr. Kr. presložila druga villa rustica dimenzija 63 x 51 m, dok su tragovi prve vile ostali u njenim substrukcijama. U 1. i 2. st. dograđuje se objekt s kulom s njene jugoistočne strane i nastambe za radnike sa sjeveroistočne strane vile. Početkom 3. st. izgrađuju se novi proizvodni pogoni za preradu maslina. Oko vile izgrađuje se kasnoantičko naselje. Sa sjeverozapadne strane villae rusticae dograđuje se objekt s lezenama, a čitavo područje nakon 452. g. dobiva fortifikacije oblika nepravilnog četverokuta koje su u razdoblju bizantske dominacije (6. st.) ojačane i izvedene pod kontrolom državnih graditelja. Kasnoantičko naselje u vrijeme Justinijanove rekonkviste svedeno je na crkveni i vojni centar. U to vrijeme u dvorištu vile postavlja se nove preše za masline koje su datirane ugradnjom epistila s crkve sv. Marije u postolje preše. Tijekom bizantske renovacije prostora crkve sv. Marije i vjerojatne desakracije nakon arijanskog razdoblja i dominacije Istočnih Gota mnogobrojni elementi iz prve faze crkve sv. Marije ugrađeni su u bizantsku tvrđavu koja je izgrađena na području bivšeg kasnoantičkog naselja. Franačka dominacija nakon 822. god. zastupljena je brojnom izgradnjom u naselju, te preinakama unutrašnjeg prostora crkve sv. Marije i sv. Petra. Kao važna pomorska baza na plovnom putu Jadranom naselje je u srednjem vijeku izloženo čestim poharama kuge i u 15./16. st. napušteno. Translatacija naselja izvršena je prema istočnom dijelu otoka. Novo naselje izgrađuje se u luci Brijuni oko branič kule (donžona) iz 12. st. i crkve sv. Germana.

Ključne riječi: villa rustica, uvala Dobrika, Brijuni, 2. st. pr. Kr. do 6. st.

The Roman villa rustica in Dobrika Bay (part of Madona Bay) on the Brijuni Islands was built on the slopes of the Histrian hill fort on Petrovac Hill. The first villa rustica, modest in size and with a simple ground-plan, was built in the 2nd century BC. In the middle of the 1st century BC, another villa rustica was built over it, its size being 63 x 51 m, although traces of the first villa remained in its substructures. In the 1st and 2nd centuries, a tower was added to the structure on its south-eastern side, and a dwelling structure for workers on the north-eastern side. At the beginning of the 3rd century, new production workshops were built for olive processing. Around the villa, a late antiquity settlement was erected. On the north-western side of the villa rustica, a structure with lesenes was added. After 452 AD, the entire region was fortified with irregular quadrangular structures, which during the period of Byzantine domination (6th century) were fortified and adapted so as to meet the construction standards imposed by the state. At the time of Justinian's Reconquista, the late antiquity settlement was reduced to a church and military centre. At that time, new olive presses were established in the villa's courtyard, which can be dated from the incorporation of an epistyle from St. Mary's Church in the press stand. During the Byzantine renovation of St. Mary's Church and the possible desecration that followed the Arian period and the domination of the Ostrogoths, many elements from the initial phase of St. Mary's Church were built into the Byzantine fortress, which was erected in the area of the former late antiquity settlement. The supremacy of the Franks after 822 is represented by numerous structures in the settlement, as well as by alterations to the interiors of the churches of St. Mary and St. Peter. As an important naval base on the Adriatic sea-lane, the settlement was exposed to frequent plague outbreaks in the Middle Ages and deserted in the 15th/16th century. The settlement moved to the eastern part of the island. A new settlement was also constructed in the Brijuni port area, around a 12th-century defence tower (donjon) and St. Germano's Church.

Key words: villa rustica, Dobrika Bay, Brijuni, 2nd century BC to 6th century

Dunja Glogović opisala je graditeljski razvoj gradinskih lokaliteta, te nam pomogla da razriješimo tijek graditeljskih aktivnosti na Brijunima, promjene koje su se dogodile u 2. st. pr. Kr. i odnos rimskih vila prema ranijim izgradnjama, te korištenje histarskih luka podno gradinskih utvrđenja. Zahvaljujući njenom radu i komparacijama koje je autorica

Dunja Glogović has given a full account of the architectural development of the hill fort sites and helped us reconstruct the course of construction activities on the Brijuni Islands, the changes that occurred in the 2nd century BC, the relationship of Roman villas to earlier structures, and the use of the Histrian ports beneath the hill forts. Thanks to her

istraživala bilo je moguće sagledati mogućnosti razvoja i smještaja na nedovoljno istraženim lokalitetima, te prepoznati radikalne promjene funkcije (Glogović 1989).

Društveno-prostorne, a možda i etničke promjene nastaju u Istri pa vjerojatno i na Brijunskom arhipelagu sredinom brončanog doba u drugom mileniju pr. Krista. Novi tip naseljavanja je na povišenim položajima. Naselja su utvrđena obrambenim zidinama kružnog ili eliptičnog oblika, koje se potpuno prilagođuju konfiguraciji terena. Obrambeni bedemi su građeni tehnikom suhozida od velikih kamenih blokova i obično opasuju dva ili tri naseobinska prostora kao koncentrični prsteni. Neke istražene gradine imaju akropolu i unutarnju podjelu prostora, a uz vanjski obrambeni bedem nastambe za ljude i nastambe za životinje. Od kasnoga brončanog doba u 13. st. pr. Krista gradinska naselja postaju brojnija i monumentalnija te traju i tijekom cijeloga željeznog doba, od 11. do 2. st. pr. Krista (Suić 2003: 107–132). U razdoblju starije gradinske kulture za izradu oruđa i oružja rabila se bronca. U razdoblju mlađe gradinske kulture prevladava željezo, dok se bronca više upotrebljavala za izradu ukrasnih predmeta (Mlakar 1976: 57; Vitasović 2004). Društvene grupacije i zajednice brončanoga i ranog željeznog doba nepoznate su sve dok se nisu pojavile pod imenom Histri u grčkih i rimskih pisaca.

Iznimno očuvano, ali uglavnom neistraženo histarsko gradinsko naselje nalazi se na brdu Gradina, iznad zaljeva Verige na otoku Veli Brijun. Naselje je kružnog tlocrta, opasano s tri bedema u suhozidu. Povijesno i graditeljski je posebno zanimljiv dobro očuvani ulaz u prvi obrambeni prsten gradine, oštrog oblika, građen kao labirint koji je omogućivao laku obranu ulaza od iznenadnih napada neprijatelja. Ulaz je pregrađivan u nekoliko faza, očito zbog poboljšanja obrane (Gnirs 1924; Bačić 1970: 222; Suić 2003: 127). Na istočnoj padini brda, uz vanjski obrambeni zid, bio je zdenac za vodu usječen duboko u stijeni. U rimsko je doba korišten za opskrbu vodom luksuzne vile u zaljevu Verige. Tragove sličnih gradinskih utvrđenja nalazimo i na drugim mjestima na otoku Veli Brijun – Antunovac, Straža, Javorika, Rankun, Petrovac. Na brežuljku iznad uvale Dobrika (po crkvi sv. Petra iz 6. st.) nazvan Petrovac nađeni su samo neznatni ostatci velikodimenzioniranih kamenih blokova. Na vrhu brda Rankun nađena je građevina kružnog tlocrta i ilirski grob dolmenskog tipa datiran u 18. st. pr. Kr. Isto takva okrugla građevina s grobom nađena je na vrhu brežuljka Javorika (Mlakar 1976: 24). Neistraženost gradina na Brijunima ne dopušta dataciju početka naseljavanja, a nije poznat ni život tih naselja tijekom stoljeća.

Očit je strateški položaj Brijuna na plovidbenom putu uz jugozapadnu obalu Istre, a i uvale su pogodna i zaštićena sidrišta. Nadziranje plovidbe i prilaza Puli morali su brijunskim gradinama dati važnu vojnu ako već ne i političku ulogu. Važni gospodarski značaj otočja u rimsko doba mogao je imati početke već i puno ranije, tako da možemo pretpostaviti korištenje kamenoloma i solana, a možda i značajne poljoprivredne površine.

Histri koji su naseljavali istarski poluotok i Brijune od kasnoga brončanog doba sudjelovali su u mediteranskoj

work and comparisons studied by the author it was possible to arrive at an overview of the possible development and settlement at insufficiently researched sites and to recognize radical changes in their function (Glogović 1989).

Social-spatial and possibly also ethnic changes appeared in Istria and probably also on the Brijuni Islands in the middle of the Bronze Age in the second millennium BC. A new type of habitation developed on elevated sites. Settlements were fortified by round or elliptical defensive walls completely conforming to the configuration of the terrain. The defensive walls were built of large stone blocks using the dry-stone wall technique, and usually surrounded two or three settlement areas in concentric rings. Some excavated hill forts have acropolises, and the areas are divided internally. Along the outer defensive wall, there were dwellings for people and also for animals. From the late Bronze Age, in the 13th century BC onwards, the number of hill fort settlements increased. These became larger and lasted throughout the entire Iron Age, from the 11th until the 2nd century BC (Suić 2003: 107–132). In the period of early hill fort culture, bronze was used to produce weapons and tools. In the late hill fort culture period, iron prevailed, while bronze was more often used in the production of decorative artefacts (Mlakar 1976: 57; Vitasović 2004). Bronze Age and early Iron Age social groups and communities are unknown until they appear under the name *Histri* in the works of Greek and Roman writers.

An extraordinarily well-preserved but mostly unexcavated Histrian hill fort settlement is located on the hill of Gradina (Croatian for hill fort), above Verige Bay on the island of Veli Brijun. The settlement has a round ground-plan, and is surrounded by three dry-stone walls. Particularly interesting in terms of its history and construction is the entrance to the hill fort's first defensive ring. It has an angular form and is built as a labyrinth, which enabled easy defence of the entrance against sudden attacks. The entrance was rebuilt in several stages, obviously in order to improve its defensive function (Gnirs 1924; Bačić 1970: 222; Suić 2003: 127). On the eastern slope of the hill, along the exterior defensive wall, there used to be a water well, cut deeply into the rock. In Roman times, it was used as a water supply for the luxury villa in Verige Bay. Traces of similar hill forts can also be found on other sites on the island of Veli Brijun: Antunovac, Straža, Javorika, Rankun, Petrovac. On a hill above Dobrika Bay, named Petrovac after St. Peter's Church, which dates back to the 6th century, only negligible remains of large stone blocks have been found. On the top of Rankun Hill, a structure with a round ground-plan and a dolmen-type Illyrian grave dating back to the 18th century BC were found. The same round structure with a grave was found on the top of Javorika Hill (Mlakar 1971: 24). The fact that hill forts on the Brijuni Islands have not been excavated allows no dating for the beginning of habitation, and neither are we familiar with the life of these settlements through the centuries.

The strategic position of Brijuni on a navigation route along the south-west coast of Istria is obvious, and its bays are also favourably situated as protected anchorages. The

trgovinskoj razmjeni, ali i gusarstvu. Arheološki nalazi na gradinama i nekropolama u Istri, a i pojedinačni nalazi s Brijuna, od 13. do 2. st. pr. Krista svjedoče o ulozi Histra u mediteranskom svijetu i prije nego su dokumentirani u antičkim izvorima. Svakako od 6. st. do 4. st. pr. Kr. Sjeverni Jadran je raskršće komunikacija između Grka, Etruščana i srednje Europe u koju je uspješno uključena i histarska ratnička elita. Kad se u 3. st. i Rim uključio u jadranski promet i interese, odnos snaga se već promijenio. Grci i Etruščani su izgubili prednost, a Rimaska Republika nije došla kao novi partner u razmjeni nego kao osvajač. Histarski gusari su zadavali brige rimskim trgovačkim brodovima. Njihovi brzi brodovi vladali su sjevernojadranskim akvatorijem i sukob je bio neizbježan.

Tijekom 3. i 2. st. pr. Krista izravni dodiri Rima u ekspanziji i Histra koji su štitili svoje granice, rezultiraju sukobima na moru i kopnu. Prema aleksandrijskom povjesničaru Apijanu oba rimska konzula povela su 221. pr. Krista prvu uspješnu pomorsku akciju protiv histarskih gusara (App. *Illyr.*, 8). Vojni sukobi od 183. do 177. godine, o kojima piše rimski povjesničar Tit Livije (*Liv.* XXXIX–XLI), bili su većeg razmjera i povijesno presudni za Istru. Rimsko teritorijalno širenje na krajnjem sjeveru Jadrana, ali i histarsko vojno-političko ujedinjenje, dovode 183. g. do prvoga kopnenog rata na granici interesnih područja oko ušća rijeke Timava (Timavus, Torre). Godine 181. pr. Krista osnovana je latinska kolonija Akvileja kao pomorska baza i kopneno uporište za daljnje ratne operacije Rimljana protiv, među ostalima, i saveza histarskih zajednica u Istri. Rimski konzul Gaj Klaudije Pulher (*Caius Claudius Pulcher*) uspješno je završio ratovanje na istarskom poluotoku 177. g., kad je osvojio i razorio glavno histarsko gradinsko naselje *Nesactium* (danas Vizače 12 km sjeveroistočno od Pule). Livije piše da je histarski kralj Epulon počinio samoubojstvo da ne dospije u rimsko ropstvo, a Rimljani su u Nezakciju našli velik i bogat plijen. Arheološki nalazi iz Nezakcija su uistinu pokazali visoki stupanj umjetničke obrade autohtonih materijala, kao i vrlo razvijenu trgovinu s antičkim mediteranskim svijetom (Rosada 1999: 34). U istom ratu osvojena su i razorena histarska gradinska utvrđenja *Faveria* i *Mutila* na krajnjem jugu Istre. Histri su predali taoce i priznali rimsko gospodstvo. Sljedeće su godine savezne latinske trupe poslane u Istru da spriječe pobunu (*Liv.* XLI, 11–14).

Histria ostaje razjedinjeno granično područje pod rimskom dominacijom i teritorij vojnih operacija pod komandom konzula ili pretora, ali u izvorima nema potvrda o upravnom uređenju i konfiskaciji zemlje. Takva je situacija 171. godine kada konzul Gaj Kasije Longin (*Caius Cassius Longinus*) prolazi vojskom na putu iz Akvileje u Makedoniju i bez povoda pustoši i pali zemlju, na što se žale histarski poslanici Senatu u Rimu (*Liv.* XLIII, 5). Nalazi keramike pokazuju da se život nastavlja i u Puli i Nezakciju, ali nije poznato jesu li Histri ili rimski vojnici i trgovci potrošači te robe (Matijašić 1998: 37). Važniji događaji datiraju iz 129. g. pr. Krista i povezani su s ratovima konzula Gaja Sempronija Tuditana (*Caius Sempronius Tuditanus*) protiv Japoda. Plinije (*NH* III, 129) navodi da je on pokorio Histre. Možda je ta akcija otvorila

control of navigation and the approach to Pula must have provided the Brijuni hill forts with an important military and possibly even political role. The economic significance of the archipelago in the Roman period may have started much earlier, and we can assume the use of quarries and salt pans, and possibly even large agricultural areas.

The Istrians who populated the Istrian Peninsula and the Brijuni Islands from the late Bronze Age took part in Mediterranean trade, but also in pirating.

Archaeological finds on hill forts and in necropolises in Istria, as well as individual finds from Brijuni from the 13th to the 2nd century BC, testify to the role of the Istrians in the Mediterranean world even before they were documented in classical antiquity sources. Certainly from the 6th to the 4th century BC, the northern Adriatic was a communications crossroads between the Greeks, Etruscans and Central Europe, in which the Istrian warrior elite successfully participated. In the 3rd century BC, Rome also became involved in Adriatic trade and interests, and the balance of power changed. The Greeks and Etruscans lost their primacy, and the Roman Republic arrived not as a new trading partner but as a conqueror. Istrian pirates caused problems for Roman merchant vessels. Their fast ships ruled the northern Adriatic waters, and conflict was inevitable.

In the course of the 3rd and 2nd centuries BC, direct contact between an expanding Rome and the Istrians, who were protecting their own borders, resulted in conflict both at sea and on land. According to the Alexandrian historian Appian, in 221 BC both Roman consuls led the first successful naval action against Istrian pirates (App. *Illyr.*, 8). Military conflict from 183 to 177 BC, as described by the Roman historian Titus Livius (Livy) (*Liv.* XXXIX–XLI), was on a larger scale and historically crucial for Istria. Roman territorial expansion at the northernmost part of the Adriatic, but also Istrian military and political unification, in 183 BC led to the first land war on the border of their spheres of interest around the River Timava (Timavus, Torre) estuary. In 181 BC, the Latin colony of Aquileia was founded as a naval base and a land outpost for further Roman military operations against, among others, the league of Istrian communities in Istria. The Roman consul Gaius Claudius Pulcher successfully ended military operations on the Istrian peninsula in 177 BC when he conquered and destroyed the main Istrian hill fort settlement of *Nesactium* (present-day Vizače, 12 km north-east of Pula). Livy reports that the Istrian king Epulon committed suicide to avoid Roman slavery, and that the Romans found considerable spoils in *Nesactium*. Archaeological finds from *Nesactium* have indeed shown a high degree of craftsmanship in their use of autochthonous materials, as well as a very well-developed trade with the ancient Mediterranean world (Rosada 1999: 34). In the same war, the Istrian hill forts of *Faveria* and *Mutila* in the southernmost part of Istria were overrun and destroyed. The Istrians handed over hostages and recognised Roman rule. In the following year, allied Latin troops were sent to Istria to put down a rebellion (*Liv.* XLI, 11–14).

Histria remained a divided border area under Roman domination and was an area of military operations under the

veće mogućnosti za rimske trgovce, a i konfiskaciju i ekonomsku eksploataciju plodne zemlje.

Arheološka istraživanja u Slovenskom primorju upućuju na rimsko naseljavanje priobalnog pojasa već u 2. st. pr. Krista (Stokin, Karinja 2004). Moguće je da je tek od toga doba cijelo područje Histra postalo dio provincije *Illyricum*, koja je bila upravno povezana s Cisalpinskom Galijom. Takvo je uređenje bilo ustaljeno kad je Gaj Julije Cezar (*Caius Iulius Caesar*) 58. pr. Krista postao namjesnikom na pet godina u Cisalpskoj Galiji, u koju je bio uključen i Ilirik. Materijalni i povijesni podatci su općenito vrlo oskudni za razdoblje od 177. g. do polovine 1. st. pr. Krista te je i tijekom upravnih i političko-ekonomskih procesa teško osvjetliti (Matijašić 1998: 31–36; Starac 1999).

Zato su vrlo važna istraživanja izvršena na lokalitetu u uvali Dobrika na Brijunima kojima se i na području južne Istre utvrdila eksploatacija poljoprivrednog zemljišta i gradnja rustičkih vila u 2. st. i početkom 1. st. pr. Kr.

Postoji važan nalaz novca iz prve pol. 2. st. pr. Kr. u uvali



Sl. 1 Zračna snimka uvale Dobrika
Fig. 1 Aerial photo of Dobrika Bay

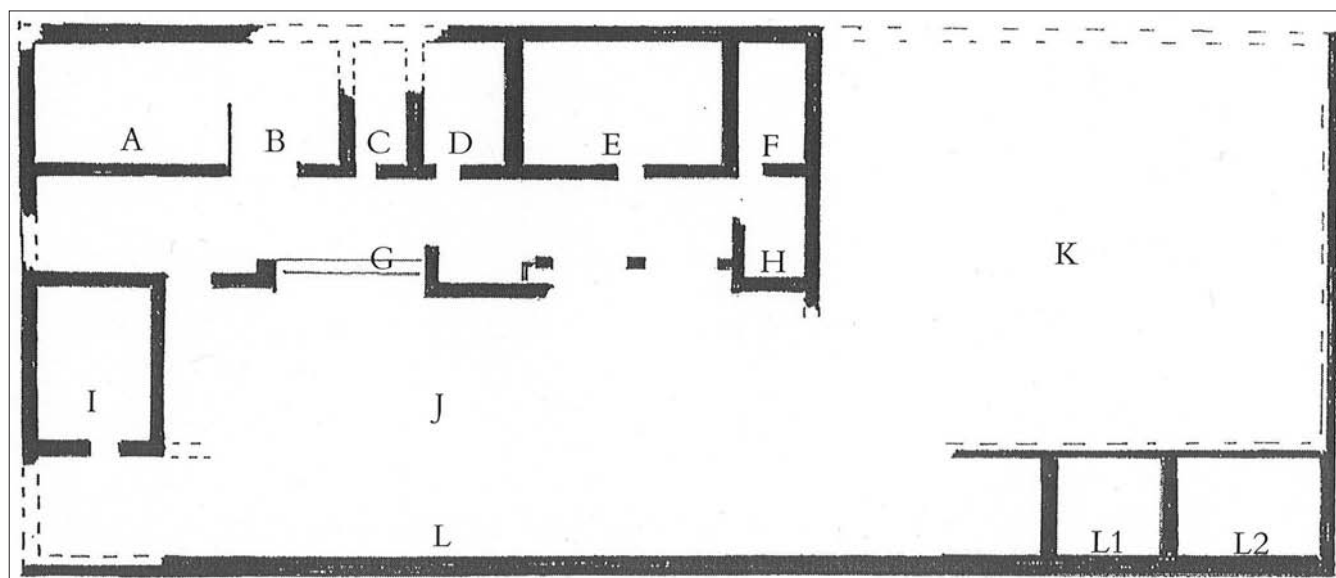
command of a consul or praetor. However, sources show no evidence of administrative organisation or confiscation of land. This was the situation in 171 BC, when the consul Caius Cassius Longinus passed with his army on his way from Aquileia to Macedonia, and without provocation razed the land, which the Histrian representatives in the Senate in Rome complained about (Liv. XLIII, 5). Pottery finds show that life went on in Pula and Nesactium, but it is not known whether the goods were bought by Histrians or by Roman soldiers and merchants (Matijašić 1998: 37). More significant events date from the year 129 BC, and are linked with the wars of the consul Caius Sempronius Tuditanus against the Iapodians. Pliny (*NH* III, 129) reports that he subjugated the Histrians. Possibly this action opened better opportunities for Roman merchants, and led to the confiscation and economic exploitation of arable land.

Archaeological excavations in the Slovenian Littoral point to Roman habitation of the coastal area as early as the 2nd century BC (Stokin, Karinja 2004). It is possible that it was from this point on that the entire Histrian region became part of the Illyricum province, which was administratively connected with Cisalpine Gaul. Such organisation was in place when in 58 BC Gaius Julius Caesar became governor of Cisalpine Gaul (of which Illyricum was a part) for five years. Material and historical data for the period from 177 BC until the first half of the 1st century BC are in general very scarce, and it is hard to shed light upon the course of administrative and political-economic processes (Matijašić 1998: 31–36; Starac 1999).

Therefore the excavations conducted at the Dobrika Bay site on the Brijuni Islands, in which the exploitation of agricultural land and the construction of rustic villas in the 2nd century and at the beginning of the 1st century BC in southern Istria were registered, are very significant.

There is a significant coin find from the first half of the 2nd century BC in Dobrika Bay, a Republican *as*, testifying to the Roman presence at that time (Miškec 2002: 177). The earliest architectural finds in Dobrika Bay belong to a modest rustic villa, dated by Š. Mlakar to around 129–79 BC. Its remains were found along the coast, below the level of a later larger rustic villa which used the two walls to construct its foundations, leaving the rooms of the earlier villa in its substructure. The villa from the 2nd century BC has a large production area, which comprises approximately one third of its entire space, testifying to its production function (Vitasović 2005: 161). The rooms are lined up in a row, similar to agricultural buildings typical of central Italy, as described by N. Terrenato, and which originate from the Archaic Period (Terrenato 2001: 14). As a consequence of a rise in the sea level from antiquity up to the present by approximately 2 metres, and also of erosion by waves, the sea front of the second structure and the first row of its rooms, as well as the retaining wall of the terraces, have been significantly damaged and cannot be defined.

The time of Caesar's governorship of Cisalpine Gaul and Illyricum from 58 till 49 BC, and then during the wars between Caesar and Pompey, and later until Caesar's death, was crucial in the development of social and landscape chan-



Sl. 2 Tlocrt prve villae rusticae (129.–79. pr. Kr.): E – kuhinja, G – hodnik, J – dvorište, K – radni prostor, H – prostorija s kamenim podom, D – prostor sa sačuvanom žbukom (Vitasović 2007)

Fig. 2 Ground-plan of the first villa rustica (129–79 BC): E – kitchen, G – corridor, J – courtyard, K – working area, H – room with a stone floor, D – room with preserved mortar (Vitasović 2007)

Dobrika – republikanski *as* koji govori o rimskoj prisutnosti u to vrijeme (Miškec 2002: 177). Najraniji nalazi arhitekture u uvali Dobrika pripadaju skromnoj rustičkoj vili koju je Š. Mlakar datirao oko 129. – 79. g. pr. Kr. Njeni ostatci nađeni su uz morsku obalu ispod razine kasnije veće rustičke vile koja je upotrijebila dva njena zida za izgradnju svojih temelja i ostavila prostorije ranije vile u svojim substrukcijama. Vila iz 2. st. pr. Kr. ima veći proizvodni dio koji zauzima oko trećine njenog cjelokupnog prostora, te govori o njevoj proizvodnoj funkciji (Vitasović 2005: 161). Prostorije su u nizu grupirane na način kakve opisuje N. Terrenato za poljoprivredne objekte (ratarske kuće) srednje Italije koje vuku svoje podrijetlo iz arhajskog razdoblja (Terrenato 2001: 14). Podizanjem površine mora od antičkih vremena do danas za oko dva metra i udarom valova, pročelje drugog objekta uz more i prvi red njegovih prostorija kao i podzide terasa, zbog velikih razaranja strukture nije moguće definirati.

Vrijeme Cezarova namjesništva u Cisalpinskoj Galiji i Iliriku od 58. do 49. g., a zatim u doba ratova između Cezara i Pompeja i kasnije sve do Cezarove smrti, bilo je presudno za ubrzanje društvenih i krajobraznih promjena u Istri i na Brijunima. Najvažnije se promjene događaju upravo u zoni obalnog pojasa zapadne Istre. To je doba naseljavanja rimskih, Cezarovih, veterana i osnivanja urbanih centara – kolonija *Tergeste* (Trst) i *Pola* (Pula), a vjerojatno i municipalnih rimskih zajednica *Aegida* (Sermin?) i *Parentium* (Poreč). Dolazi do restrukturiranja naselja te promjena u korištenju zemljišnih posjeda, a i upravnih i vlasničkih odnosa (Starac 2000). Obalna i ravničarska područja ekstenzivno se naseljavaju i obrađuju. Novi tip ruralnog naselja su rimske vile (*villa rustica*), kao središta zemljišnih posjeda. Ti procesi su sigurno započeli i prije same centurijacije teritorija i podjele zemlje kolonistima. Najveći dio plodnoga zemljišta bio je konfisciran vjerojatno već i prije kolonizacije, a dijelovi

ges in Istria and on the Brijuni Islands. The most important changes occurred particularly in the coastal belt of western Istria. This is a period in which Istria was populated by Roman (Caesar's) veterans and when urban centres were established: the colonies of *Tergeste* (Trieste) and *Pola* (Pula), and probably also the Roman municipal communities of *Aegida* (Sermin?) and *Parentium* (Poreč). Settlements were restructured and the land used in a different way, and administrative and ownership relationships changed (Starac 2000). Coastal and lowland areas were extensively occupied and cultivated. As a new type of rural settlement, Roman villas (*villae rusticae*) emerged as the central points of estates. These processes certainly began before the centuriation of the territory and the allotment of land to colonists. The largest part of the arable land had probably been confiscated even before colonisation, and parts were already owned by certain families of the upper republican aristocracy. Properties are documented as belonging to Cassius Longin and C. Calpurnius Piso, whose family members founded the *Pola* colony, but also to Statilius Taurus, which was later recorded in the surroundings of Poreč (Shatzman 1975: 42–43). Besides Pula, Roman construction activities in the late Caesarean era have also been confirmed on Veli Brijun and in Madona and Verige Bays. Examples of *tegulae* with the *Pansae Vibi* stamp of a Padana workshop, dated between 50 and 40 BC, were found in villas on these sites. These are the oldest stamps of this workshop, and they have also been found in Barcola, Trieste, Pula and Poreč. It is important to point out that, besides northern Italy, Istrian urban centres, and villas in Barcola (near Trieste), the Brijuni Islands were also part of the earliest distribution area of this construction materials supplier (Matijašić 1983).

Political changes in Istria during the final years of Caesar's life, which caused permanent changes in the structure of the population, settlements and landscape were fully

su već bili u posjedu nekih porodica visoke republikanske aristokracije. Potvrđeni su posjedi Kasija Longina i Kalpur-nija Pizona (C. *Calpurnius Piso*), čiji su porodični članovi bili osnivači kolonije *Pola*, a i Statilija Taura (*Statilius Taurus*), kasnije dokumentiranog u okolici Poreča (Shatzman 1975: 42–43). Rimska građevinska djelatnost u kasnom Cezarovu dobu potvrđena je osim u Puli i na Velom Brijunu, u uvalama Madona i Verige. Primjerci tegula s pečatima *Pansae Vibi* iz padanske radionice, datiranim između 50. i 40. g. pr. Kr., nađeni su u vilama na tim lokalitetima. To su najstariji žigovi te radionice, a nađeni su i u Barcoli, Trstu, Puli i Poreču. Važna je činjenica da su osim sjeverne Italije, istarska gradska središta i vile u Barcoli (kod Trsta) i na Brijunima u sferi najranije distribucije tog opskrbljivača građevnim materijalom (Matijašić 1983).

Političke promjene u Istri posljednjih godina Cezarova života koje su uzrokovale trajne promjene u strukturi stanovništva, naseljima i izgledu krajolika, dolaze do punog izražaja u doba Augusta. Nakon pobjede kod Akcija 31. g. pr. Kr., Oktavijan-August vjerojatno naseljava dio svojih veterana oko Poreča i u Puli (Keppie 1983). Histski je teritorij tada još uvijek povremeno izložen provalama barbara. Godine 16. pr. Kr. pobunjene grupe iz Norika i Panonije pustoše Istru.

Zapovjednici legija u borbi protiv pobunjenika bili su Augustovi pastorki Tiberije i Druz, koji su uspjeli smiriti ratoborne narode 14. g. pr. Kr. Vojne operacije nadzirao je i sam car (Jurkić Girardi 1986: 73–74).

Budući da je Istra postala granična zona s područjima ratnog djelovanja rimske vojske u Noriku i Panoniji, gospodarski razvoj dobiva posebni zamah. Intenzivira se poljoprivreda, osobito uzgoj vinove loze i maslina, te proizvodnja amfora, keramike i građevnog materijala, a i eksploatacija kamena (Matijašić 1998). Augustovo doba obilježava procvat urbanizma i graditeljstva u kolonijama i na obalnim posjedima. Stvara se urbana elita koja ujedno čini i veleposjednike i vlasnike manufakturna. Od Augustova doba nadalje poznati su mnogi posjednici, predstavnici aristokratskoga zemljoposjedničkog sloja (Tassaux 2003). "Poznata su imena mnogih tih posjedničkih familija na područje Istre, Sjeverne Dalmacije, Neretvanskog primorja i dr., dakle najplodnijih regija obalnog pojasa, koje su imale svojih većih ili manjih posjeda (*fundi, praedia*), pa i latifundija. U Istri su npr. svojih posjeda imali sam car August i njegov prijatelj Mecenas (Jurkić-Girardi 1986: 66–68). Vlasnik brijunskog posjeda je mogla biti senatorska porodica Lekaniji (*Laecanii*) koja je imala radionicu amfora i građevnog materijala (*figlina*) u Fažani i visoke funkcije u Rimu.

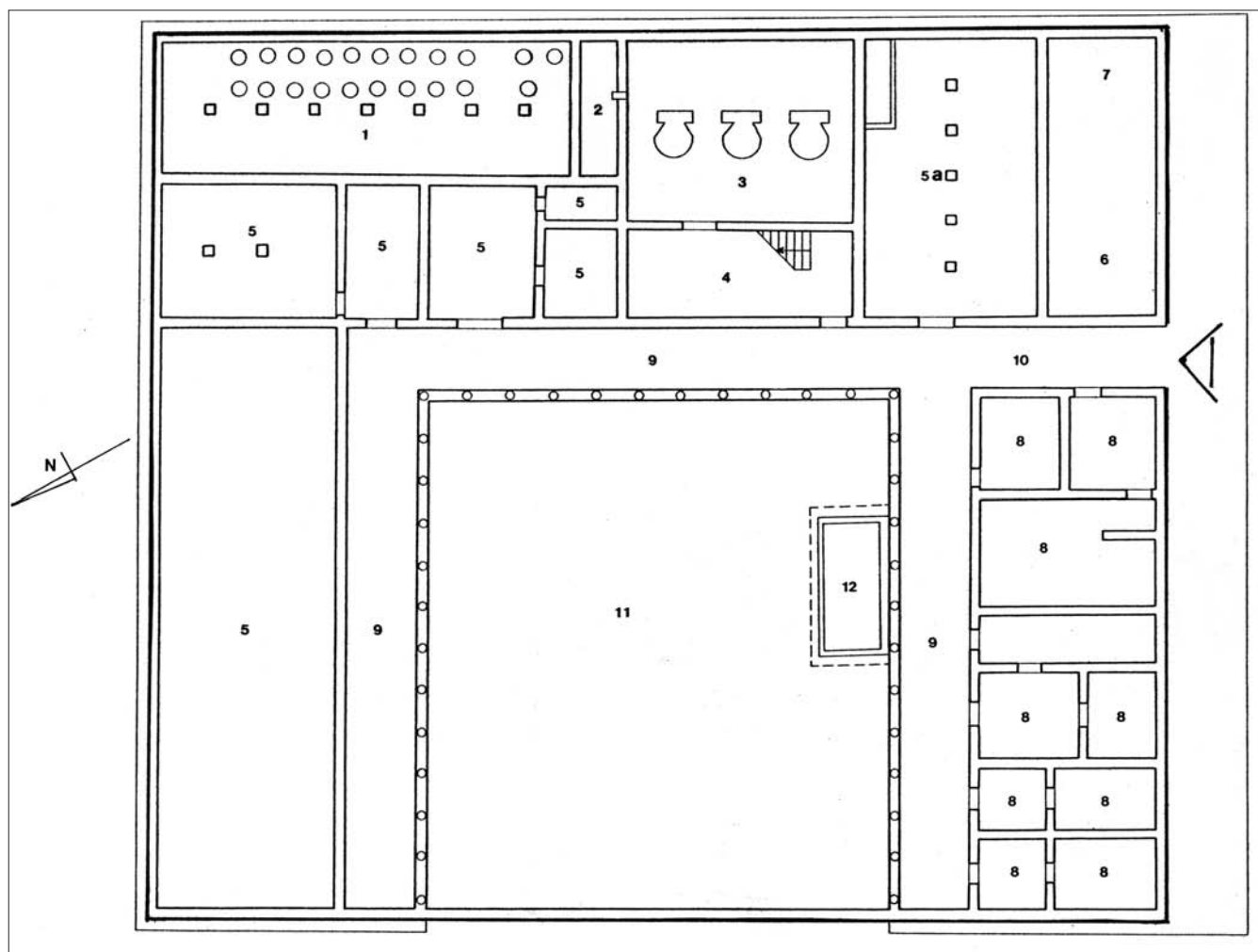
Druga *villa rustica*, građena preko prije opisanih struktura prve rustičke vile imala je znatno veće dimenzije i drugačiji raspored prostorija. Bila je tipična rimska vila 1. st. građena na platformi (terasi) s podzidima kao vila Settefinestre, Cosa, Ager Cosanus, s prostorijama koje su na tri strane okruživale centralno dvorište, s visokim ogradnim zidom na četvrtoj strani koji je bio okrenut prema moru. Dimenzije 63 x 51 m (210 x 170 rimskih stopa). Bila je podignuta iznad nivoa terena i inkorporirala je ranije strukture u svoje temelje uzduž

manifested in the Augustan era. After winning the battle of Actium in 31 BC, Octavian-Augustus probably settled part of his veterans around Poreč and in Pula (Keppie 1983). Histrian territory was at that time still occasionally exposed to barbarian invasions. In the year 16 BC, rebel groups from Noricum and Pannonia raided Istria.

The commanders of the legions fighting the rebels were Augustus's stepsons Tiberius and Drusus, who succeeded in suppressing these warlike peoples in 14 BC. The military operations were even supervised by the emperor himself (Jurkić Girardi 1986: 73–74).

Since Istria had become a region bordering areas of the military operations of the Roman army in Noricum and Pannonia, economic development went into full swing. Agriculture, particularly grape and olive production intensified, as did the production of amphorae, pottery and construction materials, and also the exploitation of stone (Matijašić 1998). The Augustan period was characterised by the flourishing of town planning and architecture in the colonies and on maritime estates. An urban elite was created, formed by large estate and workshop owners. From the Augustan era onwards, many estate owners, representing the class of aristocratic landowners, are recorded (Tassaux 2003). "The names of many of these estate-owning families are known in the areas of Istria, Northern Dalmatia, the Neretva Littoral etc., i.e. in the most fertile regions of the coastal belt. They had both larger and smaller estates (*fundi, praedia*), and even *latifundia*. In Istria, for example, the Emperor Augustus himself, and his friend Maecenas had estates." (Jurkić-Girardi 1986: 66–68). The owner of the Brijuni estate might have been the Laecanii senatorial family, which owned an amphorae and tiles workshop (*figlina*) in Fažana and which was highly positioned in Rome.

The second *villa rustica*, built over the structures of the first rustic villa described above, was significantly larger in size and had its rooms differently arranged. It was a typical 1st century Roman villa, built on a platform (terrace) retained by walls like those in the villa Settefinestre, Cosa, Ager Cosanus, with rooms on three sides surrounding a central courtyard, and a high external wall on the fourth side, facing the sea. Its dimensions were 63 x 51 m (210 x 170 Roman feet). It was elevated above terrain level and incorporated earlier structures in its foundations along its southern and western sides (Vitasović 2005: 166). The residential and production areas were arranged around a central courtyard. The walls were made of stone blocks in mortar, using the *opus isodomum* building technique. Construction seems to have taken place in the middle of the 1st century BC. The only find dating it is a *tegula* with a stamp (PANS)AE VIBI, dated to the period between 50 and 40 BC. Another *tegula* with the same stamp was found at a villa that had an associated pier for the transport of agricultural products, the traces of which can be seen in aerial photos, and which was determined in the course of underwater investigations in 1985. "Several larger atypical blocks might represent the remains of a smaller pier. One of the blocks has a hole in it." (Jurišić, Orlić 1998). The walls are 45 to 60 cm (1.5–2 Roman feet) thick, built of cut stone of 8 to 14 x 24 to 30 cm (on



Sl. 3 Tlocrt druge villa rustica u uvali Dobrika iz 1. st. pr. Kr.: 1. cella vinaria, 2. lacus, 3. tijeskovi za grožđe, 4. stubište, 5. gospodarske prostorije, spremišta, 5a oecus, 6. kuhinja, 7. skladište, 8. cubacula, 9. portik, 10. ulazni hodnik, 11. dvorište, 12. cisterna (Širec, Vitasović 1984-85; Begović, Schrunk 1999-2000)

Fig. 3 Ground-plan of the second villa rustica in Dobrika Bay from the 1st century BC: 1. cella vinaria, 2. lacus, 3. grape presses, 4. staircase, 5. production rooms, storage, 5a oecus, 6. kitchen, 7. storeroom, 8. cubacula, 9. portico, 10. entrance hall, 11. courtyard, 12. cistern (Širec, Vitasović 1984-85; Begović, Schrunk 1999-2000)

svoje južne i zapadne strane (Vitasović 2005: 166). Stambeni i proizvodni dio bili su organizirani oko centralnog dvorišta. Zidovi su bili izvedeni od blokova kamena u mortu u tehnici *opus isodomum*. Gradnja izgleda pada u sredinu 1. st. pr. Kr. Jedini nalaz koji je datira je *tegula* sa žigom (PANS) AE VIBI datirana u razdoblje od 50. do 40. g. pr. Kr. Tegula s istim žigom nađena je na vili koja je imala pripadajući mol za transport poljoprivrednih proizvoda, čiji se tragovi vide na zračnim snimkama i utvrđeni su tijekom podmorskog rekognosciranja 1985. g. "Nekoliko većih atipičnih blokova mogli bi predstavljati ostatke manjeg pristaništa. Jedan od blokova je probušen" (Jurišić, Orlić 1998). Zidovi su debljine 45 do 60 cm (1,5 – 2 r. stope), građeni od klesana kamena dimenzija 8 do 14 x 24 do 30 cm (na licu zida) zidani u mortu. Odnos visine prema širini građevnog materijala je 1:3 što upućuje na razdoblje gradnje kasnoga prvoga stoljeća pr. Krista. Vila koristi sve prednosti insolacije, građena prema Vitruvijevim pravilima gradnje (*Vitruvius*, VI, 129–132) i prirodnog položaja neposredno uz morsku obalu. Uz jugozapadnu, najsunčaniju stranu nalaze se stambene prostorije.

the wall face), and built in mortar. The construction material height/width ratio is 1:3, suggesting late first century BC construction. The villa was built according to Vitruvius's construction principles (*Vitruvius*, VI, 129–132), making use of all the advantages of insulation, as well as its natural position immediately on the shore. On the most insulated south-western side, there are residential rooms. The entrance to the villa was from the south-western side, linked by a corridor to the kitchen and residential rooms by a spacious courtyard. The courtyard was 31 x 28.7 m (106 x 98 Roman feet) and was surrounded by 4 metre-wide (14 Roman feet) porticos on three sides, while on the fourth side, the one facing the sea, there was a high 60-cm-thick wall, which was partly preserved and later incorporated into late antiquity fortifications. In the south-western part of the courtyard, a large cistern of 7.35 x 3.3 m (25 x 11 Roman feet) was built to collect rainwater from the roof. The kitchen and storerooms faced the south-east, as did the grape press room, which measured 13 x 10.6 m (44 x 36 Roman feet), and which was approximately one metre higher than the other rooms. This

Ulaz u vilu bio je s jugozapadne strane i vezan je hodnikom između kuhinje i stambenih prostorija na prostrano dvorište. Dvorište je dimenzije 31 x 28,7 m (106 x 98 r. stopa) i bilo je s tri strane okruženo porticima širine 4 m (14 r. stopa), a s četvrte, prema moru, ograđeno visokim zidom širine 60 cm, koji je djelomično sačuvan i poslije inkorporiran u fortifikacije građene u kasnoj antici. U jugozapadnom dijelu dvorišta ugrađena je velika cisterna dimenzija 7,35 x 3,3 m (25 x 11 r. stopa) u koju se skupljala kišnica s krovnih ploha. Kuhinja i spremišta orijentirani su prema jugoistoku, kao i prostorija s tijeskovima za grožđe dimenzije 13 x 10,6 m (44 x 36 r. stopa), koja je povišena za oko jedan metar od ostalih prostorija. U nju se dolazilo drvenim stubištem smještenim uza zid prostorije ispred nje. Pod prostorije popločen je u tehnici *opus spicatum*, a dimenzija spika je 7,5 x 12 x 1,8 cm. Velika *cella vinaria* dimenzija 23,2 x 7,9 m (79 x 27 r. stopa) i kapaciteta oko 56 *dolia* bila je orijentirana prema sjeveroistoku. Između prostorije s tijeskovima i vinskog podruma nalazi se *lacus* za bistrenje mošta. *Cella vinaria* bila je nizom stupova (kružnog presjeka na kvadratičnim temeljima) podijeljena u dva dijela. Stupovi su izvedeni od klesana kamena u mortu i imaju funkciju smanjivanja raspona stropnih greda na velikoj širini prostorije. Uz vinski podrum prema dvorištu nalazi se niz prostorija različitih veličina koje su služile za smještaj grožđa, koma i u procesu proizvodnje vina (Matijašić 1998: 45). Prosječna sadržina dolije računa se oko 1200 litara. Kapaciteti podruma su morali biti veći nego što je bilo potrebno za jednu berbu. To je osobito potrebno za spremanje vina i Katon (Cato, *De agr.* XI, 1) savjetuje da broj dolija bude dovoljan za pet berbi. Varon (Varro, *De re rustica*, I, XXII, 4) je to smatrao opravdano time da vlasnik ne

could be reached by a wooden staircase placed along the wall of the anteroom. The room's floor was paved in the *opus spicatum* technique, the dimensions being 7.5 x 12 x 1.8 cm. A large *cella vinaria*, measuring 23.2 x 7.9 m (79 x 27 Roman feet) and with a capacity of approximately 56 *dolia* faced the north-east. Between the grape press room and the wine cellar, there was a *lacus* for receiving the must. By means of a series of columns (with a round cross-section on square-shaped foundations), the *cella vinaria* was divided into two. The columns were made of cut stone in mortar, and their function was to reduce the span of the ceiling beams because of the large width of the room. Near the wine cellar, towards the courtyard, there was a series of rooms varying in size, used in the process of wine production, and for storing grapes and wine-press residues, etc. (Matijašić 1998: 45). It is assumed that the average content of one *dolium* was approximately 1,200 litres. The cellar capacity had to be larger than that necessary for one harvest. This was particularly necessary for storing wine, and Cato (Cato, *De agr.* XI, 1) advises that the number of *dolia* should be sufficient for five harvests. Varro (Varro, *De re rustica*, I, XXII, 4) held this to be justified by the fact that the owner did not have to sell the wine every year and could achieve a better price for older wine.

Epigraphic and historical studies (Tassaux 1982: 84; 1998; 2003; Starac 1994), and the study of stamps on amphorae and roof tiles (Bezeczky 1995; 1998; De Franceschini 1998) associate the construction of villas on the Brijuni Islands, particularly the maritime villa in Verige, with the Roman senatorial family of Laecanii, who possessed a *figlina* workshop in Fažana, and an estate in the north of Istria, according to an inscription found in Materija (Ad Malum) (CIL V. 698; Šonje 1991:



Sl. 4 Pogled na drugu rustičku vilu (iz sred. 1. st. pr. Kr.) u uvali Dobrika

Fig. 4 View of the second villa rustica (from the middle of the 1st century BC) in Dobrika Bay

mora prodati vino svake godine i može dobiti bolju cijenu za starije vino.

Epigrafska i povijesna istraživanja (Tassaux 1982: 84; 1998; 2003; Starac 1994), i istraživanja žigova na amforama i krovnom materijalu (Bezeczky 1995; 1998; De Franceschini 1998) povezuju izgradnju vila na Brijunima, posebno maritimnu vilu u Verigama, s rimskom senatorskom porodicom Laecanii koja je posjedovala figlinu u Fažani, te posjed na sjeveru Istre, prema natpisu nađenom u Materiji (Ad Malum) (CIL V. 698; Šonje 1991: 35–36). Nema direktnih dokaza da su Lekaniji posjedovali Brijune, ali brojni nalazi amfora i krovni crijepova s njihovim žigovima na brijunskim vilama, a koji nisu nađeni na nijednoj drugoj istarskoj vili ili na drugim područjima, bili bi posredan dokaz za to. Na vili Settefinestre nađene su *tegulae* sa žigom vlasnika L. S. (Lucius Sestius Quirinalis) i prema istraživaču D. Manacorda ekskluzivna je proizvodnja samo za privatnu upotrebu vlasnika, a ne za tržište (Carandini, Ricci 1985: 104–106). Takve tegule sa žigom vlasika poznate su sa posjeda Cicerona, Lucula i Dolabele. Na Brijunima na vili u uvali Dobrika nađena je tegula sa žigom Gaja Lekanija koji do sada nije poznat ni s jednog drugog lokaliteta. Lekanije je kao i Sestije u svojoj figlini proizveo krovni materijal samo za svoje potrebe u određenom vremenu. Ova činjenica bi mogla biti do sada najsolidnija potvrda za Lekanijevo vlasništvo nad Brijunima.

Ekonomski prosperitet porodice Lekanija vezan je uz snabdijevanje maslinovim uljem vojske i civila u Panoniji i Noriku. Veliki broj amfora s njihovim žigovima nađen je na pravcima kretanja vojske i lokalitetima na limesu. Moguće je da su imali i komercijalne veze s figlinom i posjedima Kalvije Krispinile (*Calvia Crispinilla*) u Loronu kod Poreča, prema nalazu amfore s dodanim grafitom Lekanija uz njezin žig (Starac 1994: 138). Političko napredovanje Lekanija bi moglo biti vezano uz njihovo prijateljstvo s carevima i pripadnicima Julijsko - kladijske dinastije (Starac 1994: 135). Postoje čvrste veze između gospodarskog prosperiteta, kao i političkog uspona porodice Lekanija, te vremenskog razdoblja izgradnje nekoliko rustičkih vila na Brijunima – u uvali Dobrika, Verige, sv. Nikole, luci Brijuni, te na brdu Kolci, a kasnije i maritimne vile u uvali Verige. Socijalni i ekonomski kontekst u kojem se izgrađuju *villae rusticae* utemeljen je na intenzivnoj eksploataciji zemljišta u Istri (Schrunk, Begović 2000).

Intenzivna proizvodnja vina i maslinovog ulja u Istri može se povezati s rimskim vojnim osvajanjima Panonije i Norika i velikim potrebama vojske za tim proizvodima. Istra je bila na najpovoljnijem geografskom položaju da bi postala glavni snabdjevač i to je uvjetovalo uspon latifundista u Istri. Priključenje Istre desetoj regiji Italije (*Regio X Venetia et Histria*) koje je izvršio August između 18. i 12. g. pr. kr. izazvalo je niz promjena koje su direktna posljedica promjene statusa. Kao dio Italije posjedi u Istri bili su oslobođeni poreza koji su se plaćali u provincijama. Po rasprostranjenosti istarskih amfora za ulje tipa Dressel 6B možemo pratiti intenziviranje uzgoja maslina i proizvodnju maslinovog ulja u Istri početkom kasnog Augustovog razdoblja (Bezeczky 1995). Senatorske investicije u istarsku poljoprivredu i

35–36). There is no direct evidence that the Laecanii owned Brijuni, but numerous amphorae and roof tile finds with their stamps on them in Brijuni villas, which have not been found in any other Istrian villas or in other areas, would be direct evidence for it. In the Settefinestre villa, *tegulae* with the stamp of the owner L. S. (Lucius Sestius Quirinalis) have been found, and according to the researcher D. Manacorda were exclusively produced for the owner's private use, and not for the market (Carandini, Ricci 1985: 104–106). Such *tegulae* with the owner's stamp have been found on the properties of Cicero, Lucullus and Dolabella. On the Brijuni Islands, at the Dobrika Bay villa, a *tegula* with Gaius Laecanius's stamp was found. This had not been known on any other site before. Laecanius and Sestius produced roof tiles in their *figlina* workshops only for their own needs over a certain period. This fact might be the firmest confirmation of Laecanius's ownership of Brijuni to date.

The economic prosperity of the Laecanii family is associated with supplying the army and civilians in Pannonia and Noricum with olive oil. A large number of amphorae with their stamps have been found on military routes and sites along the Limes. Possibly there were also commercial ties with the *figlina* workshops and estates of Calvia Crispinilla in Loron near Poreč, according to an amphora find with the Laecanius mark next to her stamp (Starac 1994: 138). The Laecanii's political advancement might also be associated with their friendship with the emperors and members of the Julio-Claudian dynasty (Starac 1994: 135). There are firm ties between the economic prosperity and political advancement of the Laecanii family and the time of the construction of several rustic villas on the Brijuni Islands: in the bays of Dobrika, Verige and Sveti Nikola, Brijuni harbour, Kolci Hill and, later on, maritime villas in Verige Bay. The social and economic context in which such *villae rusticae* were built was based on an intensive exploitation of land in Istria (Schrunk, Begović 2000).

Intensive wine and olive oil production in Istria can be associated with the Roman military conquest of Pannonia and Noricum and the large needs of the army for these products. Istria had the most favourable geographical location to become the main supplier, which enabled the rise of *latifundia* owners in Istria. The annexation of Istria to Italy as its tenth region (*Regio X Venetia et Histria*), conducted by Augustus between the years 18 and 12 BC, brought about a whole range of changes, a direct consequence of which was its changed status. As part of Italy, properties in Istria were freed from taxes that needed to be paid in the provinces. On the basis of the distribution of Istrian oil amphorae of the Dressel 6B type, we can follow the intensification of olive growing and olive oil production in Istria at the beginning of the late Augustan age (Bezeczky 1995). Senators' investments in Istrian agriculture and its placement on new markets in Pannonia and Noricum were supported by imperial policy that, according to F. Tassaux (Tassaux 1982: 265), favoured northern Italy and Istria. This might also have been Augustus' general economic programme for all Italian regions, since J. D'Arms reports that the same policy was implemented in Campania (D'Arms 1970: 82). According to

njihovo plasiranje na nova tržišta u Panoniji i Noriku bile su poduprte carskom politikom u kojoj je prema F. Tassauxu (Tassaux 1982: 265) favorizirana sjeverna Italija i Istra. To je također mogao biti i Augustov opći gospodarski program za sva područja Italije, kao što navodi J. D'Arms da je istu politiku provodio u Kampaniji (D'Arms 1970: 82). Histarsko maslinovo ulje bilo je prema Pliniju Starijem (NH XV, 8) vrlo cjenjeno. Bilo je drugo po kvaliteti iza ulja iz Venafr (Italija) i u istom rangu s uljem iz Betike u Hispaniji. Kvalitetu histarskog vina Plinije Stariji ne spominje općenito, ali navodi (NH XIV, 60) da je Augustova žena Livija pripisivala svoju dugovječnost konzumiranju posebne vrste vina s Krasa – Pucinum (područje Trsta).

Na rustičkoj vili u uvali Dobrika naknadno je dodano dva reda malih prostorija uz sjeveroistočni zid vile (izvan njenog prvobitnog areala) za koje nije moguće odrediti vremensko razdoblje. Prostorije su najvjerojatnije za smještaj robova ili radnika. Prigrađen niz manjih prostorija, dimenzija oko 2,4 x 3,6 m, 3,9 x 3,3 m do 4,3 x 4,1 m nepravilno raspoređenih, s uskim komunikacijama između njih do oko 2 m širine. Prostorije bi mogle biti objekti za smještaj robovske radne snage, kao one koje su istražene na vili Settefinestre blizu Cose (Italija) i koje su istih dimenzija (Carandini, Ricci 1985: 157–160), a mogu se okvirno vezati uz izgradnju velike maritimne vile u zaljevu Verige tokom prve pol. 1. st.. Interesantno je da se ekonomski kapaciteti vile u uvali Dobrika povećavaju upravo u vrijeme Ranog Carstva i u isto vrijeme kada se rustička vila u uvali Verige nadograđuje luksuznim sadržajima i pretvara u maritimnu vilu. Isti vlasnik, obitelj senatorskog statusa Laecanius Bassus mogla bi biti odgovorna za razvoj i prosperitet oba ova lokaliteta u Julijsko-klaudijском razdoblju ranog Carstva (Tassaux 1982: 84; 1998; 2003; Starac 1994; Bezeczky 1998; Begović, Schrunk 2007)

Nakon Nerona, posljednjeg cara Julijsko-klaudijske dinastije, izgleda da je prestala politička moć istarske elite. Prijatelji carske porodice više nisu imali položaje i utjecaj kad je na vlast došla nova carska loza Flavijevaca. Vespazijan ili Domicijan znatno su smanjili i ekonomsku moć politički najmoćnijih i najutjecajnijih porodica Lekanija i Krispinile (*Calvia Crispinilla*). Dvije najveće istarske radionice amfora i građevnog materijala koje su te porodice posjedovale u Fažani i na Loronu (kod Poreča) prelaze u carsko vlasništvo. To je dokumentirano žigovima, počevši s Domicijanom, ali uzrok i okolnosti tih promjena nisu poznate. Mogući je ili legalni prijelaz u carsko nasljeđe ili carska konfiskacija. Međutim, što je bilo s cjelokupnim posjedima tih senatorskih porodica nije poznato. Pretpostavlja se da su i njihovi zemljišni posjedi prešli u carsko vlasništvo (Starac 1994: 136).

Prosperitet Istre i Brijuna još je od Augusta usko vezan za proizvodnju i izvoz maslinova ulja. Mir i prosperitet trajali su i tijekom Trajanova i Hadrijanova doba u drugom stoljeću. Žigovi na amforama bivše Lekanijeve radionice u Fažani nose imena careva Nerve, Trajana i Hadrijana. Proizvodnja amfora traje do sredine 2. stoljeća, ali njihova distribucija je samo lokalna nakon Hadrijanova doba. To upućuje na pad proizvodnje maslinova ulja. Uzroci su nejasni i mogli bi se vezati za kratkoročne klimatske promjene ili konkurenciju

Pliny the Elder (NH XV, 8), Histrian olive oil was very much appreciated. It was second for its quality after the oil from Venafr (Italy), and of the same quality as the oil from Baetica in Hispania. Pliny the Elder does not make explicit mention of the quality of Histrian wine, but he reports (NH XIV, 60) that Augustus's wife Livia ascribed her longevity to consuming a special sort of wine from Kras–Pucinum (the Trieste area).

The countryside villa in Dobrika Bay subsequently had two additional rows of small rooms along its north-eastern wall (outside its original area) which cannot be dated. The rooms probably served as accommodation for slaves or workers. A series of smaller rooms was also found, approximately 2.4 x 3.6 m, 3.9 x 3.3 m and 4.3 x 4.1 m, irregularly arranged, with narrow, up to 2-metre-wide communications between them. The rooms might have served as facilities for the accommodation of slave labour, like those of the same size excavated at the Settefinestre villa near Cosa (Italy) (Carandini, Ricci 1985: 157–160), and can be associated with the construction of the large maritime villa in Verige Bay in the course of the first half of the 1st century. It is interesting that the production capacity of the Dobrika Bay villa increased precisely during the Early Empire period, simultaneously with the addition of new luxury structures to the *villa rustica* in Verige Bay and its transformation into a maritime villa. The same proprietor, the senatorial family of Laecanius Bassus, may have been responsible for the development and prosperity of both these sites in the Julio-Claudian Early Empire period (Tassaux 1982: 84; 1998; 2003; Starac 1994; Bezeczky 1998; Begović, Schrunk 2007).

After Nero, the last emperor of the Julio-Claudian dynasty, the political power of the Istrian elite seems to have ceased. The imperial family's friends had no more positions or influence when the new imperial line of the Flavians came to power. Vespasian and Domitian also significantly decreased the economic strength of the politically most powerful and influential Laecanii and Crispinilli (*Calvia Crispinilla*) families. The two largest Istrian amphorae and tile workshops, previously owned by these families in Fažana and Loron (near Poreč), came under imperial ownership. This is evidenced by stamps, beginning with that of Domitian, but the cause and circumstances of these changes are not known. Both legal transfer by imperial inheritance or imperial confiscation are possible. Nevertheless, what happened to the entire properties of these senatorial families is unknown. It is assumed that their estates became imperial property (Starac 1994: 136).

The prosperity of Istria and Brijuni from the time of Augustus was closely connected with olive oil production and export. Peace and prosperity also lasted during the rule of Trajan and Hadrian in the second century. The stamps on the amphorae of the former Laecanius workshop in Fažana bore the names of the emperors Nerva, Trajan and Hadrian. Amphorae production lasted until the middle of the 2nd century, but after Hadrian's reign, their distribution was only local. This suggests a decrease in olive oil production. The causes are unclear and could be associated with short-term climate change or competition from Hispania, as do-

ulja iz Hispanije, što je dokumentirano amforama u Noriku i Panoniji (Bezczy 1995: 42). Vespazijan je svakako imao interesa za gospodarstvo i za održavanje infrastrukture u Istri i u njezinu središtu, Puli. Izgradio je ili znatno poboljšao magistralnu cestu od Trsta (*Tergeste*) do Pule godine 78., koja je po njemu i prozvana *Via Flavia* (Šonje 1991; Matijašić 1998). Carske intervencije u Istri su u skladu s Vespazijanovom fiskalnom politikom, koja je centralizirala nadzor nad državno važnim proizvodnjama, ali i ulagala u italsku i provincijalnu infrastrukturu. Sudeći prema amfiteatru u Puli koji je dovršen u njegovo vrijeme Vespazijan je mogao boraviti u Puli i njejoj okolini (Mlakar 1981; Starac 1994: 136).

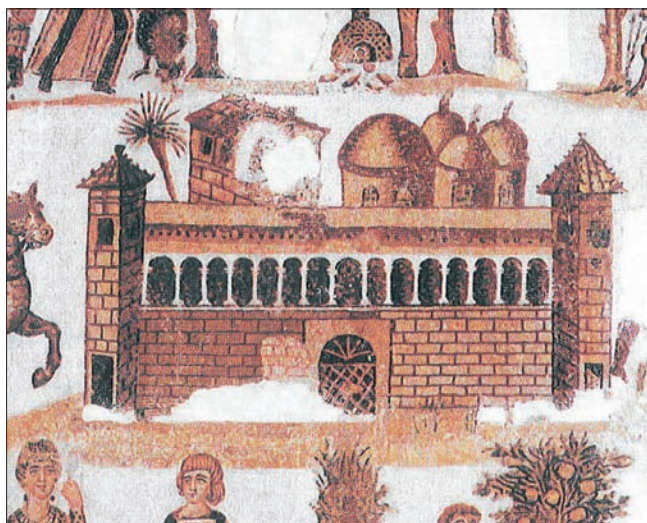
Vila u uvali Madona prolazi razdoblje stagnacije tijekom drugoga stoljeća. Arheološka istraživanja provedena na vili u razdoblju od 1976. do 1984. pokazuju minimum pojedinačnih nalaza iz toga razdoblja (Mlakar 1976: 39–40). Ta stagnacija bi mogla biti vezana uz već spomenute okolnosti – pad u proizvodnji maslinova ulja te političke i posjedničke promjene u Istri na kraju prvog stoljeća. Druga vila rustica u uvali Madona pretrpjela je nekoliko preinaka i adaptacija između 1. i 3. st. Najznačajnija dogradnja je dodatak pogona za proizvodnju maslinovog ulja s tri preše na sjeverozapadnoj strani vile (Vitasović 2005: 179). Vitasović je dogadnju datirao u rano 3. st. bazirano na nalazu novca Severa. Uz prostoriju s tijeskovima se nalazi *cella olearia* i prostorije za smještaj obranih maslina kao niz manjih prostorija (spremišta). Zidovi prostorije ispred prostora s tijeskovima široki su 88,71 cm (3 r. stope) i njihova dimenzija navodi na zaključak o katnoj konstrukciji toga dije1a izvedenoj vjerojatno za nadgledavanje procesa proizvodnje. Još jedna indikacija za proširenje kapaciteta vile u isto vrijeme je nalaz zavjetne are božice Flore koju je prema natpisu dao podignuti Marcus Aurelius Iustus čije ime je poznato sa žigova na amforama proizvedenim u Fažani početkom 3. st. (Tassaux 2003: 96). M. A. Iustus je mogao biti privatni zakupnik carske figline i povremeno boraviti u vili na Brijunima (Starac 1994: 138).

S jugoistočne strane druge rustičke vile sagrađena je naknadno nova vila, slobodnostojeća zgrada s tornjem na istočnoj strani. Izdužena zgrada sastoji se od prostorija grupiranih oko uzdužnog hodnika i polukružnog ugaonog prostora, te polukružnog bazena na drugom kraju (prema moru) koji možda predstavlja malene terme (Vitasović 2005: 176). M. Mirabella Roberti datirao ga je u 1./2. st. (Mirabella Roberti 1936). Objekt je građen još potpuno u klasičnom antičkom slogu. Redovi klesana kamena u tehnici *opus isodomum* danas se iznimno dobro vizualno odvajaju od kasnije izgrađenoga zida fortifikacija (Mlakar 1976: 21; Vitasović 2005: 173). Objekt je građen prije izgradnje fortifikacija koje su upotrijebile njegove zidove i slijede liniju rasprostiranja objekta. Njen funkcionalni odnos s ranijom vilom nije jasan. Postoji opravdana mogućnost da je zgrada bila dodana da poveća stambene i proizvodne kapacitete vile koji nisu bili dostatni za posjed. Nedaleke solane i kamenolomi bile su također dio posjeda. Prema položaju i manjim vratima na bedemu bio je povezan sa solanama u uvali Soline i mogao je predstavljati sjedište carskog prokuratora (*conductor sali-*

documented by the amphorae in Noricum and Pannonia (Bezczy 1995: 42). Vespasian was certainly interested in the economy and maintenance of infrastructure in Istria and its centre, Pula. He constructed or significantly improved the main road from Trieste (Tergeste) to Pula in 78 AD, which was named the Via Flavia after him (Šonje 1991; Matijašić 1998). Imperial interventions in Istria are in line with Vespasian's fiscal policy, which centralised the control of production important for the state, but which also invested in Italian and provincial infrastructure. Bearing in mind the Pula amphitheatre, which was finished during his rule, Vespasian may have stayed in Pula and its surroundings (Mlakar 1981; Starac 1994: 136).

The villa in Madona Bay went through a period of stagnation in the second century. Archaeological excavations conducted at the villa from 1976 to 1984 yielded minimal individual finds from this period (Mlakar 1976: 39–40). This stagnation might have been connected with the above-mentioned circumstances: a decrease in olive oil production and political and ownership changes in Istria at the end of the first century. The second *villa rustica* in Madona Bay underwent several changes and adaptations between the 1st and 3rd century. The most significant addition was an olive oil production workshop with three presses on the north-western side of the villa (Vitasović 2005: 179). Vitasović has dated the annex to the early 3rd century based on the find of a Severus coin. Next to the press room, there was a *cella olearia* and rooms for storing olives, as well as a series of smaller storage rooms. The walls of the room in front of the press room were 88.71 cm (3 Roman feet) wide, and their size suggests this part was constructed in storeys, probably made for the purpose of supervising the production process. Another indicator of the villa's expanding capacity is a votive altar dedicated to the goddess Flora and, according to an inscription, erected by Marcus Aurelius Iustus, whose name is familiar from stamps on amphorae made in Fažana at the beginning of the 3rd century (Tassaux 2003: 96). M. A. Iustus might have been a private leaseholder of the imperial *figlinae*, and at times stayed in the villa on the Brijuni Islands (Starac 1994: 138).

On the south-eastern side of the second *villa rustica*, a new villa was later built, a detached building with a tower on the eastern side. The elongated building comprised rooms grouped around a longitudinal corridor and a semi-circular corner room, with a semicircular pool at the other end (facing the sea), which possibly served as a small spa (Vitasović 2005: 176). M. Mirabella Roberti dated it to the 1st or 2nd century (Mirabella Roberti 1936). The structure was completely built in accordance with the orders of classical antiquity. Rows of cut stone using the *opus isodomum* technique are today extraordinarily well visually separated from the subsequently built fortification wall (Mlakar 1976: 21; Vitasović 2005: 173). The structure was built before the fortifications that took advantage of its walls and followed its line of distribution. Its functional relation to the former villa is not clear. It can be assumed that the building was added in order to increase the residential and production capacities of the villa, which were not sufficient for the esta-



Sl. 5 Mogući izgled dograđenog objekta s kulom (na jugoistočnoj strani rustičke vile) prije izgradnje fortifikacija (mozaik iz Tunisa 4. st.)

Fig. 5 Possible appearance of the subsequently added structure with tower (on the south-eastern side of the villa rustica) before the building of fortifications (a mosaic from Tunisia, 4th century)

nares). Njegovo glavno pročelje okrenuto prema jugoistoku ne možemo sa sigurnošću ustanoviti (rekonstruirati), jer je bilo ugrađeno u bedeme. Postoji opravdana pretpostavka da je građen da bi nadopunio upravne i stambene sadržaje *villae rusticae* u trenutku kada su ti kapaciteti postali nedostatni.

Prva arheološka istraživanja lokaliteta u uvali Madona započeo je A. Gnirs 1902. On je istraživao područje vile i kasnije izgrađene fortifikacije, te je lokalitet uveo u literaturu pod nazivom *Kastrum*, vezujući njegovu izgradnju uz razdoblje bizantske dominacije. Istraživanja s prekidima traju do 1914. (Gnirs 1911). Od 1930. do početka Drugoga svjetskoga rata lokalitet su istraživali talijanski arheolozi pod vodstvom M. Mirabella Robertija (1936.). Trećoj etapi arheoloških istraživanja pripadaju istražni arheološki radovi koje je 1952. vodio Š. Mlakar. Sistematska arheološka istraživanja provedena su od 1976. do 1982. pod vodstvom Š. Mlakara i A. Vitasovića, kojima je konačno definiran čitav areal lokaliteta (Mlakar 1976).

Nakon 3. st. po. Kr. preinake strukture vile idu drugim tijekom. U kasnoj antici transformacija rimskih vila opća je pojava na zapadnom dijelu rimskog carstva. Promjene na vili mogu se objasniti u smislu političkih, socijalno kulturnih i konceptualnih promjena. Vila je u svom prvotnom obliku bila kulturni artefakt, izraz i rezultat imperijalne kulture. Novi uzorak upotrebe vila prkosi klasičnoj estetskoj tradiciji i prijašnjem životnom stilu. Tipična rimska forma objekta i upotreba nestala je da bi bila zamjenjena radikalnom promjenom funkcije. Dvorište vile izgrađuje se novim proizvodnim pogonima koji predstavljaju pogone *fullonicae*.

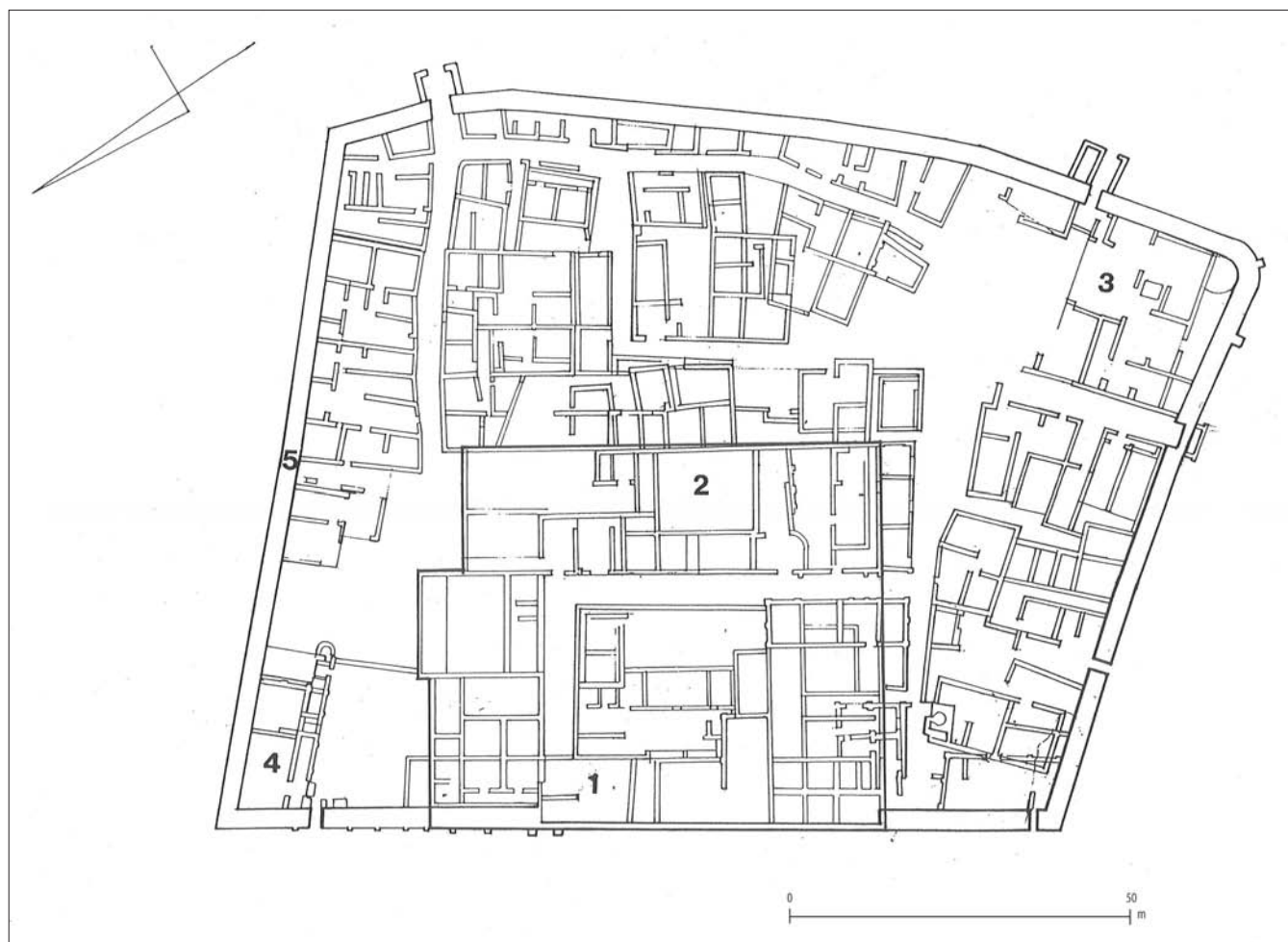
Mada nisu potpuno jasne evidencije da Brijunski posjed prelazi u carsko vlasništvo zajedno s Lekanijevom figlinom u Fažani u vrijeme Flavijevaca, ipak proizvodni pogoni i

te. The nearby saltpans and quarries also made up part of the estate. Judging from its position and a small door in the fortification wall, it was connected with the saltpans in Soline Bay and might have represented the centre of the imperial procurator (*conductor salinares*). The main façade facing the south-east cannot be defined (reconstructed) with certainty, because it was built in a defensive wall. It can be assumed that it was built to complete the administrative and residential content of the *villae rusticae* at a time when capacities had become insufficient.

The first archaeological excavations of the site in Madona Bay were commenced by A. Gnirs in 1902. He excavated the area of the villa and subsequently built fortifications, and introduced the site under the name *Kastrum*, linking its construction with the period of Byzantine domination. With interruptions, excavations lasted until 1914 (Gnirs 1911). From 1930 until the beginning of World War II, the site was excavated by Italian archaeologists led by M. Mirabella Roberti (1936). Archaeological works led by Š. Mlakar in 1952 belong to the third phase of archaeological excavations. Systematic archaeological excavations were carried out from 1976 to 1982, led by Š. Mlakar and A. Vitasović, and the entire site area finally defined (Mlakar 1976).

After the 3rd century AD, changes to the villa's structure took a different course. In late antiquity, the transformation of Roman villas was a general phenomenon in the western part of the Roman Empire. Changes to the villa can be explained in terms of political, social-cultural and conceptual changes. In its original shape, the villa was a cultural artefact, an expression and result of imperial culture. The new pattern in the villa's function was contrary to classical aesthetic tradition and the former way of life. The typical Roman structural form and use disappeared to be replaced by a radical change in function. The villa's courtyard was built with new production workshops in the form of a *fullonica*.

Although there is no clear evidence that in the Flavian era the Brijuni estate along with Laecanius's *figlina* in Fažana had come under imperial ownership, the production workshops and the defence structures on the Brijuni Islands in late antiquity indicate a certain state investment in the archipelago. Evidence of the state's share in investment is arguably visible in the shift of production activities to the central courtyard of the *villa rustica* in Dobrika Bay and workshops similar to those built in the production area of the large maritime villa in Verige Bay. Finds of stone basins and sewers in both villas indicate *fullonicae*. In Verige Bay, a late antiquity structure (with *lacunae* in the central courtyard) was found which covered the production part of the maritime villa and which was situated next to 1st century *thermae*. Placing the *fullonica* next to the *thermae* is logical, since the already existing aqueduct and furnaces could be used for heating the water necessary in the process of washing and rinsing textiles. Vitasović reports finds of a large number of weights for looms in a building with outside porticoes (Vitasović 2004: 94). At the villa site in Sveti Nikola Bay, ceramic weights for looms and rooms with *opus signinum* paving were unearthed. Judging by the arrangement of the rooms and by the finds, Gnirs concluded that these were



Sl. 6 Kasnoantičko naselje s fortifikacijama u uvali Dobrika građeno na rustičkoj vili – tlocrt: 1. prvi objekt (villa rustica), 2. drugi objekt (velika villa rustica), 3. objekt sagrađen s jugoistočne strane rustičke vile, 4. građevinski sklop iz 4./5. st. sagrađen sa sjeverozapadne strane rustičke vile, 5. fortifikacije

Fig. 6 Late antiquity Dobrika Bay settlement with fortifications, built on the villa rustica – ground-plan: 1. first structure (villa rustica), 2. second structure (large villa rustica), 3. structure built on the south-eastern side of the villa rustica, 4. 4th-5th century construction complex built on the north-western side of the villa rustica, 5. fortifications

obrambeni razvoj izgradnja na Brijunima u kasnoj antici daju indicije o nekim državnim ulaganjima na otočju. Evidencije državnog ulaganja (uključivanja) mogli bi se prepoznati u promjeni proizvodnih djelatnosti u centralnom dvorištu *villae rusticae* u uvali Dobrika i pogona koji su slični onima izgrađenim na gospodarskom dijelu velike maritimne vile u uvali Verige. Nalazi kamenih bazena, kanala za odvodnju na obim vilama indiciraju o postrojenjima *fullonicae*. U uvali Verige nađena je kasnoantička izgradnja (s *lacunae* u centralnom dvorištu) koja je presvojila gospodarski dio maritimne vile i nalazi se uz terme iz 1. st. Smještaj fulonike uz bazene terma logičan je, jer se mogao uporabiti već postojeći akvadukt i ložišta za zagrijavanje vode potrebne u procesu pranja i ispiranja tkanina. Vitasović piše o nalazima mnoštva utega za tkalački stan na zgradi s vanjskim porticima (Vitasović 2004: 94). Na lokalitetu vile u uvali sv. Nikole nađeni su keramički utezi za tkalački stan, te prostorije s podom u tehnici *opus signinum*. Prema rasporedu prostorija i nalazima Gnirs je zaključio da se radi o pogonima *fullonicae* (Gnirs 1901: 130) koji bi predstavljali dio ukupnih pogona fulonike na Brijunima. Na lokalitetu Porto Colonne u blizi-

fullonicae (Gnirs 1901: 130) which represented only a part of such workshops on the Brijuni Islands. At the Porto Colonne site near Barbariga in Istria, *lacunae* were found, similar to those in Verige Bay (Schwalb 1902: 2). Gnirs also reports a *fullonica* at the villa in Val Bandon (Matijašić 1998: 122).

M. Suić offered historical and linguistic justifications for associating these workshops with the *baphium Cissense Venetiae et Histriae* of the imperial *fullonicae* mentioned in the *Notitia Dignitatum* around 435 (Suić 1987: 202). A more precise dating of the *fullonica* is not possible, and nor is a historical interpretation of the construction in Dobrika Bay, before all the finds from the area have been processed. The *Notitia Dignitatum* mentions a *fullonica* which operated in the Istria region. We may conclude that *fullonica* workshops were not situated only in one place, but were located at several sites: on the Brijuni Islands in Verige Bay, Dobrika Bay (in the villa courtyard) and in Sveti Nikola Bay, in a villa on Mali Brijun. Along the coast, such workshops were documented in Barbariga, Punta Cissana (finds of shells of the *murex* type), Porto Colonne and the villa in Val Bandon.

Coin finds from the area of the villa and subsequent structures suggest a significant increase in the circulation of

ni Barbarige na istarskom kopnu nađene su *lacunae* slične onima u uvali Verige (Schwalb 1902: 2). Gnirs govori o pogonima fulonike na vili u Val Bandonu (Matijašić 1998: 122).

M. Suić je dao povijesna i lingvistička objašnjenja za povezivanje tih pogona s *baphium Cissense Venetiae et Histriae carske fullonicae* koja se spominje u *Notitia Dignitatum* oko 435. g. (Suić 1987: 202). Preciznije datiranje fulonike nije moguće kao i povijesna interpretacija izgradnje u uvali Dobrika dok se ne izvrši obrada svih nalaza s tog područja. *Notitia Dignitatum* spominje fuloniku koja je bila na području Istre. Možemo zaključiti da se pogoni fulonike nisu nalazili samo na jednom mjestu, već su bili smješteni na nekoliko lokacija: na području Brijunskog otočja u uvali Verige, uvali Dobrika (u dvorištu vile) i u uvali sv. Nikole u vili na Malom Brijunu. Na obali njeni su pogoni dokumentirani u Barbarigi, Punta Cissana (nalaz školjaka tipa *murex*), Porto Colonne i u vili na Val Bandonu.

Nalazi novca s područja vile i kasnijih izgradnja pokazuju značajan porast u opticaju novca u drugoj polovici 3. st. Nova situacija s povećanom novčanom ekonomijom svakako je uočljiva, bez obzira na veliku emisiju novca u to vrijeme. Na području Kastruma nađen je 261 komad novca. Najraniji i jedini novac republikanskog razdoblja datira iz prve pol. 2. st. pr. Kr. (republikanski *as*). Najkasniji je srebrni novac Karla Velikog (781.–800.) i Henrika IV. ili V. (Matijašić 1983). Zastupljeni su svi imperijalni periodi, no najveći broj pripada 4. st. (Miškec 2002: 177–194). Komercijalne aktivnosti u 4. st. na području Jadranskog mora vidljive su na mnogim značajnim lokalitetima uzduž plovnih ruta (puteva) kao na Dioklecijanovoj palači, Polačama na Mljetu, Pharia na otoku Hvaru, Ubli na Lastovu i Lumbarda na Korčuli. Većina importirane keramike na tim lokalitetima, posebno ona iz sjeverne Afrike, datira iz 4. st. (Schrunk 1989). Nalazi keramike iz uvale Dobrika i uvale Verige još nisu publicirani. Imamo samo izvještaje o većoj količini afričkih amfora i afričke *sigillata chiara* keramike iz 4. st. iz uvale Dobrike i Verige, koje pokazuju značajni porast širih trgovačkih (komercijalnih) kontakata između različitih područja Rimskog carstva (Bezeczky 1998: 57; Matijašić 1998: 371). Numizmatički i keramički nalazi podupiru argumente za postojanje fulonike i za činovnike i administraciju, te neke vojne postrojbe koje su bile s tim povezane.

Druga evidencija porasta populacije i prosperiteta kao i identiteta stanovnika su nekropole 4. i 5. st. poredane uzduž puteva na prilazima naselju. Nalazi u građenim grobovima i sarkofazima su srebrne i zlatne naušnice i dekorativni elementi vojničkih odora (Marušić 1986: 84–91). Možemo pretpostaviti da je fulonika izgrađena na Brijunima negdje između kasnog 3. i poč. 4. st. To je izazvalo porast stanovništva i građevinskih aktivnosti oko proizvodnih pogona i formiralo naselje na ostacima *villae rusticae* iz 1. st. pr. Kr. U 5. st. naselje i važni proizvodni pogoni dobivaju prve obrambene bedeme. Naselje s obrambenim zidinama, koje je nastalo sukcesivnom izgradnjom područja uz veliku rustičku vilu u turbulentnim vremenima kasne antike, postaje zona pomorske baze na vitalno važnom plovnom putu Jadranom, a kasnije u 6. st. bizantska vojna utvrda i refugij.

coins in the second half of the 3rd century. A new situation with an increased monetary economy is certainly evident, irrespective of the increased coin minting at the time. In the Kastrum area, 261 coins have been found. The earliest and only Republican era money dates from the first half of the 2nd century BC (Republican *as*). The most recent finds were silver coins from the periods of Charlemagne (781–800) and Henry IV or V (Matijašić 1983: 217–233). All imperial periods are represented, but the largest number originate from the 4th century (Miškec 2002: 177–194). Commercial activities in the 4th century in the Adriatic region are evident at numerous significant sites along navigation routes, such as Diocletian's Palace, Polače on Mljet, Pharia on Hvar, Ubli on Lastovo and Lumbarda on Korčula. Most of the imported pottery at these sites, particularly that from northern Africa, dates from the 4th century (Schrunk 1989). Pottery finds from Dobrika and Verige Bays have not been published yet. We only have reports on a larger quantity of African amphorae and African *sigillata chiara* pottery from the 4th century from Dobrika and Veriga Bays, suggesting a significant increase in broader commercial contacts among the different regions of the Roman Empire (Bezeczky 1998: 57; Matijašić 1998: 371). Numismatic and pottery finds support arguments for the existence of *fullonicae* and of civil servants and the administration, as well as certain associated military units.

Other evidence of an increase in population and prosperity and also the identity of the population are the 4th and 5th century necropolises lined along the settlement entrance roads. Constructed graves and sarcophagi finds include silver and gold earrings and the decorative elements of military uniforms (Marušić 1986: 84–91). We may assume that the *fullonica* on the Brijuni Islands was built somewhere between late 3rd and beginning of the 4th century. This caused an increase in population and construction activities around production workshops and the establishment of a settlement on the remains of the 1st century BC *villa rustica*. In the 5th century settlement, important production workshops received their first defensive walls. The settlement with defensive walls that came into existence owing to the successive construction of the area next to the large *villa rustica* in the turbulent times of late antiquity became the area of a naval base on a vitally important Adriatic navigation route, and later, in the 6th century, a Byzantine military base and *refugium*. We need to differentiate between the agglomeration which existed in this area before the construction of the defensive walls, and the phase after the building of the fortifications, which was significantly different in the 5th century compared to the 6th–7th centuries, not only in structure and content, but also in the quality and quantity of the defensive walls built.

The buildings in Dobrika Bay (Madona) before the construction of the fortifications are suggested by the directions in which the defensive walls that form an irregular rectangle extend. In this area in Dobrika Bay, there is a large *villa rustica* from the 1st century BC, a structure built south-east of the villa, dated on the basis of archaeological material (Mirabella Roberti 1936), and a structure built north-



Sl. 7 Pogled na kasnoantičko naselje u uvali Dobrika
Fig. 7 View of the late antiquity settlement in Dobrika Bay

Moramo razlikovati aglomeraciju koja je na tom području bila prije izgradnje obrambenog bedema, kao i fazu nakon izgradnje fortifikacija, koja se opet bitno razlikuje u 5. st. naspram 6./7. st. kako po strukturi i sadržajima, tako i po kvaliteti i obimu izgrađenih bedema.

Izgradnju u uvali Dobrika (Madona) prije izgradnje fortifikacija pokazuju smjerovi rasprostiranja bedema koji formiraju nepravilni četverokut. Na ovom području u uvali Dobrika nalazi se velika *villa rustica* iz 1. st. pr. Kr., objekt građen jugoistočno od vile datiran prema arheološkom materijalu (Mirabella Roberti 1936) i objekt građen sjeverozapadno od vile s lezenama koji odaje kasnoantički stil gradnje, izgrađen svakako prije 452. g. kada se pretpostavlja da je počela izgradnja fortifikacija naselja.

U ranobizantskom razdoblju fortifikacije kasnoantičkog naselja bile su pojačane pod kontrolom državnih graditelja i izvedene prema bizantskim pravilima gradnje. Na prostoru veličine 95 x 130 m izgrađen je nepravilni četverokut jakih obrambenih zidova debljine 2,6 m, pojačan na uglovima do debljine 2,9 m, s pet ulaza, dvokrakim stepeništima koja su vodila na vrh bedema i tornjem na jugoistočnom dijelu.

Ranobizantska utvrda na Brijunima svedena je na vojni i crkveni centar i bitno se razlikuje od kasnoantičkog naselja koje mu je prethodilo. Razdoblje 5. i 6. st. u Istri mora se sagledati u svjetlu glavnih geopolitičkih i kulturnih promjena na Mediteranu. To je vrijeme intenzivne militarizacije Jadrana, koje je rezultiralo i restrukturiranjem, te izgradnjom fortifikacija na obali i otocima. Najveći utjecaj i autoritet imala je Kršćanska crkva, a gradnja mnogobrojnih crkvenih građevina zabilježena je u tom razdoblju u Istri. Interesantno je da se gradnja fortifikacija i crkvenih građevina zbivala istovremeno na mnogim lokalitetima na Jadranu. Istra je

west of the villa with lesenes that suggest the building style of late antiquity, and which was certainly built before 452, when it is assumed the construction of the settlement's fortifications began.

In the early Byzantine period, late antiquity settlement fortifications were reinforced under the control of state architects and built according to Byzantine building rules. Over an area of 95 x 130 m an irregular rectangular construction with 2.6 metre-thick defensive walls was built, fortified to 2.9 m in the corners, with five entrances, twin staircases leading to the top of the walls, and a tower in the south-eastern part.

The early Byzantine fort on the Brijuni Islands was reduced to a military and ecclesiastical centre and differed significantly from the late antiquity settlement that preceded it. The period of the 5th and 6th centuries in Istria needs to be observed in the light of the main geopolitical and cultural changes on the Mediterranean. This was a time of intensive militarisation of the Adriatic, which resulted in the restructuring and construction of fortifications along the coast and on the islands. The largest influence and authority lay in the hands of the Church, and in this period in Istria, the construction of numerous churches is evident. It is interesting that the construction of fortifications and churches went on simultaneously at numerous sites in the Adriatic. Istria played a very important role in historical changes in the period when Ravenna became the capital of the Roman Empire and when northern Italy became so important that everything gravitated towards it.

The available archaeological evidence largely indicates that St. Mary's Church was the *ecclesia Cessensis* mentioned in 6th century synod acts as the residence of Bishop Vindemius (*Episcopus Cessensis*) and in 7th century sources as that

imala vrlo važnu ulogu u povijesnim promjenama u razdoblju kada je Ravena postala prijestolnica Rimskog carstva i kada je sjeverna Italija postala tako važna da joj je sve gravitiralo.

Raspoložive arheološke evidencije koje imamo do danas uvelike indiciraju da je crkva sv. Marije bila *ecclesia Cessensis* koja se spominje u aktima sinoda u 6. st. kao rezidencija biskupa Vindemija (Episcopus *Cessensis*) i biskupa Ursinija (Episcopus *Cenetensis* – *Cesensis*) koji se spominje u izvorima iz 7. st. (Suić 1987: 208). Ime *Cessensis* proizlazi iz topònima *Cissa Pularia* za Brijune koju je u svom geografskom opisu Jonskog i Jadranskog mora donio Plinije Stariji (NH III, 151–152). Na Peutingeriana karti otočje je označeno kao *Pullariae*. U 6. st. snaga je praktički i duhovno ležala na kršćanskim autoritetima i gradnja crkvenih građevina bila je posljedica toga. Na Brijunima civilne i crkvene inovacije smještene su u zaljevu Dobrika, velikoj i zaštićenoj uvali s fortificiranim naseljem, uz koje su izgrađene crkva sv. Marije (5. st.) i crkva sv. Petra (6. st.). U vrijeme bizantske reokupacije Istre naselje postaje bizantski *castellum* s vojnim zapovjedništvom i biskupskom palačom u njemu. Fizička pojava ranobizantskog *castella* bila je potpuno suprotna kasnoantičkom koji mu je prethodio. *Castellum* je reduciran (sveden) na vojni i crkveni centar koji je odgovoran i održavan od carskih, a ne od lokalnih interesa. Prema današnjim saznanjima dio u *castellum*u koji je koristio biskup bio je sjeverni dio i područje nekadašnje *villae rusticae*, dok je južni dio bio pod ingerencijom vojnih autoriteta (Begović, Schrunk 2008: 75–76). Nađeni su fragmenti kamene crkvene opreme i arhitektonske dekoracije u kasnoantičkom naselju – neke od njih su uzidane kao spolije u zidove kasnijih gradnji – istraživanja 1976.–1983. g. (Marušić 1990: 403–429). Nađena kamena arhitektonska dekoracija pripadala je prvoj fazi izgradnje bazilike sv. Marije (vidljivo prema istovjetnosti ukrasa na impostima u crkvi nađenim *in situ*) skinuta tijekom bizantske renovacije i ponovno upotrebljena u naselju (tvrđavi). Nalazi govore o renovaciji prostora svetišta i ambona, te o izmjeni epistila. U dvorištu druge rustičke vile u 6. st. ugrađuju se mlin i preše za tiještenje maslina. Njihovu postavu datira epistil skinut sa crkve sv. Marije koji je uzidan u postolje preše.

Brijunsko otočje posebna je upravna jedinica koja se još spominje kao *census* u spisima Lateranske sinode iz 680. g. (Vicelja 2007: 48).

Bizant je 752. g. izgubio Ravenu. Iz pisma pape Hadrijana (772.–795. g.) franačkom kralju Karlu vidi se da je Bizant nakon gubitka Ravene posjedovao još neka područja u Istri. Brijuni s Pulom dosta vjerojatno pripadaju tom području. Bizant napušta kontrolu plovidbe Jadranom tek 822. god. Bizantska se mornarica povukla s Jadrana zbog sukoba na istoku svojih posjeda i dugotrajnog rata s Bugarima u kojemu je ubijen i car Nikefor 811. god., a definitivno za cara Mihovila Amorijskog 822. god. (Lučić 1666., izdanje 1986., 351–357) Razdoblje franačke dominacije nakon 822. g. na Brijunskom otočju rezultiralo je brojnom izgradnjom u naselju, te preinakama unutrašnjeg prostora u crkvi sv. Marije i sv. Petra.

of Bishop Ursinus (Episcopus *Cenetensis* – *Cessensis*) (Suić 1987: 208). The name *Cessensis* was derived from the toponym *Cissa Pularia* for Brijuni, which was introduced by Pliny the Elder in his geographical description of the Ionian and Adriatic Seas (NH III, 151–152). On the Peutingeriana Map, the archipelago was marked as *Pullariae*. In the 6th century, the Christian authorities gained practical and spiritual power, one of the consequences of which was the construction of a church. On the Brijuni Islands, civil and church innovations are located in Dobrika Bay, a large and protected bay with a fortified settlement, next to which the churches of St. Mary (5th century) and St. Peter (6th century) were built. At the time of the Byzantine reoccupation of Istria, the settlement became a Byzantine *castellum* with a military command and a bishop's palace within it. The physical appearance of the early Byzantine *castello* was completely different to that of the preceding late antiquity complex. The *castellum* was reduced to a military and ecclesiastical centre in charge of and maintained by imperial and not local interests. According to present-day knowledge, the part in the *castellum* used by the Bishop was the northern part and the area of the former *villa rustica*, while the southern part was under the military authorities (Begović, Schrunk 2008: 75–76). Fragments of stone church furnishings and late antiquity settlement architectural decorations were found – some of them having been built into the walls of later structures as spoils, as the excavations of 1976–1983 confirmed (Marušić 1990: 403–429). The unearthed stone architectural decorations that belonged to the first stage of the construction of St. Mary's Basilica (evident from the same decorations on the imposts in the church, found *in situ*) were removed during the Byzantine reconstruction and reused in the settlement (fort). The finds suggest the renovation of the sanctuary and ambo, and the replacement of the epistyle. In the courtyard of the second *villa rustica*, in the 6th century a mill and olive press were built. Their construction is dated by the epistyle, taken from St. Mary's Church and built into the press base.

The Brijuni Islands were a separate administrative unit, mentioned as a *census* in the acts of the Lateran synod of 680 (Vicelja 2007: 48).

In 752, Byzantium lost Ravenna. From the letter of Pope Hadrian (772–795) to the Frankish king Charles, it is evident that after the loss of Ravenna Byzantium still possessed some parts of Istria. Brijuni with Pula most probably still belonged to it. Byzantium only gave up maritime control of the Adriatic as late as 822. The Byzantine navy withdrew from the Adriatic due to conflicts in its eastern territories and its long-lasting war against the Bulgars, in which the emperor Nikephoros was killed in 811. It withdrew definitively during the reign of the emperor Michael II the Amorian in 822 (Lučić 1666, 1986 edition, 351–357). The period of Frankish domination on the Brijuni Islands after 822 resulted in intensive construction in the settlement and changes to the interiors of the churches of St. Mary and St. Peter.

As an important naval base in the Adriatic in the Middle Ages, the settlement was exposed to frequent plague outbreaks and was abandoned in the 15th–16th century. The settlement was relocated to the eastern part of the island.

Kao važna pomorska baza na plovnom putu Jadranom naselje je u srednjem vijeku izloženo čestim poharama kuge i u 15./16. st. napušteno. Translatacija naselja izvršena je prema istočnom dijelu otoka. Novo naselje gradi se u luci Brijuni oko branič kule (donžona) iz 12. st. i crkve sv. Germana. Pretpostavka je da je *castellum* u uvali Dobrika (Madona) preuzeo "brivonski epitet" (Suić 1987: 211) koji je nakon translatacije naselja dobilo naselje u luci Brijuni potvrđeno je putopisom iz 15. st. Petar Casola kanonik iz Milana koji se uputio u Svetu zemlju 1494. g. i na povratku pristao lađom na Brijune piše:

"U ponedjeljak 27. listopada, sklonili smo se bar koliko smo mogli u luku dobro zaštićenu od siline vjetrova, prema onome što sam čuo. Na jednoj strani je bilo selo zvano La Fasana/Fažana, a na drugoj strani jedno drugo selo zvano Briona. Tamo su brda od stijena i vrlo lijepog kamena različitih vrsta, iako nema mramora. Kameni su kao oni iz Angere i čini se kao da su žile u kamenu bile izmjerene prije nego je kamen složen u ta brda, tako su pravilne. Izvanredna stvar je vidjeti te kamene. Većina kamena upotrebljenog u Veneciji je izvađena tamo. U Brioni se iskrcao tko god je htio. Tamo sam naišao na čovjeka iz Cremona i na drugog iz Como, koji su bili zaposleni u klesanju kamena, te sam od njih doznao o osobinama tog mjesta. Zemlju obrađuju žene, jer su svi muškarci zaposleni u vađenju kamena. Jednu stvar sam vidio u tom mjestu koju ne smijem propustiti da spomenem. Naime većina njihovih kuća je građena bez morta, no svejedno su lijepe. Kameni su tako dobro složeni jedan uz drugi da su kuće jake i bez morta. Razmaci su izvana ispunjeni kućinom.

Muškarci su poštteni. Imali su dosta prihoda da su mogli sagraditi lijepu crkvu, zvanu Crkva Svetog Germana i četiri Okrunjene Glave. Imali su dosta novaca da daju izraditi i oltar koji vrijedi tristo dukata, kako su mi sami rekli. Oltar ima pet velikih figura koje je izradila ruka nekog odličnog majstora. Samo im nedostaje glas da zbilja budu živi, a nije se štedjelo ni zlato na njima. Na podnožju oltara je isklesana povijest četiri okrunjene glave koji su bili kipari. Nisam vidio takav oltarni komad u Milanu". Tekst putopisa ustupio nam je prof. Marinko Petrić na čemu mu posebno zahvaljujemo.

The new settlement was built in Brijuni harbour around the 12th-century watchtower (donjon) and the Church of St. Germano. The assumption that the *castellum* in Dobrika Bay (Madona) assumed the name "Brivona" (Suić 1987: 211), which was then given to the settlement relocated to Brijuni harbour, is confirmed in a 15th-century travel account. Pietro Casola, a Catholic canon from Milan, who went to the Holy Land in 1494 and on his way back landed at Brijuni, reports:

"On Monday 27 October, we found shelter – at least as much as we could – in a harbour well-protected from the powerful winds, as far as I could hear. On one side, there was a village called La Fasana/Fažana, and on the other side another village called Briona. There are hills of rocks and very beautiful stones of various kinds, although there is no marble. The stones look like those from Angera, and it seems as if the veins in the stones had been measured before the stone had been arranged in the hills, they are so regular. It is a great thing to see the stones. Most of the stones used in Venice were taken from here. Whoever wanted, could go ashore in Briona. There I found a man from Cremona and another from Como, who were employed as stone-workers, and from them I found out about the place. The land was cultivated by women, because all the men were busy working stone. There was one thing I saw in that place which I should not forget to mention. Namely, most of their houses were built without mortar, though they were still nice. The stones are so well arranged, one next to the other, that the houses are strong even without mortar. On the outside, the spaces are filled with tow.

The men are honest. They earned enough to build a beautiful church, called the Church of St. Germano and the Four Crowned Heads. They also had enough money to build an altar worth three hundred ducats, as they told me themselves. The altar has five large figures that were made by the hand of an excellent master. If they could only talk, they would really be alive, and they didn't save on gold on them either. At the altar base, the history is carved of the four crowned heads, who were sculptors. I have not seen such an altarpiece in Milan". The journal text was given to us by Professor Marinko Petrić, and we would like to extend our gratitude to him.

IZVORI / SOURCES

- Appianus of Alexandria, *Appian's Roman History (Historia Romana)*, The Loeb Classical Library 4, Cambridge: Harvard University Press, 1912.
- Cato, *M. Porcius Cato, De agri cultura*, (prijevod: Hooper, W. D., Boyd Ash, H.), **The Loeb Classical Library 283, Cambridge, Harvard University Press 1934.**
- CIL V. *Corpus Inscriptionum Latina*, Mommsen, T. (ed.).
- Plinius, Gaius Plinius Caecilius Secundus, *Plinius, Epistulae: A Critical Edition*. (prijevod: Stout, S. E.), Bloomington: Indiana University Press 1962.

- Plinius, Gaius Plinius Secundus Maior, *Pliny the Elder, Natural History (Naturalis historia)*, (prijevod: Rackham, H.), The Loeb Classical Library 352, Cambridge, Harvard University Press, 1942.
- Varro, *M. Terentius Varro, Rerum rusticarum libri tres*, (prijevod: Hooper, W. D., Boyd Ash, H.), **The Loeb Classical Library, Cambridge 283, Harvard University Press, 1934.**
- Vitruvije, Marcus Vitruvius Pollio, *Deset knjiga o arhitekturi, De architectura libri decem*. (prijevod: Lopac, M.), Svjetlost, Sarajevo.

LITERATURA / BIBLIOGRAPHY

- Bačić, B. 1970, Prilozi poznavanju praistorijske gradinske fortifikacije u Istri, *Adriatica Praehistorica et Antiqua*, Zagreb, 215–226.
- Begović, V., Schrunk I., 1999-2000, *Villae rusticae* na Brijunskom otočju, *Opuscula archaeologica*, 23-24, 425–439.
- Begović, V., Schrunk I. 2007, Production of Wine and Olive Oil in the early Empire on the Brijuni Islands, *Histria Antiqua*, 15, 327–340.
- Begović, V., Schrunk, I. 2008, The church of St. Mary and *Episcopus Cessensis* on the Brioni islands, Croatia, *Libro de pres-actas XV Congreso internacional de Arqueología Cristiana*, Madrid, 75–76.
- Bezeczky, T. 1995, Amforae and Amfora Stamps from the Laecanius Workshop, *Journal of Roman Archaeology* 8, Ann Arbor, 41–64.
- Bezeczky, T. 1998, *The Laecanius Amphora Stamps and the Villas of Brijuni*, Wien.
- Carandini, A., Ricci, A. 1985, *Settefinestre: Una villa schiavistica nell'Etruria Romana*, Modena.
- D'Arms, J. H. 1970, *Romans on the Bay of Naples*, Cambridge.
- De Franceschini, M. 1998, *Le ville Romane della X regio (Venetia et Histria)*, Roma.
- Glogović, D. 1989, Prilozi poznavanju želznog doba na Sjevernom Jadranu. *Hrvatsko Primorje i Kvarnerski otoci*. Monografije JAZU, Zavod za arheologiju 1, Zagreb.
- Gnirs, A. 1901, Überreste römische Ansiedlungen in der Gegend zwischen Pola und Rovigno, *Mitteilungen der K. K., Central Commission zur Erforschung und Erhaltung der Baudenkmale*, 27, 128–130.
- Gnirs, A. 1902, Aus Südistrien, Die römischen Hafenanlagen von Val Caterna auf Brioni Grande, *Jahreshefte des Österreichischen Archäologischen Instituts*, Beiblatt V, 159–166.
- Gnirs, A. 1911, Baudenkmale aus der Zeit oströmischen Herrschaft auf der Insel Brioni Grande, *Jahrbuch für Altertumskunde*, Wien, 75–97.
- Gnirs, A. 1924, Beispiele der antiken Wasserversorgung aus den istrischen Karstlande, *Strena Buliciana, Buličev zbornik, Naučni prilozi posvećeni Franu Buliču prigodom LXXV. godišnjice njegova života od učenika i prijatelja*, Abramić M., Hoffiller V. (eds.), 129–150.
- Jurišić, M., Orlić, M. 1998, *Hidroarheološki lokaliteti na Brijunima*, neobjavljeni elaborat.
- Jurkić Girardi, V. 1986, Prilog za sintezu povijesti Istre u rimsko doba, *Izdanja Hrvatskog arheološkog društva 11/1, Pula*, 65–80.
- Keppie, L. 1983, *Colonisation and Veteran Settlement in Italy 47–14 B.C.*, London.
- Lučić, I. 1666, *De regno Dalmatiae et Croatiae libri sex*, Amstelaedami.
- Lučić, I. 1986, O kraljevstvu Dalmacije i Hrvatske, *Latina et Graeca*, Knj. 7, Zagreb (II. izd.).
- Marušić, B. 1986, Materijalna kultura Istre od 5. do 9. stoljeća, *Izdanja Hrvatskog arheološkog društva 11/1, Pula*, 81–107.
- Marušić, B. 1990, Še o Istrski Kisi Cissa, in *Kesenskem škofu Episcopus cessensis*, *Arheološki vestnik* 41, 403–422.
- Matijašić, R. 1983, Cronografia dei bolli laterizi della figulina Pansiana nelle regioni adriatiche, *Mélanges de l'École française de Rome : Antiquité* 95, 961–995.
- Matijašić, R. 1998, *Gospodarstvo antičke Istre*, Pula.
- Mirabella Roberti, R. 1936, Restauri a Brioni che mettono in luce i preziosi segni della sua vita antica, *Corriere Istriano*, 18/1936.
- Miškec, A. 2002, *Die Fundmünzen der Römischen Zeit in Kroatien*, Mainz.
- Mlakar, Š. 1976, Fortifikacijska arhitektura na otoku Brioni. "Bizantski kastrum", *Histria Archaeologica*, 6-7, 5–50.
- Mlakar, Š. 1981, *Amfiteatar u Puli*, Pula.
- Rosada, G. 1999, *Oppidum Nesactium*, Treviso.
- Schrunk, I. 1989, Dioklecijanova palača od 4. do 7. stoljeća u svjetlu keramičkih nalaza, *Vjesnik Arheološkog muzeja u Zagrebu*, 3, s. XXII, 91–102.
- Schrunk, I. Begović, V. 2000, Roman Estates on the Islands of Brioni, *Istria, Journal of Roman Archaeology*, 13, Ann Arbor, 253–276.
- Schwalb, H. 1902, Römische villa bei Pola, *Schriften der Balkan-Kommission, Antiquarische Abteilung*, Wien.
- Shatzman, I. 1975, *Senatorial wealth and Roman politics*, Collection Latomus, v. 142, Bruxelles.
- Starac, A. 1994, Carski posjedi u Istriji, *Opuscula Archaeologica*, 18, 133–145.
- Starac, A. 1999, *Rimsko vladanje u Istriji i Liburniji I*, Pula.
- Starac, A. 2000, *Rimsko vladanje u Istriji i Liburniji II*, Pula.
- Stokin, M., Karinja, S. 2004, Rana romanizacija i trgovina u sjeverozapadnoj Istri s naglaskom na materijalnu kulturu, *Histria Antiqua*, 12, 45–54.
- Suić, M. 1987, Cissa Pullaria – Baphium Cissense – Episcopus Cessensis, *Arheološki radovi i rasprave*, 10, 185–215.
- Suić, M. 2003, *Antički grad na istočnoj obali Jadrana*, Zagreb, II izdanje.
- Širec, Lj., Vitasović, A. 1984-85, Srednjovjekovna keramika iz cisterne Kastruma na otoku Brioni, *Histria Archaeologica*, 15-16, 85–107.
- Šonje, A. 1991, *Putevi i komunikacije u prethistoriji i antici na području Poreštine*, Poreč.
- Tassaux, F. 1982, Laecanii, recherches sur une famille senatoriale d' Istrie, *Mélanges de l'École française de Rome, Antiquité*, 94, 227–269.
- Tassaux, F. 1998, Apports récents de l'épigraphie à l'histoire économique et sociale de l'île de Brioni (Croatie), in: *Épigraphie de l'Adriatique, IXe Rencontre franco-italienne sur l'épigraphie du monde romain (Macerata, 10-11 nov. 1995)*, Rome, 77–99.
- Tassaux, F. 2003, Élités locales, élites centrales, Approche économique et sociale des grands propriétaires au nord de l'Italie romaine (Brescia et Istrie), in: *Les biens immobiliers et fonciers des élites locales dans le monde romain, Histoire et sociétés rurales* 19, Paris, 91–120
- Terrenato, N. 2001, The Auditorium site in Rome and the origins of the Villa, *Journal of Roman Archaeology*, 14, Ann Arbor, 5–32.
- Vicelja, M. 2007, *Istra i Bizant, Neki povijesno-ikonografski aspekti u interpretaciji umjetnosti 6. stoljeća u Istri*, Rijeka.
- Vitasović, A. 2004, Istraživanje i zaštita rimske vunare kao zasebnog segmenta ladanjskog dvorca na tri terase u zaljevu Verige na otoku Veliki Brijun, *Histria archaeologica*, 35, 89–110.
- Vitasović, A. 2005, Antički objekti u uvali Dobrika na otoku Veliki Brijun, *Histria archaeologica*, 36, 157–210.
- Vitasović, A. 2007, Opskrba vodom i rimski vodovod na brdu Gradina na otoku Veliki Brijun, *Histria archaeologica*, 37, 47–82.