

Dubrovnik:
Civitas et Acta Consiliorum
1400–1450.
Mapping Methodology
and Data Analysis*

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... *urbs Ragusina ... sit commodissimo loco sita, edifitiis
communibus et privatis ornata, legum ordinibus recte disposita,
et consuetudinum laudabilium numero magno referta*¹

Phillipus de Diversis, 1440

Philippus de Diversis, an Italian humanist who left Venice to become a public schoolmaster in Dubrovnik, praised the city in which he lived and worked and described it in his famous book *Situs aedificiorum, politiae et laudabilium consuetudinum inclitae civitatis Ragusii*.² In the introduction, he portrayed Ragusa, which is the Latin name for Dubrovnik, as a city situated in the most opportune place, adorned with public and private buildings, well regulated owing to its laws and numerous laudable customs. Thus, before providing a detailed depiction, Diversis emphasised the most important characteristics of the fifteenth century Dubrovnik: good governance and the beauty of its urban form.

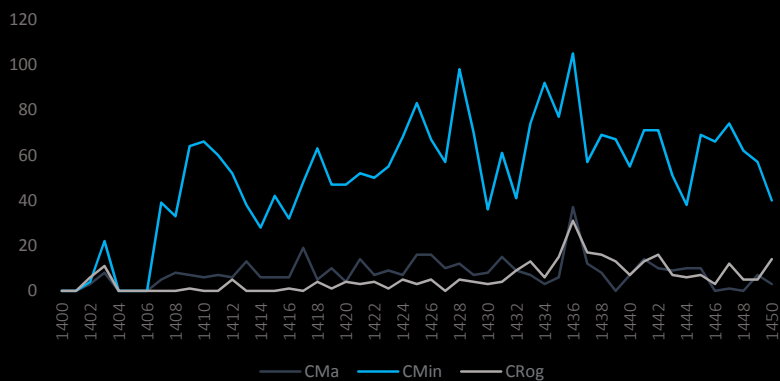
It is precisely this relationship, the relationship between these two characteristics that is the topic of our research. The core of the research focuses on the deliberations of the three city councils of Dubrovnik: the Major Council, the Minor and the Senate, from the first half of the fifteenth century. These as yet unpublished volumes, written predominantly in Latin, are kept at the Državni arhiv u Dubrovniku / the Dubrovnik State Archives. All the deliberations concerning urban space and its buildings are systematically collected and transcribed from these volumes and then uploaded onto the project website, thus becoming available as an open source. As such, they are meant to facilitate further in-depth research on urban development. The aim of this paper is to present the collected documents as well as the structure of the map searchable database of the transcribed deliberations.

There are thirty-five volumes containing the deliberations from the first half of the fifteenth century (FIG. 1). The first three volumes, called *Reformationes*, involve the deliberations of all three Councils.³ In 1415, it was decided that each Council should have its separate volume. By the mid-fifteenth century, nine volumes comprising the deliberations of the Major Council had been recorded, twelve comprising those of the Minor, and eleven involving those of the Senate.⁴ Together, these volumes have 7972 *folia* (15,944 pages). The Major Council was mostly responsible for passing new or enhanced laws, the Senate decided about political issues, and the Minor Council was the executive body. These Councils governed the city and its surroundings, known as the Dubrovnik Republic, for several centuries.⁵ It was exclusively patricians who were permitted membership of the Councils. The segregation of this social class ended in 1332 with

Archival Sources:
Acta Consiliorum

p. 21

Reformationes	ff	delib	Acta Consilii Maioris	ff	delib	Acta Minoris Consilii	ff	delib	Acta Consilii Rogatorum	ff	delib
32 (1402–04)	222	54	1 (1415–19)	155	39	1 (1415–18)	211	159	1 (1415–18)	139	5
33 (1407–11)	294	297	2 (1419–23)	148	39	2 (1418–22)	259	191	2 (1418–20)	147	5
34 (1412–15)	318	152	3 (1423–28)	234	61	3 (1422–26)	299	260	3 (1420–26)	302	21
			4 (1428–33)	310	48	4 (1426–29)	284	269	4 (1427–31)	278	14
			5 (1434–38)	240	66	5 (1430–32)	230	136	5 (1431–35)	295	33
			6 (1440–42)	174	24	6 (1432–35)	296	241	6 (1435–38)	250	76
			7 (1442–45)	276	31	7 (1435–38)	266	227	7 (1438–41)	280	24
			8 (1445–47)	17	6	8 (1438–41)	299	166	8 (1441–43)	290	33
			9 (1449–53)	280	10	9 (1441–43)	245	157	9 (1444–46)	280	15
						10 (1444–46)	264	149	10 (1446–48)	246	16
						11 (1446–48)	245	151	11 (1448–51)	290	21
						12 (1448–51)	285	166			
summa	834	503		1158	324		3183	2272		2797	263
summa summarum		folia 7972	deliberationes	3362							



p. 21

FIGURE 1

Overview of the researched volumes, number of folia and number of transcribed deliberations (drawing by A. Plosnić Škarić).

p. 21

FIGURE 2

Quantity of the deliberations passed by the Major Council, the Minor Council and the Senate per year (drawing by A. Plosnić Škarić).

the closure of the Major Council.⁶ This act defined Dubrovnik's nobility: all adult males of patrician families became members of the Major Council, which enabled them to be elected to other governmental functions such as the membership of the Minor Council and the Senate. Governed by the nobility, this aristocratic republic existed until 1808.

The Councils' deliberations were almost completely preserved from the year of 1301 until the end of the Dubrovnik Republic.⁷ Those that were passed by 1397 were edited and published as completely transcribed documents, between 1879 and 2011.⁸ Although the full transcription of all volumes is the best strategy when the publication of archival materials is in question, this is, due to the quantity of these volumes, an extensive task. However, both published and unpublished volumes have been used by the researchers of the urban form of Dubrovnik since 1914. The deliberations from the first half of the fifteenth century are cited by: Hans Folnesics in his study on Dalmatian architecture,⁹ Cvito Fisković in his works on Dubrovnik stonemasons and builders,¹⁰ Lukša Beritić in his studies on urban development, fortifications and the city's buildings that perished,¹¹ Ilija Mitić in his article on Orlando's column,¹² Nada Grujić in her studies on the Rector's Palace¹³ and by Nada Grujić and Danko Zelić in the article about the building of the house of Duke Sandalj Hranić,¹⁴ and by Renata Novak Klamenčič in her studies on the Great Fountain, the Church of Saint Blaise, the Rector's Palace, as well as on the stonemasons that worked in the city.¹⁵ Important deliberations regarding urban buildings and spaces were also published and discussed by historians: Risto Jeremić and Jorjo Tadić in their studies on health history,¹⁶ Zdenka Janeković-Römer, in her works on social history,¹⁷ Relja Seferović and Mara Stojan in their article on the aqueduct,¹⁸ and Srđan Rudić in his paper on the house of Hrvoje Vukčić Hrvatinić.¹⁹ These authors published transcriptions of 170 deliberations, and signatures of 364 more, thus citing a total of 534 deliberations from the first half of the fifteenth century. Their works reveal the necessity for in-depth research into these volumes, especially regarding the fact that the aforementioned period was among the most prosperous ones in the history of Dubrovnik.

For the purpose of carrying out our research, we defined as relevant, and thus collected, all information about the physical changes of the urban tissue, the use of different spaces and buildings, and the aspects of governmental control over them, as well as the management of related processes. Every deliberation containing any of the above-mentioned information is completely transcribed since only full transcriptions can provide data for the widest possible range of phenomena for further analysis.²⁰ These deliberations disclose that the Major Council passed new laws regarding



FIGURE 3

A

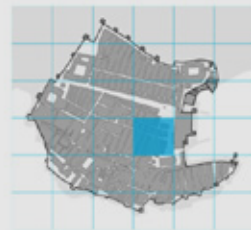
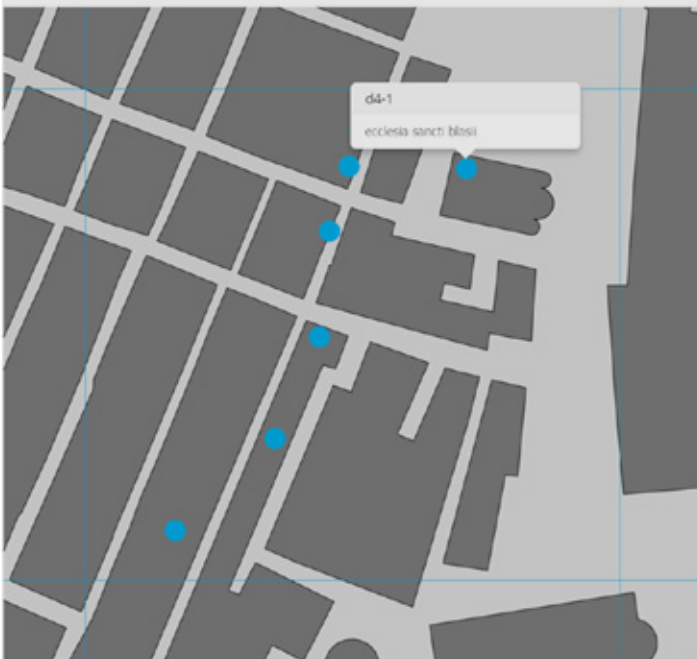
Database homepage:
Dubrovnik 1400–1450 Map.

B

Table of contents.

C

Transcriptions of the related
deliberations.



d4

ecclesia Sancti Blasii

Go Back

1403-03-03 **Modus festi XC martirorum singulo anno fieri.**

In maiori consilio ballotes LXIII. Prima pars est de firmando ordinem portatum pro solempnitate fienda in die XL martirum videlicet VIIi marci. Captem per ballotes XXXV.

Cum gloriosissima dies fuerit illa quadraginta martirorum quorum precibus proditorum tractorum dolore et iniquo pensatos? contra quietum et pacificum statum comunis regimini civitatis nostre Ragusii miraculose divina potencia revelavit, ideo dignum et iustum est ipsam diem orationis et luminaris cereis quolibet anno imperpetuum exprensus nostri comunis honorifice venerari hoc modo, videlicet: Omnes processiones prestiterantur et fratrum cuiuscunque regule in nostra cathedrali ecclesia sancte Marie illo die more solito congregentur et tres relique per thesaurarios nostros extrahantur. Et dominus noster Ragusii onnesque consilarii de nostro consilio rogatorum cum comitiva solita ire cum ipso domino rectore ad festum sancti Blasii iteantur et debeant associare prelatos reliquos et processiones quilibet cum uno doplerio acceso in manu illius ponderis et stature sicut sunt illi qui portantur in festo sancti Blasii de mense februario sub pena yperperorum decem pro quolibet de dicto consilio rogatorum qui fuerit in Ragusio et non venerit ad portandum dictum doplerium. Et qui vadit per Plateam exultationem non habeat. Volentes quod qui de dicto consilio rogatorum dominerit in civitate Ragusii in illa nocte precedente festum non vadat extra civitatem nisi quod portaverit doplerium. Et si aliquis de dicto consilio rogatorum non venerit pro aliqua eius infirmitate et si non scuaverit illo die per se vel alium mittendo ad presenciam rectoris ad iurandum statum ille talis quod ipse pena yperperorum decem quod debitor scribatur in camera. Et pena illa subito exigatur. Que processiones cum dictis reliquis circumdant? **loziam** nostre **Platee** laudes voce alta solempriter decantando. Et intrant **ecclesiam sancti Blasii** super altare magno dicte ecclesie ipsas reliquias deponantur que sic stent donec celebrabitur missa solepnis. Que missa finita dicte relique ad eorum locum cum processione et cum quatuor dopleris accessis reportentur. Insuper omnes dopleri sint capelani dicte ecclesie sancti Blasii per oblationem solempnitatis supradictas? (Ref 32, ff. 200v-207r)

1408-01-24 Pro auribus et petariis

Item captem est quod aurifices vadant retro et petarii vadant ante cum solemnibus pro honorando festum Sancti Blasii patronis nostri et deinceps non fiat questio inter eos. (Ref 33, f. 42v)

1412-12-14

Captem fuit [in minori consilio] de dando ecclesie Sancti Blasii pro servicio ecclesie modis viginti calcis. (Ref 34, f. 53r)

1413-06-16

Captem fuit [in minori consilio] quod cum denariis venditoris possessionum Nive Stanovich quos ipse Nixa legat (?) in eius ultimo testamento ut ex ipsis debeant fieri quoddam pulvum altare in ecclesia Sancti Blasii de Platea, ornari debeat altare maius dicte ecclesie Sancti Blasii. (Ref 34, f. 79r)

1416-12-10 Pro ecclesia sancti Blasii

Captem fuit de portando ad maius consilium de dando de bonis nostri comunis sive denariis in manibus procuratorum ecclesie sancti Blasii iperperis centum annuam de denariis dothane magne ad hoc ut in dicta ecclesia fiant decentes celebrationes officiorum prout convenit dicte ecclesie que est caput et basis huius civitatis. (CMin 1, f. 97r)

1416-12-12 Pro Sancto Blasio [ball. LXVII] Prima pars est de dando de denariis nostri comunis de doana maiori procuratoribus Sancti Blasii gloriosissimi honoratis et protectoris nostri pro affiando et aliis opportunitatibus dicte ecclesie ad reverentiam et honorem dicti sancti yperperis centum.

Captem per LXXX, contra II. (CMA 1, f. 50v)

1416-12-12 Pro eodem [Sancto Blasio] [ball. LXXX]

Prima pars est de dando dictos yperperos certum dicte ecclesie Sancti Blasii perpetuiter quolibet anno ad dictam doanam [maiores]. Captem per LVI, contra XXX. Missa ad librum. (CMA 1, f. 51r)

1417-06-03

Captem fuit de faciendo policiam procuratoribus sancti Blasii pro ponendo laboreria in opere de iperperis trecentis ad dohanam magnam. (CMin 1, f. 139v)

1418-04-21 Pro procuratoribus sancti Blasii

Captem fuit de faciendo apodiamer ser Martolo de Zarnago et ser Nicolino de Gondola procuratoribus sancti Blasii de ypp. ducentis ad dohanam magnam pro laboreris sancti Blasii. (CMin 1, f. 200v)

1418-05-10 Pro procuratoribus sancti Blasii

Captem fuit de faciendo gradiam procuratoribus sancti Blasii quod emere possint pro eorum denariis modis centum calcis ab illis quibus eis melius videbitur pro laboreris necessariis per eos faciendis. (CMin 1, f. 203r)

1419-01-27 Pro intabulatione sedilium positum ab extra per chonchas Sancti Blasii

Captem fuit de precipiendo officialibus laborerorum quod intabulati faciant sedilia Sancti Blasii ab extra circum quaque per chonchas dicte ecclesie. (CMin 2, f. 40r)

1419-09-02 Pro ecclesia Sancti Blasii

Captem fuit de faciendo procuratoribus Sancti Blasii apodiamer de ypp. centum ad dohanam fontici pro pretio columnarum renovandarum in dicta ecclesia sancti Blasii. (CMin 2, f. 82r)

1419-10-08 Pro ecclesia Sancti Blasii

Captem fuit de portando ad maius consilium de dando ecclesie Sancti Blasii de Platea pp. mille pro faciendo construi unum tabernaculum in dicta ecclesia supra altare magnum ramis deauratum cum intallis et laboreris sicut procuratoribus dicte ecclesie videbitur de quibus denariis fiat apodiamer ad dohanam magnam. (CMin 2, f. 87v)

1419-10-28 Pro tabernaculo ecclesie Sancti Blasii de Platea [ball. LXXX] Prima pars est de dando de denariis nostri comunis ecclesie Sancti Blasii de Platea yperperorum mille pro faciendo construi unum tabernaculum in dicta ecclesia supra altare magnum ramis deauratum cum intallis et laboreris prout procuratoribus dicte ecclesie videbitur. Captem per omnes. (CMA 2, f. 11r)

1419-10-29 Pro policia procuratorum Sancti Blasii

Captem fuit de faciendo unam policiam ypp. mille ad dohanam magnam procuratoribus Sancti Blasii pro tabernaculo funaro supra altare dicte ecclesie secundum partem captam in maiori et generatim consilio civitatis Ragusii in hoc eodem millesimo die videlicet 28 mensis presentis octobris. (CMin 2, f. 91r)

1419-12-04 Pro ypp. mille dandis procuratoribus Sancti Blasii pro tabernaculo [idem] (CMin 2, f. 94v)

1420-04-13 Pro ecclesia Sancti Blasii

Captem fuit de dando procuratoribus ecclesie Sancti Blasii pro salegio ecclesie predictae et reparatione altaris de denariis nostri comunis ypp. quinquaginta ad fonticum et alios ypp. quinquaginta ad gabellam beccarie. (CMin 2, f. 123r)

1420-07-11 Pro lapicidis Sancti Blasii pro cuppis gratia

Captem fuit de consentiendi de gratia lapicidis qui incidunt lapides et marmora pro ecclesia Sancti Blasii in Glustija cuppis mille pro eorum opportunitate ad incidendum dicta lapidea verum cum eorum denariis. (CMin 2, f. 140r)

the use of buildings and spaces in the city, that it decided upon masters who were accepted in public services and elected officials responsible for the management of public works. The Senate made decisions regarding the safety of the city and the plan for the rebuilding of the most significant public edifice, the Rector's Palace, after it had been destroyed by fire in 1435. As an executive body, the Minor Council delivered deliberations almost daily to ensure the implementation of the decisions passed by the other two Councils as well as those that were passed in its meetings. Furthermore, it had the order and cleanliness of the city maintained, and ensured the proper functioning of all its spaces and buildings. A total of 3362 deliberations were transcribed (including 170 of those previously mentioned, along with 364 published signatures): 386 from the Major Council, 275 from the Senate, and 2656 from the Minor Council (FIG. 2).

Mapping Methodology

Since the research is primarily concerned with questions regarding the physical appearance of the urban fabric, all these transcriptions were uploaded to a database that was structured as map-searchable.²¹ Solely for that purpose, a special map was created, under the supervision of Danko Zelić, and in accord with the state of art concerning the urban development of Dubrovnik. The map presents the city's layout in the first half of the fifteenth century. Throughout the centuries, the urban form of Dubrovnik was constantly changed due to the rebuilding, improvement, and embellishment of the existing structures (each of these was commonplace in every prosperous city). But, in 1667 a disastrous earthquake struck the city and numerous buildings were completely destroyed. Afterwards, the city was built anew, mainly following the urban layout that had been created by the end of the thirteenth century.²² However, some parts were dramatically altered. For these two reasons, not many buildings or parts of buildings, which were erected or which already existed in the first half of the fifteenth century, are preserved. The archival data collected for this research provide abundant information on the urban form from the period. The new data should be carefully considered, not uncritically compared with the contemporary urban tissue. Thus this special map was created to offer an adequate introduction to the urban form of Dubrovnik in the first half of the fifteenth century.

The map is divided into segments and each segment includes a table of contents, indicating the buildings and spaces that are recorded in the deliberations and that existed or still exist in that part of the city. Every table of contents opens by placing the cursor on the information sign (FIG. 3A).²³ When clicked, the magnified segment opens a new page (FIG. 3B). Clicking on the borders of the segment may take you to the adjacent set of

segments. In the upper-right corner of each page there is a small city map, with the marked position of the magnified segment. On this small map, it is also possible to go to any other segment, simply by clicking on it. On the magnified segments, blue dots are inserted, indicating a position of a building or a space recorded in the deliberations. When the cursor is placed on a dot, the table of contents opens and any building or space is named. Once the user clicks on it, a new page opens with all the deliberations recording that building or space (FIG. 3C). The deliberations are uploaded in chronological order. Their number varies, from one to several dozens or even hundreds.

The symbol used for mapping is a blue dot, regardless of the preservation of the building which it refers to, or the precision of its location, or the type of data recorded in a certain deliberation. The aim of this database is to offer the thus far unknown and unpublished archival sources, and not their interpretation. Furthermore, the database developed along with the archival research and the deliberations were uploaded subsequently as they were transcribed, which required a simple configuration.

Thus, as regards the preservation of the physical appearance, a dot can be linked with the deliberations referring to the structures that are completely preserved, such as those passed for the erection of the column with the relief of the knight Orlando, which has been preserved until today.²⁴ The deliberations testifying to the erection of the Small Arsenal can be related only to the traces of the sidewall arches that are still discernible, although the building is demolished.²⁵ The dot can be linked with the decisions made for the buildings whose remains were found in archaeological excavations, such as the Romanesque cathedral, which was completely destroyed in the great earthquake and whose foundations were discovered inside the Baroque one built in the late seventeenth century²⁶ or with provisions on edifices, of which no physical structures preserved, such as the Church of Saint Peter, Lawrence, and Andrew.²⁷

The mapping methodology for deliberations comprises the use of any kind of spatially-related information (FIG. 4A). The locations of fortifications, public buildings, communal houses, churches, and convents, as well as the houses given to the noblemen from the hinterland, are known.²⁸ However, the location of the majority of the private houses that are recorded in archival sources remains unknown. This is due to a lack of information that could be used to determine their location.²⁹ The location of many private houses is defined by their position near a public or ecclesiastical building by using the prepositions *prope*, *apud*, *iuxta*. In such cases, a dot is inserted next to such a building, relying on the user's knowledge of the Latin language (FIG. 4B). If their location was recorded using the street name, a dot was



FIGURE 4
Spatially-related information
used for mapping:

- A exact location,
- B near some building,
- C the street name,
- D *in sexterio*.



inserted in the middle of that street (FIG. 4C). The location of some private houses is determined even more vaguely, by their position in one of the six quarters of Dubrovnik – *sexteria*. Also, a dot for each *sexterium* is inserted in the vicinity of the church after which it was named, and these pages open with the map presenting this administrative division of the city (FIG. 4D).³⁰ However, there are many private houses whose location is unknown. The deliberations regarding these houses or the spaces in their vicinity, as well as the deliberations that refer to large parts or the entire city, are also uploaded onto the website. To facilitate their use they are organised into special thematic strands. In total, there are 160 dots inserted into the map segments, which lead to the pages with the transcriptions that refer to a certain building or space, and 24 more links on the database home page that lead to the separate pages referring to special thematic strands.

Data Analysis

Out of a total of 3362 transcribed deliberations 91.42 per cent refer to the buildings and spaces in the city: 36.43 per cent to the public buildings, including the fortifications and communal houses, 24.42 to the public spaces and the port, 7.61 to the sewage canals, 12.96 to the ecclesiastical buildings and property, and 10.94 to the private houses and plots (for details see: FIG. 5). The types of data reveal various aspects of governmental concern and control. This period saw a major campaign led for both the restoration and building of the new segments of fortifications. All significant public buildings – the Rector’s Palace,³¹ *Sponza* (where customs offices, storage places, guest rooms and the public school were located), the communal *loggia*, the Great and the Small Arsenal, *fonticus* (the main wheat storage facility and the place where the selling of communal wheat was permitted), salt storages, and the slaughterhouse and the butcher shop – were constantly rebuilt, adapted and repaired. The aqueduct and two public fountains were erected to have enough water to supply the citizens, while the existing cistern and public wells were well maintained. The communal houses, built along the main street called *Platea / Stradun*, and in the northern part of the city, which used to be rented out to merchants and craftsmen, were repaired whenever necessary. The houses given by the commune to the politically-important noblemen from the hinterland were carefully embellished (*domus dominorum*). The sewage system was extended and the canals were cleaned on a regular basis. The port also had to be cleaned up and all construction materials and broken vessels removed, while its security chain, made of iron and wood, had to be annually repaired. Considerable attention was paid to the street pavements and their repair, as well as to cleanliness and viability: special permissions were required for setting up stalls and wooden storages for merchandise. Regarding the use of

public spaces, certain deliberations could be found in every medieval city: keeping pigs inside the city walls was strictly prohibited, all dogs had to be kept on a lead, no person could enter the city carrying arms, all those who walked at night had to light a candle, gaming was allowed only in two public places (where guards were also stationed). A curious rule that forbade the citizens of Dubrovnik to throw snowballs or have snowball fights probably had to be, due to the climate, very rarely applied.

Regarding the physical appearance of private houses a major campaign was initiated already in the late fourteenth century and it ended in 1413. In order to prevent disastrous fires in the city, all the owners of wooden houses were encouraged to demolish them and replace their houses with stone ones.³² When they were to build new houses, regardless of their being either substitutions for wooden ones, or of their being built on empty plots, or despite the fact that the old ones underwent significant repairs and embellishment, the owners were obliged to inform the Minor Council about their works. The works had to be inspected to ensure that there would be no usurpation in a public street or place. In the Dubrovnik Republic, private property was highly esteemed and protected by the law. It was only on rare occasions that private houses were taken over by the government, merely for the purpose of the common benefit. In such cases, the owners were adequately reimbursed. The property of orphans and widows was particularly protected by the government. In addition, a permission had to be obtained in case of renting, selling, or giving these houses as a dowry.

The deliberations regarding the rebuilding and embellishment of ecclesiastical edifices can be divided into those initiated by the government, and pleas from ecclesiastical persons – the latter was accepted or rejected by the Councils. The government also intervened in the use of ecclesiastical spaces, which ranged from demanding decent behaviour in the Cathedral (*De non ballando in ecclesia Cathedralis*), up to the most practical decisions on storing communal wheat in magazines in the Archbishop's Palace, or the Dominican and Franciscan monasteries. For selling and renting houses in the city that were the property of the church, the government required an independent assessment (FIG. 6).

Officials were entrusted with the management of all public works.³³ The most important were *officiales laborerorum* who managed almost all the works on fortifications, public buildings and communal houses. In 1427 the number of these officials doubled. Half of them, known as *ordinarii* or *de scripta*, supervised only the construction works, while the others, known as *de pagamento*, were entrusted with administering the accounts and were assisted by a scribe. These officials were elected by the Major Council from

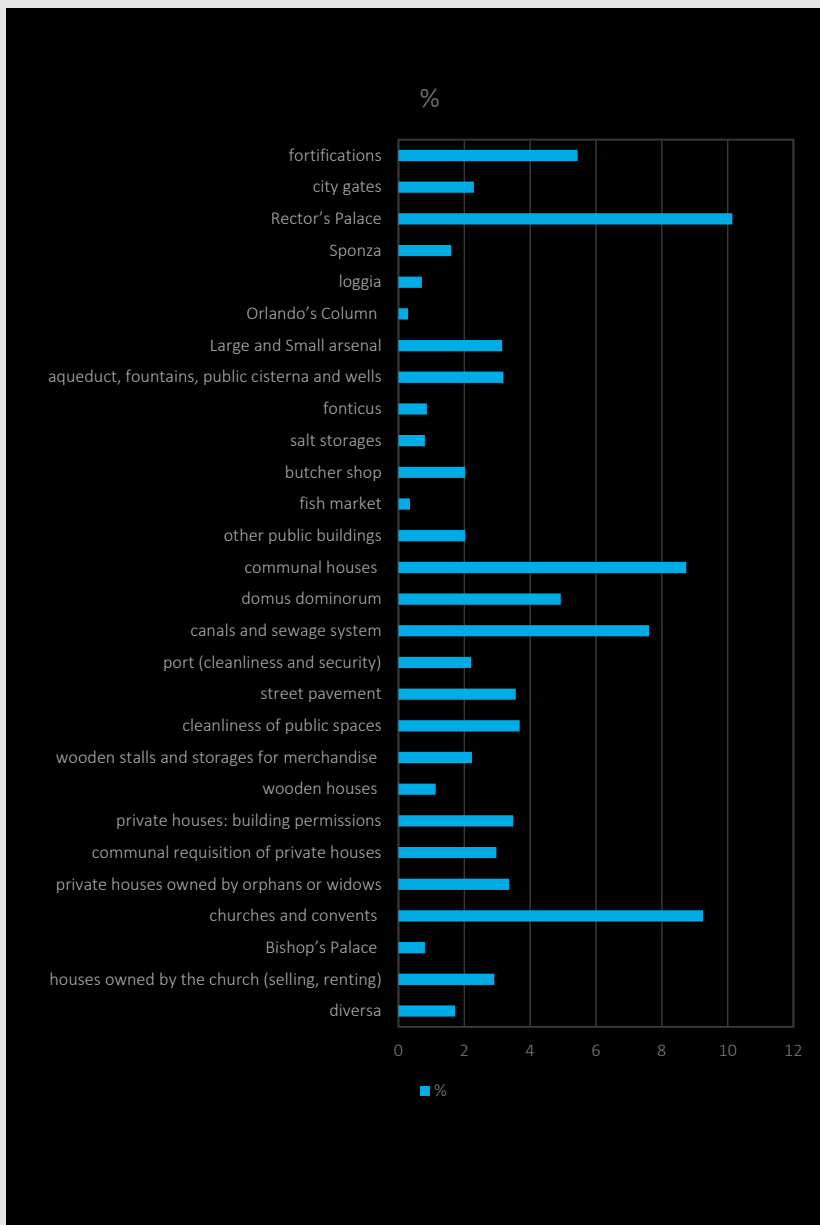


FIGURE 5
 Data analysis. Deliberations referring to
 buildings and spaces in the city
 (drawing by A. Plosnić Škarić).

officiales
officiales laboreriorum communis ordinarii; officiales laboreriorum communis de pagamento; scriba officialium laboreriorum
massarii bladorum
officiales salinarii
officiales aqueductus fontane
officiales laboreriorum regiminis; officiales ad permutandum sedilia regiminis; officiales super picturis in parvo consilio fiendis
officiales domus voivode Sandagli; officiales domus voivode Radossavi
officiales ad faciendum fieri et fabricari pontem Plociarum
officiales ad ponendum in formam modus netandi gattos factas in Ragusio sub terra; officiales ad faciendum fieri/construendum ghactum; officiales ad faciendum mundari cloachas (ad rugas seu inter domos)
officiales pro nettando portum; officiales pro reparacione portus; officiales pro cathena portus
officiales pro saligiando civitatem
officiales ad faciendum mundari civitatem; officiales pro civitate munda tenenda; officiales super immundicias (pro specialibus viis et partibus civitatis)
officiales ad extimandum domum seu terrenum ecclesiarum
officiales monasterii Sancte Clare
officiales ad extimandum domos et casalia accipiendas in Commune
rector et minus consilium ad videndum terminos laboreriorum domus

FIGURE 6

Officials that were elected or appointed to manage the buildings and works in the city (drawing by A. Plosnić Škarić).

among its membership and, at the beginning of every year, their names were re-entered in the books of the Minor Council. The transcriptions of the election processes are uploaded into the website as a special thematic strand, and they make up 6.11 per cent of all database documents. The other officials were not responsible for such a wide range of buildings or spaces. Their names can be found throughout the database, along with the deliberations regarding the works of which they were in charge. The *massarii bladorum* resolved all issues regarding wheat, including repairs and modifications of the storerooms, as well as digging holes in the south-western part of the city, where most grain was stored. Unlike them, the *officiales salinari*, responsible for salt, were only occasionally entrusted with less demanding repairs of salt storages.

Along with these officials, who were elected annually, special ones were entrusted with the duty of supervising the works on distinctive edifices. In the first half of the fifteenth century these were: since 1436 the officials entrusted with the construction of the aqueduct and two public fountains; in 1424, 1433 and 1435 the officials entrusted with the redecoration of the rector's chambers and the hall of the Minor Council; since August 1435 the officials entrusted with the rebuilding of the Rector's Palace after the disastrous fire; since 1429 the officials entrusted with the erection and embellishment of the houses given to the noblemen from the hinterland (*domus voivode Sandagli* and *domus voivode Radossavi*), and in 1449 those responsible for the building of the bridge by the city of Ploče gate. Such was the extent of the duties the *officiales laboreriorum* had to perform that it was obviously not possible for them to devote their full effort to the works on these distinctive edifices.

Also, there were officials who were responsible for the upkeep of the pavements and for the cleaning, security of and repairs to the port. All the above-mentioned officials were elected among the patricians from among the membership of the Major Council. For street maintenance and the cleanliness of the streets and squares, it was the commoners who were appointed and responsible. However, if pollution was caused by the inhabitants of certain houses, it was them who had to organise the pollution removal. Similarly, the patricians were appointed to manage the construction of the new canals in the sewage system, and it was the responsibility of the occupiers of the houses who were using them to keep them clean. Special officials were appointed to assess the private houses that were taken over by the commune, and similar procedures were required for renting or selling the houses and plots that were the property of the church. For the rebuilding of the Convent of the Poor Clares, to enhance the conditions of the isolation of the nuns (who were all patrician daughters), the officials

were selected particularly carefully. However, there was a matter in which no appointed officials could be fully trusted: the potential usurpation of the public space for getting building permits. It was the rector and all the members of the Minor Council who had to inspect the works, allowing the further building or demanding the removals.

To ensure the quality execution of public works, the government hired professionals, whose work was supervised and managed by officials. The most important among them were chosen by the Major Council, who defined their duties, annual salaries, and, eventually, their privileges. These deliberations are uploaded as a separate thematic strand, and they make up 2.11 per cent of all database documents. Apart from some stonemasons (*lapicide*) and builders (*muratori*), there were masters specialised in building vaults (*magistri voltarum*), digging holes for grains (*magistri fossarum*), and engineers (*ingenarii*). Among the latter, Onofrio della Cava from Naples deserves special mention as a person who worked on the most distinctive buildings in Dubrovnik: the aqueduct, public fountains, and the Rector's Palace. However, detailed executive contracts were never listed in the *Acta Consiliorum* books but now they have to be searched for in other volumes in the Archives of Dubrovnik.

For this research, we drew encouragement from the results presented in the works of the researchers of the history and urban form of Dubrovnik: Folnesics, Jeremić, Tadić, Fisković, Beritić, Mitić, Grujić, Zelić, Janeković-Römer, Novak Klemenčič, Seferović, Stojan, and Rudić. In their books, articles and chapters, which began to be published more than a century ago, they discussed the deliberations concerning the distinctive buildings from the first half of the fifteenth century. However, the database of all deliberations presented here, which were passed by the City Councils during this period, clearly indicates a wide range of topics that could be further researched, and that cover all aspects of governmental concern and control over public, private and ecclesiastical buildings and spaces in the city, as well as the management of the related processes. Its availability as an open source prompts a call for and facilitates further research.

Conclusion

Notes

- * This work was fully supported by the Croatian Science Foundation's funding of the project *Dubrovnik: Civitas et Acta Consiliorum. Visualising the Development of the Late Medieval Urban Fabric* DUCAC-UIP-11-2013-9492.
- 1 Philippus de Diversis, *Situs aedificiorum, politiae et laudabilium consuetudinum inclitae civitatis Ragusii = Opis slavnoga grada Dubrovnika 1440*, ed. and trans. by Zdenka Janeković Römer (Zagreb: Dom i svijet, 2004), available also at <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/getobject.pl?c.12:2.laud>, prohemium: 9, accessed March 27, 2017.
 - 2 Zdenka Janeković Römer, "Grad trgovaca koji nose naslov plemića: Filip de Diversis i njegova Pohvala Dubrovnika," in: Diversis, *Situs aedificiorum, politiae et laudabilium consuetudinum inclitae civitatis Ragusii*, 9-31.
 - 3 Državni arhiv u Dubrovniku, *Reformationes*, vol. 32-34.
 - 4 Državni arhiv u Dubrovniku, *Acta Consilii Maioris*, vol. 1-9, *Acta Minoris Consilii*, vol. 1-12, *Acta Consilii Rogatorum*, vol. 1-11.
 - 5 Zdenka Janeković-Römer, *Okvir slobode. Dubrovačka vlastela između srednjovjekovlja i humanizma* (Zagreb – Dubrovnik: Zavod za povijesne znanosti HAZU u Dubrovniku, 1999), 56-73.
 - 6 Nenad Vekarić, "Udio plemstva u stanovništvu Dubrovnika u trenutku zatvaranja vijeća 1332. godine," *Rad Hrvatske akademije za znanost i umjetnost. Razred društvenih znanosti* 48=510 (2011): 31-46.
 - 7 Nella Lonza, "The Council Deliberations (Reformationes) as Sources for the Study of the Late Fourteenth-Century Dubrovnik," in *Odluke dubrovačkih vijeća 1390-1392 = Reformationes consiliorum civitatis Ragusi 1390-1392*, eds. Nella Lonza and Zdravko Šundrica (Zagreb – Dubrovnik: Zavod za povijesne znanosti HAZU u Dubrovniku, 2005), available at <http://www.ffzg.unizg.hr/klafil/croala/xpr/2005-lonza-council.html>, accessed March 30, 2017.
 - 8 See the full bibliography in Lonza, "The Council Deliberations," and Nella Lonza, *Odluke dubrovačkih vijeća 1395.-1397. = Reformationes consiliorum civitatis Ragusi 1395-1397* (Zagreb – Dubrovnik: Zavod za povijesne znanosti HAZU u Dubrovniku 2011).
 - 9 Hans Folnesics, "Studien zur Entwicklungsgeschichte der Architektur und Plastik des XV. Jahrhunderts. Dalmatien," *Jahrbuch des Kunsthistorischen Institute der K. K. Zentral-Kommission für Denkmalpflege VIII* (1914): 189-191.
 - 10 Cvito Fisković, "Dokumenti o radu naših graditelja i klesara XV.-XVI. stoljeća u Dubrovniku," *Prilozi povijesti umjetnosti u Dalmaciji* 3/1 (1947): 3-26; Cvito Fisković, *Naši graditelji i kipari XV. i XVI. stoljeća u Dubrovniku* (Zagreb: Matica hrvatska, 1947).
 - 11 Lukša Beritić, *Utvrđenja grada Dubrovnika* (Zagreb: JAZU, 1955); Lukša Beritić, "Ubikacija nestalih građevinskih spomenika u Dubrovniku," *Prilozi povijesti umjetnosti u Dalmaciji* 10 (1956): 15-83; Lukša Beritić, *Urbanistički razvitak Dubrovnika* (Zagreb: Zavod za arhitekturu i urbanizam Instituta za likovne umjetnosti JAZU, 1958).
 - 12 Ilija Mitić, "Orlandov stup u Dubrovniku," *Analiz Historijskog instituta JAZU u Dubrovniku* 10-11 (1962-1963): 233-254.
 - 13 Nada Grujić, "Onofrio di Giordano della Cava i Knežev dvor u Dubrovniku," in *Renesansa i renesanse u umjetnosti Hrvatske*, eds. Predrag Marković and Jasenka Gudelj, 9-50 (Zagreb: Institut za povijest umjetnosti, Odsjek za povijest umjetnosti Filozofskog fakulteta Sveučilišta u Zagrebu, 2008); Nada Grujić, "Arhitektura Kneževa dvora u srednjem vijeku: od utvrde do palače," in *Knežev dvor u Dubrovniku: Utvrda – Palača – Muzej* (exhibition catalogue), ed. Pavica Vilač, 8-31 (Dubrovnik: Dubrovački muzeji, 2016).
 - 14 Nada Grujić, and Danko Zelić, "The Palace of Duke Sandalj Hranić in Dubrovnik," *Dubrovnik Annals* 15 (2011): 7-66.

- 15 Renata Novak Klemenčič, “Dubrovniška Velika fontana,” *Zbornik za umetnostno zgodovino (Nova vrsta)* 39 (2003): 51-91; Renata Novak Klemenčič, “Kiparski ukras Kneževa dvora u Dubrovniku u 15. stoljeću – nekoliko priloga,” *Prilozi povijesti umjetnosti u Dalmaciji* 39 (2005): 269-302; Renata Novak Klemenčič, “Cerkev sv. Vlaha v Dubrovniku v dvajsetih letih 15. stoletja in Bonino di Jacopo da Milano,” *Zbornik za umetnostno zgodovino (Nova vrsta)* 47 (2011): 60-74; Renata Novak Klemenčič, “Obnova spomenikov v Dubrovniku v prvi polovici 15. stoletja,” in *Arhitekturna zgodovina 2*, eds. Renata Novak Klemenčič, and Martina Malešič, 8-17 (Ljubljana: Univerza v Ljubljani, Filozofska fakulteta, 2014).
- 16 Risto Jeremić, and Jorjo Tadić, *Addimenta ad historiam culturae Ragusii antiqui sanitariae III* (Belgradi: Bibliotheca Instituti centralis hygiaenici, 1940).
- 17 Janeković-Römer, *Okvir slobode*, 211-223; Zdenka Janeković-Römer, “Nasilje zakona: Gradska vlast i privatni život u kasnosrednjovjekovnom i ranonovovjekovnom Dubrovniku,” *Analiz Zavoda za povijesne znanosti HAZU u Dubrovniku* 41 (2003): 9-44.
- 18 Relja Seferović, and Mara Stojan, “Čudo vode: Prolegomena za ranorenesanski vodovod u Dubrovniku,” *Analiz Zavoda za povijesne znanosti HAZU u Dubrovniku* 44 (2006): 95-137.
- 19 Srđan Rudić, “O kući Hrvoja Vukčića Hrvatinića u Dubrovniku,” *Historijski časopis LVI* (2008): 353-369.
- 20 Ana Marinković has transcribed deliberations from the first ten volumes passed by the Senate. Danko Zelić has transcribed deliberations from the thirty-third and thirty-second volumes of *Reformationes*, seven volumes from the Major Council (1-5, 7-8), and two volumes from the Minor (6 and 9). Ana Plosnić Škarić has transcribed deliberations from thirty-second volume of *Reformationes*, two volumes from the Major Council (6 and 9), ten volumes from the Minor (1-6, 7-8, 10-12), and from the eleventh volume passed by the Senate.
- 21 <http://ducac.ipu.hr/project/mapping/>, accessed March 2017. All the project researchers participated in discussions about mapping, but the transcriptions were uploaded and mapped by Ana Plosnić Škarić. Having made final decisions on the mapping methodology, she herself takes full responsibility.
- 22 Milan Prelog, “Dubrovački statut i izgradnja grada (1272-1972),” *Peristil* 14-15 (1971-1972): 81-94.
- 23 Web programming was made by Natko Katičić, z-*Webfactory*, Vienna.
- 24 Mitić, “Orlandov stup.”
- 25 Beritić, “Ubikacija nestalih građevinskih spomenika.”
- 26 Danko Zelić, “Architecture of the Old Cathedrals,” in *The Cathedral of The Assumption of the Virgin in Dubrovnik*, ed. Katarina Horvat-Levaj (Dubrovnik – Zagreb: City Parish of the Assumption, Dubrovnik, Institute of Art History, Zagreb, ArTresor naklada d.o.o., Zagreb, 2016), 31-64.
- 27 Beritić, “Ubikacija nestalih građevinskih spomenika.”
- 28 Beritić, *Utvrđenja grada*; Beritić, “Ubikacija nestalih građevinskih spomenika;” Beritić, *Urbanistički razvitak*; the location of communal houses is well known due to the separate volumes in which they were recorded, see: Irena Benyovsky Latin, and Danko Zelić, *Knjige nekretnina dubrovačke općine (13.-18. st.) = Libri domorum et terrenorum communis Ragusii deliberatis ad affectum (seac. XIII-XVIII)* (Zagreb – Dubrovnik: Zavod za povijesne znanosti HAZU u Dubrovniku, 2007) and the chapter of Danko Zelić in this volume; on houses donated to the noblemen see: Grujić, and Zelić, “The Palace of Duke Sandalj;” Rudić, “O kući Hrvoja.”
- 29 Regarding these, see the methodologies used in the chapters of Irena Benyovsky Latin and Ivana Haničar Buljan, Renata Novak Klemenčič, and Matko Matija Marušić in this volume.

- 30 Beritić, “Ubikacija nestalih građevinskih spomenika.” The *sexterium* of Saint Blasé cannot be found where the church bearing the same name is mapped, but it should be looked for in the segment C2, where the first church of this patron saint was built. The sixth *sexterium* was not named after the church, but its name was Pustijerna.
- 31 See the chapter written by Nada Grujić in this volume.
- 32 Danko Zelić, “Wooden houses in the Statutes and urban landscapes of medieval Dalmatian communes,” in *Splitski statut iz 1312. godine: povijest i pravo : povodom 700. obljetnice*, eds. Željko Radić, et al. (Split: Književni krug 2015), 489-507.
- 33 The list of all the officials elected on a regular basis can be found in: Janeković-Römer, *Okvir slobode*, 106-115.

Bibliography

Manuscript sources

- Državni arhiv u Dubrovniku / State Archives in Dubrovnik (HR-DADU), fund *The Republic of Dubrovnik*, series: *Reformationes*, vol. 32–34; *Acta Consilii Maioris*, vol. 1–9; *Acta Consilii Minoris*, vol. 1–12; *Acta Consilii Rogatorum*, vol. 1–11.

Published sources

- Benyovsky Latin, Irena, and Danko Zelić, eds. *Knjige nekretnina dubrovačke općine (13.-18. st.) = Libri domorum et terrenorum communis Ragusii deliberatis ad afflictum (seac. XIII-XVIII)*. Zagreb – Dubrovnik: Zavod za povijesne znanosti HAZU u Dubrovniku, 2007.
- Beritić, Lukša. *Utvrdjenja grada Dubrovnika*. Zagreb: JAZU, 1955.
- – “Ubikacija nestalih građevinskih spomenika u Dubrovniku.” *Prilozi povijesti umjetnosti u Dalmaciji* 10 (1956): 15-83.
- – *Urbanistički razvitak Dubrovnika*. Zagreb: Zavod za arhitekturu i urbanizam Instituta za likovne umjetnosti JAZU, 1958.
- de Diversis, Philippus. *Situs aedificiorum, politiae et laudabilium consuetudinum inclitae civitatis Ragusii = Opis slavnoga grada Dubrovnika 1440*. Edited, transcribed and translated by Zdenka Janeković Römer. Zagreb: Dom i svijet 2004. Accessed March 27, 2017. <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/getobject.pl?c.12:2.laud>.
- Fisković, Cvito. “Dokumenti o radu naših graditelja i klesara XV.-XVI. stoljeća u Dubrovniku.” *Prilozi povijesti umjetnosti u Dalmaciji* 3/1 (1947): 3-26.
- – *Naši graditelji i kipari XV. i XVI. stoljeća u Dubrovniku*. Zagreb: Matica hrvatska, 1947.
- Folnesics, Hans. “Studien zur Entwicklungsgeschichte der Architektur und Plastik des XV. Jahrhunderts. Dalmatien.” *Jahrbuch des Kunsthistorischen Institute der K. K. Zentral-Kommission für Denkmalpflege* VIII (1914): 27-196.
- Grujić, Nada. “Onofrio di Giordano della Cava i Knežev dvor u Dubrovniku.” In *Renesansa i renesanse u umjetnosti Hrvatske*. Edited by Predrag Marković and Jasenka Gudelj, 9-50. Zagreb: Institut za povijest umjetnosti, Odsjek za povijest umjetnosti Filozofskog fakulteta Sveučilišta u Zagrebu, 2008.
- – “Arhitektura Kneževa dvora u srednjem vijeku: od utvrde do palace.” In *Knežev dvor u Dubrovniku: Utvrda – Palača – Muzej* (exhibition catalogue). Edited by Pavica Vilač, 8-31. Dubrovnik: Dubrovački muzeji, 2016.
- Grujić, Nada, and Danko Zelić. “The Palace of Duke Sandalj Hrančić in Dubrovnik.” *Dubrovnik Annals* 15 (2011): 7-66.

- Janeković-Römer, Zdenka. *Okvir slobode. Dubrovačka vlastela između srednjovjekovlja i humanizma*. Zagreb – Dubrovnik: Zavod za povijesne znanosti HAZU u Dubrovniku, 1999.
- – “Nasilje zakona: Gradska vlast i privatni život u kasnosrednjovjekovnom i ranonovovjekovnom Dubrovniku.” *Anali Zavoda za povijesne znanosti HAZU u Dubrovniku* 41 (2003): 9–44.
- – “Grad trgovaca koji nose naslov plemića: Filip de Diversis i njegova Pohvala Dubrovnika.” In: Philippus de Diversis. *Situs aedificiorum, politiae et laudabilium consuetudinum inclitae civitatis Ragusii = Opis slavnoga grada Dubrovnika 1440*. Edited, transcribed and translated by Zdenka Janeković Römer, 9–31. Zagreb: Dom i svijet 2004.
- Jeremić, Risto, and Jorjo Tadić. *Additamenta ad historiam culturae Ragusii antiqui sanitariae III*. Belgradi: Bibliotheca Instituti centralis hygiaenici, 1940.
- Lonza, Nella. “The Council Deliberations (Reformationes) as Sources for the Study of the Late Fourteenth-Century Dubrovnik.” In: *Odluke dubrovačkih vijeća 1390–1392 = Reformationes consiliorum civitatis Ragusi 1390–1392*. Edited by Nella Lonza, and Zdravko Šundrica. Zagreb – Dubrovnik: Zavod za povijesne znanosti HAZU u Dubrovniku, 2005. Accessed March 30, 2017. <http://www.ffzg.unizg.hr/klafil/croala/xpr/2005-lonza-council.html>.
- – ed. *Odluke dubrovačkih vijeća 1395.–1397. = Reformationes consiliorum civitatis Ragusi 1395–1397*. Zagreb – Dubrovnik: Zavod za povijesne znanosti HAZU u Dubrovniku 2011.
- Mitić, Ilija. “Orlandov stup u Dubrovniku.” *Anali Historijskog instituta JAZU u Dubrovniku* 10–11 (1962–1963): 233–254.
- Novak Klemenčić, Renata. “Dubrovniška Velika fontana.” *Zbornik za umetnostno zgodovino (Nova vrsta)* 39 (2003): 51–91.
- – “Kiparski ukras Kneževa dvora u Dubrovniku u 15. stoljeću – nekoliko priloga.” *Prilozi povijesti umjetnosti u Dalmaciji* 39 (2005): 269–302.
- – “Cerkev sv. Vlaha v Dubrovniku v dvajsetih letih 15. stoletja in Bonino di Jacopo da Milano.” *Zbornik za umetnostno zgodovino (Nova vrsta)* 47 (2011): 60–74.
- – “Obnova spomenikov v Dubrovniku v prvi polovici 15. stoletja.” In *Arhitekturna zgodovina 2*. Edited by Renata Novak Klemenčić, and Martina Malešić, 8–17. Ljubljana: Univerza v Ljubljani, Filozofska fakulteta, 2014.
- Prelog, Milan. “Dubrovački statut i izgradnja grada (1272–1972).” *Peristil* 14–15 (1971–1972): 81–94.
- Rudić, Srđan. “O kući Hrvoja Vukčića Hrvatinića u Dubrovniku.” *Historijski časopis LVI* (2008): 353–369.
- Seferović, Relja, and Mara Stojan. “Čudo vode: Prolegomena za ranorenesansni vodovod u Dubrovniku.” *Anali Zavoda za povijesne znanosti HAZU u Dubrovniku* 44 (2006): 95–137.
- Vekarić, Nenad. “Udio plemstva u stanovništvu Dubrovnika u trenutku zatvaranja vijeća 1332. godine.” *Rad Hrvatske akademije za znanost i umjetnost. Razred društvenih znanosti* 48=510 (2011): 31–46.
- Zelić, Danko. “Wooden houses in the Statutes and urban landscapes of medieval Dalmatian communes.” In *Splitski statut iz 1312. godine: povijest i pravo : povodom 700. obljetnice*. Edited by Željko Radić, Marko Trogrlić, Massimo Meccarelli, and Ludwig Steindorff, 489–507. Split: Književni krug, 2015.
- – “Architecture of the Old Cathedrals.” In *The Cathedral of The Assumption of the Virgin in Dubrovnik*. Edited by Katarina Horvat-Levaj, 31–64. Dubrovnik – Zagreb: City Parish of the Assumption, Dubrovnik, Institute of Art History, Zagreb, ArTresor naklada d.o.o., Zagreb, 2016.