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EASTERN ADRIATIC FORTS IN VINCENZO MARIA CORONELLI'S *ISOLARIO MARI, GOLFI, ISOLE, SPIAGGIE, PORTI, CITTA...*

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ABSTRACT

Old maps can be a valuable source for studying historical and geographical development of forts and towns. Due to their geographical position eastern Adriatic towns and forts were often depicted in the works of Venetian cartographers. One of them was Mari, golfi, isole, spiagge, porti, citta..., an isolario made by Vincenzo Coronelli, an official cartographer of the Venetian Republic. The basic methodology used in the paper includes the interpretation of socio-geographic elements from Coronelli's original maps included in the isolario, housed in the State Archives in Zadar. Key eastern Adriatic ports and forts like Zadar, Šibenik, Split or Sinj were depicted several times on maps and panoramas whilst display of other forts sometimes lacked precision because their strategic position was less prominent during Ottoman-Venetian wars.

Key words: fort, isolario, eastern Adriatic, Republic of Venice, Vincenzo Coronelli

LE FORTEZZE DELL' ADRIATICO ORIENTALE NELL' *ISOLARIO MARI, GOLFI, ISOLE, SPIAGGIE, PORTI, CITTA...* DI VINCENZO MARIA CORONELLI

SINTESI

Le mappe vecchie possono essere una fonte preziosa per lo studio dello sviluppo storico e geografico delle fortezze e delle città. Grazie alla loro posizione geografica, città adriatiche orientali e fortezze erano spesso raffigurati nelle opere di cartografi veneziani. Una di loro era Mari, golfi, isole, spiagge, porti, citta..., l'isolario realizzato da Vincenzo Maria Coronelli (1650-1718), il cartografo ufficiale della Repubblica di Venezia. Durante la ricerca sono stati interpretati gli elementi socio-geografici nelle mappe originali di Coronelli inclusi nel isolario che si trova nell'Archivio di Stato a Zara. I porti principali dell'Adriatico orientale e le fortezze come Zara, Sebenico, Spalato e Sinj sono stati descritti più volte sulle mappe e sui panorami. D'altra parte, la visualizzazione di altre fortezze a volte non era precisa perché la loro posizione strategica era meno prominente durante le guerre turco-veneziane.

Parole chiave: fortezza, isolario, Adriatico orientale, Repubblica di Venezia, Vincenzo Coronelli

INTRODUCTION

The historical development of littoral Croatia, which refers to the eastern Adriatic¹, has often been marked by political change and military confrontation. This was especially so from the 16th to 18th century, when the great powers – the Ottoman Empire, the Habsburg Monarchy and the Republic of Venice – fought for supremacy in south-eastern Europe. After the Ottoman Empire reached its political and economical peak during the 16th century and gained control of most of present-day Croatian territory, the Republic of Venice, sometimes in alliance with the Habsburg Monarchy, initiated a series of wars against the Ottomans. Those were the Cretan War or War of Candia (1645-1669), the Morean War (1684-1699) and the Second Morean War or the Small War (1714-1718) (Mayhew, 2008).² The main battlefront was in the eastern Mediterranean and battles and skirmishes in the eastern Adriatic were actually reflex reactions or side-effects of Ottoman-Venetian conflict there (Mayhew, 2008). Nevertheless, the Senate of the Republic considered the eastern Adriatic to be of great geostrategic importance, because it was essential for securing trade routes from Venice towards the eastern Mediterranean (Levant) and providing harbourage. Also, the area supplied the Republic with two strategic resources – timber and salt (Grygiel, 2006).

Effective warfare required thorough organization and good knowledge of the terrain. The Venetian Republic had had a tradition of mapmaking, especially portolans, since the Late Middle Ages, in an attempt to ensure accurate cartographic depictions of its territorial possessions (Marković, 1993). It was also appreciated if maps could provide reliable insights into newly conquered or potentially conquerable areas. Structures often depicted on such maps included fortifications. In general, forts were regarded as geostrategic points, means for controlling the surrounding area, and refuges for the local population in cases of emergency. Forts also often formed the initial stage in the urban development of a settlement or town, determining its physiognomic and morphological features. The oldest depictions of Croatian forts originate from the period of the Ottoman invasions in the late 15th century, and represent at the same time the oldest plans of settlements (Slukan-Altić, 2003). The majority of maps that display eastern Adriatic forts are the result of the 17th century Venetian cartographic tradition and the Republic's requirement for proper insight into battlefields during the wars against the Ottoman Empire (Slukan-Altić, 2003).

Vincenzo Maria Coronelli (1650-1718)³, the official cartographer of the Venetian Republic and author of several atlases and *isolarios*⁴, played a significant role in depicting the Adriatic Sea, in particular the eastern coastline with its islands and hinterland. His work has been analysed by several Croatian researchers. In two overviews of the mapping of Croatian territory by M. Marković (1993) and M. Slukan-Altić (2003), some of Coronelli's maps are considered among the best products of Venetian cartography. M. Kozličić (1995), who studies maritime cartography, has explained the basic features of two of Coronelli's *isolarios* and compiled an index of all the toponyms mentioned that refer to the Adriatic coastline and islands. J. Faričić (1998) has analyzed Coronelli's atlases with the aim of exploring the natural and social characteristics of seventeenth century Croatian territory. Although all these scholars mention the importance of fortifications in Coronelli's maps, they fail to provide further explanations and contexts. Hence the need for a more thorough discussion on the features of eastern Adriatic forts, as presented in this paper.

HYPOTHESES

The research was based on the following hypotheses:

1. Coronelli's *isolario Mari, golfi isole, spiagge, porti, citta...* represents one of the most accurate cartographic depiction of eastern Adriatic forts in the 17th century.
2. The frequency of occurrence and precision of depiction of certain forts in *isolario* depended on their strategic importance.
3. *Mari, golfi isole, spiagge, porti, citta...* is actually a compilation of Coronelli's original work and depictions made by other cartographers, mainly Venetian.

MATERIALS AND METHODS

The primary material used in this paper was Coronelli's *isolario MARI, GOLFI, ISOLE, SPIAGGIE, PORTI, CITTA, Fortezze, Ed Altri Luoghi Dell' Istria, Quarner, DALMAZIA ALBANIA EPIRO, E LIVADIA, Delineati, e Descritti Dal P(ADRE) GENERALE CORONELLI*. This particular *isolario* was published in Venice as the third part of Coronelli's atlas of the Republic of Venice – *Atlante della Repubblica di Venezia* (1688-1694). Coronelli did not explicitly name his work *isolario*, actually he referred to it as *Stato Veneto* and *Stato della Serenissima Repubblica*, but it can be considered the same thing, because most of the depictions are plans and panoramas of Venetian maritime possessions in

1 Although parts of Slovenia, Bosnia and Herzegovina and Montenegro lie on the eastern Adriatic coast, due to their small proportion of the total coastline length, particularly in comparison to Croatia, the fact that these three countries also have access to the Adriatic Sea is sometimes overlooked.

2 For further information on Ottoman-Venetian wars see Lane (1973), Setton (1991), and Fleet et al (2006).

3 For more information about life and work of Vincenzo Coronelli see Lago, Rossit (1981).

4 *isolario* (from Italian *isola* = island) is a type of portolan chart with detailed depictions of the coastline, islands and harbours.

the eastern Adriatic (Marković, 1993; Kozličić, 1995; Faričić, 1998; Faričić, Glamuzina, 2001). Graphics in the *isolario* were made by copperplate engraving and printed in black and white. Most of them are standard size: “one copperplate” (1 *rame*) is equivalent to 180 x 130 mm, while some graphics were made as two (2 *rami*), four (4 *rami*) or six plates (6 *rami*) (Faričić, 1998).

One copy of *Atlante della Repubblica di Venezia* is housed in the State Archives in Zadar, the second largest archive in Croatia after the Croatian State Archives in Zagreb, as a part of the collection entitled *Geographic and Topographic Maps of Croatia and Neighbouring Countries*. Zadar was from the Middle Ages until 1918 the administrative centre of Dalmatia and its archives were founded in 1624, which has resulted in today’s rich cartographic heritage (Magaš et al, 2010).

The basic methodology used includes the interpre-

tation of socio-geographic elements (forts and defence systems) from the *isolario* and their comparison with earlier cartographic achievements, mainly of Venetian provenance. The geostrategic position of the forts in the border area with the Ottoman Empire was also analysed.

RESULTS

Coronelli noted in his *isolario* significant political and territorial changes that occurred on the Ottoman-Venetian border in the eastern Adriatic during the late 17th century. After its defeat in the Morean and the Second Morean War, the Ottoman Empire ceded part of its territory to the Republic of Venice. That territory, later called *Acquisto Nuovo* and *Acquisto Nuovissimo* – the New Acquisition and the Newest Acquisition, became part of Venetian Dalmatia, an administrative region of

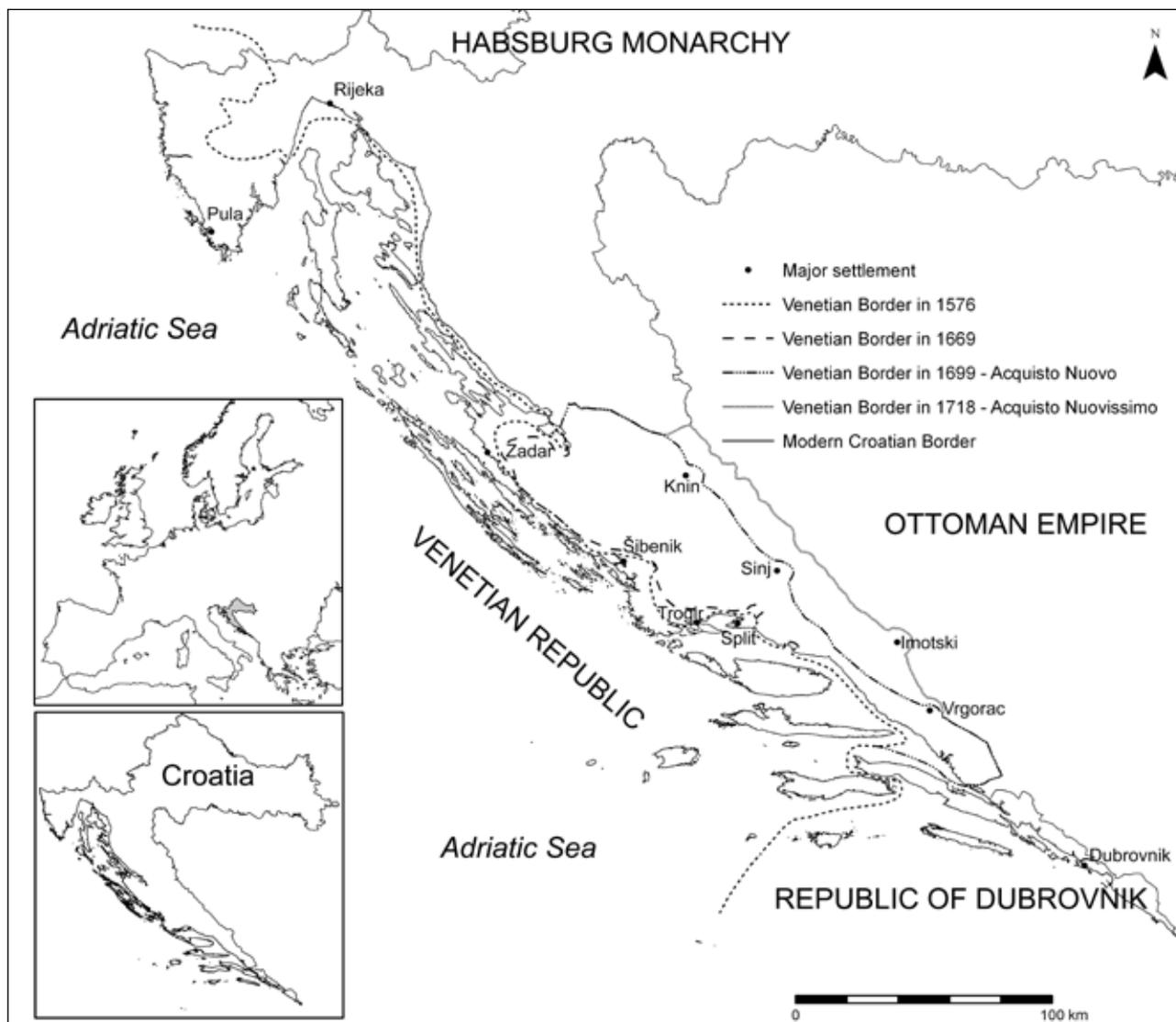


Fig. 1: The expansion of the Republic of Venice from 16th to 18th centuries in present-day Croatia

the Republic of Venice (Fig. 1) (Mayhew, 2008; Rimac, Mladineo, 2009).

Coronelli's depiction of the new Republic's possessions was not only based on previously available maps and books, but also on field research and first-hand information obtained from soldiers and seamen who had been stationed throughout the eastern Adriatic (Kozličić, 1995). *Mari, golfi, isole, spiagge, porti, citta...* comprises a total of 97 depictions; 22 maps, 21 plans, 44 panoramas and ten other non-cartographic images that depict and describe the territory of Istria, Kvarner, Venetian Dalmatia and the Republic of Dubrovnik (Ragusa). Eight panoramas depict forts and settlements in present-day Italy and Bosnia and Herzego-

vina, but these were not included in the analysis. All objects from the *isolario* can be grouped into six categories: territories, bays, islands, settlements, fortified settlements and forts; and Coronelli used three types of depiction – maps, panoramas and plans – to display them (Table 1).⁵ Accordingly, a settlement is a larger or smaller town without prominent defensive walls or other fortifications. A fortified settlement is usually a larger town with distinct fortifications including walls, bastions and forts. A fort can be considered as an independent structure and also as an integral part of a town's fortifications. Altogether, 21 eastern Adriatic forts are shown in Coronelli's *isolario* in present-day Croatia (Fig. 2).

Table 1. Depictions from Coronelli's *isolario Mari, golfi, isole, spiagge, porti, citta...* that refer to present-day Croatia. Depictions follow geographical order (Coronelli: *ordo geografico*) from north-west to south-east.

Depiction	Contemporary (Croatian) name	Type of object	Type of depiction	Number of depictions
<i>Mediterraneo Orientale</i>	istočno Sredozemlje	territory	map	one
<i>Golfo di Venezia olim Adriaticum Mare</i>	Jadransko more	sea	map	one
<i>Dalmazia</i>	Dalmacija	territory	map	two
<i>Rovigno</i>	Rovinj	settlement	panorama	two
<i>Pola</i>	Pula	settlement	panorama, plan and map	three
<i>Cittadella di Pola</i>	Citadela	fort	panorama	one
<i>Arbe</i>	Rab	island	map	one
<i>Veglia</i>	Krk	island	map	one
<i>Osero</i>	Osor	settlement	panorama	one
<i>Fiume</i>	Rijeka	settlement	panorama	one
<i>Segna</i>	Senj	settlement	panorama	one
<i>Porto di Buccari</i>	Bakarski zaljev	bay	map	one
<i>Graszas</i>	Gračac	settlement	panorama	one
<i>Contado di Zara</i>	zadarsko okružje	territory	map	one
<i>Zara</i>	Zadar	fortified settlement	plan	three
<i>Forte</i>	Forte	fort	plan	one
<i>Canale di Novegradi</i>	Novigradsko more	bay	map	one
<i>Novegradi</i>	Novigrad	fort	panorama	one
<i>Zemonico</i>	Zemunik	fort	panorama	one
<i>Carin</i>	Karin	fort	panorama	one
<i>Nadin</i>	Nadin	fort	panorama	one

⁵ A panorama is a detailed, large scale, print of a cityscape or some other vista (for example see fig. 3). A plan is a very detailed, large scale, orthographic projection of a 3-dimensional object, in this case a fort or a city (for example see fig. 4).

<i>Urana</i>	Vrana	fort	panorama	one
<i>Chnin</i>	Knin	settlement	panorama	four
<i>Dernis</i>	Drniš	settlement	panorama	one
<i>Contado di Sebenico</i>	šibensko okružje	territory	map	one
<i>Sebenico</i>	Šibenik	fortified settlement	panorama and plan	three
<i>San Giovanni</i>	Sveti Ivan	fort	plan	one
<i>Castello Vecchio</i>	Sveti Mihovil	fort	plan	one
<i>Forte Barone</i>	Šubićevac	fort	plan	one
<i>San Niccolo</i>	Sveti Nikola	fort	plan	one
<i>Scardona</i>	Skradin	settlement	panorama	one
<i>Contado di Trau</i>	trogirsko okružje	territory	map	one
<i>Trau</i>	Trogir	fortified settlement	plan	one
<i>Fortezza di Sign</i>	Sinjska utvrda – Grad	fort	panorama	one
<i>Sign</i>	Sinj	settlement	panorama	four
<i>Contado di Spalato</i>	splitsko okružje	territory	map	two
<i>Spalato</i>	Split	fortified settlement	panorama and plan	four
<i>Grippe</i>	Gripe	fort	plan	one
<i>Boticelle</i>	Bačvice	fort	plan	one
<i>Contado di Solin</i>	solinsko okružje	territory	map	one
<i>Clissa</i>	Klis	fort	plan and panorama	two
<i>Noiach</i>	Nutijak	fort	plan	one
<i>Almissa</i>	Omiš	settlement	panorama	one
<i>Starigrado</i>	Starigrad	fort	panorama	one
<i>Vissichio</i>	Viseć	fort	panorama	one
<i>Territorio di Duare</i>	teritorij Zadvarja	territory	map	one
<i>Dvare</i>	Zadvarje	fort	panorama	one
<i>Corso del fiume Narenta</i>	donjonerevanski kraj	territory	map	two
<i>Opus</i>	Opuzen	fort	plan	one
<i>Liesina</i>	Hvar	settlement	plan and panorama	two
<i>San Giorgio di Lesina</i>	Sučuraj	settlement	panorama	one
<i>Curzola</i>	Korčula	settlement	map nad plan	two
<i>Lissa</i>	Vis	island	map	one
<i>Cognisco</i>	Konjsko	fort	plan	one
<i>Stato di Ragusi</i>	Dubrovačka Republika	territory	map	one
<i>Ragusi</i>	Dubrovnik	settlement	panorama	one
<i>Viaggio da Ragusi a Constantinopoli</i>	Put od Dubrovnika do Carigrada	territory	map	one

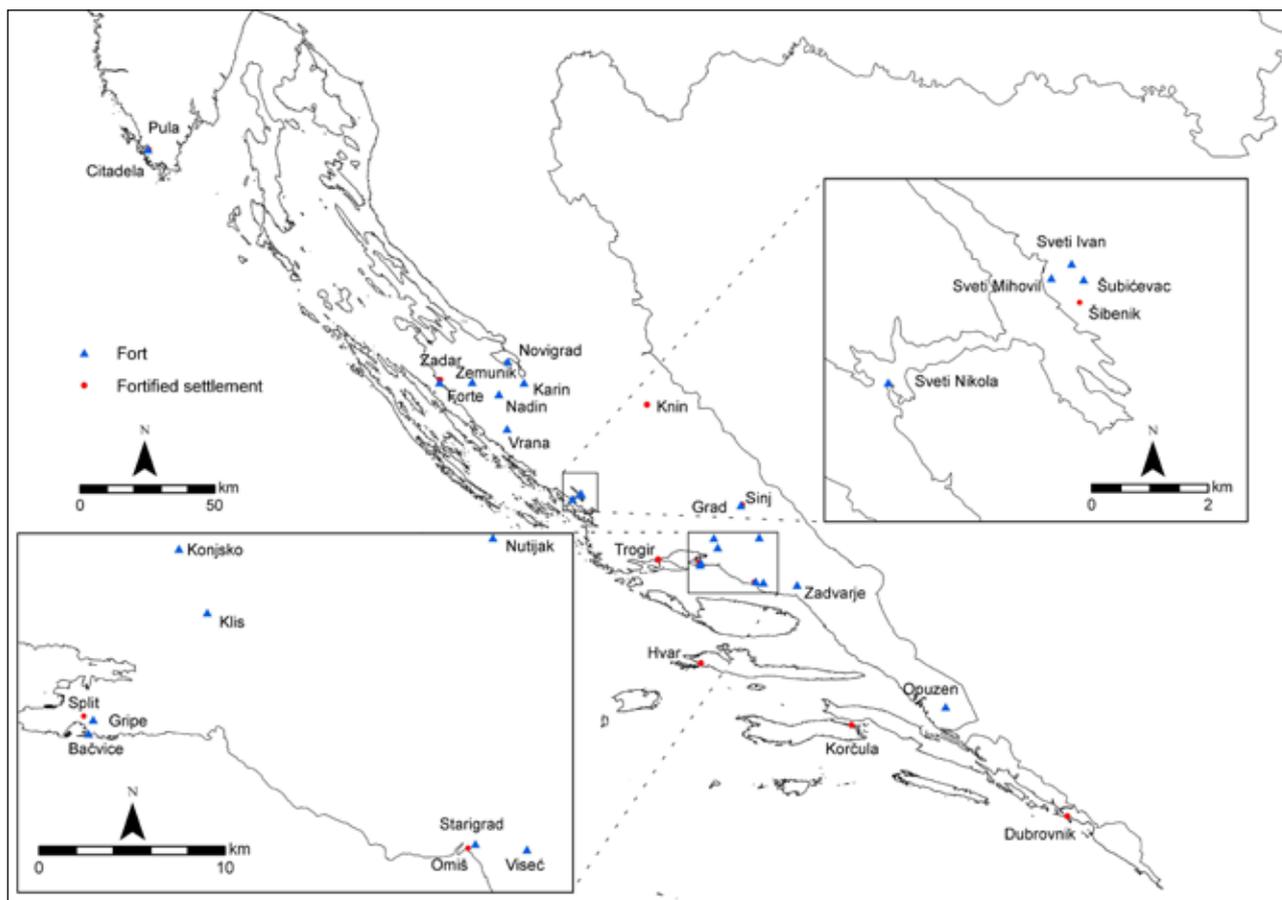


Fig. 2: Forts and fortified settlements from *Mari, golfi, isole, spiagge, porti, citta...* in present-day Croatia

DISCUSSION

Some of the panoramas and plans of settlements from *Mari, golfi, isole, spiagge, porti, citta...* were over a hundred years old when the *isolario* was published. Coronelli copied them from other Venetian mapmakers, for example, the panorama of Rovinj by Giacomo Franco's *isolario*⁶, and panoramas of Pula, Osor, Šibenik, Trogir and Hvar in Giovanni Francesco Camocio's *isolario*⁷ (Kozličić, 1995). On the other hand, plans and panoramas of forts are mostly his original work, reflecting, in most cases, the spatial reality and physical features of the terrain. A few are the result of artistic licence, for example Karin (*Carin*) fort, for which Coronelli probably did not have enough information (Fig. 3). The military character apparent in some depictions is the outcome of the war that took place between the Ottoman Empire and the Republic of Venice at the time when the maps were being compiled.

One such example is the panorama of the town of Knin (*Chnin*), which was besieged by the Venetian army. It is possible that Coronelli used some maps by Croatian authors while mapping Croatian territory, such as those by the historian Ivan Lučić in *The Kingdom of Dalmatia and Croatia*.⁸ Coronelli's maps can best be compared to the maps of his contemporary, the mapmaker Giacomo Cantelli da Vignola, who worked in Rome. Cantelli was more successful in depicting the continental part of Croatia, while Coronelli did a better job of depicting the coastline and hinterland. The reason lies in the different sources they used. Coronelli relied more heavily on the Venetian cartographic heritage, while Cantelli turned to maps available in Rome (maps of Croatian and German origin). Despite these differences, it is obvious that cartographic displays of Croatia were beginning to be standardised, i.e. there was an improvement in geographical knowledge of the Croatian territory (Faričić, 1998).

6 Giacomo Franco, *Carte geografiche*, Venice, 1579 (Kozličić, 1995).

7 Giovanni Francesco Camocio, *Isole famose, porti, fortezze, e terre marittime sottoposte alla Ser(enissi)ma Sig(n)oria di Venetia, ad altri Principi Christiani, et al Sig(n)or Turco novame(n)te poste in luce*. In *Venetia alla libreria del segno di S(an) Marco*, Venice, 1571 (Kozličić, 1995).

8 Ivan Lučić, *De Regno Croatiae et Dalmatiae libri sex*, Amstelodami, Apud Ioannem Blaeu, Amsterdam, 1668 (Kozličić, 1995).

About half of the forts which form *Mari, golfi, isole, spiagge, porti, citta...* were built in the 16th and 17th centuries, in order to improve the defences of Venetian possessions in the eastern Adriatic and elsewhere, while older forts were reinforced, changing their former, mostly (late) medieval layout. The construction of this new defence system was characterised by bastion fortification, which appeared in Western Europe in the 16th and 17th centuries as the result of the mass use of new weapons – cannons and gunpowder (Parker, 1988). Bastions built in the eastern Adriatic can be characterised as examples of Italian renaissance military architecture (*trace italienne alla moderna*), which left its mark in the physical appearance of fortified towns and their later urban development (Žmegač, 2007; Duplančić, 2009; Vrandečić, 2009).

Although Coronelli depicted more than twenty settlements in *Mari, golfi, isole, spiagge, porti, citta...*, it is evident that he paid special attention to Zadar (*Zara*),

Šibenik (*Sebenico*) and Split (*Spalato*) and their fortifications. Zadar was the administrative centre of Venetian Dalmatia and the key supply harbour for ships heading for the eastern Mediterranean, while the Zadar hinterland was a significant source of oak, indispensable for shipbuilding and difficult to obtain in the Italian peninsula (Grygiel, 2006).

Coronelli completely avoided depicting civilian structures in Zadar such as churches and administrative buildings, and only showed Zadar's Renaissance and Baroque fortifications. In all, the Zadar fortifications consisted of one fort (*Forte*), two citadels, seven bastions and the city walls (Fig. 4). Forte was a massive bastioned fort built in the sixteenth century, which protected the only land access to Zadar, since the town grew up on a peninsula.

The largest number of depictions in the *isolario* (eight) is dedicated to Šibenik, its fortifications and surrounding area (Fig. 5). Šibenik had a pronounced strategic role, as both a continental and maritime

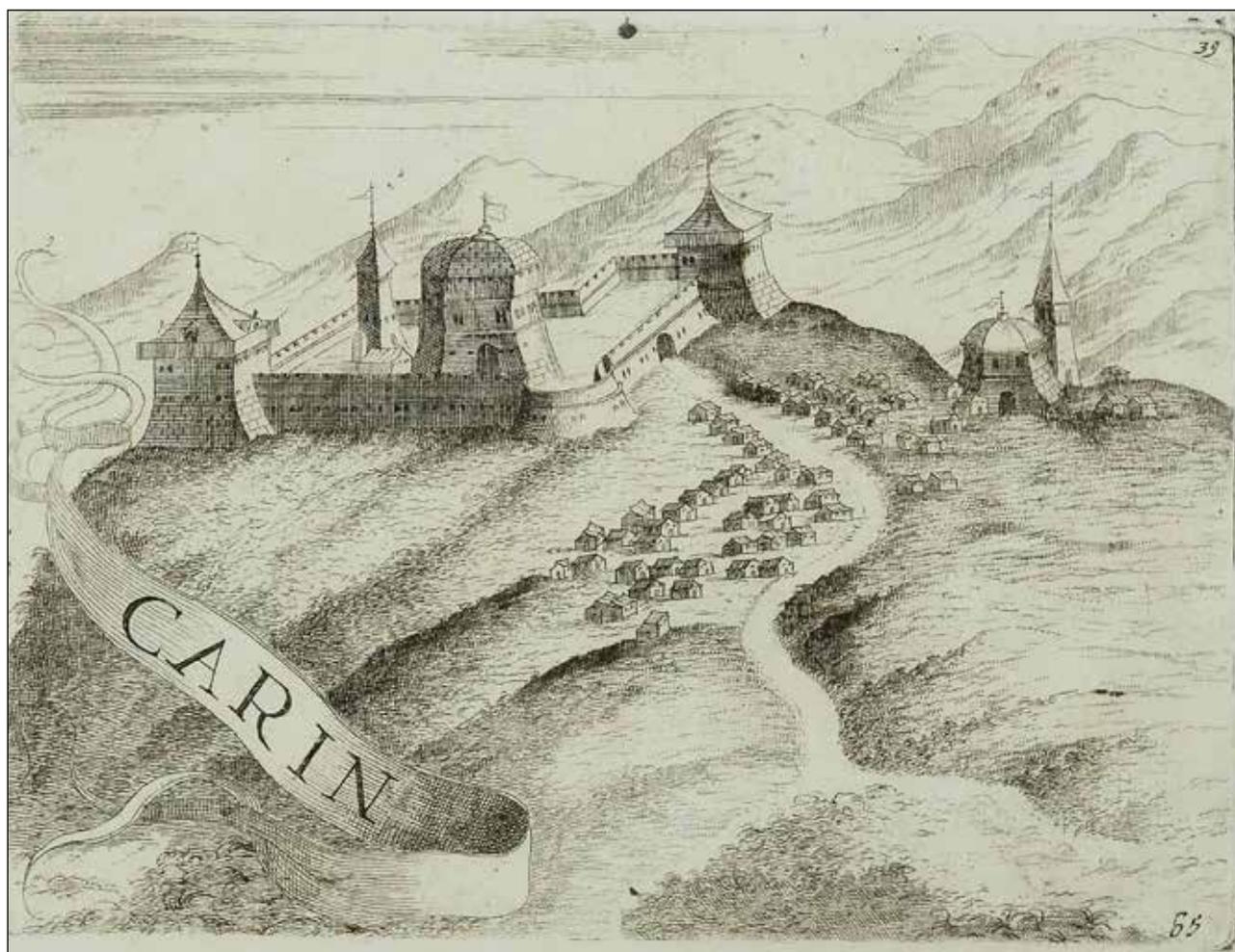


Fig. 3: Panorama of Karin Fort, located in the hinterland of Zadar. 17.4 x 13.0 cm. Copperplate, black and white print. The Library of the State Archives in Zadar, call mark 784 / II. E. 12., fol 39. (Image use authorized by State Archives in Zadar, Croatia).

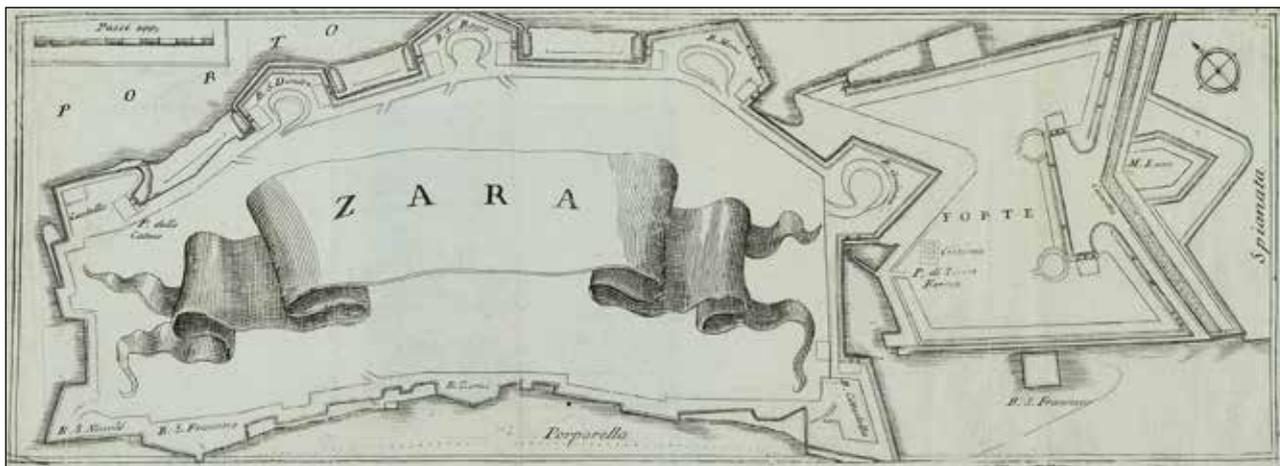


Fig. 4: Plan of Zadar. Forte fort is on the right side. 35.7 x 12.6 cm. Copperplate, black and white print. The Library of the State Archives in Zadar, call mark 784 / II. E. 12., fol 32. (Image use authorized by State Archives in Zadar, Croatia).

stronghold, due to its geographic position and the geomorphological features of the terrain. Coronelli's plans of Šibenik's fortifications, particularly the four forts, are original and detailed. Three of them, Sveti Mihovil (*Castello Vecchio* – Saint Michael), Sveti Ivan (*San Giovanni* – Saint John) and Šubićevac (*Barone*), located on the mainland, provided defence against Ottoman ground troops, while Sveti Nikola (*San Nicolo* – Saint Nicholas), built on the islet at the mouth of Šibenik Channel during the 16th century, protected the town from navy assaults. Sveti Mihovil dates back to medieval times and is the oldest fort

in Šibenik, reinforced several times between the 13th and 18th centuries (Ćuzela, 2005). Sveti Ivan and

Šubićevac are bastioned forts built in the 1640s and 1650s that successfully defended Šibenik during several Ottoman sieges during the Cretan War (Žmegač, 2009). The unusual triangular shape of Sveti Nikola Fort (Fig. 6), which was determined by the terrain (the shape of the islet), did not reduce its military function. Actually, Venetian military engineers considered it one of the most successfully constructed Republic's maritime forts ever (Žmegač, 2009). Other depictions of Šibenik from *isolario* are not Coronelli's original work although he partially modified them; the map of the surrounding area is Martin Kolunić's work from Camocio's *isolario* and the panorama of Šibenik which was probably made by Natal Bonifačić⁹ subsequently became one of



Fig. 5: Plan of Šibenik. Sveti Mihovil Fort (Castello) is visible in the upper left part. 17.5 x 13.2 cm. Copperplate, black and white print. The Library of the State Archives in Zadar, call mark 784 / II. E. 12., fol 48. (Image use authorized by State Archives in Zadar, Croatia).

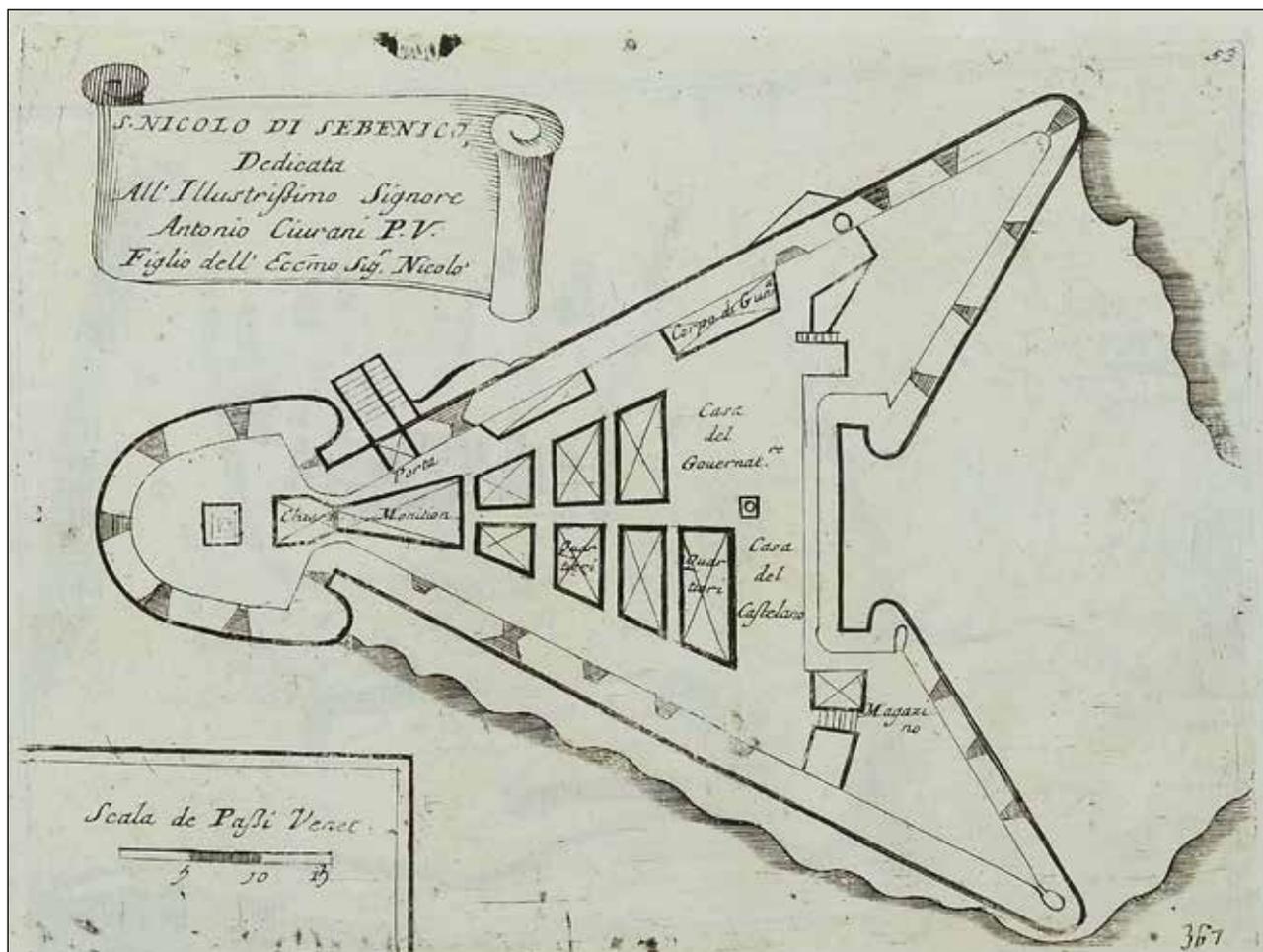


Fig. 6: Plan of Sveti Nikola Fort, 17.5 x 13.0 cm. Copperplate, black and white print. The Library of the State Archives in Zadar, call mark 784 / II. E. 12., fol 53. (Image use authorized by State Archives in Zadar, Croatia).

the most frequent depictions of that town (reproduced in *isolarios* made by Venetian cartographers Francesco Camocio, Simone Pinargenti¹⁰, Giacomo Franco and Giuseppe Rosaccio¹¹) (Kozličić, 1995).

When analysing Split's fortifications, two facts need to be mentioned. Split became the main Venetian trading point for the Bosnian hinterland and a strong rival to the Republic of Dubrovnik after the construction of the necessary facilities (*Lazaretto*) in the 16th and 17th centuries (Perojević, 2002). Furthermore, nearby Klis (*Clissa*) Fort was until the Cretan War (1648) under Ottoman rule, representing a constant danger to Split. The Republic of Venice, therefore, paid great attention to development of Split's defence system, as an Ottoman

conquest of Split would endanger all Venetian Dalmatia (Faričić, 1998). Coronelli was also original in depicting Split's fortifications, i. e. he did not use earlier templates. His plan of Split is probably one of the best accomplishments when it comes to mapping Croatian coastal towns. One of the few that can be compared with it in terms of detail is the 1666 plan of Split made by the Venetian military engineer Giuseppe Santini. Coronelli's plan presented not only the fortifications but the entire urban structure with streets and buildings organised on a recognisably medieval basis (Fig. 7). The Split defence system included five bastions and two forts – Gripe and Bačvice. Gripe (*Grippe*) was also a bastioned fort built during the Cretan War in order

9 Martin Rota Kolunić and Natal Božo Bonifačić (Natale Bonifacio) were Croatian 16th century copper-plate engravers and mapmakers native to Šibenik.

10 Simone Pinargenti, *Isole che sono da Venetia nella Dalmazia e per tutto l'Archipelago fino a Constantinopoli*, Venice, 1573 (Kozličić, 1995).

11 Giuseppe Rosaccio, *Viaggio da Venetia a Constantinopoli*, Venice, 1606 (Kozličić, 1995).

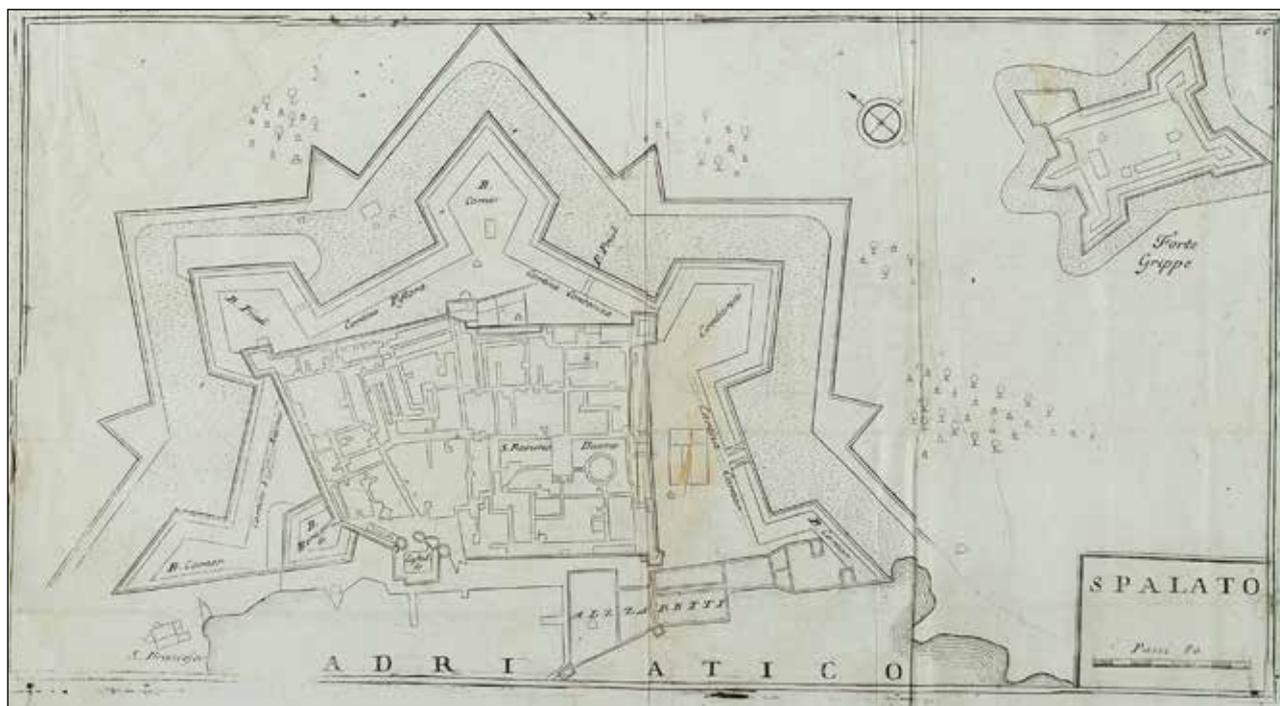


Fig. 7: Plan of Split. Gripe Fort is visible in the upper right corner. 17.0 x 12.6 cm. Copperplate, black and white print. The Library of the State Archives in Zadar, call mark 784 / II. E. 12., fol 66. (Image use authorized by State Archives in Zadar, Croatia).

to control access to Split from the hinterland, while Bačvice (*Botticelle*) was a smaller fort that protected the port.

Two settlements in the hinterland of Šibenik and Split, Knin (*Chnin*) and Sinj (*Sign*) (Fig. 8), played an important strategic role during the Morean War (1684–1699). Before then, both settlements had been under Ottoman rule and Coronelli depicted not only their fortifications, but also the sieges laid by the Venetian army. The Republic took control of Sinj in 1686 and of Knin in 1688 and from then on, both represented military strongholds in the border area between the Ottoman Empire and the Habsburg Monarchy (Stanojević, 1962).

Klis Fort, as mentioned above, was essential for controlling trading routes from the coastline to the hinterland and Bosnia. The panorama of Klis is a generalised display, whilst the plan is rather detailed, but probably copied from Santini. The town of Trogir (*Trau*), although fortified, had a less significant strategic role for the Venetian Republic when compared to Split or Šibenik and the town plan in the *isolario* is most likely Lučić's depiction from his book¹², slightly modified by Coronelli (Kozličić, 1995). The forts of Nutijak (*Noiach*), Starigrad (*Starigradio*), Viseč (*Vissichio*) and Zadarje (*Dvare*) were originally medieval forts, under the control of Ottoman army until the Morean War and,

thereafter, under the Venetian army. Their main purpose was to monitor navigation along the River Cetina and to protect the coastal town of Omiš (*Almissa*) (Fig. 2). Besides Split, another trade route and one of the best natural connections between the Adriatic coast and Herzegovina and Bosnia was the River Neretva (*Narenta*) valley. The Republic took control of the valley from the Ottomans during the Morean War and built a new fort, Opuzen (*Opus*). Coronelli's depiction shows this fort in a favourable position, on a river island accessible only from the south. (Fig. 9).

Depictions of other forts in the *isolario* are less detailed; either their strategic importance was less prominent during the 17th century Ottoman-Venetian wars, such as the citadel in Pula (*Pola*), or they had only come into Republic's possession recently, from Coronelli's perspective, such as Karin (*Carin*) Nadin (*Nadin*), Zemunik (*Zemonico*) and Vrana (*Urana*) forts, which is why he had little information about them. Karin, Nadin, Zemunik, Vrana and Novigrad (*Novegradi*) forts were destroyed and rebuilt several times during the Ottoman-Venetian wars and served as control points for Ravni Kotari, one of the largest areas of fertile land in Dalmatia.

Despite the fact that Coronelli depicted numerous forts in eastern Adriatic, he did not present all of them. Firstly, the forts of Dubrovnik and the Republic of Du-

12 Ivan Lučić, *Memorie istoriche di Tragurio ora detto Traù di Giouanni Lucio*, Venice, 1673 (Kozličić, 1995).

brovnik were not displayed because they were considered less significant, since Dubrovnik was Venice's trading and political opponent and an ally of the Ottoman Empire. Secondly, forts or settlements that had no strategic importance during 17th century wars were not displayed, for example Sveti Mihovil (*San Michele* – Saint Michael) Fort on the island of Ugljan, off Zadar.

CONCLUSION

Coronelli's maps represent one of the largest possible shift within the context of "old" cartography. However, they lack the necessary scientific basis and knowledge provided by 17th century geodetic surveys and astro-

nomical observations. Nonetheless, Coronelli's *Mari, golfi, isole, spiagge, porti, citta...* is one of the most significant cartographic achievements in the historical sequence of mapping Adriatic Sea. Until the beginning of the 19th century, it was the most detailed and comprehensive *isolario* available. Some of Coronelli's plans and panoramas of forts and fortifications (especially of Zadar, Šibenik and Split) were not surpassed in quality until the official geodetic survey of Dalmatia took place during the 1820s and 1830s. *Mari, golfi, isole, spiagge, porti, citta...* is, therefore, more than just cartographic material, it is also a reliable source for researching the historical geography, urban development and military architecture of littoral Croatia.

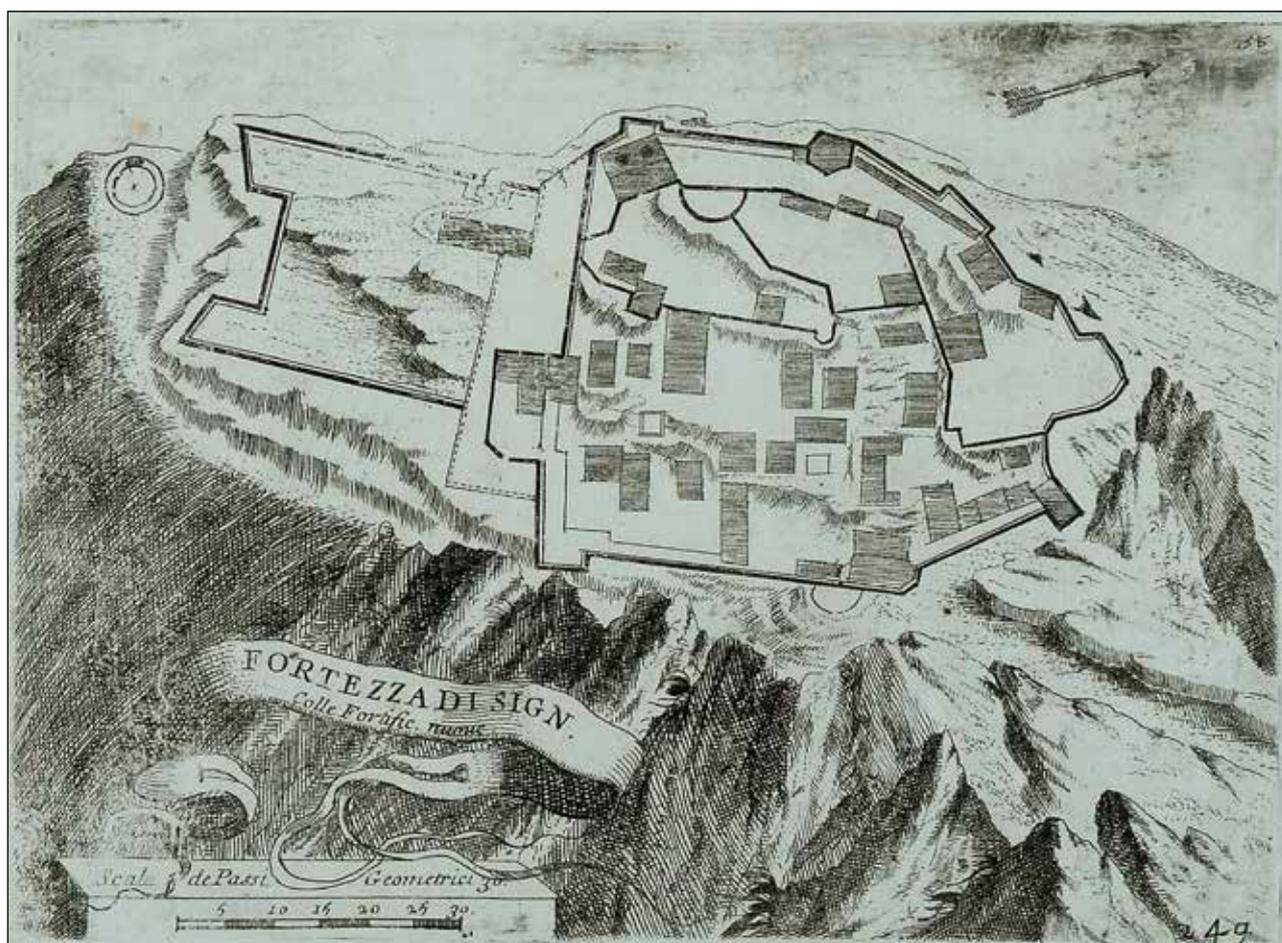


Fig. 8: Plan of Sinjska utvrda – Grad. 17.3 x 12.7 cm. Copperplate, black and white print. The Library of the State Archives in Zadar, call mark 784 / II. E. 12., fol 58. (Image use authorized by State Archives in Zadar, Croatia).

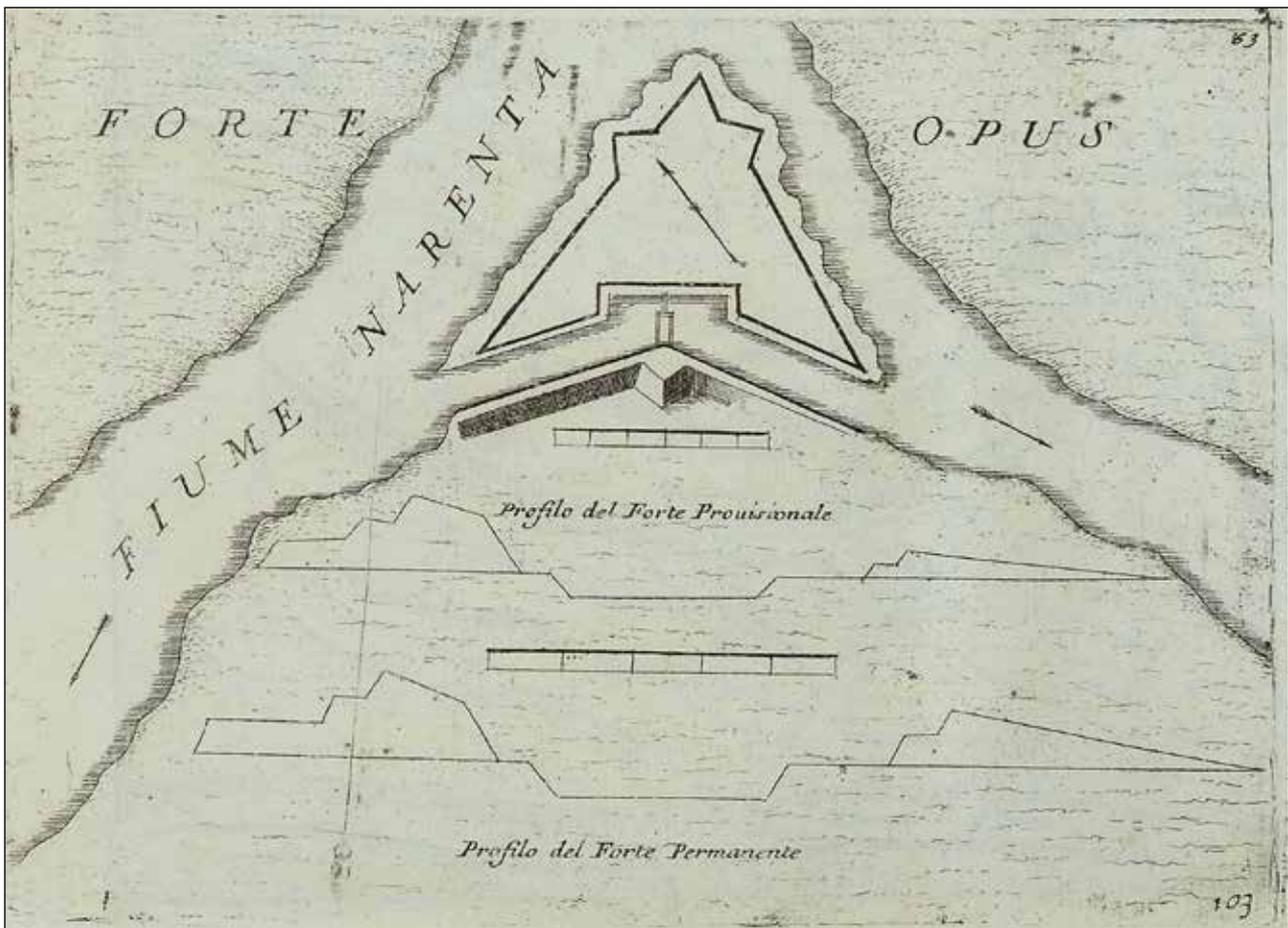


Fig. 9: Plan of Opuzen Fort. 18.1 x 12.5 cm. Copperplate, black and white print. The Library of the State Archives in Zadar, call mark 784 / II. E. 12., fol 83. (Image use authorized by State Archives in Zadar, Croatia).

VZHODNO JADRANSKE UTRDBE V IZOLARIJU VINCENZA MARIE CORONELLIJA MARI,
GOLFI, ISOLE, SPIAGGIE, PORTI, CITTA...

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POVZETEK

Namen tega prispevka je analiza predstavitve nekaterih utrdb na vzhodni jadranski obali in njenem zaledju (današnja Hrvaška) v delu Vincenza Marije Coronellija (1650-1718) *Mari, golfi, isole, spiagge, porti, citta ...* V času beneške uprave na območju vzhodnega Jadrana (15.-18. stoletje) je senat Beneške republike temu območju pripisoval velik geostrateški pomen, še posebej zaradi številnih vojn z Osmanskim cesarstvom, enim od velikih tekmecev Benetk. Beneška osvojitve novih ozemelj po teh vojnah je zahtevala, da se ozemlje ustrezno kartografsko označi. To je bila naloga za Vincenza Coronellija, uradnega kartografa Beneške republike.

Knjiga o otokih (izolar) *Mari, golfi, isole, spiagge, porti, citta...* je prinesla veliko število zemljepisnih, zgodovinskih in vojaških informacij o vzhodnih jadranskih mestih in utrdbah. Ključna pristanišča in utrdbe, kot so Zadar (Zara), Knin (Chnin), Šibenik (Sebenico), Split (Spalato) in Sinj (Sign), so večkrat označeni na zemljevidih in panoramah. Zadru, Šibeniku in Splitu je bila namenjena največja pozornost, saj je bil Zadar središče beneške Dalmacije, Šibenik in Split pa pomembni strateški in trgovski točki na poti k Osmanskemu cesarstvu.

Ključne besede: utrdba, izolar, vzhodni Jadran, Beneška republika, Vincenzo Coronelli

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