

# THIASOS

## RIVISTA DI ARCHEOLOGIA E ARCHITETTURA ANTICA

2020, n. 9.2

## IN SOLO PROVINCIALI

Sull'architettura delle province, da Augusto ai Severi, tra inerzie locali e romanizzazione

a cura di Giuseppe Mazzilli

### «THIASOS» Rivista di archeologia e architettura antica Direttore: Giorgio Rocco

Comitato di Direzione: Monica Livadiotti (vice-Direttore), Roberta Belli Pasqua, Luigi Maria Caliò Redazione: Davide Falco, Antonello Fino, Chiara Giatti, Antonella Lepone, Giuseppe Mazzilli, Valeria Parisi, Rita Sassu Anno di fondazione: 2011

#### ALKA STARAC, The Oldest Forum Temple of Pola. A New Approach

Il contenuto risponde alle norme della legislazione italiana in materia di proprietà intellettuale ed è di proprietà esclusiva dell'Editore ed è soggetta a copyright.

Le opere che figurano nel sito possono essere consultate e riprodotte su supporto cartaceo o elettronico con la riserva che l'uso sia strettamente personale, sia scientifico che didattico, escludendo qualsiasi uso di tipo commerciale.

La riproduzione e la citazione dovranno obbligatoriamente menzionare l'editore, il nome della rivista, l'autore e il riferimento al documento. Qualsiasi altro tipo di riproduzione è vietato, salvo accordi preliminari con l'Editore.

Edizioni Quasar di Severino Tognon s.r.l., via Ajaccio 41-43, 00198 Roma (Italia) http://www.edizioniquasar.it/

ISSN 2279-7297

Tutti i diritti riservati

## Come citare l'articolo:

A. STARAC, The Oldest Forum Temple of Pola. A New Approach, in G. MAZZILLI (a cura di), In solo provinciali, Sull'architettura delle province, da Augusto ai Severi, tra inerzie locali e romanizzazione, Thiasos 9.2, 2020, pp. 19-32.

Gli articoli pubblicati nella Rivista sono sottoposti a referee nel sistema a doppio cieco.



## THE OLDEST FORUM TEMPLE OF POLA. A NEW APPROACH

Alka Starac

Keywords: Pola, Forum, temple, Tuscan order, Vitruvius

Parole chiave: Pola, Foro, tempio, ordine tuscanico, Vitruvio

#### **Abstract**

Twin temples were built by the Forum square at the Caesarean colony of Pola as part of the late Augustan urbanistic renovation programme. Massive foundation walls of a larger building, partially destroyed during the construction of the eastern temple, have been found located in the middle between them. Scholars sought to explain such foundations as building remains of a Curia, a Comitium, an altar, or a Corinthian octastyle prostyle temple. But, actually, not one single preserved stone element of architectural decoration in Pola could be associated to a hypothetical Corinthian temple corresponding to the preserved foundations. Lack of architectural ornament and a ground plan basically unsuitable for a Corinthian temple, due to its proportions and layout, prompted a new approach and a new interpretation proposal. Based on Vitruvian proportions, a Tuscan temple with two rows of columns, six in each row, fits the foundation walls. Such an interpretation changes radically the traditional picture of the monumental architecture in Pola.

Due templi gemelli furono edificati presso il Foro della colonia cesariana di Pola, in seno al programma tardo-augusteo di rinnovamento urbano. Tra i due edifici sono state rinvenute le massicce strutture di fondazione di una costruzione maggiore, in parte distrutte per far posto al tempio orientale. Gli studiosi hanno identificato le fondazioni come pertinenti a una Curia, un Comitium, un altare o un tempio corinzio, prostilo ottastilo. Tuttavia, nessun elemento lapideo di decorazione architettonica rinvenuto in città può essere posto in relazione con un ipotetico tempio corinzio riconducibile alle fondazioni dell'edificio in esame. L'assenza di elementi dell'ordine architettonico e un impianto planimetrico incompatibile – per proporzioni e disegno complessivo – con quello di un tempio corinzio hanno spinto in direzione di una nuova proposta interpretativa, derivante da un diverso approccio. Un tempio tuscanico, con due file di 6 colonne ciascuna, ben si adatta invece alle strutture di fondazione rinvenute, sulla base delle proporzioni indicate da Vitruvio. La nuova interpretazione modifica radicalmente l'immagine tradizionale dell'architettura monumentale di Pola.

#### History of research

Between the Temple of Rome and Augustus and the eastern temple at the north side of the Forum of Pola, a podium structure was excavated by Giovanni Carrara and published in 1845 by Pietro Kandler (fig. 1). The rectangular podium, 20.5 m wide and 35.3 m long at the bottom, was covered externally by limestone slabs and divided internally by three walls in width, parallel to the northern, shorter side of Forum<sup>1</sup>. The dimensions of the podium without basement curb are 18.6 x 33.3 m<sup>2</sup>. Two internal walls and the external rear wall are narrower than the lateral ones and the third internal wall, the closest to the Forum. Kandler brought the layout with a square base suitable for the altar in the middle of the front side and two staircases on both sides of it, seemingly discarded by the results of later excavations<sup>3</sup>. The podium is oriented parallely to the two temples, leaning against the stylobate of the eastern temple and 0.80 m distant from the stylobate of the western Temple of Rome and Augustus. Kandler interpreted the podium as basement of the local *Curia* or an open *Comitium* surrounded by sculptures on the walls, older than twin temples

<sup>&</sup>lt;sup>1</sup> Forlati Tamaro 1923, p. 220.

<sup>&</sup>lt;sup>2</sup> Kandler 1846, p. 22; Mirabella Roberti 1949, p. 257;

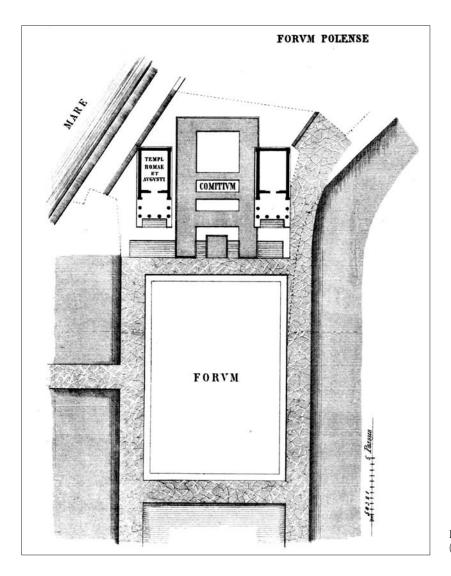


Fig. 1. Pola, Forum temples after Kandler (KANDLER 1858, pl. 1).

and still used after their construction at the beginning of the 1st cent. AD4. Entrance was assumed on the east side, without clear archaeological documentation published.

Anton Gnirs excavated the Forum temples area in 1907-1909. He documented the podium walls of limestone and lime mortar, covered externally by oblong limestone slabs below the bottom of the eastern temple stylobate<sup>5</sup>. Inside the podium walls, a group of amphorae was documented, some of them bearing stamps *ANTIM*, *TIMOTH*, *NICEPH*<sup>6</sup>. Amphorae are of type Lamboglia 2, characteristic by shape for the third quarter of the 1<sup>st</sup> cent. BC, dating the podium building period immediately after the foundation of the Roman colony of Pola in 46-45 BC<sup>7</sup>. Gnirs added the possibility that the podium belonged to *rostra*<sup>8</sup>.

Excavations conducted by Bruna Forlati Tamaro summarized the previous researches giving new, more precise data on dimensions and height. Observing the height, the podium is placed at a lower level than the two temples. The original top of the podium is not preserved, since it was subsequently cut off exactly at the stylobate bottom level of the two temples<sup>9</sup>. Vertical oblong slabs are set on the podium basement curb, and preserved in a height of 1.63 m, just under the stylobate bottom of the Temple of Rome and Augustus. On the opposite, east side, the top of the podium was demolished during the construction of the eastern temple<sup>10</sup>. Forlati Tamaro concluded that the podium, obviously older than the twin temples, was completely destroyed by their construction and that it could not be a *Comitium*. In front of the podium two shallow basins were found, incorporated in the pavement near the Forum longitudinal axis<sup>11</sup>. Probably, the basins were built in the pavement of the newer, Augustan Forum placed at a higher level (absolute height of 1.22-1.38 m), although this can not be clearly concluded from the excavation description. Forlati Tamaro

 $<sup>^4</sup>$  Kandler 1846, p. 22; Kandler 1876, pp. 62, 72.

<sup>&</sup>lt;sup>5</sup> GNIRS 1910, pp. 184-185 and figs. 12-13.

<sup>6</sup> Ibid., p. 174 and fig. 2; pp. 185-186 and figs. 14-16.

<sup>&</sup>lt;sup>7</sup> Starac 1994-95, pp. 137-139; Starac 2008, p. 124.

<sup>&</sup>lt;sup>8</sup> GNIRS 1910, pp. 184-185.

<sup>&</sup>lt;sup>9</sup> Forlati Tamaro 1923, p. 218, pl. I, a.

<sup>&</sup>lt;sup>10</sup> *Ibid.*, p. 221.

<sup>&</sup>lt;sup>11</sup> *Ibid.*, pp. 218, 212 fig. 1.



Fig. 2. Pola, Forum. Central podium with *orthostata* (right) and eastern temple stylobate built afterwards (left). A view of the temple from the backside (MIRABELLA ROBERTI 1997, p. 11 fig. 3).

interpreted the podium as a large open altar basement, possibly in function for the provincial imperial cult in the Histria region, identified as *conventus iuridicus*<sup>12</sup>. Though, the hypothesis of the altar for provincial imperial cult at level of Histria region could be discarded following the sequence of historical and administrative differences between Pola, situated in Italy since 18-12 BC<sup>13</sup>, and attested provincial centres of judicial convents and/or provincial imperial cult (Lugdunum, Tarraco, Scardona)<sup>14</sup>. The construction of the twin temples by the Forum of Pola started around 2 BC<sup>15</sup>, and on that occasion the pre-existing podium was demolished and buried.

In 1946, Mario Mirabella Roberti conducted another probe excavation in the area of the Forum temples, confirming and explaining in more detail the previously collected data concerning the central podium<sup>16</sup>. The rear wall of the podium was documented again under the bottom level of the twin temples stylobates, 7.16 m behind the rear of the eastern temple (fig. 2). The rest of the podium covered by oblong slabs and subsequently buried underground is 1.70 m high, resting on the foundation wall built of limestone and lime mortar. Oblong slabs (*orthostata*) covering the exterior walls of the podium are nearly 0.28-0.29 m thick and preserved in an uncomplete height of 1.63 m. The width of the east lateral wall with coating slabs is 3.83 m, i.e. 3.54 m without slabs<sup>17</sup>. The width of the west lateral wall without slabs is 3.10 m; the width of the rear wall with coating slabs 2.45 m, i.e. 2.16 m without slabs. The internal distance between lateral walls is 11.27 m. The curb step is documented along the rear and east lateral wall of the podium, that probably originally framed the entire podium except at the place of the staircase. The curb step is rusticated on the upper and outer sides, 0.29-0.32 m wide and 0.31 m high. Each rusticated stone has a smooth border 0.02 m wide.

<sup>&</sup>lt;sup>12</sup> Forlati Tamaro 1923, p. 220.

<sup>&</sup>lt;sup>13</sup> Pliny the Elder, *Naturalis Historia*, 3, 129; STARAC 1999, p. 57, with bibliography.

 $<sup>^{14}\,\</sup>mathrm{Starac}$  1996, p. 74; Starac 2000, pp. 57-63; Fishwick 2002, pp. 43-92.

 $<sup>^{15}</sup>$  IIt X/1, 21; Fishwick 2002, p. 82.

<sup>&</sup>lt;sup>16</sup> Mirabella Roberti 1949, p. 257, pl. X; Mirabella Roberti 1997, pp. 7-9.

 $<sup>^{17}</sup>$  Kandler 1846, p. 22; Mirabella Roberti 1949, p. 257; Krizmanić 1988, p. 240.

Rusticated curb step lies on the foundation wall. Average podium width with slabs on the rear is 18.5 m, while the maximum dimensions of the podium with coating slabs are 18.6 x 33.3 m. Added the curb step on both lateral sides, the maximum width on the rear reaches 19.13 m. The preserved total height of the podium with curb step of 1.94 m maximally corresponds to the difference between the lower late Republican Forum pavement and the upper late Augustan temple terrace pavement. Mirabella Roberti noticed a column fragment built in the Medieval City Hall portico, in the same line with the frontal columns of the twin temples pronaoses and approximately at the place of the frontal columns of the presumed central temple pronaos. The fluted column fragment, 2.4 m high, is built above the podium foundation wall, but not in the original place. The column base is also missing. Mirabella Roberti concluded that the fragment belongs to the angle semi-column of 0.76 m in diameter and nearly 5.7 m high in total 18. According to this, he calculated the length of the presumed central temple from the front to the rear of 24.5 m 19, interpreting it as the *Capitolium*, the main temple of Pola dedicated to Jupiter, Juno, and Minerva, likely built in the third quarter of the 1st cent. BC, immediately after the foundation of the Roman colony of Pola 20. The presumed central temple could have remained in the same dimensions after the construction of the lateral twin temples, as the full width of its stylobate overcomes the exterior of the cella at least for the coating slabs' width. Only the stylobate cornice had to be removed for the construction of the twin temples laterally (fig. 2).

The next step in the interpretation of the Forum building phases was given by Attilio Krizmanić, who on the central podium reconstructed the octostyle prostyle temple with a cella divided in the rear third into three parts, dated to the first Roman building stage in the 1st cent. BC21. The staircase is hypothetically placed on the front of the temple, in the central longitudinal Forum axis. The podium basement bottom is placed at the level of the late Republican Forum pavement dating from the 1st cent. BC, at 0.88 m of absolute height<sup>22</sup>. Krizmanić documented the column fragment mentioned foremost by Mirabella Roberti fifty years ago, but recording significantly different data. After Krizmanić, it is a smooth column originally high 6.8 m, placed still *in situ* on the original base sealed by lead that has become unrecognizable due to damage<sup>23</sup>. Reconstruction is partly founded on the previous excavations results of Carrara reported by Kandler, of Forlati Tamaro and Mirabella Roberti, and it is partly hypothetical. Tripartite division in the back part of the cella and a central frontal staircase have no grounding in the archaeological data. Krizmanić supposed that the oldest central temple remained still in function after the construction of the twin temples in the 1st cent. AD, and that on the place of its staircase a new unique temple terrace staircase was built. There must be said that the actual position and width of the podium foundations do not suggest the placement of a central temple exactly in the middle between two newer lateral temples, but a little closer to the eastern temple.

The latest archaeological excavations conducted by Kristina Džin did not confirm the existence of frontal stairs as Kandler and later Krizmanić proposed. The podium front side facing the Forum entire length showed an interrupted wall preserved at a height of approximately half a meter with base curb step, but without vertical covering slabs<sup>24</sup>. Finding of diagonally placed foundation walls leaning to the south part of the eastern, lateral side of the podium basement next to the Forum, as well as the complete absence of the basement curb step on the same side of the podium basement, goes in favor of Kandler's assumption of the staircase on the eastern side of the podium<sup>25</sup>.

All scholars starting with Mirabella Roberti afterwards interpreted the central podium as the stylobate of the first Roman Forum temple, built following the foundation of the Roman colony of Pola at the beginning of the third quarter of the 1<sup>st</sup> cent. BC – and we can agree with that. It is supposed that it was the *Capitolium* dedicated to Jupiter, Juno, and Minerva, but actually there are no archeological, epigraphical, or historical sources recording to which deity or deities the first temple was consecrated<sup>26</sup>. The cella of the *Capitolium* could be tripartite following the Capitoline Temple in Rome, but it could be one-room as well<sup>27</sup>. As a matter of fact, Capitoline temples by the Forum are rarely reliably attested outside Italy, except in the African provinces<sup>28</sup>.

Construction of the twin temples changed radically the appearance of the Forum. The stylobate height of the oldest temple remains unknown, as the preserved maximum height of 1.94 m including the base curb step is incomplete. According to the assumption proposed by Krizmanić in his first approach to the theme, the stylobate top of the oldest temple built in Corinthian order was in the same level with the stylobate bottom of two newer twin temples, and the column built in the City Hall porch is still *in situ*<sup>29</sup>. After the column diameter and position, the oldest hypothetical Corinthian temple had to be picnostyle octostyle, 14.45 m high, with columns 8.32 m high and

```
    <sup>18</sup> Mirabella Roberti 1935, p. 298.
    <sup>19</sup> Mirabella Roberti 1997, p. 13.
```

<sup>&</sup>lt;sup>20</sup> Mirabella Roberti 1949, p. 258.

<sup>&</sup>lt;sup>21</sup> Krizmanić 1988, pp. 100-106; Krizmanić 2005, p. 115.

 $<sup>^{22}</sup>$  Krizmanić 1988, p. 100; Džin 2007, p. 11.

<sup>&</sup>lt;sup>23</sup> Krizmanić 1988, p. 224.

<sup>&</sup>lt;sup>24</sup> Džin 2007, pp. 11, 35; Girardi Jurkić 2009, p. 29 fig. 7.

<sup>&</sup>lt;sup>25</sup> Džin 2007, p. 35.

<sup>&</sup>lt;sup>26</sup> Mirabella Roberti 1949, p. 258; Mirabella Roberti 1997, p. 13; Fischer 1996, p. 75.

<sup>&</sup>lt;sup>27</sup> Dionysius of Halicarnassus, *Roman Antiquities*, 4, 61, 4; BARTON 1982, p. 260.

<sup>&</sup>lt;sup>28</sup> Crawley Quinn, Wilson 2013, p. 117.

<sup>&</sup>lt;sup>29</sup> Krizmanić 1988, p. 224.

1.17 m distant, and the stylobate around 2.10 m high containing a nine-steps staircase. Such a calculation implies height of the stylobate with base curb 2.10 m, column base including the plinth 0.39 m, shaft 7.15 m and capital 0.78 m, architrave 0.65 m, frieze 0.48 m, cornice 0.54 m, gable 1.76 m and upper gable cornice with syma 0.60 m. This temple, measuring from the floor to the top, would be as high as the smaller twin temples with stylobate included, but its floor placed about 1.50 m below, at the level of the temple terrace pavement, would create a visually bad impression. According to another possibility proposed by Fischer, the stylobate of the central temple originally was higher, reaching the floor level of the newer twin temples<sup>30</sup> (fig. 3). In that case, the stylobate had to have a height of 15 steps, i.e. ca. 3.55 m. Both proposals allow further existence of the oldest temple between the two newer temples, but its stylobate had to be at least partially buried. The problem with the Corinthian temple hypothesis is that it does not fit the podium proportions, regarding the Vitruvian rules on cella and pronaos<sup>31</sup>.

methodology of calculating temple dimensions after Vitruvius, the question of flouting the precepts of theory in practice, the legal procedure of the construction process, the relationship between the tenant (conductor) and the architect as well as the selection of building materials and costs estimation have been widely discussed and studied in detail, especially for Roman temples of Imperial period built in Corinthian or Ionic order<sup>32</sup>. Measurement of architectural remains and orders is always the starting point for any such calculation: so, in the current case, the analysis based on measuring the dimensions of the temple podium led to the assumption of a Tuscan temple.

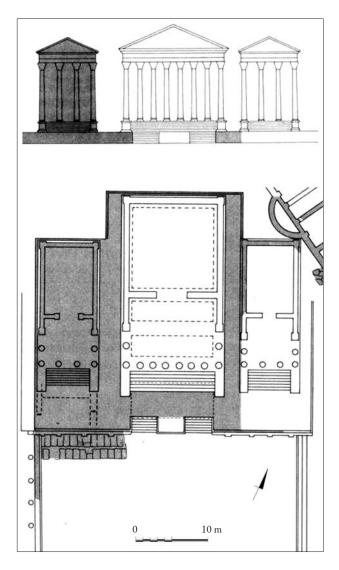


Fig. 3. Pola, Forum temples after Fischer (FISCHER 1996, pp. 78-80 figg. 15-16).

## A Tuscan temple

Save for the generally accepted Corinthian octostyle prostyle variant<sup>33</sup>, another possibility may be proposed, that the temple was built in Tuscan style<sup>34</sup>. Tuscan type of temple contains in pronaos not one, but two rows of columns, corresponding to three transversal podium foundation walls and providing an explanation for their possible function (fig. 4). Architraves and cornices of a Tuscan temple were made of wood instead of stone, and even columns could be made of wood. The layout of the podium walls points to the temple with a single cella and two rows of columns in pronaos, a sort of hybrid of Etrusco-Italic temple and Greco-Roman dypteros. The main model for Capitoline temples in towns under the Roman rule was the first Capitoline Temple in Rome, built in basically Tuscan, i.e. Etrusco-Italic style with triple cella and three rows of columns in the pronaos<sup>35</sup>. In 83-69 BC, the burnt temple has been restored to the same layout, but with more luxury<sup>36</sup>. Outside Rome, Etrusco-Italic temples of various dimensions and proportions, sometimes very different from the Vitruvian canon, are spread all over the Etruscan area of central and northern Italy, mostly built before Roman rule<sup>37</sup>. One of the best preserved Etruscan temples with triple cella and

<sup>&</sup>lt;sup>30</sup> Fischer 1996, p. 80 and fig. 16.

<sup>&</sup>lt;sup>31</sup> Vitruvius, De Architectura libri decem, 4, 4, 1.

<sup>&</sup>lt;sup>32</sup> Wilson Jones 1989; Barresi 2003.

<sup>&</sup>lt;sup>33</sup> Krizmanić 1988, pp. 100-106; Krizmanić 2005, pp. 115, 232-233; FISCHER 1996, pp. 71, 72 fig. 13.

<sup>&</sup>lt;sup>34</sup> Vitruvius, De Architectura, 4, 7, 1-5.

<sup>35</sup> Gjerstad 1960, pp. 178-185; Tagliamonte 1996, pp. 144-

<sup>148;</sup> Gros 1996, p. 122; Cifani 2008, pp. 80-109; Cifani 2014, p. 518; HOPKINS 2016, pp. 100-111 and fig. 87.

<sup>&</sup>lt;sup>36</sup> Plutarch, Poplicola, 15; Valerius Maximus, Factorum ac dictorum memorabilium libri IX, 4, 4, 11; DE ANGELI 1996, pp. 152-153.

<sup>&</sup>lt;sup>37</sup> Mambella 1982, pp. 35-42; Colonna 1985, pp. 60-61; Colonna 2006, pp. 132-168.

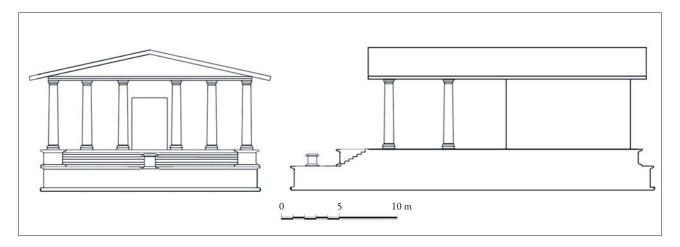


Fig. 4. Pola, hypothetical reconstruction of the oldest Forum temple in Tuscan order (drawing by the A.).

two rows of columns in front, at the same time the temple that best suits the Vitruvian canon, is located in Orvieto (Tempio del Belvedere) and dates back to the 5<sup>th</sup> cent. BC<sup>38</sup>. Other Italic temples with two rows of colums located outside the Etruscan area in Latium, Sabine area and south Italy are mostly dated to the Hellenistic period (3<sup>rd</sup>-2<sup>nd</sup> cent. BC). Here can be mentioned temples from the 3<sup>rd</sup> cent. BC in Villa San Silvestro at Cascia<sup>39</sup> and San Leucio at Canosa<sup>40</sup>, the second phase of the temple with double cella at S. Pietro in Alba Fucens<sup>41</sup> and Temple of Janus in the *Forum Holitorium* at Rome<sup>42</sup>. To the 2<sup>nd</sup> cent. BC or at the latest to the beginning of the 1<sup>st</sup> cent. BC are dated the so-called Capitoline Temple in Luni<sup>43</sup>, the "Great Temple" in the same town<sup>44</sup> and Temple B above the theatre in Pietrabbondante<sup>45</sup>. Certain authors include in this group the assumed Etrusco-Italic phase of the Temple of Dioscuri in Cori, but this phase in Tuscan style is not preserved in ground plan nor in the elements of its architectural ornament, that probably were made of wood, including columns<sup>46</sup>. An example of archaeologically explored Tuscan temple with triple cella and two rows of columns in front, built in the middle of the 2<sup>nd</sup> cent. BC, is located in Cosa<sup>47</sup>: the temple is placed on the top of the hill far from the Forum and was sometimes interpreted as *Capitolium*<sup>48</sup>, but most scholars do not include it among *Capitolia*<sup>49</sup>. A Tuscan Capitoline temple, tetrastyle with triple cella and two rows of columns in pronaos was built in the 1<sup>st</sup> cent. BC in the Forum of Pollentia in Maiorca, Baleari<sup>50</sup>.

Starting with the last decades of the 2<sup>nd</sup> cent. BC, normal Corinthian capitals replaced the Italic type of Corinthian capital in the architectural decoration of temples<sup>51</sup>. In the beginning of the 1<sup>st</sup> cent. BC, normal Corinthian capitals appear not only in the construction of new temples, but as well in the reconstruction of old ones in Tuscan style: an example of the reconstruction of the old Tuscan temple in the Corinthian style is Temple in Villa San Silvestro, Cascia<sup>52</sup>. The old Italic Temple of Dioscuri in Cori (Latium) was restored as Corinthian hexastyle at the turn of the 2<sup>nd</sup> to the 1<sup>st</sup> cent. BC, according to the employed capitals' style and features<sup>53</sup>.

The Capitoline Temple at Verona was built following the model in Rome, as a large Tuscan style temple over 21 m high with triple cella, six columns in front and three rows of columns in pronaos<sup>54</sup>. This temple, *peripteros sine postico*, is the only Capitoline temple in the entire northern Italy built exactly, but in smaller scale after the Capitoline Temple in Rome. It dates back to the middle of the 1<sup>st</sup> cent. BC and it was raised at the place of an older Hellenistic Italic sanctuary, probably an extra-urban sanctuary from the beginning of the 1<sup>st</sup> cent. BC, from which remained a part

- Pernier, Stefani 1925, p. 159; Minto 1942, pp. 569-572;
   Strazzulla 1989, pp. 971-982; Colonna 2006, pp. 160, 161 fig. 43.
   Gros 1996, p. 127 fig. 134, no. 6; Coarelli, Diosono 2009, p. 63 and fig. 8.
- <sup>40</sup> Gros 1996, p. 127 fig. 134, no. 17; Dally 2000.
- <sup>41</sup> Mertens 1969, pp. 14-15; Gros 1996, p. 127 fig. 134, no. 8.
- <sup>42</sup> Tacitus, *Annales*, 2, 49; Crozzoli Aite 1981, p. 113; Gros 1996, p. 127 fig. 134, no. 11.
- <sup>43</sup> ROSSIGNANI 1985a, pp. 55-57; ROSSIGNANI 1985b, p. 65, fig. 105; GROS 1996, p. 131 fig. 140, no. 1; CRAWLEY QUINN, WILSON 2013, p. 140, consider that there is not enough evidence to identify the hypothetically reconstructed Forum temple with triple cella and two rows of columns as *Capitolium*.
- $^{44}\,Rossignani$  1985c, pp. 104-109; Gros 1996, p. 131 fig. 140, no. 2.
- <sup>45</sup> La Regina 1976, p. 226; Gros 1996, p. 131, fig. 140 no. 15.

- <sup>46</sup> Colonna 1984, pp. 408-409; Coarelli 1993, pp. 259-261; Gros 1996, p. 131 fig. 140, no. 11; Palombi 2003, pp. 225-227; Palombi 2012, pp. 403-404.
- <sup>47</sup> Brown, Hill Richardson, Richardson 1960, pp. 103-106.
- <sup>48</sup> Bianchi 1950; Brown, Hill Richardson, Richardson 1960, pp. 103-106.
- <sup>49</sup> Crawley Quinn, Wilson 2013, p. 168 (list of the most significant studies that dealt with this topic).
- $^{50}$  Vallori, Cau Ontiveros, Orfila Pons 2015, pp. 289-317.
- <sup>51</sup> Heilmeyer 1970, pp. 25-51; Coarelli 1981, pp. 19-20, pl. V, no. 3.
- <sup>52</sup> Coarelli, Diosono 2009, pp. 65-66 and fig. 12 a-b.
- $^{53}$  von Hesberg 1981, p. 23, with bibliography, pp. 35 fig. 5, 36 fig. 6, 48 fig. 29; Palombi 2003, pp. 226-227 and fig. 18, 222 fig. 14.
- $^{54}$  Bianco 2008, pp. 170-178; Cavalieri Manasse 2008c, pp. 307, 315, pl. 2.

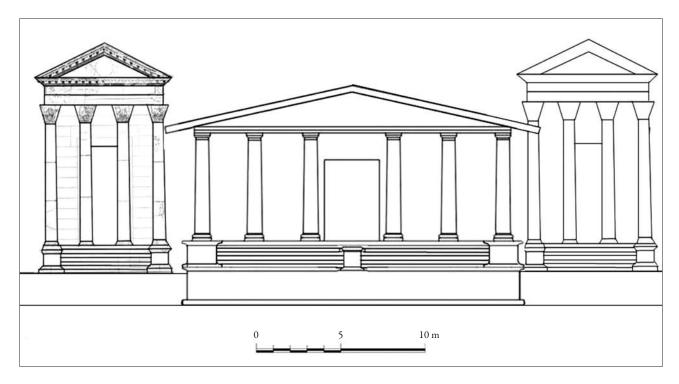


Fig. 5. Pola, Forum. Display of all three temples simultaneously (drawing by the A.).

of the podium<sup>55</sup>. The construction works on the *Capitolium* in Verona started between 50 and 40 BC, at the same time when it could begin the construction of the first temple in the Forum of Pola, and lasted about twenty years, so that the temple was completed around 20 BC. The building in predominantly Tuscan style had plastered stone columns in combined style with Attic base, Ionic fluted shaft and Tuscan capital. These columns supported wooden entablature with architectural teracottas in proportions of Tuscan order, so that the temple was a kind of anachronism in Roman architecture of the period of Civil Wars in the third quarter of the 1st cent. BC<sup>56</sup>. In this period, Corinthian and Ionic temples with entire entablature carved in stone were already largely constructed.

Among the few reliably identified *Capitolia* in European provinces, the Augustan *Capitolium* in nearby Zadar is worth mentioning. It was a Corinthian hexastyle temple, with triple cella and two rows of columns in pronaos<sup>57</sup>. The preserved Corinthian capital 0.94 m high which belonged to the *Capitolium* was previously dated to the early Augustan period<sup>58</sup>, but the assumption of later datation in the late Augustan period has recently been expressed<sup>59</sup>. Fragments of gable cornice containing unusually inverted Ionic *cyma* with darts turned up instead of down are as well attributed to the *Capitolium* in Zadar<sup>60</sup>.

Regarding the building period and architectural characteristics, the *Capitolium* in Verona is the most relevant for comparison with the oldest temple in the Forum of Pola. The exceptional temple in Verona has incorporated into a single unit Attic bases, Ionic fluted column shafts, Tuscan capitals, Tuscan layout and Tuscan use of wooden instead of stone elements of entablature<sup>61</sup>. Pola, as well as Verona, was in the same period under the direct government of Julius Caesar, at first as the *proconsul* of *Gallia Cisalpina* and *Illyricum* and afterwards as the dictator. Pola could get a similar great Forum temple on occasion of the foundation of the Roman colony. Like the *Capitolium* of Verona, a hypothetical Tuscan temple in Pola with two rows of columns in pronaos could have exclusively wooden construction above plastered limestone columns, covered by architectural terracottas.

The Forum temple in Pola, if built in Tuscan order, was not nearly as big as the *Capitolium* of Verona. There are two basic hypothetical variants of the temple reconstruction: the temple with twelve columns, six of them on the front (fig. 4; Tab. I), and a more modest variant with eight columns, four of them on the front. The temple with terrace was between 11.5 and 12.5 m high, depending on the number of columns. Cella was, as a rule, of the same length as

<sup>55</sup> Cavalieri Manasse 2008b, p. 76.

 $<sup>^{56}</sup>$  Capitals of the *Capitolium* in Verona are of Tuscan type. Cavalieri Manasse 1990, pp. 588-593 and fig. 7; Cavalieri Manasse 2008c, p. 307; Bianco 2008, pp. 177-178, pl. IX, nos. 1-2.

<sup>&</sup>lt;sup>57</sup> Suić 1976, pp. 145, 150 fig. 84; Suić 1981, p. 214; Giunio 1999, p. 56; Sinobad 2008, pp. 227-232.

<sup>&</sup>lt;sup>58</sup> Weigand 1924, p. 80; Suić 1976, p. 145; Suić 1981, p. 212; Maršić, Sekso 2012, p. 24.

<sup>&</sup>lt;sup>59</sup> Sinobad 2008, p. 232.

<sup>&</sup>lt;sup>60</sup> Maršić, Sekso 2012, pp. 21, 22 fig. 10, a-b.

<sup>&</sup>lt;sup>61</sup> Vitruvius, De Architectura, 4, 7, 4-5.

Temple part			Dimensions (m)*					
			height	width	bottom diameter	top diameter	length	
stylobate with coating slabs	lower level (stereobate of the temple terrace)	without curb		18.60			33.30	
		with curb	2.10	20.50			35.30	
	upper level (temple stylobate)		1.50	20.50			35.30	
	total		3.60					
	cella			18.00			10.80	
	pronaos			18.00			10.80	
column	base (spira)	plinth	0.215	1.00			1.00	
		torus with <i>apophysis</i>	0.215	1.00			1.00	
	shaft		5.14	0.857	0.857	0.642	0.857	
	capital	hypotrachelium with apophysis	0.142	0.642			0.642	
		echinus	0.142	0.857			0.857	
		abacus	0.142	0.857			0.857	
	total		6.00	1.00			1.00	
temple total	temple with roof, without stylobate		8.70	18.00			21.60	
	stereobate of the temple terrace with curb		3.60	20.50			35.30	
	temple with terrace		12.30	20.50			35.30	

<sup>\*</sup> Bold dimensions are measured in reality.

Tab. I. Hypothetical reconstruction of the oldest Forum temple of Etrusco-Italic type in Pola, with twelve columns.

pronaos. The hypothetical Forum temple of Etrusco-Italic type in Pola, if it had twelve columns in pronaos, was 8.7 m high, 18 m wide and 21.6 m long, and columns were 6 m tall with bottom shaft diameter 0.857 m and torus diameter 1 m (fig. 4; Tab. I). The temple with eight Tuscan columns in pronaos would be 7.9 m high, 16.2 m wide and 21.6 m long, with colums 5.40 m tall, bottom shaft diameter 0.77 m and torus diameter 0.97 m (Tab. II). Temple length would be the same in both hypothetical variants, according to the foundation walls layout and not to the Vitruvian rule. According to Vitruvius, the temple with eight columns in two rows could not be placed on the existing podium. For that reason, the assumption of the temple of Etrusco-Italic type with twelve columns in two rows in pronaos is more acceptable. Since the complete appearance of the podium is unknown, it may be assumed that it was divided into two parts by height, the lower terrace with altar and the temple stylobate lying on it (fig. 4). It is evident that the assumed temple of Etrusco-Italic type with six columns in front would be too large to be held after construction of the twin temples (fig. 5). It had to be demolished at the turn of the century in order to leave space for the twin temples, which explains its complete disappearance from the urban plan of Pola.

The complete height of temple foundation walls is not preserved, leaving many unanswered questions. Regarding the recommended dimensions of steps and relation to the later twin temples, it could be proposed the podium reconstruction including fifteen steps, enough for two levels with an altar in front of the temple. The lowest possible height of the podium corresponds to eight or nine steps, i.e. to the level of the later Augustan temple terrace. Kandler

Temple part			Dimensions (m)*					
			height	width	bottom diameter	top diameter	length	
stylobate with coating slabs	lower level (stereobate of the temple terrace)	without curb		18.60			33.30	
		with curb	2.10	20.50			35.30	
	upper level (temple stylobate)		1.50	17.20			28.00	
	total		3.60					
	cella			16.20			10.80	
	pronaos			16.20			10.80	
	base (spira)	plinth	0.1925	0.97			0.97	
		torus with apophysis	0.1925	0.97			0.97	
	shaft		4.63	0.77	0.77	0.58	0.77	
column	capital	hypotrachelium with apophysis	0.128	0.58			0.58	
		echinus	0.128	0.77			0.77	
		abacus	0.128	0.77			0.77	
	total		5.40	0.97			0.97	
temple total	temple with roof, without stylobate		7.90	16.20			21.60	
	stereobate of the temple terrace with curb		3.60	20.50			35.30	
	temple with terrace		11.50	20.50			35.30	

<sup>\*</sup> Bold dimensions are measured in reality. Length of cella and pronaos are calculated after the existing podium and not after Vitruvius.

Tab. II. Hypothetical reconstruction of the oldest Forum temple of Etrusco-Italic type in Pola, with eight columns.

proposed the layout of the temple terrace conceived after the construction of the twin temples, with four separate staircases and two middle ones on both sides of the altar on the raised basement, in the longitudinal Forum axis. Considering the layout given by Kandler as based on today unattainable archaeological findings, the top of the central square basement suitable for an altar could be placed at least two meters above the oldest Forum level. Archaeological excavations by the Forum in 2006-2007 revealed the south podium wall facing the Forum itself, preserved uniformly about half a meter in height, with a continuous rusticated base curb step<sup>62</sup>. These findings show that the staircase to the oldest Forum temple could not be placed on the front podium side towards the square, at least not in the lower part of podium.

Diagonally oriented foundation walls on the east side of the podium, preserved to the curb level, possibly could give an answer to the question of the staircase. These walls could support the staircase on the lateral side of the podium, leading to the altar raised in front of the temple  $^{63}$ . A temple with stylobate and seven stairs was placed at this level (fig. 4). Rusticated curb blocks are inherited from Hellenistic architecture. They were largely used in the eastern Adriatic fortifications from the  $^{4\text{th}}$  to the  $^{2\text{nd}}$  cent. BC $^{64}$ . In Nesactium near Pola, rusticated blocks are present in fortifications

<sup>&</sup>lt;sup>62</sup> Džin 2007, pp. 11, 35.

<sup>63</sup> Vitruvius, De Architectura, 4, 9.

and in basement of an earlier temple that preceded the south Forum Temple A. This rusticated temple basement could be dated to the  $2^{nd}$  cent.  $BC^{65}$ . Similar rusticated blocks are built in entrances of the smaller of two Roman theatres in Pola, dated to the second half of the  $1^{st}$  cent.  $BC^{66}$ .

Podium closed in front by wall, equipped with lateral stairs, could be found in late Republican Italic temples. The podium of the Doric Temple A built at the beginning of the 2<sup>nd</sup> cent. BC in Samnite site Pietrabbondante is suitable for comparison<sup>67</sup>. The podium with altars placed in front of the temple was accessed through five steps, positioned laterally. The same concept was repeated on the temple stylobate, 1.65 m high and closed in front by wall. Access from the podium to the pronaos was only possible through the narrow lateral staircase on the left side of the temple. The podium foundations in the Forum of Pola do not show enough space for lateral stairs of the stylobate at the upper level. Lateral stairs added externally to the podium could led only to the lower podium level with altar.

Beside the Temple A in Pietrabbondante, another Samnite pre-Roman sanctuary may be compared to the podium in the Forum of Pola: the sanctuary at Colle Rimontato by San Giovanni in Galdo, built at the end of the 2<sup>nd</sup> or the beginning of the 1<sup>st</sup> cent. BC<sup>68</sup>. The building on podium in the *temenos* suits to a temple by dimensions, podium mouldings and building techniques, but it lacks stairs completely. Therefore, it is assumed that the temple was accessed through wooden stairs, possibly positioned laterally.

The Forum of Caesar in Rome with the Temple of Venus *Genetrix* was an ideal model for provincial towns *fora*. The construction of the Forum of Caesar was approximately contemporary to that of the first Forum of Pola, making it particularly convenient for comparison and for interpretation of the oldest Forum temple in the newly founded Roman colony of Pola. The Temple of Venus *Genetrix* dominated over the Forum of Caesar, raised on its podium; this latter was closed by a wall in the front towards the Forum in lower level, while in upper one the temple stylobate with a wide staircase towards the porched area was placed. The lower podium level was accessed by two narrow lateral staircases turned opposite the Forum<sup>69</sup>. In that way, staircases on two different levels were alternatively oriented in opposite directions, unlike the Temple A in Pietrabbondante, where staircases to both levels were oriented in the same direction. Just the solution of the terrace access of the Temple of Venus *Genetrix* could be the model for the oldest Forum temple of Pola.

Architectural terracottas were not found in the Forum of Pola either nearby, but there is no preserved stone fragment of Corinthian capital, architrave or cornice that would fit the assumed dimensions of the temple as well. Lack of adequate stone elements could be explained by an exclusively wooden construction above columns, thus completely vanished. Columns of temples of Etruscan type usually are smooth, but sometimes elements of other orders are combined, like the fluted columns bearing Attic and Ionic elements in the Capitolium of Verona. Therefore, certain fragments of Attic bases and fluted columns of larger dimensions could belonged to the oldest Forum temple of assumed Etruscan type. These fragments were secondarily used as rough building material, and it is not possible to determine to which building they originally belonged on the basis of the archaeological circumstances of finding. The limestone fluted column fragment 2.4 m high and 0.76 m in diameter is built in the City Hall just above the foundation wall that had to support the frontal columns of the pronaos<sup>70</sup>. According to the diameter and finding position, it could fit the Etruscan type temple. In the case of the temple with six columns in front, more probable regarding the foundations layout, the fragment belongs to the middle part of the column (Tab. I). In the less probable case of the temple with four columns in front, the fragment belongs to the lower part of the column (Tab. II). Another limestone fluted column fragment 1.18 m high has lower diameter 0.70 m and upper one 0.68 m (fig. 6). Four out of a total of twenty flutings are preserved. Flutings are 0.093 m wide and 0.04 m deep, divided by flat fillets 0.023 m wide, damaged on the approximately % of the column surface. The upper side is broken off, the bottom is flattened with a secondary, asymmetrically placed cylindrical hollow of diameter 0.34 m, 0.15 m deep. Longitudinally, it lacks 3/5 of the column circumference. Column with twenty flutings fits the Doric order, but in the Roman architecture the number of flutings was not strictly connected to the certain order. Theoretically, the fragment could belong to the upper part of the column of Etrusco-Italic type temple with six columns in front that matches the dimensions of podium, or to the middle part of the column of the temple with four columns in front. A fragment of limestone Tuscan column base (spira) with plinth 1.06 m long and 0.27 m high, torus 0.96 m in diameter and 0.08 m high, fascia 0.015 m high and apophysis 0.055 m high and 0.06 m wide, belonged to a column 5.04-5.11 m tall according to the Tuscan order and possibly to a temple of Etrusco-Italic type 15.12-15.33 m wide and 18.14-18.40 cm  $\log^{71}$ . The base dimensions are close

<sup>65</sup> STICOTTI 1934, p. 255, pls. I-III; MIRABELLA ROBERTI 1949, pp. 274, 272 fig. 26; ROSADA 1999, p. 63.
66 GNIRS 1912, cc. 239-272; MIRABELLA ROBERTI 1949, p. 248; MATIJAŠIĆ 1994, pp. 129-145; FISCHER 1996, p. 110.
67 LA REGINA 1976, pp. 223, 224 fig. 4, 225 fig. 5, 226, 241; LA REGINA 1989, pp. 360, 343-345 figs. 239-246.

<sup>&</sup>lt;sup>68</sup> La Regina 1976, pp. 237-238, 241, 236 fig. 12, 239 fig. 13; La Regina 1989, p. 404, pls. IV-V; La Regina 2014, pp. 189-191.
<sup>69</sup> Amici 1991, pp. 33 and fig. 30, 87 and fig. 134, 96 and fig. 160; Meneghini 2009, pp. 43-50 and figs. 40-42, 46.
<sup>70</sup> Mirabella Roberti 1935, p. 298.

<sup>71</sup> Vitruvius, *De Architectura*, 4, 7, 1-2.

to the calculated ones of a column base for the temple with twelve columns in pronaos (fig. 4; Tab. I), but the podium dimensions indicate a different ratio between width and length of the assumed temple. Therefore, this Tuscan column base could not belong to the oldest Forum temple.

#### Conclusions

Findings of amphorae in the podium foundations indicate the beginning of the construction of a Forum temple immediately after the foundation of the Roman colony of Pola during Caesar's dictatorship. Some two decades later, Pola, situated within the region of Histria, was included into the senatorial province of *Illyiricum*. Two or three decades afterwards, Histria was included into Italy. Therefore, the oldest Roman temple on the Forum of Pola belonged to the Roman Italy, although its construction started and probably finished when Pola still was in province. Regarding Vitruvian rules, a Corinthian temple would not fit the preserved podium, but an Etrusco-Italic temple with two rows of columns, six in each row, fits well to it. The hypothesis of the temple built in Tuscan order goes along with the lack of adequate stone entablature elements. The temple of Etrusco-Italic type, because of its width, could not survive the Late Augustan construction of the twin temples. It remained in function, thus, less than 50 years.

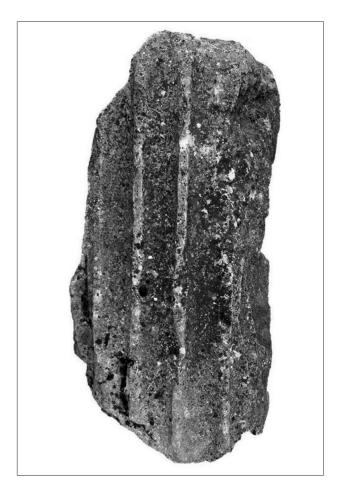


Fig. 6. Pola, column shaft fragment from an unidentified building (A.'s photo).

#### References

AMICI 1991 = AMICI C.M., *Il Foro di Cesare*, Università degli Studi di Roma La Sapienza. Il linguaggio dell'architettura romana II, Firenze 1991.

BARRESI 2003 = BARRESI P., *Provincie dell'Asia Minore, Costo dei marmi, architettura publica e committenza*, Studia archaeologica 125, Roma 2003.

BARTON 1982 = BARTON I.M., Capitoline Temples in Italy and the Provinces, especially Africa, in ANRW II, 12.1, 1982, pp. 259-342.

BIANCHI 1950 = BIANCHI U., Disegno storico del culto capitolino nell'Italia romana e nelle provincie dell'impero, in MemLinc 82, 1950, pp. 349-415.

BIANCO 2008 = BIANCO M.L., La decorazione architettonica lapidea e marmorea, in CAVALIERI MANASSE 2008a, pp. 169-214.

Brown, Hill Richardson, Richardson 1960 = Brown F.E., Hill Richardson E., Richardson L., *Cosa II, The Temples of the Arx*, MemAmAc 26, Rome 1960.

CAVALIERI MANASSE 1990 = CAVALIERI MANASSE G., Il foro di Verona: recenti indagini, in La città nell'Italia settentrionale in età romana, Morfologie, strutture e funzionamento dei centri urbani delle regiones X e XI, Atti del convegno organizzato dal Dipartimento di Scienze dell'Antichità dell'Università di Trieste e dall'École française de Rome, Trieste, 13-15 marzo 1987, CEFR 130, Roma 1990, pp. 579-616.

CAVALIERI MANASSE 2008a = CAVALIERI MANASSE G. (ed.), L'area del Capitolium di Verona, Ricerche storiche e archeologiche, Verona 2008.

CAVALIERI MANASSE 2008b = CAVALIERI MANASSE G., Gli scavi del complesso Capitolino, in CAVALIERI MANASSE 2008a, pp. 73-152.

CAVALIERI MANASSE 2008c = CAVALIERI MANASSE G., La tipologia architettonica, in CAVALIERI MANASSE 2008a, pp. 307-326.

CIFANI 2008 = CIFANI G., Architettura romana arcaica, Edilizia e società tra monarchia e repubblica, Bibliotheca archaeologica 40, Roma 2008.

CIFANI 2014 = CIFANI G., Early developments in monumental architecture, in JRA 27, 2, 2014, pp. 517-520.

COARELLI 1981 = COARELLI F., *Topografia e storia*, in COARELLI F., KAJANTO I., STEINBY M., *L'area sacra di Largo Argentina*, *I*, Studi e Materiali dei Musei e Monumenti Comunali di Roma, Roma 1981, pp. 9-51.

Coarelli 1993 = Coarelli F., Lazio, Guide archeologiche Laterza 5, Roma-Bari 1993.

COARELLI, DIOSONO 2009 = COARELLI F., DIOSONO F., *Il tempio principale: architettura, fasi edilizie, comittenza*, in IID. (eds.), *I templi e il* Forum *di Villa San Silvestro, La Sabina dalla conquista romana a Vespasiano*, Roma 2009, pp. 59-69.

COLONNA 1984 = COLONNA G., I templi del Lazio fino al V secolo compreso, in QUILICI GIGLI S. (ed.), Archeologia laziale VI, Sesto incontro di studio del Comitato per l'archeologia laziale, Quaderni del Centro di Studio per l'Archeologia Etrusco-Italica 8, Roma 1984, pp. 396-411.

COLONNA 1985 = COLONNA G. (ed.), Santuari d'Etruria, Progetto Etruschi, Milano 1985.

COLONNA 2006 = COLONNA G., Sacred Architecture and the Religion of the Etruscans, in Thomson de Grummond N., Simon E. (eds.), The Religion of the Etruscans, Austin 2006, pp. 132-168.

Crawley Quinn, Wilson 2013 = Crawley Quinn J., Wilson A., Capitolia, in JRS 103, 2013, pp. 117-173.

Crozzoli Aite 1981 = Crozzoli Aite L., I tre templi del Foro Olitorio, MemPontAc s. III, 13, Roma 1981.

Dally 2000 = Dally O., Canosa, località San Leucio, Untersuchungen zu Akkulturationsprozessen vom 6. bis zum 2. Jh. v. Chr. am Beispiel eines Daunischen Heiligtums, Studien zu antiken Heiligtümern 1, Heidelberg 2000.

DE ANGELI 1996 = DE ANGELI S., s.v. Iuppiter Optimus Maximus Capitolinus, Aedes (fasi tardo repubblicane e di età imperiale), in LTUR III, Roma 1996, pp. 152-153.

Džin 2007 = Džin K., Pula-Forum, Arheološka građa 2006.-2007., Izložba, Archaeological evidence 2006-2007, Exhibition, Pula 2007.

FABER 1976 = FABER A., Prilog kronologiji fortifikacija u primorskom Iliriku, in Jadranska obala u protohistoriji. Kulturni i etnički problemi. Simpozij održan u Dubrovniku od 19. do 23.10.1972, Zagreb 1976, pp. 227-246.

FISCHER 1996 = FISCHER G., Das römische Pola, Eine archäologische Stadtgeschichte, AbhMünchen N.F. 110, München 1996.

FISHWICK 2002 = FISHWICK D., The Imperial Cult in the Latin West, Studies in the Ruler Cult of the Western Provinces of the Roman Empire, III, Provincial Cult, 1, Institution and evolution, Religions in the Graeco-Roman World 145, Leiden-Boston, Mass.-Köln 2002.

FORLATI TAMARO 1923 = FORLATI TAMARO B., *Pola. Tempio di Augusto, scavi e lavori di restauro*, in *NSc* s. V, 20, 1923, pp. 211-223.

FROVA 1985 = FROVA A. (ed.), Luni. Guida Archeologica, Sarzana 1985.

GIRARDI JURKIĆ 2009 = GIRARDI JURKIĆ V., Decorazioni mitologiche del Foro Romano di Pola, in AttiRovigno 39, 2009, pp. 9-31.

GIUNIO 1999 = GIUNIO K., Neke bilješke o zadarskom forumu i kapitoliju, in Histria Ant 5, 1999, pp. 55-66.

GJERSTAD 1960 = GJERSTAD E., Early Rome, III, Fortifications, domestic architecture, sanctuaries, stratigraphic excavations, Skrifter utgivna av Svenska institutet i Rom IV, 17, 3, Lund 1960.

GNIRS 1910 = GNIRS A., Neue Funde vom Forum civile in Pola, in K.K. Zentral-Kommission für Kunst- und historische Denkmale, Jahrbuch für Altertumskunde 4, 1910 (1911), pp. 172-187.

GNIRS 1912 = GNIRS A., Grabungen und antike Denkmale in Pola, in ÖJh 15, 1912, cc. 239-272.

GROS 1996 = GROS P., L'architecture romaine du début du III<sup>e</sup> siècle av. J.-C. à la fin du Haut Empire, 1, Les monuments publics, Paris 1996, pp. 122-206.

HEILMEYER 1970 = HEILMEYER W.D., Korinthische Normalkapitelle, Studien zur Geschichte der römischen Architekturdekoration, RM 16. Ergänzungsheft, Heidelberg 1970.

HOPKINS 2016 = HOPKINS J.N., The Genesis of Roman Architecture, New Haven, Conn. 2016.

KANDLER 1846 = KANDLER P., Degli scavi di Pola, in L'Istria I, 6-7, 1846, pp. 21-28.

KANDLER 1858 = KANDLER P., Pianta di Pola romana, Trieste 1858.

KANDLER 1876 = KANDLER P., Cenni al forestiero che visita Pola, in ID., Notizie storiche di Pola, Parenzo 1876, pp. 40-78.

KRIZMANIĆ 1988 = KRIZMANIĆ A., Komunalna palača - Pula, Razvitak gradskog središta kroz dvadeset jedno stoljeće, Pula 1988.

KRIZMANIĆ 2005 = KRIZMANIĆ A., Prostorni razvitak austrijske Pule, in Pula, Tri tisućljeća mita i stvarnosti, Pula 2005, pp. 113-192.

LA REGINA 1976 = LA REGINA A., *Il Sannio*, in ZANKER P. (ed.), *Hellenismus in Mittelitalien, Kolloquium in Göttingen vom 5. Bis 9. Jun 1974*, AbhGöttingen 97, Göttingen 1976, pp. 219-244.

La Regina 1989 = La Regina A., *I Sanniti*, in Italia omnium terrarum parens, *La civiltà degli Enotri, Choni, Ausoni, Sanniti, Lucani, Brettii, Sicani, Siculi, Elimi*, Antica Madre 12, Milano 1989, pp. 299-432.

LA REGINA 2014 = LA REGINA A., *Pietrabbondante e il Sannio antico*, in ASTORRI I., DI ROCCO G. (eds.), *I cinquant'anni della Regione Molise (1963-2013)*, Almanacco del Molise 2014, Campobasso 2014, pp. 159-208.

MAMBELLA 1982 = MAMBELLA R., Contributi alla problematica sul tempio etrusco-italico, in RdA 6, 1982, pp. 35-42.

MARŠIĆ, SEKSO 2012 = MARŠIĆ D., SEKSO R., Korniž ranocarske građevine iz Nina, in VjesDalm 105, 2012, pp. 7-32.

MATIJAŠIĆ 1994 = MATIJAŠIĆ R., I teatri romani di Pola tra spettacolo e vita quotidiana, in Spettacolo in Aquileia e nella Cisalpina romana, Atti della XXIV Settimana di studi aquileiesi, 24-29 aprile 1993, Antichità altoadriatiche 41, 1994, pp. 129-145.

MENEGHINI 2009 = MENEGHINI R., I Fori Imperiali e i Mercati di Traiano, Storia e descrizione dei monumenti alla luce degli studi e degli scavi recenti, Archeologia del territorio, Roma 2009.

MERTENS 1969 = MERTENS J., Alba Fucens I, Rapports et études, L'Institut historique belge de Rome 12, Bruxelles 1969.

MINTO 1942 = MINTO A., *Il tempio etrusco di Belvedere a Orvieto*, in *StEtr* 16, 1942, pp. 569-572.

MIRABELLA ROBERTI 1935 = MIRABELLA ROBERTI M., Notiziario archeologico, in AttiMemIstria 47, 1935, pp. 285-307.

MIRABELLA ROBERTI 1949 = MIRABELLA ROBERTI M., Notiziario archeologico (1940-1948), in AttiMemIstria n.s. 1, 1949, pp. 231-275.

MIRABELLA ROBERTI 1997 = MIRABELLA ROBERTI M., Il Capitolium di Pola, in AttiMemIstria 97, n.s. 45, 1997, pp. 7-13.

PALOMBI 2003 = PALOMBI D., Cora. Bilancio storico e archeologico, in ArchCl 54, n.s. 4, 2003, pp. 197-252.

PALOMBI 2012 = PALOMBI D., Culti e santuari di Cora, in MARRONI E. (ed.), Sacra Nominis Latini, I santuari del Lazio arcaico e repubblicano, Atti del Convegno Internazionale, Roma, Palazzo Massimo, 19-21 febbraio 2009, Ostraka volume speciale 2012, pp. 387-410.

Pernier, Stefani 1925 = Pernier L., Stefani E., Orvieto. Tempio etrusco presso il Pozzo della Rocca, in NSc 6, 1925, pp. 133-161.

ROSADA 1999 = ROSADA G. (ed.), Oppidum Nesactium, Una città istro-romana, Testis temporum 1, Treviso 1999.

ROSSIGNANI 1985a = ROSSIGNANI M.P., *L'area a nord del foro*, in Frova 1985, pp. 55-63.

Rossignani 1985b = Rossignani M.P., *Il Foro*, in Frova 1985, pp. 63-68.

ROSSIGNANI 1985c = ROSSIGNANI M.P., Il "Grande Tempio", in FROVA 1985, pp. 104-109.

SINOBAD 2008 = SINOBAD M., Kapitolijski hramovi u Hrvatskoj, Capitoline temples in Croatia, in Opuscola Archaeologica Zagreb 31, 2008, pp. 221-264.

STARAC 1994-95 = STARAC A., Morfologija sjevernojadranskih amfora: primjeri iz Istre, in Diadora 16-17, 1994-95, pp. 135-162.

STARAC 1996 = STARAC A., Forum u Puli, in Opuscola Archaeologica Zagreb 20, 1996, pp. 71-89.

STARAC 1999 = STARAC A., Rimsko vladanje u Histriji i Liburniji, Društveno i pravno uređenje prema literarnoj, natpisnoj i arheološkoj gradi I, Histrija, Monografije i katalozi 10/I, Arheološki muzej Istre, Pula 1999.

STARAC 2000 = STARAC A., Rimsko vladanje u Histriji i Liburniji, Društveno i pravno uređenje prema literarnoj, natpisnoj i arheološkoj građi II, Liburnija, Monografije i katalozi 10/II, Arheološki muzej Istre, Pula 2000.

STARAC 2008 = STARAC A., A deposit of roman amphorae in Pula (Croatia). A preliminary report, in Congressus vicesimus quintus rei cretariae romanae fautorum Dyrrhachii habitus MMVI, ReiCretActa 40, Bonn 2008, pp. 121-129.

STICOTTI 1934 = STICOTTI P., Scavi di Nesazio, campagna del 1922, in AttiMemIstria 46, 1934, pp. 251-272.

STRAZZULLA 1989 = STRAZZULLA M.J., La decorazione frontonale del tempio del Belvedere di Orvieto, in Secondo Congresso Internazionale Etrusco, Firenze, 26 maggio – 2 giugno 1985, Atti, Supplemento di StEtr, Roma 1989, II, pp. 971-982.

SUIĆ 1976 = SUIĆ M., Antički grad na istočnom Jadranu, Institut za arheologiju Sveučilišta u Zagrebu. Studije iz historije urbanizma 1, Zagreb 1976.

Suić 1981 = Suić M., Zadar u starom vijeku, Prošlost Zadra I, Zadar 1981.

TAGLIAMONTE 1996 = TAGLIAMONTE G., s.v. Iuppiter Optimus Maximus Capitolinus, Aedes, Templum (fino all'a. 83 a. C.), in LTUR III, Roma 1996, pp. 144-148.

Vallori, Cau Ontiveros, Orfila Pons 2015 = Vallori B., Cau Ontiveros M.Á., Orfila Pons M., The Tuscan Temple of Pollentia (Mallorca, Balearic Islands), in ArchCl 66, n.s. II, 5, 2015, pp. 289-317.

VON HESBERG 1981 = VON HESBERG H., Lo sviluppo dell'ordine corinzio in età tardo-repubblicana, in L'Art décoratif à Rome à la fin de la République et au début du principat, Actes de la table ronde (Rome, 10-11 mai 1979), CEFR 55, Rome 1981, pp. 19-60.

WEIGAND 1924 = WEIGAND E., Die Stellung Dalmatiens in der römischen Reichskunst, in Abramić M., Hoffiler V. (eds.), Strena Buliciana, Commentationes gratulatoriae Francisco Bulić ob XV vitae lustra feliciter peracta oblatae a discipulis et amicis A.D. IV. non. oct. MCMXXI, Zagreb-Split 1924, pp. 77-105.

WILSON JONES 1989 = WILSON JONES M., Designing the Roman Corinthian order, in JRA 2, 1989, pp. 35-69.