



ACTAS DEL
SIMPOSIO

EL PATIO CIRCULAR EN LA ARQUITECTURA DEL RENACIMIENTO



DE LA CASA DE MANTEGNA
AL PALACIO DE CARLOS V

CIRCULAR COURTYARDS IN CENTRAL EUROPE

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Sebastiano Serlio and Pietro Cataneo, two of the major architecture theoreticians of their time, thought about circular dispositions of courtyards. The examples to mention are from Sebastiano Serlio's unpublished 6th book on Domestic Architecture as we know it from manuscripts in the Avery Architectural and Fine Arts Library at Columbia University in New York and from the Bayerische Staatsbibliothek in Munich. Serlio says: "*Li antiqui romani fecero li amphiteatri per far giuochi publichi: triomphi é feste: ma tali edifici non erano habitati: ecetto forsi a qualchi guardini per custodia del loco, Hora mi é caduto nel pensiero de disporre una habitatione reggia in forma di amphitheatro: come si dimostra nella presente pianta...*"¹.

There are not many cases where Serlio presents a design for a round or oval courtyard with a covered arcade around. The "amphitheater" in the quote is one of few examples where Serlio talks about the reason for this disposition (fig. 1). He makes a reference to antiquity – *li antiqui romani* – and to the fact the building is to be used by the public, as a place for festivities and triumphal trains that the monarch may watch from the terrace above the walkway.

The specific detail of the design for a royal palace is a recess of the courtyard by ca 10 degrees so that there is a space for various games. The access is via four staircases on the axis of the entrance halls.

The design of a chapel with not negligible dimensions, marked by the letter I², presents a building type for the Christian era.

1 See illustrations in: Serlio on Domestic architecture, Text by ROSENFELD, M. N. (1996), New York, pp. 45-47, (Project 31); the text in Munich manuscript, fol. 42v: „Li Romani antichi fecero li Amphiteatri per far diversi giuochi publichi et anche per rappresentare diverse cose, ma tali edifici non erano habitati ecetto da qualche dal qualche guardiano per custodia del luogo. Hora mi è caduto in pensiero di voler disporre una habitatione per un Re fuori della cita. la quale habitatione sara in forma ovale si come costumano li antichi romani...“.

2 See note 2, p. 46.

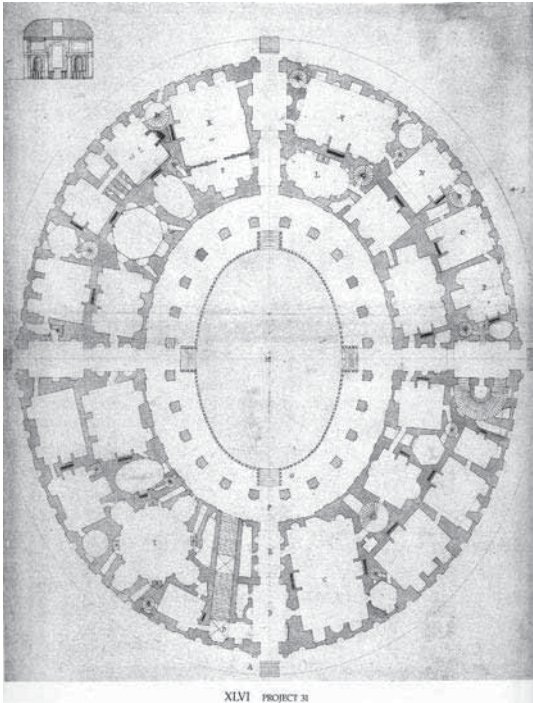


Fig. 1. Sebastiano Serlio. Libro Sexto. Munich.

“Il palazzo del re deve essere fra gli altri magnifico et ricchissimo di ornamenti⁴ (fig. 3) –the most important and the largest palace in the 6th book is the *Palazzo reale per fare dentro della citta*⁵, which has a series of courtyards, including a circular one with a diameter of 144 feet that was a result of a complicated composition of the monumental building with a facade 600 feet long.

There is also a design (in Munich only) “*Del palazzo del principe illustrissimo nella cita*”⁶ for a palace with a lateral oval courtyard - “*cortile in forma ovale*”, (fig. 4), where the shorter side was 108 feet and the longer 168 feet long⁷.

3 Munich manuscript, fol. 25v: „Sara talvolta un principe che alloggiando alla campagna vorá dormire sicuro, et vora anchora la sua casa di bello aspetto e fra giardini“.

4 Munich, fol.66v.

5 Munich, fol. 66-73, ROSENFELD, p. 71-73b, (Project W).

6 Munich, fol. 64-66r.

7 Ratio 3:2.

There is also a smaller chapel marked with L in the second half, probably envisioned as an alternative. The ratio scale makes it possible to measure the oval –its shorter dimension is exactly 100 feet.

If we looked at further pages it would be clear that “festive, round” dimensions were of great importance to Serlio.

Another design with a circular courtyard with columns and a terrace is the *Casa di un principe serrata in loco forte per battaglia da mano fuori della citta* (as the Duke wants to sleep in in peace - “*un principe vora dormire sicuro*”)³ (fig. 2). The text in the Munich manuscript (but missing from the US manuscript) explains that the basic measure is the diameter of 100 feet –“*piedi cento*”.

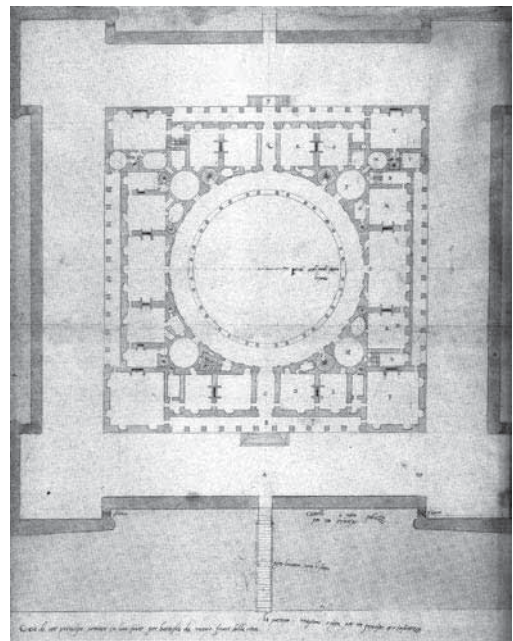


Fig. 2. Sebastiano Serlio. Libro Sexto. Munich.

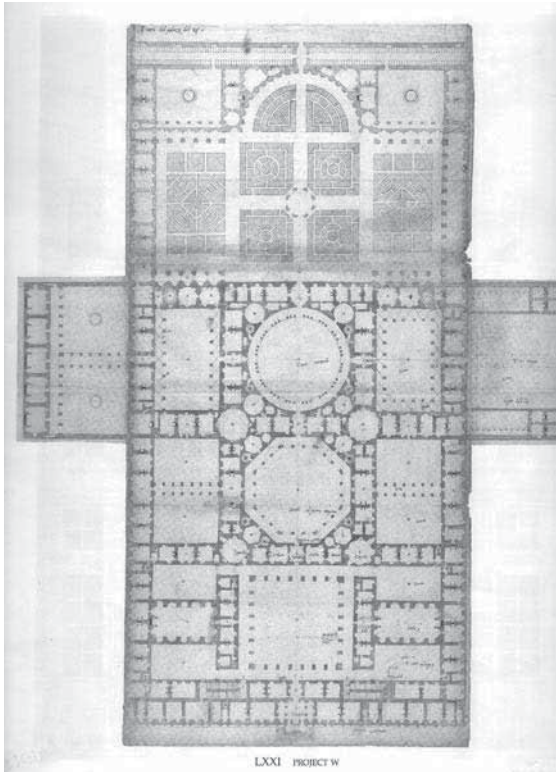


Fig. 3. - Sebastiano Serlio. Libro Sexto. Munich.

a rectangular courtyard as in reality but a circular ambulatory with four chapels in the corners instead. Serlio comments on this himself: “de le misure di questa pianta non dico cosa alcuna, ma solamente io ho fatta per l’inventione, della quale l’architetto si potrà servire”⁹.

The dimensions were given and it was not necessary to include them but the fact that Serlio “reworked” Bramante’s design because of “inventiveness” inspires us to think highly of the creativity and invention of Renaissance architects.

The last example of Serlio’s courtyard is from Book 7, from the 1584 edition, on page 26, (fig. 5) for the “*duodecima Casa fuori della città*”. Here Serlio’s commentary reads: “*La sequenta casa sarà di perfetta quadratura, havendo nel mezzo di se un cortile ritondo... il suo diametro è di piedi 30*”¹¹. Again, this was a “round” number.

The unpublished 6th Book by Serlio originated in the 1540s. By this time, his 3rd Book in which he devotes his attention to Rome monuments was already published⁸. When describing the courtyard in front of the “Mausoleo di S. Costanza e S. Agnese”, which is a transverse oval, he says: “*Era questo cortile in forma ovale molto ablonga, e la sua lunghezza era palmi cinquecento e ottanta otto, & era in latitudine palmi cento e quaranta.*”⁹

An architect seeking inspiration must have read this as a proclamation that the geometrical oval form may attain even quite “extreme” proportions.

Another example is also of interest. When Serlio represented some buildings by Donato Bramante, he drew San Pietro in Montorio but did not draw

8 First edition Venice 1540.

9 *Il terzo libro di Sabastiano Serlio Bolognese...*, Venetia 1544, p. 21.

10 See note 8, p. 41.

11 p. 26.

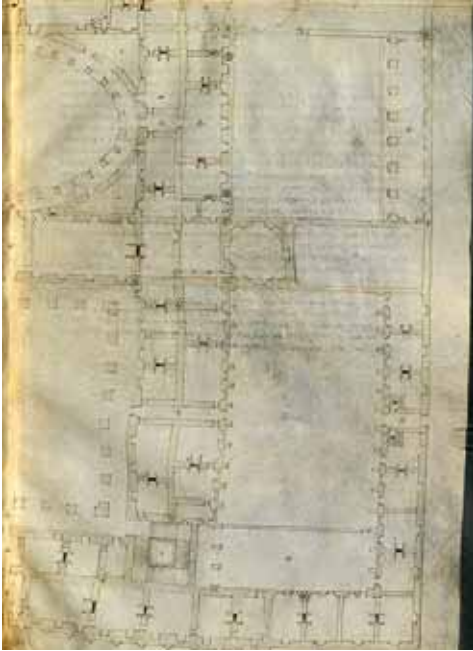


Fig. 4. Sebastiano Serlio. Libro Sexto

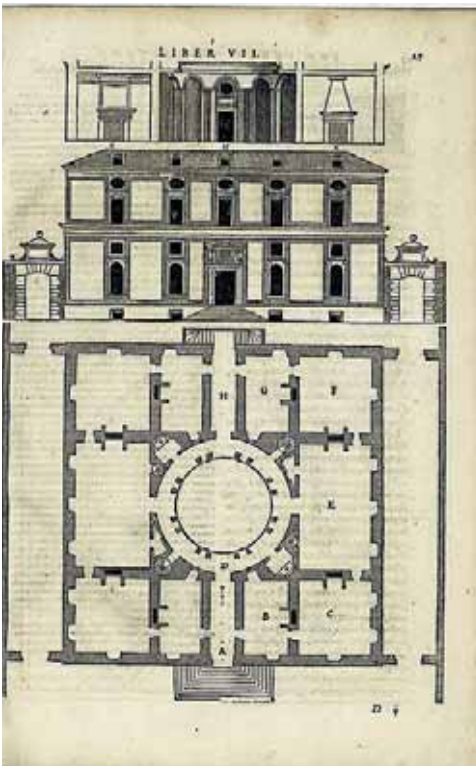


Fig. 5. Sebastiano Serlio. Libro Séptimo. (ed. 1584)

Pietro Cataneo was not as well known as Sebastiano Serlio; however, Ferdinand Archduke of Tirol, Governor in Bohemia, acquired the first edition of his treatise *I Quattro Primi Libri di Architettura* already in 1554 for his library¹². Unfortunately, we do not have any time to dwell on this fascinating library of the Archduke whose father was the Emperor Ferdinand I of Habsburg and brother the future Emperor Maximilian II. We may say however that the incentive for the unusual ground plan of the Star Summer Palace in Prague which I will be talking about shortly and which might have been initiated by the Archduke Ferdinand of Tirol himself, was influenced by Cataneo's book: "*Non solo è conveniente tal volta, per variare, così ne'palazzi come nell'altre fabbriche uscire delle figure contentute da anguli retti; ma ancor tal volta, per compiacere massime à i capricci de' Signori, è necessario procedere fuor delle figure rettelinee, & fabricare il palazzo circolare, ovale, o di altre simili figure. ma noi ne formaremo una pianta di circolo perfetto ...*"¹³.

Cataneo lists examples of such unusual buildings based on the shape of Greek cross, polygon and also a palace with a round courtyard. The central plan looks very near to Serlio, only in a slightly schematised form¹⁴ (fig. 6).

At this moment, I would like to point out the ground plan of Star Summer in Prague¹⁵ (fig. 7), because I see certain parallels with the topic of this conference. The ground plan is based on the circle—each of the six points of the star is located on the circle in a distance that equals the radius of the circle.

¹² *I Quattro primi libri di architettura di Pietro Cataneo Senese...* Venetia (Aldus Manutius) 1554.

¹³ See note 12, fol. 53v.

¹⁴ fol. 54r.

¹⁵ MUCHKA, I. – PURŠ, I. – DOBALOVÁ, S. – HAUSENBLASOVÁ, J. (2014). *Hvězda, Arcivévoda Ferdinand Tyrolský a jeho letohrádek vevropském kontextu*, Prague.

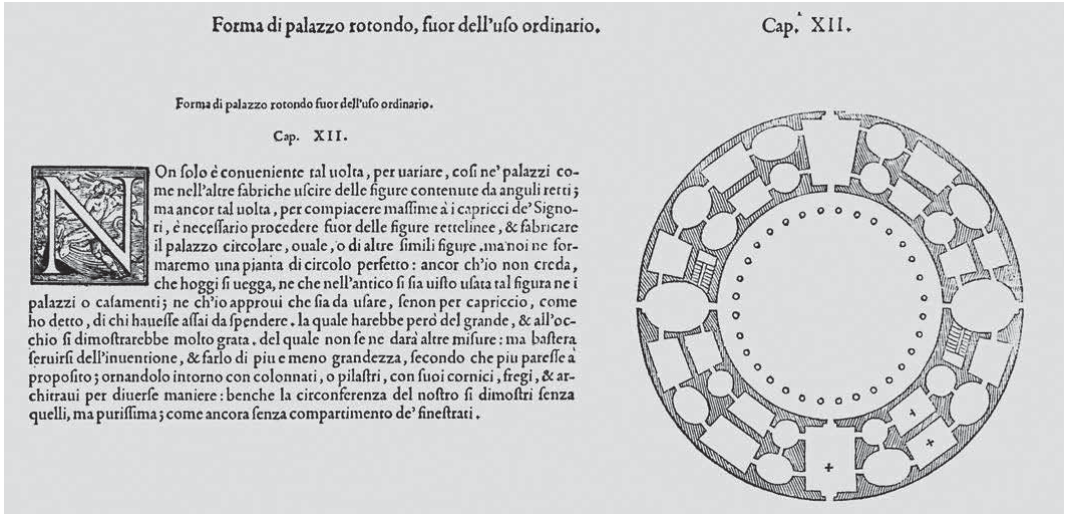


Fig. 6. Pietro Catano. Il Quattro Primi Libri di Architettura. (Venezia 1554)

Besides its star-shaped ground plan, the Star Summer Palace also has a circular hallway in the basement. I think the parallel with Granada is obvious – in both cases there is a corridor leading without interruption through the entire building, without a beginning or an end.

Palladio says in his text about churches on circular disposition, “... let us make our temples round. For which purposes this figure is particularly fit, because it being inclosed by one termination only, in which is to be found neither beginning nor end ...”¹⁶. The Star Summer Palace is unique not only because of its exterior shape, which later spread through Europe, but also because it has a hallway with barrel vault around the main hall, with many entrances into this central space.

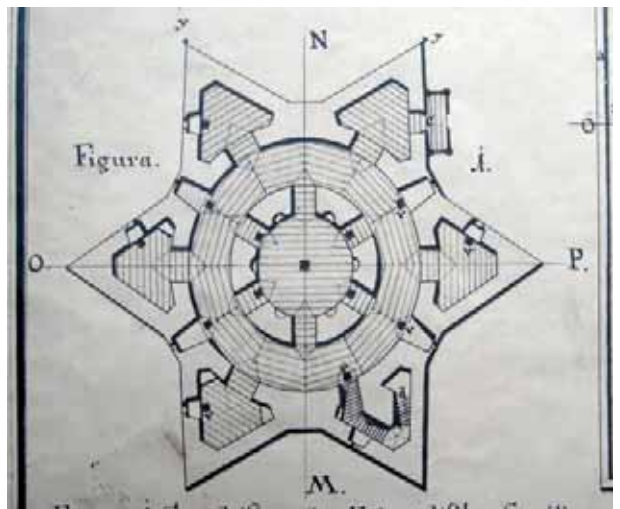


Fig. 7. The Basement of “Star Summer Palace”

¹⁶ The four books of Andrea Palladio's Architecture ..., London 1738, p. 81.

The main floor of Star is known especially for its outstanding stucco decoration from the workshop of Antonio Brocco, but no attention has been given so far to the question of the main communication between the spaces.

The ground plan shows a quite uncommon thing – the door openings between the halls and the corridors are very wide so that the halls were probably never planned as spaces to be closed. This is evident from the oldest plans of Star from ca. 1555. The idea that the rooms were not meant to be closed off but were supposed to be freely passable is interesting, as it might suggest a different way of usage, maybe similar to the one today, namely a museum exposition.

In the second part of my talk, I would like to look at several major Central European examples of what in German is called “Ambitenanlagen”¹⁷, i.e. structures with arcades around a rectangular or circular space in the middle. Obviously, the medieval cloister with its covered walkways is the predecessor. This architectural type was adapted in many Central European pilgrimage sites which have galleries with open arcades around a green area in the middle or often around the sanctuary which houses the venerated painting or statue.

The role of these walkways, galleries or ambulatories was not just for contemplation but also to provide cover in case of bad weather (*sacri monti* were subject to changeable mountain weather).

Certain types of worship, for instance the Loreto litany, correspond with the architecture in that each vault bay of the ambulatory is dedicated to one intercession, in a similar fashion like when an outside stairway in front of a church has ten steps corresponding to the ten Ave Maria–Hail Marys.

Such typical covered galleries at pilgrimage sites, often with confessional booths or stations of the cross, have at least two attributes in common with our circular dispositions: 1. Circle as the “perfect” geometrical shape and 2. Corridor symbolizing the eternity, the never-ending pilgrimage. While there are ca. 70 rectangular dispositions in Bohemia and Moravia, the circular galleries, walkways and courtyards are far fewer in number.



Fig. 8. Abraham Leuthner. Hejnice/Hainsdorf. (1677)

17 OTMAROVÁ, J. (2006). Barocke Ambitusanlagen in Böhmen und Mähren. Ihre typusbildende Bedeutung innerhalb der mitteleuropäischen Architekturgeschichte. in: *Wallfahrten in der europäischen Kultur*, Frankfurt, pp. 595-614; see also MORPER, J. J. (1925/1926). Heilige Berge und Marianische Gnadenburgen in Böhmen und Mähren, *Die christliche Kunst*, 22, 121-142.

Hejnice / Hainsdorf is one of the first examples (fig. 8), although it is not sure if the circular shape has to do with a natural demarcation of the terrain with a river running around a promontory. The corridor can be entered from the church. Its shape is reminiscent of a horseshoe that begins and ends in the church .

The four chapels are in this case not related to the iconography of the church, which is Visitation of the Virgin Mary. The author was Abraham Leuthner, author of the unique architectural treatise, published in Prague 1677¹⁸.

The next example is a Jesuit building in **Bohosudov / Maria Schein** where there is an oval corridor around the church with seven chapels corresponding to the consecration of the church to Seven Dolors of Mary (fig. 9).



Fig. 9. O. Broggio (atrib.) Seven Dolors of Mary. Bohosudov.

The explanation for the circular shape of the ambulatory is the seven chapels themselves – their placement does not present a problem on a circular disposition, but it would on a rectangular disposition. With the circle, the regularity and symmetry can be preserved. The architect was probably Octavio Broggio who lived in Bohemia¹⁹.

The pilgrimage church of the Name of Virgin Mary in Křtiny/Kiritein near Brno in Moravia, known for its excellent architecture and decoration, was built according to the plans by the Central European architect Giovanni Santini.

There is a drawing by F. B. Werner (fig. 10) showing a circular shaped ambulatory behind the church but it must have been an ideal plan that was never carried out. Today there exists a small asymmetrical ambulatory to the north of the church and we can assume that a similar one was planned for the southern side but was never built. The ideal plan shows four pavilion entrances that would ensure a good flow of pilgrims in and out.

The question of progression of pilgrims is crucial –just think about the unceasing stream of pilgrims who want to see the grave of St. Anton in Padua. In Křtiny, there were two large chapels planned, one devoted to St. Anna, the other probably to be devoted to St. Joachim²⁰.

18 About 1679, by Abraham Leuthner, see *Umělecké památky Čech 1*, (1977) POCHÉ, E. (ed.), Prague, pp. 370–372; FRANZ, H. G. (1998), *Barocke Architektur in Böhmen*, Graz.

19 Built between 1701-1707, by Giulio and Octavio Broggio, see note 19 – *Umělecké památky Čech 1*, p. 92–95.

20 *Umělecké památky Moravy a Slezska 2*, (1999), SAMEK, B. (ed.), Prague, pp. 269–275.

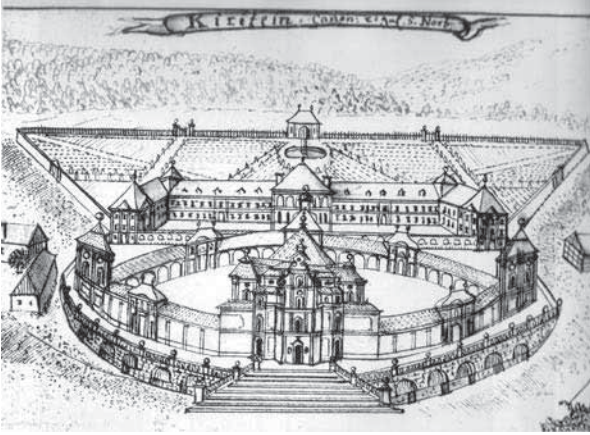


Fig. 10. Werner F. B. Drawing of the Pilgrimage Church of the Virgin Mary, Bohosudov

in the center. There were many entrances and exits for pilgrims and five chapels with complicated roofs, also reminiscent of the five-pointed star²¹.

Another example of an intricate ambulatory is Svatý Kopeček/Heiliger Berg near Olomouc/Olmütz, the most important pilgrimage site in Moravia. Here, the arcade is shaped as a semi-circle and the church is dedicated to the Visitation of Virgin Mary. The importance of the axis of the area can be seen on the aerial view with an avenue of trees. The diameter of the circle is over 50 m²².



Fig. 11. Santini's church of St. John of Nepomuk. Zelená Hora

One of the main examples of Baroque in Central Europe is Santini's church of St. John of Nepomuk in Zelená Hora in Žďár nad Sázavou /Saar, today listed among the UNESCO world heritage sites. St. John of Nepomuk's attribute is the five-pointed star and this geometrical form was obviously the basis for the very complicated ground plan of the ambulatory (fig. 11).

The walkway has the shape of a decagon with segment parts so that it perfectly complements the five-pointed ground plan of the church in the center. There were many entrances and exits for pilgrims and five chapels with complicated roofs, also reminiscent of the five-pointed star²¹.

After listing almost all ambulatories on central disposition in Central Europe it is important to think about their genesis.—There is yet another example of a pilgrimage church with a central walkway where the ambulatory is immediately connected to the church space, encircling it. It is the Holy Trinity pilgrimage site Kappel near Waldsassen, not far from the Czech-Bavarian border²³ (fig. 12).

²¹ Between 1719–1722, by Giovanni Santini; see *Umění baroka na Moravě a ve Slezsku*, (1996), KUDĚLKA, Z. (ed.), Prague, pp. 274–280.

²² Between 1669–1679 by Giovanni Pietro Tencalla, see note 22, pp.295–296.

²³ Between 1684–1711 by Georg Dientzenhofer; see *Kirchenführer der Kappl*, Waldsassen 2009.

El patio circular en la arquitectura del Renacimiento: de la Casa de Mantegna al Palacio de Carlos V: actas del Simposio. Pedro A. Galera, Sabine Frommel (eds.). Sevilla, Universidad Internacional de Andalucía, 2018. ISBN 978-84-7993-333-3. Enlace: <http://hdl.handle.net/10334/3920>

The pilgrims could enter the hallway through nine entrances and walk around the entire church. Another parallel is the Ettal Abbey that was built later. The Monastery in Waldsassen and the pilgrimage site in Kappel were planned by Georg Dientzenhofer in 1685-1689, one of the members of the famous family of architects. The Dientzenhofers were active in Bavaria as well as in Bohemia.

An interesting source is the so-called Dientzenhofer *Skizzenbuch* (sketchbook) (Bibliothek der Bayerischen Nationalmuseums in München, Nr. 4584)²⁴. On one of the drawings (fig. 13) we see a church on a hexagonal ground plan with a round covered arcade with four chapels and two entrances. There are always six vault bays with cross vault between the chapels. The plans in this sketchbook date from the second half of the 17th century so they can be regarded as ideal sources for all dispositions.

The answer to the question where the author of the Dientzenhofer sketchbook took his inspiration is quite simple—from Serlio. Which brings us to the beginning of this paper but, in order not to start walking in a vicious circle, *circulus vitiosus*, we must end here.



Fig. 12. The Holy Trinity pilgrimage. Kappel

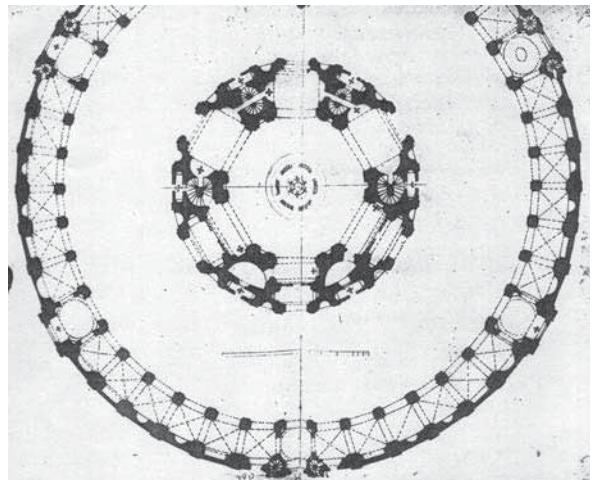


Fig. 13.

²⁴ BOSCH, L. (1954). Eine Sammlung barocker Architekturzeichnungen im Bayerischen Nationalmuseum, *Münchner Jahrbuch der bildenden Kunst* 5, pp. 188–204; VLČEK, P. (1989). “Dientzenhoferův skicář” a česká architektura 1640–1670, *Umění* 37, pp.473–497.