



Z CYKLU : Z ŻABIEJ PERSPEKTYWY



QUADRATURE OF THE HOLLY CROSS CHURCH IN BRZEG

Silesian, late baroque, sacral art is inseparably connected with creation of Andrea POZZO(1642-1709). This Italian Jesuit was a versatile artist and an excellent teacher. The masterpieces of his life are his treatise "Perspectiva pictorum et architectorum..."¹ and "*the most famous of all illusionistic effects, it is vault (...) in Sant'Ignazio [in Rome(1691-1694)]*" [4/p.155]. The vault of the main Jesuits' temple POZZO covered with fascinating illusionistic fresco. Copies of the fresco titled "Allegories of Jesuits' missions" are presented in many albums and textbooks on art and architecture history. Monumental architecture is the background for figural scenes on the fresco. In XVII century illusionistic paintings presenting fictitious architecture were called quadratures². In baroque many interiors were decorated with paintings presenting architectural elements³. However, they usually form an 'unnecessary extra element' to traditional, structural architectural space. Quadrature of vault in Sant'Ignazio church is not a decoration or an ornament. Thanks to the painted architecture on the vault we are under illusion that we are in a room with no roof, which height is seen as different from its real height by 'the whole storey'. Perceptive architectural phenomenon such as influence of quadrature on audience is a rare occurrence (see [7]).

The causes can be found in the fact that quadrature creation demanded excellent painting mastery and great geometrical knowledge. A great example of quadrature in Silesia is to be found in post Jesuits' church in Brzeg under the invocation of Holly Cross. The author of the above mentioned fresco was Jan KUBEN(1697-1770), born in Bystrzyca Kłodzka, Poland. Since quite recently we were only able to admire illusionistic altar on the wall of presbytery surprising with its vigour and suggestiveness (Fig.1).

¹ Remarks on POZZO'S treatise has been presented by the author [6/p.37-46]

² Definition of quadrature is given by e.g. Enciclopedia Universale dell'arte (1963): "*quadrature is a painting which due to application of optic abbreviations and perspective gives architectural and space effects on walls and vaults*"(quotation from [5 p.221])

³ Examples of quadratures are given in Internet dictionary "Dictionary of terms connected with perspective"
<http://zeus.polsl.gliwice.pl/~an>

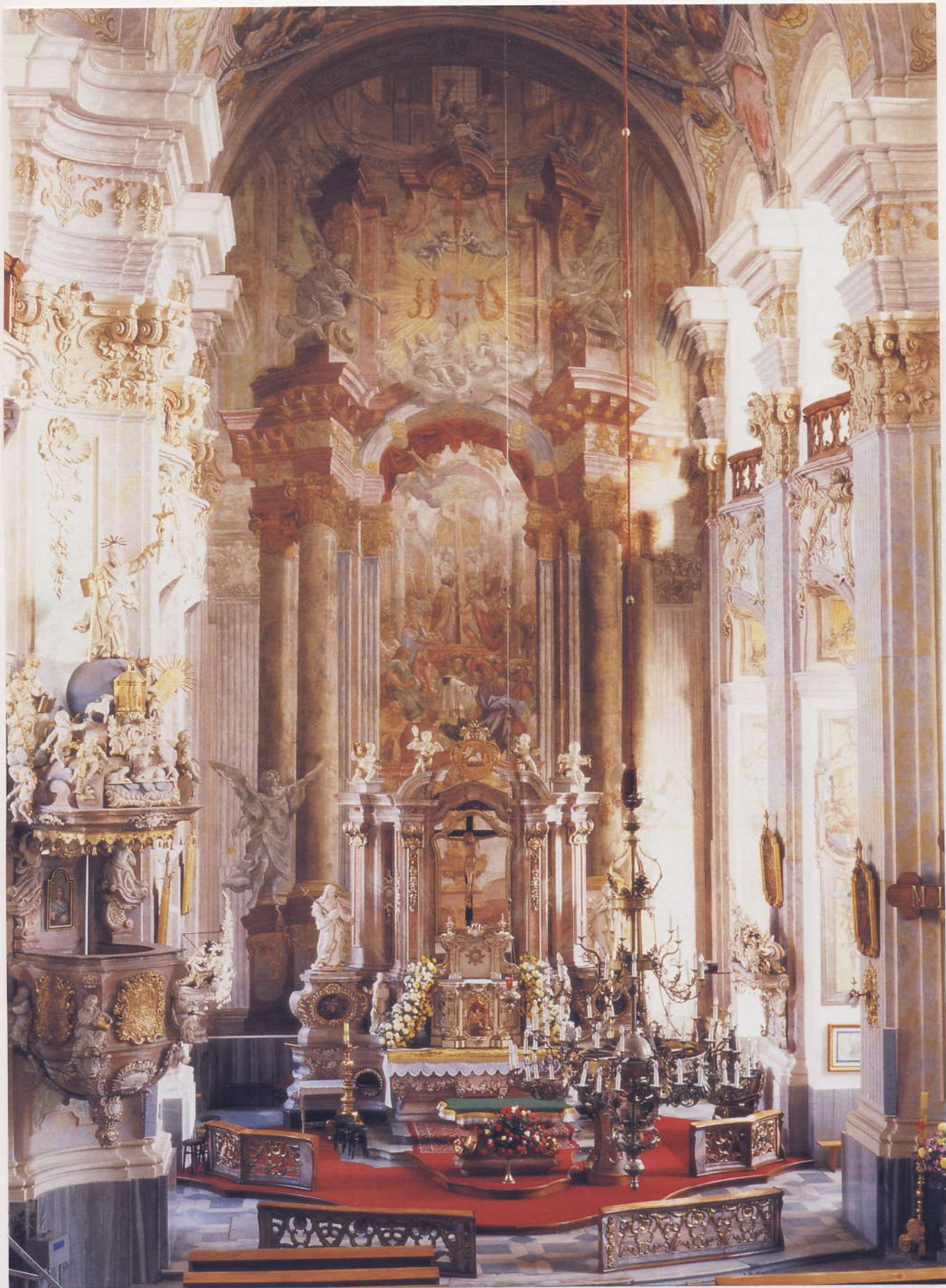


Fig. 1. Illusionistic altar in church presbytery. Pictured by Jan KUBEN (1739).
Foto by Marek MARUSZAK

For many years it was not possible to appreciate Brzeg vault quadrature as an effective correction of the interior of the nave. Due to the closure of ventilating holes in the vault the fresco was completely darkened. Recently, after conservation works the magnificent vault quadrature in Brzeg has been opened. Art historians point to close correlation between POZZO'S Roman quadrature and KUBEN'S one in Brzeg [2/p.336]. They stress the fact that Silesian Jesuit had a copy of "Perspectiva..." treatise with illustrations and description of Roman quadrature. KUBEN'S cooperation with Krzysztof TAUSCH, who was the pupil and assistant to POZZO is also to be noticed. Brzeg quadrature differs from the Roman one. Proportions of interiors with frescos play fundamental importance. They are showed on Fig. 2

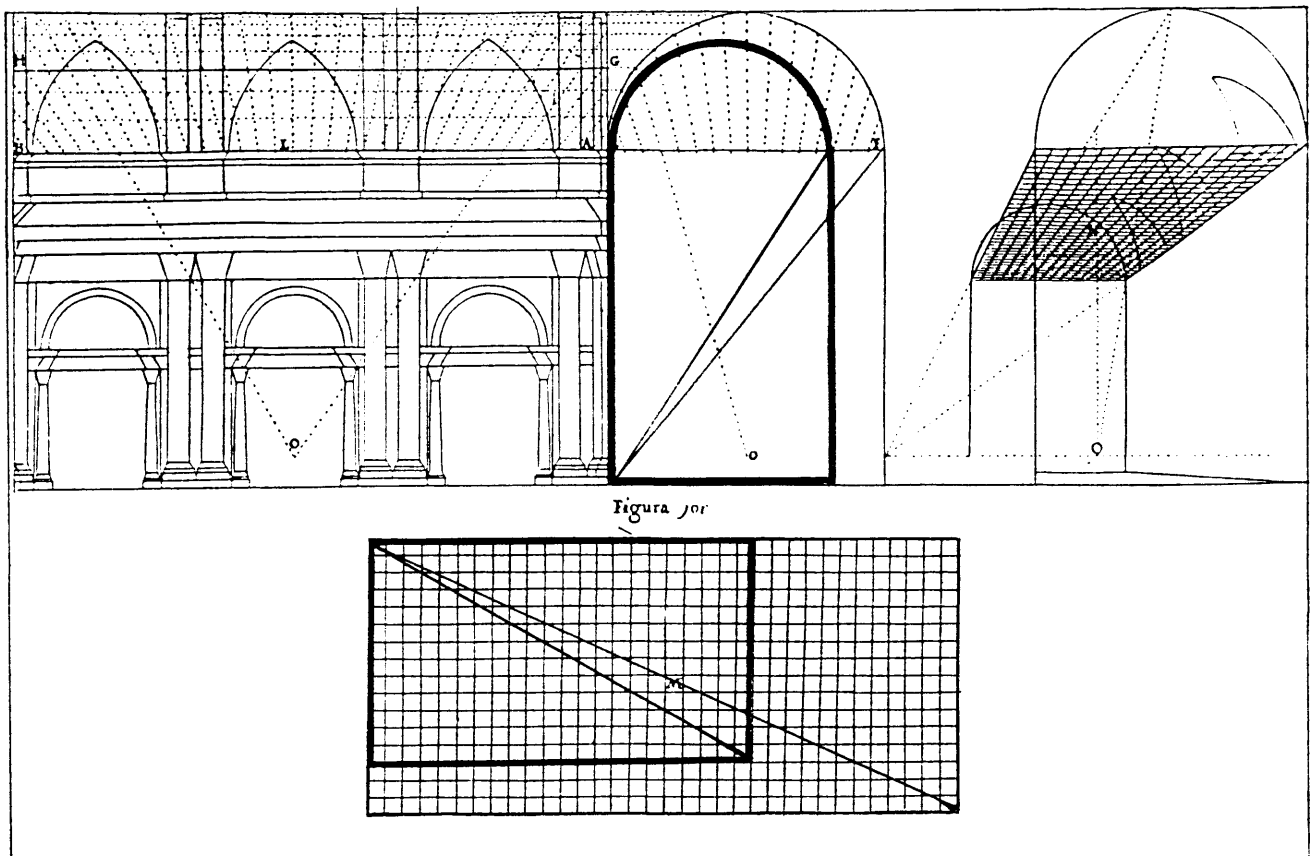


Fig. 2. Comparison of proportions of nave interior in Sant' Ignazio church in Rome (fig. 101 "Perspectiva...") and in Holly Cross church in Brzeg (heavy line)

Both interiors have vaults covered with quadratures, which (seemingly) raised naves by storey. The real and perceptive space of Brzeg nave is much "slender" than the space of Roman nave. The Brzeg interior forms a kind of shaft whose height towers over its width and length. Unique impression of "slenderness" of Brzeg nave is strengthened by continuation of architectural space of a shaft through a few storey sky (central part of the fresco).

Vault quadrature influences the space of the nave in quite paradox way. On one hand it causes the perception process of the vault to be "completely annihilated" (action against existing architectural structure). On the other due to the fact that in the fresco vertical elements are direct continuation of horizontal elements of real architecture we are under illusion that the height of the interior equals the sum of the height of vertical elements of both real and fictitious architecture (cooperation with existing architecture) (Fig.3).



Fig. 3. The nave in Holly Cross church in Brzeg. Pictured by Jan KUBEN (1745).
Foto by Jerzy CZAJOR

It is undoubtedly “architectural deceit” - it is not possible to physically exist in that space. Thanks to the usage of quadrature it is possible to gain an effect, which is very important for sacral interior - the effect of loftiness. Characteristic “impractical height” of sacral interiors is substituted by illusion. “Quality” of this fictitious storey depends solely on creativity and painting and geometry skills of the artist. Money, climate conditions, material or building static are of no importance. It is possible to create totally surrealistic architecture. Curved background of a fresco is an advantage here. If we are in *punto stabile*⁴ we are under impression that the whole rectilinearity of architectural vertical elements of both real and painted architecture is right. (Fig.4).

If we are outside *punto stabile* noncollinearity of segments rectilinear nonparallel to the background is clearly visible against curved background. (Fig.5).



Fig. 4. View of quadrature and real architecture from *punto stabile*. Pictured by Jan KUBEN (1745). Foto by Marek MARUSZAK



Fig. 5. View of quadrature and real architecture from outside *punto stabile*. Pictured by Jan KUBEN (1745). Foto by Marek MARUSZAK

⁴ A point on the floor where observation site is located. For each observation site fictitious (nonexistent) perspective was created of architectural storey whose vertical elements are seemingly direct continuation of vertical elements of real architecture.

POZZO thought that deformations prove *“excellence of a piece”* (quotation from [1/p.40]. Columns undergoing deformation absurd from the point of architecture have symbolic meaning in sacral building. We can witness as curved columns “straighten” if we are in *punto stabile*. In Brzeg nave this point is located under the dove painted on the vault. The author suggests naming the fascinating phenomenon of seemingly 'straightening' of curved architectural elements in vault quadrature - quadrature phenomenon. The usage of this term would result in substitution of currently used phrases “columns falling down” or “architecture following the observer“ when describing quadrature frescos. Adduction to eye-witnessed restitution (expansion) of a curve allows correlation between quadrature phenomenon and philosophical considerations of Gottfrid Wilhelm LEIBNIZ on unity of contradictions and problems of circle quadrature⁵. Eminent art historian Paweł MURATOW writes unfavourably about vault paintings in Italian churches: *“Majority of these church plafonds is wrongly painted”*[3/p.379]. Thus, we can be glad that in Brzeg it is possible to see wonderful example of vault quadrature, experience real geometric adventure with noncollinear perspective and be inside space, which is seen as architectural although it is only a suggestion of that space. Locked inside the picture, being aware of features of noncollinear perspective let us think what kind of impression these pictures must have had on baroque people who could admire art only in churches. What is more, differences between traditional picture of architectural elements and their noncollinear picture are seen by everybody. Direct comparison of two pictures inside a building is not possible since the last storey is a fake. This comparison together with analysis of dynamic changes of noncollinear pictures can be done by modern computer methods. (Fig.6).



Fig. 6. Comparison of fictitious perspective of continuation (beige) with quadrature (ochre).

We hope that presented pictures and remarks will encourage all PTGiGI members, who are closely connected with geometry in all aspects, to visit Brzeg and personally experience encounter with KUBEN'S frescos.

⁵ More detailed information can be found in the author's PhD dissertation "Elements of vault quadrature theory. Space illusion in naves of main post Jesuits' churches in Silesia". Professor conferring a degree prof. Andrzej NIEZABITOWSKI, PhD, M.Sc, Arch

REFERENCES:

- [1]. COLE Alison: Perspektywa. Ilustrowany przewodnik po teorii i technikach – od renesansu do pop-art; Wyd. Dolnośląskie, 1993.
- [2]. KOWALCZYK Jerzy: Andrea Pozzo a późny barok w Polsce, cz. II: Freski sklepienne; [w:] Biuletyn Historii Sztuki nr 4, 1975.
- [3]. MURATOW Paweł: Obrazy Włoch, cz.I; PIW, 1971.
- [4]. PRAZ Mario: Mnemosyne. Rzec o powinowactwie literatury i sztuk plastycznych; PIW, 1981.
- [5]. STOGA Andrzej: Recenzja publikacji «Ingrid Sjöström. Quadratura. Studies in Italian Ceiling Painting, Acta Universitatis Stockholmiensis, Studies in the History of Art, XXX, 1978, ss.143, Il.70.», [w:] Biuletyn Historii Sztuki nr 2, 1981.
- [6]. ŻABA Antonina, CZAJOR Jerzy: Traktat Andrea POZZO jako “Perspectiva pictorum et architectorum...” jako nowoczesny podręcznik dla barokowych kwadraturzystów; [w:] Biuletyn PTGIGI zeszyt 6, 1998.
- [7]. ŻABA Antonina: Wnętrze kwadraturowe czyli przyczynek do teorii architektury barokow; [w:] Materiały IV Sympozjum “Teoria i praktyka w procesie kształcenia architekta – Rybna ‘99”, 1999.

KWADRATURY KOŚCIOŁA POJEZUICKIEGO P.W. PODWYŻSZENIA KRZYŻA ŚWIĘTEGO W BRZEGU

Fascynującym, chociaż mało znanym zjawiskiem w architekturze są barokowe wnętrza, w których zastosowano malowidła sklepienne zwane kwadraturami. Malowidła te przedstawiają fikcyjną kondygnację. Kolumny tej kondygnacji były pozornym przedłużeniem słupów i plastrów dolnej, realnej kondygnacji. Niedawno odsłonięto po konserwacji piękną śląską kwadraturę w Brzegu. Autorka artykułu odwołując się do kwadratury brzeskiej pragnie zwrócić uwagę Czytelników na wyjątkowość perspektywy niekolinearnej zastosowanej w obrazach na sklepieniach.

Translated by: mgr Barbara SKARKA

