Abstract. There are three very important questions regarding Piast architecture around 1000 AD. The first is the origin of the architectural shapes used. The second is the relationship between architecture and liturgy. The third is the research of mechanisms of creating a Christian state, based on the collaboration between the ruler and the church and its missionaries. Comparative studies between Central Europe and Scandinavia in the field of monumental architecture are suggested.

The origin of the early stone architecture in Poland is closely associated with the creation of the Polish state, and with the conversion to Christianity. Mieszko – the first ruler from the local Piast dynasty – finished the territories’ unification process and the formation of the single state, with its centre around strongholds in Poznan, Gniezno, Lednica and Giecz in the so called Greater Poland (fig. 1). According to the results of the latest archaeological investigations, a complex, forceful reorganization of the centres took place before the year 966 – the year of Mieszko’s baptism.

We may cautiously presume it was a carefully considered, well studied and ambitious plan of Mieszko’s predecessor. Mieszko took on this political project and completed it with his own baptism. Around this time, the Christian dignitaries arrived in Poland with their followers. Having the proper know-how, they brought the architectural ideas with them and hosted professional builders’ workshops.

I have to point out that there are a very limited number of credible historical sources describing the process of creating the new Christian state and the church organization. We have not got any written information pertaining to the setting the new Christian buildings in Poznan, Gniezno, Lednica Island, Giecz and Wawel Hill in Krakow. Studying the archaeological material along with artistic sources definitely give us more information. These sources should be treated as equivalent to the written sources. Amongst the abundant archaeological material, there is some evidence to be had relating to the monumental stone architecture in Poznan, Gniezno, Lednica Island, Giecz and Wawel Hill in Krakow,
which has been partially examined, but one still has to be exceedingly careful basing any interpretation upon the remains of such architecture.

The centres founded on Lednica Island and in Giecz are well investigated. The remains of the architecture on Lednica Island were for years interpreted as a ducal residence with the central chapel belonging to the prince Mieszko or to Boleslaw the Brave. During archaeological excavations in the 1980’s, an early medieval architectural team of researchers directed by Klementyna Zurowska discovered two well preserved structures inside the chapel. They were hollows formed in the shape of a half cross (fig. 3). They are recessed into the floor (0,10–15 m and 0,25–30 m) (Rodzinska-Chorazy 1993a:75–77). Teresa Rodzinska-Chorazy has interpreted them as a kind of baptismal tank (fig. 5).

Using the analytical-comparative method of architectural historians, Rodzinska-Chorazy presents some analogical examples of the tanks inside baptismal complexes in the early medieval architecture across all of Europe. According to that research, the central chapel which was joined to the residence and served as a baptistery, was the place of the Mieszko’s baptism in 966. That means that construction most likely began before 966. The above-mentioned hypothesis is still the focus of criticism by archaeologists and architectural historians (Swiechowski 2005:47–56; Górecki 2001:61). In my opinion, the central chapel with the conspicuous symbolic cross-shape containing the two half cross-shaped features, suggests the interpretation of the baptistery as being subordinate to the main idea of the baptism of the ruler. Up until now no one has put forward any other interpretation for those particular structures.

K. Zurowska, T. Rodzinska-Chorazy and A. Biedron interpreted the complex of buildings on the Lednica island as the main seat of bishop Jordan, the first missionary bishop on Polish land. In consequence, they proposed that the Lednica early medieval buildings were a missionary bishops’ complex, including a residence (episcopium), a baptistery and a small church. So called bishops’ complexes existed for instance in Northern Italy (Bergamo, 10th century) (Rodzinska-Chorazy 1993b: 103–167, Zurowska 1993:168–197; Biedron 1993: 198–199). Other researchers have another hypothesis, and consider Poznan to be the main residence of the first missionary bishop and the place of the baptism. Krystyna Józefowiczówna envisioned a baptistery under the cathedral building (Józefowiczówna 1963:38–45; Kurnatowska 1998: 52–68). As pointed out by Przemysław Urbanczyk the bishop’s missionary activity (along with his entourages’) consisted of non-stop moving between the main centres of the new state, which were situated only relatively short distances apart (fig. 1) and close political co-operation with the ruler (Urbanczyk 2001:236–243).

The construction of the similar residential edifice in Giecz (fig. 6) was stopped in its initial stage (Krysztowiak 1998:45–47). The building was never completed and never used, for what reason we do not know. The Lednica Island and Giecz complexes represent similar models of the same spatial configuration, with a central chapel joined to an elongated rectangular building divided in much the same way. They represent very sophisticated and unusual examples of
Fig. 1. The Polish lands and the centre around strongholds in Poznan, Gniezno, Lednica and Giecz in so the called Greater Poland.

Fig. 3. Lednica Island. The residential edifice (palatium) with the central chapel and two structures formed in the shape of the half of the cross (according K. Zurowska, T. Rodzinska, T. Weclawowicz).

Fig. 5. Lednica Island. The reconstruction of the chapel with baptismal tanks (according to K. Zurowska, T. Rodzinska, T. Weclawowicz).

Fig. 6. Giecz. The residential edifice (palatium) (according to B. Kostrzewski).
Fig. 7. Gniezno. Cathedral with St. Adalbert martyr's confession in the centre (according to T. Janiak).

Fig. 8. Poznan. The cathedral around the year 1000 (according to A. Bukowska).

Fig. 9. Poznan. The stronghold, the cathedral and another building at the gothic St. Mary’s church.

Fig. 10. Poznan. Remains of the stone architecture under the gothic St. Mary’s church (according to H. Kocka-Krenz).
Fig. 11. Wawel Hill in Krakow. Remains of the early medieval stone architecture around the year 1000 (according to Z. Pianowski).

Fig. 12. Wawel Hill, plans and view at the buildings around 1000: a. the earliest cathedral (according to J. Firlet & Z. Pianowski); b. the four-apse St. Mary’s central building (according to K. Zurowska); c. the two-apse rotunda so-called “the church B” (according to Z. Pianowski); d. the rotunda north of the cathedral, inside a hollow faced with sandstone slabs (according to Z. Pianowski); e. the quadrangular cellar with a sloping corridor (according to Z. Pianowski).
Fig. 13. Wawel Hill, the so called St. Gereon's Basilica (2nd half of the 11th cent.) (according to Z. Pianowski).

Fig. 14. Wawel Hill in Krakow. The so called St. Gereon’s Basilica, the eastern crypt’s columns with plaitwork decoration (2nd half of the 11th century). Photo by T. Rodzinska-Chorazy.

Fig. 15. Wawel Hill in Krakow. The so called residence and the so called Hall with 24 Pillars (2nd half of the 11th century) (according to Z. Pianowski).

Fig. 16. Wawel Hill. The so called residence and the so called Hall with 24 Pillars (2nd half of the 11th century) (according to Z. Pianowski).

Fig. 17. Wawel Hill in Krakow. The second cathedral (the last decades of 11th century, finished in the first half of the 12th century) (according to K. Zurowska & Z. Pianowski).
European architecture (Rodzinska-Chorazy print in 2009).

The turning point for the establishment of the church position in the Polish lands was the martyrdom of missionary Wojciech-Adalbert in Prussia. Boleslav the Brave (Boleslaw Chrobry) brought the martyr’s remains to Gniezno and initiated political activity surrounding them. The outcome of this was a pilgrimage of the emperor Otto III to Gniezno and the meeting in the year 1000 AD. Boleslaw the Brave was proclaimed king and the archdiocese in Gniezno was established, with subordinated dioceses in Krakow, Kolobrzeg and Wroclaw. The new Christian state gained four stationary administrative bishop’s seats. Among them, Gniezno, as the archdiocese housing St. Adalbert’s relics, played the greatest role.

Our knowledge pertaining to the lay-out and look of the first cathedral in Gniezno is very limited. Amateur explorations inside the Gothic cathedral in the 19th century exposed the most important features but destroyed most of the archaeological material in the process. To my mind, the three-apsis basilica with straight basilical west facade was built at the end of 10th century. The shortness of the naves and the specific proportions of the basilica with wide a main nave and really narrow side naves (fig. 7) are very characteristic for Northern Italy (for example the church San Vincenzo in Galliano built at the end of 10th century). Let’s wait for Tomasz Janiak’s current work verifying of the Gniezno cathedral’s remains.

There is no historical information about the origin of the diocese in Poznan. According to Gerard Labuda and Jerzy Strzelecky, Poznan is not mentioned as the freshly created diocese subordinated to Gniezno archdiocese in the year 1000, because Unger, the second missionary bishop on Polish land, was not agreeable to being a subordinate of new archbishop Radzim-Gaudenty (Labuda 2001:279; Strzelecky 2000:127–128; 131–132). Unger established the Poznan diocese around the year 1000 as an additional diocese subordinated directly to Rome. To my mind Unger’s constructions
started most probably in the 990’s and maybe were finished after the year 1000. This is confirmed by the composition of the basilica (fig. 8). It was three-nave basilica with transversal structures at the east and west ends presenting evident Ottonian features with a kind of double transept, and pillars dividing the interior of the main nave into three parts. There are two monumental stone grave structures (perhaps for Mieszko I and Boleslav the Brave?) in the centre of the main nave at the St. Cross’ altar. (Bukowska 2009: ready to print).

The latest archaeological investigations in Poznan, led by Hanna Kocka-Krenz, discovered remains of stone architecture situated to the west of the cathedral (fig. 9). They lie beneath the level of the Gothic St. Mary’s church (fig. 10). According to the written sources Dobrawa, who was Mieszko’s Christian wife, founded St. Mary’s church, most probably in the area of the present Gothic chapel. Hanna Kocka-Krenz initially interprets that building as a palatium – the Gniezno residence of prince Mieszko. The researchers are yet to explore the chapel joined to the residence due east of the remnants (Kocka-Krenz 2004:71, 80–81; Kocka-Krenz 2005:59–81). In my opinion it is too early to make any interpretation. At this stage of the investigation, the spatial configuration of the remains show that they also can be interpreted as a part of a sacral edifice, maybe an eastern transept of another basilica.

The few remains of stone structures of the first cathedral in Wroclaw do not lend themselves to interpretations of the shape of the cathedral around the year 1000. The bishop’s church in Kolobrzeg is unknown as well. In the southern Polish lands Wawel Hill in Krakow seems to have the largest concentration of early medieval architecture around the year 1000 AD (fig. 11). Wawel Hill and the cathedral at its centre and the royal residence of Polish kings have been well investigated in terms of archaeology. The archaeological and architectonical explorations have been ongoing for the last 100 years. The systematic exploration begun simultaneously to the restoration of the Wawel buildings at the beginning of the 20th century.

After the Second World War, and until now, archaeologists and art historians have performed numerous excavations on Wawel. In the last twenty years, the archaeological investigation on Wawel Hill, lead by Zbigniew Pianowski and Jerzy Firlet, have had a big share in the developing and exacting modern investigative methods at sites where one can find not only stratigraphical deposits but also complex sequences with layers from different periods overlaying architectural remains (the last view of the research and interpretation: Pianowski 2006:163–219).

The latest investigation brought to light the most likely lay-out of the earliest cathedral now evident under the current Gothic cathedral. Small fragments contained under the present structures hint at the possibility of the first cathedral having been a three-nave basilica with eastern transept (fig. 12a) (Firlet & Pianowski 2005:57–66).

Among the former, the best preserved is the four-apse St. Mary’s central building. It was discovered before the Second World War (fig. 12b). Walls, several meters high, are preserved deep under the Renaissance castle buildings south-east of the cathedral. The church is small, its circular nave measuring only 4.8 metres in diameter. The layer is partially depressed into the rock with
low set windows letting additional light into the basement and a circular external staircase makes it possible to reconstruct the church as a two-level chapel, used as holy relics treasury. The question is what the small rooms adjoined to the west apse are. They have been interpreted as a fragment of a palatium or a west tower structure with a staircase to the upper story. The two-level tetragonal form of the chapel, strictly connected to the St. Mary’s cult in the Wawel centre around the year 1000, is unusual (Zurowska 1983:47–49). The next central building, the so-called “church B”, is a two-apse rotunda, situated near the southern end of the hilltop (fig. 12c). This central building with its two apses: eastern and western, represents a very unusual shape (Rodzinska-Chorazy 2000:373–374). The only known analogy is a two-apse church in Mikulcice (Moravia, 11th century). The rotunda located north to the cathedral (fig. 12d) is preserved only by its southern part. In the area of the nave a hollow lined with sandstone slabs was discovered.

A quadrangular cellar in the area of the Renaissance arcade courtyard is among the most important discoveries. The cellar, five meters long, has a sloping corridor ending in three steps, deeply cut into the rock (fig. 12e). According to Pianowski the edifice belonged to the ducal residence (Pianowski 2006:169). There are many stone structures whose form is difficult to determine (fig. 11). One of these, situated southwest of the cathedral, may be a fragment of an entrance to a building which could be a part of the bishop’s residence (episcopium) (Pianowski 2006:169). Another one, situated east of the cathedral, is a complicated configuration of stone walls which Pianowski has interpreted as a small cross-shaped chapel and a residential building connected by a passage, resting on masonry pillars, with the gallery of the hypothetical chapel (fig. 11).

The multitude of different types of buildings is remarkable: one basilica, several different types of central buildings: four-apse, two-apse, one-apse – and other buildings most likely belonging to residential rulers and bishops, and cloister buildings. Considering the scale and richness of the architecture, we must say that it is an unusual complex in early medieval Central Europe (Rodzinska-Chorazy 2000:376–377). Considering the lack of historical sources, it is a very difficult task to determine the origin of the oldest complex of the monumental architecture on Wawel Hill (fig. 10). In the second half of the 10th century the Krakow centre with Wawel Hill belonged politically to Bohemia. The take-over of Krakow–Wawel by the Piasts took place around the year 990 AD. Some historical sources constitute a ground for speculation of a Bohemian origin of the earliest architecture on Wawel Hill. Some architecture researchers maintain that the first stone architecture was erected in Krakow in second half of the 10th century during the Bohemian era. The Bohemian impact is reflected in the dedication of the cathedral to the Bohemian saint St. Wacław. The hypothesis of Bohemian activity on Wawel in the second half of the 10th century is closely associated with the presence of the so-called church B whose lay-out according to some researchers, has links to the Mikulcice rotunda, and the four-apse St. Mary’s building which was compared to St. Witus central building in Prague. Teresa Rodzinska-Chorazy has suggested an ambitious plan of constructing by
the Piast dynasty after the year 990 (Rodzinska-Chorazy 2000:376, 382).

The crisis of the first Polish state in 1034–1038 was closely connected with a pagan reaction and a Bohemian invasion in the 1030’s led by Brzestyslav I. The restoration of the political and church structures was undertaken by Kazimierz the Restorer in the 1040’s and 1050’s: His mother Rycheza was instrumental in this. She was closely related to the imperial Ottonian dynasty, and the uncle of the Kazimierz the Restorer himself, Herman, was the archbishop of Cologne. The reign of Kazimierz the Restorer was, aided by the high standing of the family within the Ottonian Empire, a time of the veritable breakthrough in sacral architecture. The so called St. Gereon’s Basilica (or St. Mary’s Egyptian) on Wawel Hill (fig. 13), discovered under the western part of the Renaissance royal palace at the beginning of the 20th century, is a well preserved transept basilica from the second half of the 11th century. The crypt has a three-nave plan with niches set in the walls (see columns with knot work decoration, fig. 14). The wide transept’s wings have two-column galleries (see transept’s capital with knot work decoration, fig. 15). The dedication of this church to St. Gereon is definitely not something that applied for this particular church, as evidenced by a multitude of churches discovered or mentioned in written sources. Prince Kazimierz’ family connections to Cologne seem to be confirmed by the naming of this church. The dedication to St. Gereon was at the time very popular in the Rhineland. The architectural shape of the basilica and its spatial ‘Benedictine’ lay-out brings a suggestion it could be a kind of a collegial church (Stiftskirche) as we have no information of the presence of Benedictines on Wawel Hill. The Church founded by the duke probably was a ducal chapel attended by highly-ranged monks-dignitaries. St. Gereon’s Basilica seems to be functionally connected with a kind of residence, the so called Hall with 24 Pillars (fig. 16). This building has been interpreted as the ducal representative hall (Pianowski 2006).

The remains of the second double-choir cathedral discovered under the present Gothic building are a whole other story. Construction on the cathedral was begun in the last decades of the 11th century and was completed in the first half of the 12th century (fig. 17). The monumental basilica with its well preserved western choir, including the St. Leonard Crypt, western towers and an atrium, has the features connected with 11th century Rhineland monumental empire cathedrals (Mainz).

Going back to the period around the year 1000 we have to point out some exceptional stone relief’s finds. The are five stone plates with knot work ornamentation discovered on a secondary deposit in the vicinity of the cathedral. The most interesting of them are two plates with a symbolic animal motif framed in a knot work identified by Barbara Malik (fig. 18, 19) (Malik 2000 / 2001:195–204; Malik 2005: 83–92). That is most likely a Lamb of God (Agnus Dei) – sheep’s motif symbolizing Christ the Saviour, well known Christian sign from the early Christian time. Zygmunt Swiechowski identifies the image with a lion. This is the oldest preserved example of the plastic sculptured Christian image on Polish lands, and the oldest symbol of Christianity. It is likely to have been a feature of the first Wawel cathedral (around the year 1000) or St. Gereon’s Basilica (later half of the 11th
century). It is not clear if it was a rood-screen or a piece of an altar. To my mind some features of its composition, this kind of the complicated course of the plaited lines and technique used, show the link to examples from Northern Italy. Of course, I have to point out that the use of the Northern Italian composition schema and elaborate masonry work does not necessarily mean that the item was made to order straight from an Italian workshop.

In conclusion, there are three very important questions regarding the early Piast architecture around the year 1000 AD. The first is the origin of the architectonical shapes used. The first basilicas on Polish lands show evidence of direct links to the early Ottonian architecture. This is especially obvious with the cathedral church in Poznan, which has similarities with the spatial configuration of the great Ottonian churches in Lower Saxony, the abbey church in Memleben (founded after the year 979) and maybe the cathedral in Magdeburg (founded around the year 968) (Bukowska 2009: ready to print). The spatial configuration of the residences complexes on Lednica Island and Giecz, especially the composition of the central building on Lednica Island, indicates some post-antique, Mediterranean tradition as Teresa Rodzinska-Chorazy supposes (Rodzinska-Chorazy 2000:379–383). It is also present in the Wawel relief’s plaitwork. The early Piast architecture seems to be a collage of Ottonian and Mediterranean traditions with the former, in my opinion, the most influential. The Mediterranean components supposedly came through the mediation of the Ottonian church and empire, both of whom were very active in Italy.

The second question is associated with the previous one, is the import of the liturgical commons (rules) important to the context of the relationship between early medieval architecture and liturgy (for example the lay-out of the churches on Wawel Hill). Roman Michalowski assumed a sophisticated, direct imitation of Aachen on Wawel Hill, clearly visible in the spatial relation between churches. To my mind, there is no need to look for such direct links as liturgical basis for the churches’ complexes in the Carolingian–Ottonian era is obvious. Of course, there is a need to have a look at this relationship in the context of the liturgy based on Romano–German Pontificale (PRG) visible in lots of sacral architecture complexes in empire centres in 10th and 11th century. Comparative studies on this subject would be exceptionally difficult as we have not got enough liturgical sources.

The third question is the research on mechanisms of creating a Christian state in early medieval Europe based on the collaboration between a ruler and the new church dignitaries in terms of mission. I suggest it is possible to undertake some comparative studies (between Central Europe and the Scandinavian countries) in the field of monumental architecture. The huge architectonical “boom” provided by the rulers in control of the church organisation in Poland before and around the year 1000 shows the power of the ruler and the direct political aim. We can see a similar process in other young Christian states. Studies on the relationship between the process of Christianisation and the appearance of the monumental architecture in the new states in Central and Northern Europe are needed.
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