

## SUMMARY AND PROSPECT

The results of the archaeological and architectural investigations of the former collegiate church St. Walburga in Meschede (Hochsauerlandkreis, North Rhine-Westphalia) concern above all three aspects: the reconstruction of the construction history, the widespread system of the acoustic improvement by so-called acoustic pots, as well as typological and chronological facets of the ceramic ensemble.

### **The Architectural Reconstruction (OG)**

From an architectural point of view, St. Walburga is the best preserved collegiate church in Westphalia (Wemhoff 2003a, 739). It can be seen as a remnant of the consolidation phase of the early Carolingian regnancy over the Saxons.

In spite of the fairly difficult conditions of research, it was possible to reconstruct the late Carolingian church building in its essential nature: the construction began in the last third of the 9<sup>th</sup> century and was completed around the turn of the 10<sup>th</sup> century. This rather long time period may be ascribed to the extraordinarily large dimensions and the relatively problematic building material, local slate.

This period's church building was a three naved basilica with lower transept arms and a slightly recessed rectangular choir and thus followed the common building scheme of its time. Rather progressive elements, however, are the singular tower that has been placed before the western front and the steep spacial proportions of the central nave. Other cataphoric innovations are the gallery in the western span, the cross-sectional position of the window openings in the middle of the wall and the alignment of false niches in the choir's clerestory. They already indicate what will be typical for the Romanesque architecture in the centuries to follow.

The first church in Meschede, therefore, not only holds special significance for the region of Westphalia – it is rather part of the small assemblage of well-preserved Carolingian monuments in Germany (Mann 1965; Lobbedey 1999c, 461): it is of equivalent importance as Aachens' palatine buildings, the Einhard basilicas in Seligenstadt and Steinbach and the westwork of the abbey church in Corvey (Lobbedey 1987, 32).

During the Romanesque period or shortly before, the two annexes on the northern side of the church were added. While the northwestern annex furnished no chronological fixpoint, the porch has to be dated not before the 11<sup>th</sup> century on grounds of architectural comparisons.

The interior of the church also underwent modifications at this time: on the basis of formal elements, the rise of the transept arms, diverse alterations of the choir, as well as its eastern enlargement with a replacement of the apsis and an alteration of the central part of the crypt cannot be dated before the second half of the 11<sup>th</sup> century. Slightly later, probably shortly after the first third of the 12<sup>th</sup> century, the vaulting of the balcony and the associated alterations in the western parts of the church occurred.

The enlargement of the choir to three naves that presumably corresponds to the loss of relevance of the transept arms, however, only dates to the time after around 1400.

Rather easier to determine is the partial rebuilding of the church in the Baroque era: it can be fixed to the years 1663/64 due to written sources, an inscription, as well as a coin find.

### **The Echea Phenomenon**

With regard to a contextual and functional interpretation, the spatial and chronological examination of the topic of the so-called acoustic pots are of considerable relevance. The compilation of more than 250 churches with such pots shows that it was a wide-spread phenomenon from the 9<sup>th</sup> century onwards in the whole of Europe. The main period of preserved churches falls into late medieval times. The evaluation of cultural history are supplemented by scientific assessments of the actual functionality of acoustic pots regarding an improvement of room acoustics. Although this functionality could not be finally proven, it can be regarded as highly probable: the insertion of hollow vessels into the walls leads to a reduction of the reverberation time and thus a higher perceivability of speech – which is, of course, subject to the number of vessels.

Of much more importance for the analysis is the underlying intention of the erectors of the Carolin-

gian church building. It is highly probable that we see here the manifestation of the founders' desire for singularity. It reveals itself not only in the foundation and construction of a respectable ecclesiastical building, but also through appropriate furnishing. The archaeological record and the complementary architectural investigations led to the reconstruction of a rather representative building. At least 136 acoustic pots that were inserted into walls and under the floor are part of its endowment. The chosen ceramics were to a large degree highly valuable imported wares from the Rhineland. They were supplemented by some vessels from Northern Hessen where at this time ceramics of notable quality were produced.

The application of these vessels as acoustic pots, however, has to be seen in the context of the knowledge of this new 'technological achievement'. The reception of Vitruvius' *eccha* can be regarded as evident; the Rhineland may be of importance for the transfer of knowledge. On grounds of the proven providence of the ceramics, strong bonds to the region of Cologne can be assumed. Architectural parallels, as well as the prevalence of early examples of churches with acoustic pots in the Lower Rhine Valley lead to the same conclusion. The liturgical function of the *memoria* for the founding family corresponds well with the insertion as means to improve the acoustics of the church.

### The Ceramic Assemblage

The ensemble of vessels of the former collegiate church St. Walburga in Meschede was investigated under a functional-contextual, as well as a typological-material perspective. The main focus, however, lies on the combination of those two systems of classification and on the detection of historically relevant unities, the so called 'production series' (Produktionsserien).

All further results in the field of ceramic research are based on this attempt to reconstruct groups that may have been of existence in the historic context.

Concerning the typological-material examination, the main questions are those of the absolute dating of the end of production of Badorf ware and the beginning of Pingsdorf ware – questions that arose as early as the time of discovery of the Meschede finds. Particularly the latter is still heavily discussed in the field of medieval ceramics.

The formal spectrum of 'Badorf ware' is still evident in some exemplars of Meschede type 1, but also type 2e. A continuity of this ware until the time around 900 AD is suggested because of the assumed contemporaneous acquisition of all vessels just before their insertion into the walls and under the floor

of the church building that, in turn, is dated by dendrochronology. The material characteristics of the Badorf ware can be found in many of the Meschede vessels of the 'material category' 3 (Materialklasse 3). The identification of typical Pingsdorf vessels, however, yields more difficulties, especially regarding their definition. The material attributes of Pingsdorf ware can not be found in any of the Meschede vessels. Type 4, however, shows the typical formal spectrum of the Pingsdorf production, even though it is still in its first stages. Because this type must be regarded as belonging to the Badorf ware in material respects, a certain chronological gradation in the technological, as well as the typological development, can be postulated.

The Meschede ensemble shows that the transition from Badorf to Pingsdorf ware was not contemporaneous with an alteration of the common canon of forms and decorations. On the contrary, typological changes occur before technological innovations, thus before the development of the genuine Pingsdorf ware (cf. Heege 1995, 84).

The Meschede ceramics affirm the common succession of the individual typological elements: after the beginnings of red painting follows – with quite a temporal gap – the end of the decoration with a roller stamp. Only after that can we see the development of the first foot rings on vessel bottoms. A parallel trend of typical rim forms can only be retraced in a rudimentary way. The mediate position of the so-called Hunneschans-ware, however, is again very evident. The examination of the Meschede ceramics puts the merely terminological dilemma forward, whether only typical formal elements suffice for the definition of the Pingsdorf ware or whether material characteristics have to be included. This dilemma has only been solved superficially by the hypothetical construct of 'Early Pingsdorf ware' (Keller 2004, 125). The mere clay substance does not suffice to distinguish it from Badorf ware. It occurs until the time of around 950 AD, however, not only in the Pingsdorf production but also in the user context (Van Doesburg/Bakker 1999, 34 f.; Dijkstra 1998, 32 ff.).

In the Meschede assemblage, individuals of both types, the red painted as well as the roll stamp decorated ceramics, show the same chemical composition as the products from the potters' village of Pingsdorf. Both were ascribed to the same chronological horizon as the Hunneschans-type, because they could be proven to belong to the same 'production series'. This strengthens the hypothesis that during a transition period all three ceramic types were produced contemporaneously and available on the market.

The Meschede complex consists mainly of individuals with the characteristic combination of red painting and roll stamp decoration that is typical for the transitional Hunneschans-type (type 2, ca. 40%) and indicates that in the time around 900 AD there was no sudden change in the formal spectrum, nor in the technique or exploitation of clay substances. Rather, we deal with gradual tendencies and thus with a real transition time. The beginnings of the production in Pingsdorf is, therefore, not contemporaneous with the changeover to Pingsdorf ware. The comparisons with other find complexes leads to the suggestion that this transition period not only covers the decades around 900 AD, but reaches far into the 10<sup>th</sup> century.

Even though the examination of the archaeological research in Meschede provides a lot of new results, it cannot solve all problems. For example, the echea phenomenon will stay a fascinating aspect of medieval cultural history. With respect to the ceramic analysis, the Meschede complex cannot answer the question of the precise beginnings of Pingsdorf ware in the proper sense of the term 'material ware' (Warenart), though of course – to use the words of the excavator U. Lobbedey – the Meschede ceramics are obviously 'five minutes before Pingsdorf' (Lobbedey 1996, 248). It will be a task for future research to reveal how many decades these five minutes actually correspond to on a real time scale.