

SUMMARY

This publication presents the results of the first campaign of excavation, carried out in 1987 and 1988 by the French-Spanish team organised by the Universidad Complutense de Madrid, in the course of the International Programme of Mont Beuvray.

Owing to its interest and importance, it was considered necessary to report the discovery of a monumental *basin* at the earliest possible opportunity. This account with the discussion and evaluation of this important monument as contribution to existing knowledge of Gallo-Roman archaeology and, in particular, of the oppidum of Bibracte.

1. This undertaking has been carried out within the International Programme of Mont Beuvray. The ample collaboration of all the participating teams has made these tasks possible and, as a result, has allowed them all to profit from the ethos which guided the conception and realization of this study.

2. The present investigations have taken place within the long French-Spanish tradition of collaboration in the field of archaeology. For that, the Spanish-French team has been directed jointly by an archaeologist from each country, with participating students from several universities as well as investigators and archaeologists from different professional institutions.

3. The campaigns of 1987 and 1988 were carried out in the Pâturage du Couvent, a level area situated in the middle of the oppidum, 500 m from the Porte du Rebut, which is crossed by the main route of access to the oppidum. In the centre of this area a monumental *basin* was found surrounded by a large paved area. This *basin* is oval in shape, (10.48 m by 3.65 m) and is built with granite blocks. These survive to a height of 1.03 m, and 4 rows of them have been preserved that are the best example of construction in Bibracte from the point of view of architectural technique.

4. One of the principal foci of the Pâturage du Couvent excavation has been the examination of the cobbled zone, which corresponds to the major roadway across the oppidum. The boundaries and features of this structure have been tested by trial pits, which have been followed up by further campaigns conducted by others teams.

The stratigraphic sequence varies from sector to sector. The central excavation area is quite shallow and lies over a geological substratum which had been

previously artificially levelled. A pit was dug in it in preparation for the construction of the monumental *basin*. Within the *basin* a flooring of granitic sand waste was distinguishable (level 6) and some waterproof clay (level 5) similar to that filling up the foundation trench, a level of debris and rubbish (4) and another of alluvial filling (3), detritus from the cobbled surface (level 2), under the surface humus (level 1). In the cobbled area, over the bedrock, there were several levels including a layer of earth covered by another layer of stones and amphora fragments.

5.- The finds are of little interest, but are important by virtue of their relationship to the structures found, especially the *basin*. Their study has a bearing upon similar finds at Mont Beuvray and elsewhere but the results published here must be considered provisional, until a monographic study within the general programme is completed.

The terra sigillata and the grey wheel-turned wares are the most significant elements of the assemblage. These are treated in appendices included in this report.

6.- The excavation data and associated finds suggest that the disuse of the monumental *basin* be dated to the last decade B.C.

The lack of available parallels makes the date of construction of the *basin* and its surrounding pavement levels difficult to establish. Some non-definitive stratigraphic evidence suggests a chronology towards the beginning of the last third of the first century B.C. However, a slightly earlier date, towards 50 B.C. may be considered on the basis of historical evidence and even an earlier date cannot be excluded. The fine state of conservation of the blocks shows that the use of the *basin* cannot have continued for very long.

7.- The analysis of the monumental *basin* has revealed a series of technical features of great interest, and opens up new avenues with regard to Celtic studies and Gallo-Roman archaeology.

The *basin* is made of granite and a careful system of stereotomy which betrays monumental effort rather than accurate knowledge of carving techniques. On the contrary, the waterproofing has been well finished with clay sealing of the bottom, the foundation trench and the grooves on the blocks situated on top of the pavement.

The layout of the *basin* was modulated by means of two circles intersecting at 1/5 of their diameter, thus

forming a Pythagoras triangle in their axis. The measurements show a length/breadth/height ratio of 3/1/0.5, which is equivalent to 36/12/6 units of a measure length or foot, the value of which has been identified as 30.41 cm.

It has also been determined that the axis of the *basin* coincides with the ortho of the winter solstice and the setting of the summer solstice. Moreover, in keeping with this orientation, at the winter solstice the sun rises and sets over the two highest summits of Bibracte, le Porrey and le Teureau de la Roche, which shows a topo-astronomical preoccupation and can be analyzed in connection with other relevant details within the oppidum.

8. Considerations of excavation data and the detailed analysis of its structure allow us to propose a reconstruction. There would have been a maximum of four rows (at the end), of blocks below the level of the cobbled surface; at the N. end two courses of stonework would have projected above this surface. The outlet is readily identifiable in the stonework, at the N. end, under the cobbled surface: it opens onto a drainage channel and has been examined for 30 m. It would have been opened from time to time to allow the basin to be cleaned out. An overflow is suggested by details of the stonework at the N. end of the *basin*. This reconstruction is based in the idea that the *basin* served as a fountain, with the water flowing out from the N. elevation of the structure. It is suggested that the original water level in the *basin* was the fifth course of the stonework. The *basin* must have been supplied with water *via* a conduit at its S. end; this has not been identified as yet. It is most unlikely that ground water would have emerged at the position of the *basin* itself; the existence of the clay seal in the hollow in which the structure is set makes such a hypothesis untenable.

9.- From a technical point of view, the architectural elements are comparable to other Gallo-Roman structures which they perfectly fit into despite its originality that starts with the small *basin* in the villa of sector PC of Beuvray.

Certain details of the cutting of the stones display Mediterranean influences. Contrasting, on the other hand, the waterproofing technique, the inlet and outlet systems, etc., are elements equally known from both Celtic and Gallo-Roman world. The most immediate parallels are to be found in the early excavations at Beuvray. But, its relation with other Gallo-Roman stone *basins* is obvious, as, for example, with the *basin* at *Argentomagus* with which it shows particular similarities. The *basin* of Beuvray must be considered the oldest known example.

As regards the modular layout, this is comparable with the Celtic tradition of drawing by compasses, as

shown by the analysis of certain decorated bronze pieces like the plaque from Paillart.

At the same time, the 30.4 cm unit identified, can be considered to be a Celtic foot, so far identified only at Manching.

10. There is another series of analyses that are more speculative, but which nevertheless seem necessary in order to try to establish the functions and cultural significance of the monument. In this sense, its practical function as a source of water should be distinguished from its ideological function as a monument that entails a political and religious significance. This is very difficult to unravel, but is nevertheless a faithful reflection of a symbiosis of Celtic ideas and the classical Mediterranean world.

Firstly, we can speculate about the relation between the layout of the *basin* and Celtic knowledge of geometry mentioned in classical and medieval literary sources. Likewise, its topo-astronomical aspect can be related to the practice of astronomy among the Celts, partly conducted in order to determine their calendar, a practice well established after the discovery of the calendar of Coligny. These practices may explain the orientation of the monument and permit to establish a relationship between this information and the documentary evidence from the megalithic sphere and the classical world.

Although it may also be considered speculative, it is very important to understand how the above mentioned topo-astronomical orientation and the corresponding relations with the calendar explain the ideological and functional character of the *basin*, which, in the final analysis, are the key to its understanding. In this sense, the *basin* of Bibracte must be considered a *mundus*, in accordance with the omphallic traditions well attested in both the Celtic and the classical world. The religious significance of the *basin* can thus be derived. Given its central location within the settlement, it can then be argued that this feature played a significant part in defining the urban character of the settlement.

11. The early chronology of the monumental *basin* of Bibracte permits it to be considered the beginning of a series of monuments widely attested in Gallo-Roman architecture, which offer a symbiosis of Celtic and Roman elements. If this offers perfect documentary evidence in the sphere of material culture, in the same way, its significance must also be considered from an ideological point of view.

Although the great interest of this discovery is evident in so many aspects, it is also clear that it will need further research for more complete understanding. We hope that the experience gained by the International Programme of Mont Beuvray will be of help and inspiration in that context.

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