

seem to think. Thus they cannot be used as a solid basis for a 9th century date.

As the reader may have observed, there is much to discuss concerning the exciting finds in Ribe, even as far as dating alone is concerned. Without doubt there will be much more discussion to come before we reach agreed explanations. In conclusion here there is one factor to be mentioned which should be taken into consideration: are there chronological differences between the workshop layers that have accumulated on the “stall-sites” at Nicolajgade 8 and the bronze-casting layers at the stall-site furthest distant in *Kunstmuseets Have*? This can only be decided when a detailed study and publications of the finds and stratigraphy of *Kunstmuseets Have* is available. On the other hand, it is of great benefit that Lene Frandsen and Stig Jensen have presented their deliberations as clearly as they have done.

The above has been produced so that others can be aware of what the Ribe discussion is about, and so that the general lines of debate do not crystallize prematurely. It can also be made known that a grant from the Research Council has made possible continued publication of *Ribe Excavations 1970–76*. Vol. 3 is now ready for immediate printing. Vol. 4, which will contain an account of the stratigraphy of the excavations, is now in preparation.

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## *The Dating of Ribe's earliest Culture Layers*

by LENE B. FRANDBEN and STIG JENSEN

It is with great interest that we have read the comments by Mogens Bencard on our article about the excavations in Nicolajgade 8 in Ribe. We agree with Mogens Bencard that it would be best to avoid internal “Ribe-talk” about the chronological questions relating to the earliest culture layers in Ribe, and it was actually for that reason that we prepared the article under discussion only 5 months after the close of the excavation. In Danish archaeology, taken as a whole, it is unusual for the same important site to be excavated by two different archaeological teams with an interval of so few years between. As can be seen, this has already given rise to fruitful discussion.

We were glad to note that there is no overall disagreement between Mogens Bencard and ourselves concerning the basic stratigraphy in Nicolajgade 8. Mogens Bencard states that the sequence of layers is unbroken, and on that point we are in complete agreement with him. The disagreement relates – as far as we can see – exclusively to the question of the time-period which the build-up of layers represents, and is therefore fundamentally a matter of the extent to which one should base one's work on an interpretation of the excavated layers or should instead rely on a chronological analysis of the objects found in those layers.

Since the previous article in JDA was written, we have had the opportunity to go through the *entire collection of find-objects* from the excavation, with a view to future publication (1). This has not changed our opinion about the chronology, but has made it possible to enlarge the basis for discussion of the dating. In order to make this evidence accessible we have worked out a schematic presentation of a number of different types of object and their siting in the layer-sequence.

Before we discuss this table in detail, we would however like to add some clarification on one point where Mogens Bencard has evidently misunderstood us. Our subdivision into workshop levels (VH1–6) does not represent six separate workshops, but on the contrary is simply a practical subdivision of the sequence of layers – a chronological work-tool. To stress this point it can be mentioned that even taking only the span between the top of VH2 and the top of VH6 there are 142 recorded layers, of which 52 lie directly one on top of another.

Let us begin by looking at the *domestic pottery*. As is apparent from the table, pottery vessels with everted rims dominate in the sequence in VH1. In VH2 the inverted rim (semi-spherical pot) occurs, and thereafter it occurs with increasing frequency throughout the layer-sequence to become completely dominant in G2. Correspondingly, flat bases are replaced by globular ones. In addition, the semi-spherical pot develops so that pots with a groove on the outer side under the rim appear in

VH5, and pots with a thickened bevelled rim occur in G2 (JDA vol. 6, p. 183).

The most reasonable explanation for this development in the pottery is that the excavated culture layers represent a considerable number of years. How many years are involved is impossible to establish, but it stands to reason that it must be significantly more than the 10 years Mogens Bencard suggests – a view which is not in itself weakened by the fact that the leading chronology-concepts concerning the 8th century so far have been largely based on the grave-finds from the period. Mogens Bencard correctly points out that the 189 rimsherds which belong to the layer-sequence form too small a base for statistical treatment. For that reason we have also refrained from calculating percentage frequencies of individual types, but instead observed their presence in the levels. Moreover, it can hardly be by chance that there are no inverted rims among the 40 rims which appear in VH1, while 22 out of 29 rims from G2 in fact are inverted. (JDA vol. 6, pp. 183 ff.).

The *glass fragments* similarly imply a period of development. Fragments of at least three different types of glass were found, all belonging to the 8th century: reticella glass, palm-cups and funnel beakers. The reticella glasses occur together with the funnel beakers in all levels. The palm-cups, however, are not represented later than VH4, and this could support the theory which has been put forward from many quarters that the palm-cups are the typological forerunner of the funnel beakers (U. Näsman 1986, p. 73).

Among the locally produced beads distinct changes and permutations of types are to be seen in the layer-sequence between the bottom and the top. Since it is meanwhile an open question whether these changes reflect general chronologically reliable shifts of style, or whether they are simply the result of various craftsmen's differing production-habits, we have excluded them from consideration in this context. Instead we demonstrate how different types of *imported beads* occur in the layer-sequence.

In the lowest levels some distinctive beads, black or brown, barrel-shaped with yellow spots, were found. Similar beads are known from the Merovingian serial graves near the Rhine. Those from the grave-site at Schretzheim, where they primarily occurred in the late graves from the period 630–680 (U. Koch 1977, Farbtaf. 1, nr. 2, 5), are the best described. These Merovingian beads were found in Nicolajgade 8 in the following contexts: L (1 example), VH1 (2 examples, and VH2 (2 examples), which would contribute to situating the lower part of the layer-sequence in the time around 700. In VH4 a so-called "Mosaikaugenperle" was found; this type has been intensively studied by R. Andrae (1973). These beads were first produced in the last third of the 8th century. This signifies that VH4 could not have been deposited before 760–770 at the earliest. In the latest workshop levels, VH5–6, "wasp-beads" were also found – beads with a yellow encircling thread – as were gold-foliated beads. Both are well-known Viking Age types. The gold-foliated beads are also known from the Roman and early Germanic Iron Ages, but apparently they were not imported to Scandinavia between 600 and 750/800, and in any event it must have been after this temporary cessation of supply that the type occurs in this layer here. The imported

beads alone demonstrate, therefore, that the layer-sequence in Nicolajgade 8 covers the period from around 700 until at least around 800 or possibly even longer.

The *comb material* from Nicolajgade 8 is too slight to permit an independent categorization, but here again it is useful to take the well-defined layer-sequence as point of departure. Our combs can best be compared with the material from the North-West German settlement-mound Elisenhof, which W. D. Tempel (1972) divides into nine groups, A-I, on the basis of the stratigraphic layer-sequence through the mound. The combs from Nicolajgade 8 have parallels among Elisenhof's six oldest groups, A-F, and in Nicolajgade the same typological development is seen as in Elisenhof (c.f. diagram). Combs of type A are dated on the basis of the find-circumstances in Elisenhof to around 720, while combs of type F are dated to the time just before 800 and the whole of the 9th century, but with stress on the first half of the century (W. D. Tempel 1972, p. 58). Tempel mentions, as the earliest dating of the F group, that the type occurs in the oldest deposits within the semi-circular rampart in Hedeby, which indicates the beginning of the 9th century. A dating-frame for the Ribe combs would therefore situate them in the period c. 700/720–800, or possibly later.

About 200 *casting-moulds* were found during the excavations in Nicolajgade 8. The majority consisted of fragments which could not be further identified, but 18 had significance in the context of the present chronological discussion. Three kinds of style are represented: South-Scandinavian style D, gripping-beasts and the Borre style. Style D occurs on two types of objects: keys (2 examples) and male masks (7 examples) (JDA vol. 6, p. 180). Seven of the style D objects were found in VH2 and two in VH3. Casting-moulds for Berdal brooches with gripping-beast decoration are represented by seven pieces, all from G2 (JDA vol. 6, p. 181). In addition there were two rectangular brooches with typical Borre-style face-masks which were also found in G2. These, as Mogens Bencard rightly points out, are not illustrated in our JDA article, but it can be said that they are closely similar to a corresponding piece from Birka grave 539 (H. Arbman 1940, Taf. 83:2a-b).

Where the relative chronology is concerned, it is generally accepted that style D is earlier than the Berdal brooches, and to our knowledge they have never been found together. With regard to the absolute dating of the Berdal brooches we share the uncertainty expressed by Mogens Bencard and others, and we intend to leave it to specialists in this subject to decide whether the type occurs around 800 or a couple of decades earlier. On the other hand it would no doubt be too daring to place the Borre style before 800. In any case the casting-moulds from Nicolajgade 8 indicate that the latest of the excavated layers must date from the time around 800 or later, and that taken as a whole the deposits must represent a rather long period.

In conclusion mention should be made of a casting-mould for an early tortoise brooch. This is an Ørsnes type N 1 (1966, p. 149) – "small, oval, tortoise fibulae" – a type which, in a larger context, has most recently been dealt with by Karen Høiland Nielsen (1987). The type in question belongs to her phase 2A, which covers the time-span 680/700 – 720/730 (2). The casting-mould fragment was found in a disturbed layer, but







TYPE HORIZON	POTTERY				GLASS		BEADS		COMBS	MOULDS			SCEATTAS
	Everted rims	Flat base	Inverted rims	Globular base	Palm cups	Funnel beakers	Imports	Number	W.D. Tempel types	Style D	Berdal brooches	Borre style	
G2	3		22	4		2			F		7	2	
VH6	7		2			2		3	E/F				3
VH5	4		19	2		2		3	D/E				1
VH4	7	1	5	3	3	7		1	D/E				5
VH3	9	1	6	2	4	1				2			4
VH2	5	1	1	2	1	1		2	C	7			6
G1													1
VH1	24	8			3	1		2	A				12
L	6							1					

Diagram showing sequence of levels and artifact types at Nicolajgade 8, Ribe.

presence alone in the excavated area shows that jewellery was produced in the area in the period mentioned.

This survey of the occurrence of a number of types of objects in the layer-sequence in Nicolajgade 8 can finally be summarized as having two main results. First and foremost it must be incontestable that there is a change in the find-objects as one goes up through the layer-sequence. This change is so marked and further covers such a broad range of types of object that the creation of the layers must have taken place over a considerable period of years. If we then turn to the absolute chronology, it must be reasonable to conclude that the layer-sequence covers the time-span from around 700 until at least around 800, i.e. 75–100 years or possibly more.

Mogens Bencard argues convincingly that the questions of dating with regard to the *sceattas* found are so complex that this material cannot be used for narrower dating. We have therefore in this connection tried to set up a chronological framework on the basis of the other types of material. One could, however, turn the problem around and ask "How can the chronology in Nicolajgade 8 contribute to clarifying the dating of *sceattas* and of their period of circulation?" And the latter question is by no means insignificant. In 1986 in all 32 *sceattas* were found which could be related to layers in the defined se-

quence. 23 of these came from the layer sequence VH1–3 and nine from VH4–6, but none belonged to G2. It should be mentioned that *sceattas* were not found in the very deepest workshop layers in VH1. This supports the dating of *sceattas* earlier suggested by Kirsten Bendixen on the basis of the older finds (1981, p. 76), in that she argues for the *sceattas* being struck in the period from 720 to 755, but possibly circulating in the period up to around 800. Seen in that context it would in no way have been shocking if we had found individual *sceattas* together with casting-moulds for Berdal brooches e.g. in G2. The most important point in this connection is that there is evidence of a long layer-sequence with *sceattas* before the Berdal brooches crop up, and that it can otherwise be shown that this layer-sequence covers a significant number of years.

One must therefore conclude that *sceattas* occur over a long time-span, but at the same time it must be maintained that individual coins cannot be used for precise dating. When one adds that major disagreements govern the dating of the earliest Berdal brooches, we have to repeat our insistence, stated already in the introduction, that all parts of the historical find-material should be brought to bear on the chronological discussions as their primary basis.

We have therefore in this context avoided going into a dis-

discussion of the questions relating to interpretation of the formation of the layers, the function of the ditches and their filling-in, etc. The dating propounded does not make such a discussion any less necessary, but we have chosen to wait for the final publication to embark on it.

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## NOTES

1. To be published in Jutland Archaeological Society Publications.
2. Information on the absolute dating of the boundary between phases 2A and 2B has been supplied by Karen Høilund Nielsen, since this is not explicitly covered in her article (1987, fig. 18).

## REFERENCES

- ANDRAE, R. 1973: Mosaikaugenperlen, Untersuchungen zur Verbreitung und Datierung karolingerzeitlicher Millefioriglasperlen in Europa. *Acta praehist. Arch.* 4, pp. 101–198.
- ARBMAN, H. 1940: *Birka I. Die Gräber*. Stockholm.
- BENDIXEN, KIRSTEN 1981: Sceattas and Other Coin Finds. *Ribe Excavations 1970–76*, vol. 1, pp. 90–101. (ed. M. BENCARD). Esbjerg.
- FRANSEN, LENE B. og STIG JENSEN 1987: Pre-Viking and Early Viking Age Ribe. Excavations at Nicolajgade 8, 1985–86. *Journal of Danish Archaeology* vol. 6, pp. 175–189. Odense.
- KOCH, U. 1977: *Das Reihengräberfeld von Schretzheim 1–2*. Germanische Denkmäler der Völkerwanderungszeit, A13. Berlin.
- NIELSEN, KAREN HØILUND 1987: Zur Chronologie der jüngeren germanischen Eisenzeit auf Bornholm. Untersuchungen zu Schmuckgarnituren. *Acta Archaeologica*, vol. 57-1986, pp. 47–86. Copenhagen.
- NÄSMAN, U. 1986: Vendel Period Glass from Eketorp II, Öland, Sweden. On Glass and Trade from the late 6th to the late 8th Centuries AD. *Acta Archaeologica*, vol. 55-1984, pp. 55–116. Copenhagen.
- TEMPEL, W. D. 1979: *Die Kämme aus dem frühgeschichtlichen Wurt Elisenhof*. Studien zur Küstenarchäologie Schleswig-Holsteins. Serie A, Elisenhof, Band 3. Frankfurt am Main.
- ØRSNES, M. 1966: *Form og stil i Sydkandinaviens yngre germanske jernalder*. Nationalmuseets Skrifter, Arkæologisk-historisk række XI, Copenhagen.

# Archaeology: Science or Politics?

## An Interview with Colin Renfrew

by FELIPE CRIADO BOADO  
and CHARLOTTE DAMM(1)

For several decades now archaeologists have been concerned with constituting their subject as a science. This was especially so within New Archaeology, which narrowed the gap between archaeology and the natural sciences in an attempt to lead archaeology towards objectiveness. At the same time there is an awareness that archaeology can be (and perhaps inevitably is) political. The political potential in prehistoric studies is clear in for instance explicit marxist archaeology or in the increasing interest in the past seen in many third world countries. But is any archaeology objective? Can we help but impose our personal standpoints on our research? Is archaeology science or politics? This is a central question throughout this interview with Professor Colin Renfrew.

Born 1947, Colin Renfrew was educated at Cambridge. He did his first degree in natural sciences, before he turned to his Ph.D. in archaeology. His first position was at Sheffield. Later he became professor at Southampton, until he in 1981 returned to Cambridge as Disney professor in archaeology.

Geographically his main fields of interest have been the Aegean and the Orkneys. Major themes in his work are the study of complex societies, aspects of trade, the autonomous development in Central and Northern Europe confirmed by radio carbon, and a social interpretation of megaliths.

He has all along been a central character in theoretical archaeology, and is influential far beyond Britain.

When asked who has been influential on the development of his archaeological approach, Renfrew first mentions discussions in physics classes at school about laws and the evidences for them. He was stimulated also by the teachings of Prof. Braithwaite in philosophy of science, whose ideas were similar to those of Karl Popper.

“My own theoretical framework comes from an attempt to look at society and see how one can conveniently describe it and then look for sources of change. I am influenced by modern thinking about change in many directions. Especially I think the biologists have made real progress, when they talk about morphogenesis. I think it is important deliberately not to stand apart from the developments of thought in contemporary science, where there are many useful concepts, e.g. the language of morphogenesis or of information science. I certainly looked in those directions. But they do have difficulties in coping with the role of the individual in relation to the aggregate. What happens in society is often not really the product of individual will. In aggregate human volitions end up with many unintended consequences.