Abstracts

Lithic industry of the Blicquian populations (Early Neolithic, Belgium): production organisation and diffusion networks.

Small exchanges within the family

In the north of France and Belgium, the Blicquy/Villeneuve-Saint-Germain culture marks the end of the Danubian traditions (Early Neolithic period). The eleven sites found in Belgium constitute the Blicquian part of this cultural entity. Two settlement areas, separated by 100 km, are highlighted (nine sites in Hainaut, and two sites in Hesbaye). An analysis of the technical and economical characteristics of the Blicquian lithic industry was performed in order to describe the socio-economic organization relating to the lithic production as well as the relationships between the different settlements areas of this culture.

Chapter 1 – General presentation: chrono-cultural framework, research questions and methods

This research paper focuses on the lithic industry of the Blicquy/Villeneuve-Saint-Germain (BQY/VQG) populations, from the Early Neolithic period. This culture grew out of the union of two cultural groups. The Villeneuve-Saint-Germain group (VSG), located in the northern half of France, and the Blicquy group (BQY), located in Belgium. The BQY/VSG culture succeeded the Rubané (or Linearbandkermik), which corresponded to the arrival of the first Neolithic settlers in these regions. A critical analysis of radiocarbon dates led by J. Dubouloz resulted in a date for the Villeneuve-Saint-Germain group from 4950 to 4650 before our era (Dubouloz 2003).

More than 150 VSG sites have been discovered in France, while the Blicquian facies consist of eleven sites located in two geographical areas:

- the Hainaut in the west where ten sites have been excavated: Irchonwelz ‘la Bonne Fortune’, Irchonwelz ‘le Trou al Cauche’, Ormeignies ‘la Petite Rosière’ , Ormeignies ‘les Dérodés du Bois de Monchy’, Ormeignies ‘le Bois Blanc’, Blicquy ‘la Couture du Couvent’, Blicquy ‘la Couture de la Chaussée’, Ellignies-Sainte-Anne ‘Fagneau’ et Aubechies ‘Coron Maton’. The tenth is the recently excavated site of Ath ‘les Haleurs’ (Deramaix et al. 2016). This site is not included in this study

- in Hesbaye (east), two sites have been studied: Darion and Vaux-et-Borset.

In Hainaut, the occupation area is restricted as the ten sites are located on roughly 25 km^2. In general, only small areas have been excavated, making it difficult to understand the spatial organization of the villages. Nevertheless, the majority of the structures correspond to lateral dwelling pits. This homology of the structures allows us to make comparisons between sites.

A study of the ceramics led by Claude Constantin (1985) to distinguish three chronological stages: an early, middle and recent.

Although the lithic industry of the VSG group is particularly well documented, thanks to several academic studies on the subject, the lithic Bicquian industry of the Hainaut sites was still largely unpublished especially from a technological point of view. In order to fill this gap, the study proposed in this book followed two lines of research. On the one hand, we have sought to clarify the socio-economic organization of lithic production. Conversely, we wanted to understand the socio-economic relations between the VSG and the Blicquian populations of Hainaut and Hesbaye.

In spite of the low extent of the excavations, these Blicquian structures delivered plenty of material representing more than 90 000 samples. After close scrutiny, we had to make a reasoned discrimination of the samples relative to the stated research. Hence this work is structured around the study of about 45 000 samples.

Chapter 2 - Raw material procurement of the Blicquian populations

The procurement of raw materials of the Blicquian populations was clearly directed toward local sources. The majority of materials identified in Vaux-et-Borset (Hesbaye) were taken in a surrounding environment, which we can confine to a 10 km radius. On another side, the siliceous resources closest to Blicquian sites of Hainaut are located 15–20 km south in the Mons basin. The inhabitants of the villages of Hainaut clearly favoured the exploitation of Ghlin flint. The spectrum of raw materials exploited by the Blicquian populations is systematically completed by exogenous raw materials. These are mainly the tertiary Bartonian flint identified at all the Blicquian sites (stemming from the Paris Basin 150 km away), and the Ghlin flint for the sites located in Hesbaye.

Chapter 3 – Lithic industries of the Blicquian populations : toward a socio-economic reconstruction of the productions

The lithic production divides into two branches distinguished by levels of know-how. The productions of flakes and faceted tools are characterized by the weakness of the levels of required skills. The characteristics of the laminar production, centred on the Ghlin flint, give evidence of the very good standard level of knappers. Certain products (very regular blades and long blades) illustrate even the implementation of exceptional know-how. This duality of the production reflects the existence of two groups of knappers not having the same knowledge and skills.

From a technical point of view, the laminar production in Ghlin flint differs clearly from that of the laminar production in fined-grained Hesbaye flint. This led us to identify two technical traditions, and to contrast the knappers of Hainaut with the knappers of Hesbaye. These two technical traditions indicate a real affiliation between the Linearbandkeramik and the Blicquy/Villeneuve-Saint-Germain culture. There is no clear break in the transmission of knowledge between these two cultural entities.

Finally, we find that the break between LBK and the Blicquian group turns out to hinge on the appearance and development of simple productions. These involve the autonomy of 'specialist' knapper of blades within a certain piece of the BQY economic sphere.

Chapter 4 – Diffusion of raw material: socio-economic relationship between the different communities

The examination of the diffusion of the siliceous products aimed at specifying the links maintained between the various population zones present in the BQY/VSG culture. It was in particular the distribution of the Ghlin flint that shaped the direct social relationship between the populations of Hainaut and Hesbaye. This indeed showed the movement of knappers or a small group of Hainaut inhabitants towards the site of Vaux-et-Borset. We can speculate whether this travel resulted in a long-lasting establishment in this village.

The diffusion of the tertiary Bartonian flint takes various forms following the chronological stages of this BQY/VSG culture. The early stage is characterized by a low distribution which seems to involve the travel of itinerant knappers coming from the Paris Basin. The middle stage corresponds to the quantitative peak of this distribution. Diversity in how forms of Bartonian flint were introduced emerges. Although debitage can be clearly seen at certain sites, it seems that this is not due to knappers from the Paris Basin, or at least not to specialists in the production of long blades. We can speculate whether the direction of circulation of the individuals has reversed compared with the early stage, i.e. there was movement of inhabitants of Hainaut towards the Paris Basin, for reasons which will remain undetermined, and which would bring in return long blades and raw material. It seems rather obvious that the tertiary Bartonian flint is transported from the sites of Hainaut to then reach Vaux-et-Borset. Given the modalities of circulation of the Ghlin flint described previously, we can then reasonably suggest that the knappers of Hainaut moving to Vaux-et-Borset transported, simultaneously, some Ghlin flint and some Bartonian flint. In the most recent stage of the BQY/VSG culture, the circulation of the tertiary Bartonian flint turns firstly to the supply of blades produced in the Paris Basin. The knappers can no longer be considered mobile.

The VSG site, which is the most distant from the production centres, appears to receive only blades, probably obtained by exchange, step by step, following the model 'down the line' of Renfrew (Bostyn 1994). This opposition of the modalities of diffusion of the tertiary Bartonian flint underlies the existence of the particular social relationships between VSG of the centre of the Paris Basin and the Blicquian population of Hainaut.

Chapter 5 – Synthesis, small exchanges within the family

The techno-economic approach used in the study of the lithic industries of the Blicquy group contributes to enriching our knowledge of the socio-economic organization of the production and the modalities of raw material diffusion networks at the end of the Early Neolithic period. This study shows the intensity of the relationships between villages, demonstrating the importance of exchanges for the socio-economic welfare of those agro-pastoral communities.

The raw material acquisition of these populations is centred on the Ghlin flint. A kind of 'économie des matières premières' (defined by C. Perlès) is perceptible, as was highlighted in the VSG contexts (Augereau 2004). The Ghlin flint is indeed selected for laminar production while the other raw materials are more frequently used for simple production.

The duality of production between simple production and laminar production requiring a higher level of know-how is well attested at the Hainaut sites. However, it is true that simple productions appear to be poorly represented at certain sites (Irchonwelz 'la Bonne Fortune' and probably Blicquy 'la Couture de la Chaussée', see Cahen and van Berg 1979, Cahen et al. 1986). It cannot be excluded that it is the overrepresentation of waste from laminar production that leads to the distinction of these sites. This overrepresentation would go hand in hand with the fact that these sites are specialized in the production of blades and in the redistribution of preforms and blades to other households. It seems that a form of intra- or inter-community specialization of this laminar production is taking place.

This duality of production reflects the existence of two groups of knappers who do not have the same knowledge and know-how. In addition, the study of laminar production led us to identify two technical traditions opposing the knappers of Hainaut and the knappers of Hesbaye. These two technical traditions form a true affiliation between the Linearbandkeramik and the Blicquy group. There is no clear break in the transmission of knowledge between these two cultural entities. This puts into perspective the frequency of cross-cultural recycling identified in Vaux-et-Borset and suggested to occur in Darion (Caspar and Burnez-Lanotte 1994 and 1997; Jadin et al. 2003).

After all, the true novelty or rupture between the LBK and the Blicquian populations consists of the appearance and development of simple productions. A part of the Blicquian economic sphere is no longer linked to the specialist knapper of blades. These productions will become preponderant at the end of the VSG and especially in the Middle Neolithic. The previous cultures will see a markedly more distinct opposition between genuine specialized productions, disconnected from the domestic sphere and these simple productions realized in a domestic context. It seems to us, then, that these simple productions, whose study is often underappreciated, deserve more attention. It would be particularly interesting to understand the mechanisms that led to this desire to be free from the specialist knapper. Has intra- and even intercommunity specialization in blade production led to the lack or expectation of blanks for some members of the community? It should be noted that, in our context, these low-level productions seem initially oriented towards the making of denticulates and faceted tools. However, the latter could, subject to more in-depth traceology studies, have worked on wood (Cahen et al., 1986). We can therefore ask ourselves if it is not the farmer in charge of wood production who would be at the origin of this emancipation of knapping specialists...

Finally, the study of the diffusion networks shows the intensity of the relations between villages, demonstrating the importance of exchanges for the socio-economic welfare of those agro-pastoral communities. The movement of knappers seems frequent. The best example is the beginning of the Bartonian flint diffusion which seems to be initiated by the movement of long-blade specialist knappers from the Paris Basin towards Hainaut. But profound changes in the modalities of diffusion of this flint must be underlined. At the middle stage of the BQY/VSG culture, there is the question of a reversal of the direction of movement of the individuals related to this diffusion. In the later stages, it is clear that the diffusion of long Bartonian tertiary flint blades to Hainaut is no longer carried out as part of the movement of knappers. It will be necessary to try to understand the reasons for this evolution of the diffusion process of the Bartonian tertiary flint. Block comparisons on the Blicquian sites could allow, by a fine study of the production sites, us to discriminate the VSG settlements from which the transport is carried out. This would allow us, perhaps, to circumscribe the potential counterparts of this diffusion.

The modalities of diffusion of Bartonian blades toward the Blicquian villages are very specific, at least during the early and middle stages. The VSG sites located far from the outcrops seem to have received only blades, probably obtained by exchanges step by step (Bostyn 1994), according to the 'down the line' model of Renfrew (1975). This opposition between the modalities of diffusion of the Bartonian tertiary flint underlies the existence of particular social relations between VSG sites in the centre of the Paris Basin and the Blicquian sites of Hainaut. These may be related to a 'kinship relationship' between some of the inhabitants of the tertiary flint blade producer sites and some inhabitants of the Blicquian villages.

The study of the diffusion of Ghlin flint showed the movement of knappers or a small group of inhabitants from Hainaut to the site of Vaux-et-Borset (Hesbaye). One wonders if this move is not accompanied by a permanent settlement in this

village. In this perspective, the contribution of the technological study of ceramics will be particularly interesting. Moreover, the permanent border between the two technical traditions identified between Hainaut and Hesbaye tends to indicate a certain immobilization of the masculine sphere. However, the diffusion of Ghlin flint toward Vaux-et-Borset led to a real meeting between knappers of two technical traditions whose evolutionary mechanisms would be interesting to study subject to the discovery of newer sites.

Introduction

Ce doctorat a été financé par un contrat doctoral dont la thématique, fléchée par le Ministère de la culture et de l'Enseignement Supérieur, s'intitulait, « Organisation économique et sociale au Néolithique. La diffusion des lames en silex au Néolithique ancien dans le Nord de la France et en Belgique. Échanges ou circulation de spécialistes ? ».

La circulation des matériaux prend une place fondamentale dans l'économie des premières populations agro-pastorales (Perlès 2007). Ces circulations, notamment de produits lithiques, d'objets de parure voire de céramiques, sont identifiées dès le début du Néolithique. Concernant les régions qui nous intéressent ici, à savoir le Nord de la France et la Belgique, une étude récente a montré le dynamisme des circulations de produits siliceux dans la culture rubanée (Allard 2005), qui correspond à l'implantation des premières populations néolithiques dans ces régions.

La reconnaissance de la circulation des produits siliceux est intimement liée aux avancées relatives à la caractérisation des matières premières. Il est par exemple possible, grâce à l'étude des micro-fossiles, d'attribuer un silex à sa strate géologique de formation (Mauger 1985). Par ailleurs, des campagnes de prospections systématiques permettent la localisation précise de certains gisements de matière siliceuse (Blanchet *et al.* 1989). Il est alors possible de retracer les voies de diffusion empruntées par certains produits à partir de la caractérisation des matières premières.

En outre, les échanges au Néolithique apparaissent fréquemment déconnectés d'un besoin technique. En revanche, il semble bien qu'ils soient « essentiels au fonctionnement social des sociétés » (Perlès 2007, 60). Si l'on doit à C. Renfrew les premières modélisations de la distribution spatiale des biens selon les différentes formes d'échanges (Renfrew 1975), l'apport des éléments technologiques a vite révélé la nécessité de les pondérer (Ammermann *et al*. 1978 ; Torrence 1986). Le renouvellement des problématiques porté par l'approche technologique (Geneste 1985 ; pour l'historique voir Pelegrin 1995 ; Tixier 1967 et 1976) et sa notion de chaîne opératoire (Leroi-Gourhan 1964) a conduit à appréhender la segmentation spatiale de la chaîne opératoire. Cet aspect a considérablement renouvelé les problématiques sur les échanges (Binder et Perlès 1990 ; Perlès 1990 et 1994). De plus, saisir la production en termes de niveaux de savoir-faire tend à indiquer que la diffusion à longue distance était fréquemment corrélée à l'existence de productions spécialisées (Perlès 2007). L'examen des niveaux de savoir-faire suggère également l'existence de liens phylétiques entre ateliers de tailleurs de grandes lames réalisées à la pression au levier (Guilbeau 2010 ; Pelegrin 2006). Les connaissances spécifiques et le haut niveau de savoir-faire qu'impliquent ces productions de grandes lames ont conduit à envisager le déplacement de tailleurs, parfois sur de très longues distances (Costa et Pelegrin 2004 ; Guilbeau 2010 ; Pelegrin 2006). Ce déplacement de tailleurs spécialisés peut également être souligné par l'observation de la concordance stricte d'une méthode et d'une technique de débitage dans des contextes géographiques ou culturels distincts. En témoignent les travaux réalisés sur la méthode pressignienne (Allard et Pelegrin 2007 ; Ihuel 2008 ; Pelegrin 2002). Mais le déplacement de tailleurs a également pu être mis en évidence dans des contextes socio-culturels proches (méditerranéen au IVè millénaire), pour des méthodes et techniques comparables (débitage de lamelles à la pression sur silex bédoulien chauffé ou obsidienne) et dont l'investissement technique est nettement inférieur aux débitages de grandes lames (Guilbeau 2014). Certes, dans cet exemple, c'est l'emploi d'une matière première très spécifique (l'obsidienne) dont les gisements sont très localisés qui contribue fortement à privilégier l'hypothèse de tailleurs itinérants. Néanmoins, cette hypothèse du déplacement de tailleurs dans le cadre des échanges néolithiques se révèle beaucoup plus fréquente que ne le laissait présager la perception statique et autarcique (Childe 1961) des communautés agro-pastorales. C'est donc dans ce cadre renouvelé des problématiques sur la diffusion des matières premières siliceuses que s'inscrit le présent travail.

Ainsi, pour répondre à la problématique proposée dans cet ouvrage, nous nous proposons d'étudier la circulation des produits siliceux à la fin du Néolithique ancien marqué par l'émergence de la culture Blicquy/Villeneuve-Saint-Germain (BQY/VSG). Cette culture comprend deux faciès régionaux : le groupe de Blicquy en Belgique et le groupe de Villeneuve-Saint-Germain dans la moitié nord de la France. L'organisation socio-économique de la production dans laquelle s'inscrivent les échanges doit nécessairement être appréhendée pour permettre de discriminer des hypothèses relatives aux modalités de diffusion des matières premières. Nous avons délibérément pris le parti d'une présentation thématique des données, s'affranchissant de la description site par site, qui nous semblait plus à même de répondre à la problématique proposée. C'est donc après une présentation des matières premières exploitées par les populations blicquiennes (Chapitre 2) que nous nous attacherons à définir l'organisation socio-économique de la production (Chapitre 3) avant d'aborder la question de la diffusion des matières premières siliceuses (Chapitre 4). Par ailleurs, les contextes de découverte de l'industrie lithique blicquienne induisent des biais non négligeables dans la représentation des activités. Tout en en ayant conscience, nous avons souhaité faire des propositions qui ne se veulent pas une fin en soi mais qui engagent indéniablement la poursuite de ces recherches.