Palaeolithic implements found in Sweden

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THE ingenious and persistent researches of the Swedish geologist, Baron Gerard de Geer, have taught us when the last Ice Period came to an end here in the north.¹ The ice began to melt and retire from the southern coast of Scania 15,000 years before our time. There cannot be more than an error of a few centuries in this calculation.

But the southern border of the enormous ice-masses covering the north of Europe in the last Ice Period was not on the south coast of Scania; it lay farther south, in Brandenburg. It is uncertain what length of time was necessary for the ice to retire from Brandenburg to Scania. However, if we consider how slowly the melting was going on in the first millenniums, and how long it took for the ice to melt in the southern part of Sweden, it is highly probable that about 5,000 years were required to transfer the ice border from its most southerly point to Scania. Consequently, the beginning of the melting period in our northern region, i.e. the end of the last Ice Period in northern Europe, must fall about 20,000 years before our time.

Now the end of the Ice Period in north Germany was evidently contemporary with the end of the Ice Period in central Germany and France. In this way we find that the end of the last Ice Period in central Europe falls about 20,000 years ago. This result is of a much higher value than the opinions formerly expressed on this problem. The result just stated may be taken as trustworthy.

The French and German archaeologists agree in the following results of their investigations regarding the later Palaeolithic age :

(1) The periods succeeded each other in this order :

Le Moustier period (*Moustérien*)

Aurignac „ (*Aurignacien*)

Solutré „ (*Solutréen*)

La Madeleine „ (*Magdalénien*)

Mas d'Azil „ (*Azilien*)

Le Campigny „ (*Campignien*), this being the transition period between the Palaeolithic and the Neolithic epochs.

¹ Gerard de Geer, *A Geochronology of the last 12,000 years*, in the *Congrès géologique international, Compte rendu de la XI^e Session*, Stockholm, 1910, p. 241. There the ice-melting in the most southern part of Sweden was not considered.

(2) The end of Le Moustier, or the beginning of the Aurignac period, corresponds with the end of the last Ice Period. The Aurignac period began about 20,000 years ago; and, as it probably lasted nearly 5,000 years, the Solutré period began about 15,000 years ago, or at the same time as the southern coast of Scania began to be habitable.

When the ice melted in Scania, plants and animals immigrated there, and with them came man. This was about 15,000 years ago, in the Solutré period. If we consider what has been already said, it is clear that the oldest implements that we can expect to find in Scania as souvenirs of man ought to be such as are contemporary with implements of the Solutré period found in central Europe.

Have we really discovered in that part of Sweden any antiquities similar to those of the Solutré period in central Europe?

Figs. 1 and 2 are two flint implements found in Scania, and fig. 3 is one of the Solutré period dug up in France. We see that they are all exactly of the same type.

In the Scandinavian Peninsula, such 'amygdaloid' flints occur only near the southern and western coasts of Sweden and Norway, just those parts of our peninsula that first became ice-free. Those flints prove that these parts of Scandinavia were already inhabited in the Solutré period, and this result has been confirmed by other discoveries.

In Denmark a spear-head of flint (fig. 4) was discovered under circumstances indicating that it dates just from the time when the ice was melting. Such spear-heads are not known from any other part of the Stone Age here in the north, but in France flint spear-heads of the same shape (figs. 5 and 6) were used in the Solutré period! Lately similar flints have been found also in Norway on the western coast, and the circumstances of the discovery prove that they also belong to a very remote period.¹

The Solutré period was followed, as we know, by the Madeleine period, which is characterized by the preponderance of bone weapons. In the period following the age of 'amygdaloid' flints in Scandinavia the preponderance of bone weapons is also evident. Another characteristic feature of the time following the Solutré period in central Europe is that many very small flint flakes ('microliths', see fig. 7) have been discovered. In Scandinavia, and especially in Sweden, have been found a great number of spear-heads of bone with small flint flakes inserted (fig. 8). Many of them have been well preserved in peat bogs. All this

¹ *Oldtiden*, IX (Kristiania, 1920), p. 146.

indicates the same evolution in the Scandinavian region as in central Europe during the Madeleine and Mas d'Azil periods.

In the next period we have also the same types in both regions. In central Europe the Mas d'Azil industry was succeeded by

FIG. 1. Palaeolithic flint implement, Scania ($\frac{1}{2}$).

FIG. 2. Palaeolithic flint implement, Scania ($\frac{1}{2}$).

that of Campigny, characterized by such flints as fig. 9. The same type (fig. 10) is common here in the north during the Shell-mound period which represents the transition from the Palaeolithic to the Neolithic Period, just as the Campigny period does in central Europe.

A most interesting question is: Do we know anything about the human race immigrating into Sweden after the end of the Ice Period?

The only race living in Central Europe then and several milleniums afterwards, down to the end of the Palaeolithic Period, was the dolichocephalic Cro-Magnon (or Aurignac) race. And we understand that the first man that came to Sweden, hunting the reindeer and other animals following the retiring ice-border, must have come—like the plants and animals—from central Europe. Consequently, it is evident that the race immigrating into Sweden, the first occupants of our country, must have been a dolichocephalic race. After that time we can find no trace of any new immigration to the Scandinavian region entitling us to speak of a new people supplanting the old. And when we begin to find human skeletons with skulls well enough preserved to be studied the great majority of them are found to be dolichocephalic, and of the same fine type as the Cro-Magnon race on one side and present-day Swedes on the other.

These facts have convinced me that the first immigrants here after the end of the Ice Period were our ancestors. If it is so, then the names of lakes and rivers in Sweden ought to be of Scandinavian (Germanic) origin. And that is just the case. Professor Hellqvist, of the University of Lund, examined those names some years ago, and found that all names of Swedish lakes belong to our language.¹ Therefore I may assert that our ancestors were the first invaders of Sweden. Their descendants are the actual Swedish people. We have ourselves 'made our country', have cultivated it and made it habitable. Our pedigree is a very fine one!

FIG. 3. Flint implement of Solutré period, France ($\frac{1}{2}$).

¹ Elof Hellqvist, *Studier öfver de svenska sjönamnen, deras härledning och historia* (Stockholm, 1903-6).

This result is of great interest to Swedes now living; but it is of a certain interest also for other peoples.

Let me not be misunderstood. I do not say that a Germanic people¹ invaded Sweden 15,000 years ago, but that our ancestors

FIG. 4. Spear-head of flint, Denmark ($\frac{1}{1}$).

FIGS. 5 and 6. Spear-heads of flint, Solutré period, France ($\frac{1}{1}$).

came then. At that time no German, no Celtic, no other Aryan race existed. During the many thousands of years that elapsed after the Ice Period, the inhabitants of the Scandinavian countries and the northern part of Germany, like the inhabitants of western and eastern Europe, all being descendants of the tribes living in the

¹ By Germanic people I do not mean the people inhabiting Germany, but the race that included the inhabitants of all Scandinavian countries and Germany, as well as the Anglo-Saxons.

Ice Period, have by a most natural evolution, and as a consequence of living under different circumstances, become Germanic in the north, Celtic in the west, and Slavonic in the east. All these and most of the other peoples of central and southern Europe

FIG. 7. Small flint flakes (microliths), Mentone ($\frac{1}{1}$).

FIG. 8. Spear-head of bone with flint flakes inserted, Sweden ($\frac{1}{2}$).

FIG. 9. Flint implement, Campigny period, France ($\frac{2}{3}$).

FIG. 10. Flint implement, Sweden ($\frac{2}{3}$).

speak Aryan languages, and are considered to belong to the same great Aryan race.

If it can be proved that one of these groups, the Germanic, living in the most northern part of Europe, is descended from tribes of the Ice Period and consequently of European origin, then it is highly probable that the Celtic, Slavonic, Italian, and

Greek groups are also of European origin. The Aryan groups existing in Asia—the Persian and the Indian (Hindu)—are also probably of the same origin, having emigrated from Europe to Asia a long time ago. In other words: the Aryan race must be of European origin, not Asiatic.

We know of two Ice Periods here in the north, and some geologists speak of more than two such periods in central Europe. Here I have considered only what happened after the end of the last Ice Period. A most interesting question is: do we know of any traces of inhabitants in the Scandinavian countries before the last Ice Period, i.e. in the interglacial period?

Seeing that the ice swept away almost everything, as the glaciers are doing to-day, such traces can hardly be expected. However, some interglacial deposits having been discovered in the southern part of the Scandinavian region, it is not impossible that some traces of interglacial man also may be found. A few flints have actually been met with in these deposits, but it is not perhaps certain that they were worked by man.¹

¹ N. Hartz, *Bidrag til Danmarks tertiære og diluviale Flora* (København, 1909), p. 202.