

THE EARLY UPPER PALAEOLITHIC IN CANTABRIAN SPAIN  
(ASTURIAS-SANTANDER)

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The study of the evolution of the levels of the initial Upper Palaeolithic in the Provinces of Asturias and Santander is beset by a serie of complexities of varied order, whose significance is variable and whose effect on the precise evolution of these cultures obliges us at present to maintain a cautious position with respect to their chronology, the absence of abundant C-14 dates, sedimentology, etc.

Before taking up the purely cultural considerations, we have to present the specific problems presented by the materials we have of this Early Upper Palaeolithic. First, we must set out the geographic distribution. The maximum is in the province of Santander, with eight sites which present 27 certain levels in five caves and three possible levels in three caves on which we do not have secure data at present. To these we must add other sites on which we have only the reference "Aurignacian" in the bibliography, like the cave of el Miron<sup>(1)</sup>, the cave of Ribamontar al Mar<sup>(2)</sup>, or the shelter of San Vitores<sup>(3)</sup>. The region of Asturias presents only five sites, of which two know only by references and the remaining three present a total of seven levels.

Culturally, we can summarize our work on the study of 39 levels which we can divide among two from the Lower Perigordian, four from the Archaic Aurignacian, six from the Typical Aurignacian, fifteen from the Evolved Aurignacian, two from the Final Aurignacian and ten from the Upper Perigordian. Unfortunately, these numbers can hide the great number of factors that these sites present. Of the total, Cueto de la Mina, Cudon, Hornos de la Pena and Castillo were excavated at the beginning of the century. To these we must add Arnero, Camargo and Salitre, the materials from which we have not been able to study but we are relying on data on their cultural attribution<sup>(4)</sup>.

At present, we have to consider the excavations in the cave of Oscura, unfortunately destroyed<sup>(5)</sup>, and in the cave of el Cierro (in press). On the other hand, we have to emphasize the new excavations at the cave of el Conde, the cave of Morin, and the cave of el Otero, which, although they were know previously, have provided us with a new vision of the Cantabrian Palaeolithic, following their re-excavation. Also very recently, we have the re-examination of the materials from the caves of el Pendo and el Castillo, unpublished since their excavation. As we see, the external factors that interfere with the studied series are very substantial. Fortunately, the new excavations permit us to establish a coherent framework in which to place our analysis.

In general, we can emphasize the great interest which these levels of the initial Upper Palaeolithic present. The transition from the Middle to the Upper Palaeolithic, as we have already stated, presents a series of aspects of great importance. In this regard, we can perhaps say that is one of the most interesting moments in the Palaeolithic sequence. The transition reverberated in every aspect of human culture. There not only occurred a theoretical change in the human type (*Homo sapiens neanderthalensis*, *Homo sapiens sapiens*), with the problems that this poses. From the cultural point of view there occurred a change in the lithic and bone technology. Techniques of hunting and using game also changed, tending to greater specialization. The dimensions and density of sites changed, indicating important demographic changes. The spiritual world was enriched with the appearance of new burial rituals, culminating in the appearance of objective and transcendental art.

Beyond the problem of the precise cultural transition, we are faced with the appearance of the Aurignacian-Perigordian cultures. After the first stages of investigation and the establishment of the lineal evolution of the Aurignacian culture by Breuil, Peyrony put forth a revision of the theory, establishing the separation between the Aurignacian and the Perigordian. After this work, the introduction of descriptive statistical techniques by Sonnevile-Bordes offers a new approach to the theme. The use of statistical techniques permits the use of mathematical analysis and the very detailed study of these cultures. The work at Roc-de-Combe<sup>(6)</sup> and la Piage<sup>(7)</sup> presents us with Aurignacian levels below Lower Perigordian ones. The studies of Laugerie-Haute<sup>(8)</sup> on the other hand place an Aurignacian V above levels of the Upper Perigordian. All this is confirmed by the sedimentological analyses comparing the series of la Ferrassie and Roc-de-Combe<sup>(9)</sup>. As we see, the Aurignacian-Perigordian complex poses a series of problems far from the simple visions of Breuil and Peyrony.

#### Lower Perigordian

In the Cantabrian region, Lower Perigordian levels are well represented in the caves of el Pendo, level VIII and in Morin level 10. It is a question of already evolved series which, in the case of el Pendo, are situated "above" Aurignacian levels. Typologically, they are characterized by a variable presence of Chatelperron points, the survival of Mousterian types, including sidescrapers of varied typology, and the noted Chatelperrons<sup>(10)</sup>. The endscraper index varies between 13,6 and 16,5 and the burin index between 12,1 and 10,1. The Perigordian Group is from 7,5 to 6,3, while the Aurignacian Group is between 6 and 6,3 (fig.1).

Other possible levels of the Lower Perigordian would be at the cave of el Codon and the cave of Oscura. Its presence in the Cantabrian Region is related to the cold oscillations of the beginning of Würm III.

## Archaic Aurignacian

The Archaic Aurignacian Establishes the possibility of the existence of two facies within the same time interval. In the first place and as we said, "below" the Lower Perigordian levels we find at el Pendo two levels VIIIa and VIIIb which can be included in this interval (fig.2). They are characterized by a strong endscraper index which is more important than the burin index. On the other hand, already appear in certain proportion Aurignacian piéces, which leads to a clearcut Aurignacian Group between 14 and 15. Together with these levels at el Pendo are included also levels 9, 8a and 8b of the cave of Morin (fig.3). This is characterized by a raised proportion of Dufour bladelets and by a clear index of Aurignacian endscrapers. On the other hand, the Aurignacian Group is clearly set off over the Perigordian Group. In this way, we could say that while the series of the cave of el Pendo can be assigned to an Aurignacian 0, the levels of Morin could be assigned to a "Correzian" Aurignacian. Climatically, there exists a clear difference. While the levels of el Pendo relate to the cold oscillations of the beginning of Würm III and are contemporaneous to the Lower Perigordian, the levels of Morin belong already to a temperate period whose identification is difficult. According to the C-14 data, this moment would be dated to approximately 28,500, a date which appears to us to be relatively recent, especially if we compare it with dates on the Typical Aurignacian from the same site. Up till now, we possess only these levels within the Archaic Aurignacian.

## Typical Aurignacian

After these transitional levels, we find in the Cantabrian Region the Typical Aurignacian. This presents characteristics which are similar to those of the Aurignacian I of the French sequence. It occurs associated with the typical split base points as at el Castillo D and C<sup>(11)</sup>, Morin<sup>(12)</sup>, or el Pendo<sup>(13)</sup>. From the point of view of the lithic industry, there stands out the clear predominance of the endscraper index over the burin index. Among the endscrapers, carinate ones stand out over nosed types. Within the burins we always have a greater proportion of dihedral ones versus ones on truncations. On the other hand, Aurignacian blades do not reach very high values, varying between 5 and 15%. It is interesting to note the importance achieved by blades retouched on one or both edges, which could point to a regional adaptation (fig.4 and 5).

The bone industry, as we have said, presents typical split base points although never very large. Along with them we find points with massive base and circular or subquadrangular section. At the cave of el Pendo, we find a series of stone pendants mimicing the form of perforated deer canines.

From a chronological point of view, we have only two C-14 dates for level 7 of Morin -  $29,515 \pm 840$  (SL-955) and  $28,055 \pm 1490$  (SI-955a). Only the second date possibly harkens to the dates of the Archaic Aurignacian. Climatically, we would have level VII of el Pendo and level 7 of Morin in cold times; level 6 of Morin is situated on the other hand in a temperate moment that we relate to the Arcy Interstadial.

#### Evolved Aurignacian

The evolved Aurignacian is the best represented period in the Cantabrian Region. Its principal defining character is its heterogeneity. In the first place there is a division pertaining to the relation between the endscraper index and the burin index. A first facies would be defined by the levels of Cueva Morin, with an endscraper index higher than the burin index. On the other hand, we have a series of levels characterized by a burin index higher than the endscraper one. These latter would be defined in the cave of el Pendo. In this way, we have the first division. Within this dichotomy between the IR/IB, it is interesting to note that all the levels have a common character in the importance of the dihedral burin over the burin on truncation. The Aurignacian Group is also important. There continue to appear carinated and nosed types, but the predominance of the former is maintained (fig.6).

In the bone industry, the slip-based bone points have disappeared completely. They are replaced by lozenge shaped points as in the cave of Otero, by spindle shaped and flattened ones in Morin, or by ones with simple bevel as in el Pendo VI, sometimes along with pieces with retouched base as in el Pendo Vb.

For the moment we do not have absolute dates for these times. We can only rely on palynological and sedimentological series. According to these, we would have some first cold moments in el Pendo VI. In this cold time could be placed levels 1 and 2 of the cave of el Conde with abundant gelifracts and the Aurignacian level of Hornos de la Pena with ptarmigan (*Lagopus*). After this cold time, we would have a series of levels formed in a temperate climate, like Pendo Vb and Otero 6 which we could assign to the Tursac Interstadial. Further, we have a new cold series among which would be Morin 5 lower and Otero 5. Finally, level 4 of Otero again with temperate climate could correspond to the Laugerie Interstadial.

#### Upper Perigordian

The Upper Perigordian of the Cantabrian Region would be characterized by the presence of elements of the French Perigordian V like Noailles burins (Castillo), Font Robert points (Morin, Pendo), or Isturitz spear points (Cueto de la Mina).

Along with these elements, we would have perseverance of Aurignacian elements. In this way, we would obtain an endscraper index which is higher than the burin one. Dihedral burins would be more marked than ones on truncation, and the Perigordian Group is equal or slightly more important than the Aurignacian Group (fig.7). According to these characteristics, we have preferred to maintain the terminology of the Upper Perigordian, in as much as we believe that the terminal Gravettian would be related to series derived from the Perigordian IV<sup>(14)</sup>, not found in our region. The presence of these elements of the Perigordian V along with Aurignacian elements is a process that we already described in Isturitz<sup>(15)</sup> and that could indicate the mixture of the "cultural ideas" of the the Perigordian V through Isturitz with the strong Aurignacian substratum of the Cantabrian Region.

The bone material is very rare, and as we said, the spear points of Isturitz and Cueto de la Mina stand out. Together with these we find of portable art like the anthropomorphic figures of Morin and the compressor with the figure of a feline from Castillo.

Chronologically, we have only the date for level 5 upper of Cueva Morin, dated to 20,710 ± 340 S1-953) and associated with a cold climate preceding the Laugerie Interstadial. To this time, we could add the levels of Castillo A and B and Cueto de la Mina. Also we see that the Perigordian V level of Isturitz presents a cold climate<sup>(16)</sup>. After this first moment, level V and Va of el Pendo and level 4 of Morin would be formed in a temperate climate. These could be assigned already to the Laugerie Interstadial.

#### Final Aurignacian

After these levels of the Upper Perigordian, we have the Final Aurignacian series, represented by levels III and IV of the cave of el Pendo. In these, the endscraper index is lower than the burin index and the dihedral burin index exceeds the index of burins on truncations. At this time Aurignacian blades have disappeared and bladelets appear in small quantities (fig.8).

In the bone industry simple-bevelled spear points are notably important, and there continue to appear perforated deer canines. From the stratigraphic point of view, as we already noted, its position overlying levels of the Upper Perigordian V and Va is interesting. Climatically, the association is with a cold climate, possibly following the Laugerie Interstadial. (17) The situation reminds us of the Aurignacian V of Laugerie Haute.

## Conclusions

As we see, the situation and evolution of the Aurignacian and the Perigordian are of great interest the movement is different than in the case of the French homologues, but there appear some of the same problems of interstratification that are represented in the series from the Perigord. All this brings us to consider the parallel evolution of our occupations adapted to a rather different environment and to a fauna which is also peculiar. Unfortunately, the exact extent of the work and the poverty of data do not permit us to rely on ecological work with respect to the studied levels. The new excavations and the re-examination of the old ones will permit us to depend on data relative to the fauna and to how it was obtained in those times.

According to the works of L.G.Freeman<sup>(18)</sup>, in Aurignacian times, there does not appear to exist a systematic relationship between animal species and cultural phases, and there do not appear to exist fluctuations between forms specific to woods or to open country. His data on the other begin with the consideration of the minimum number of individuals for which the presence of large bovids or equids balance any quantity of forest elements like red deer or roe deer. On the other hand, it is interesting to consider the presence of carnivores and birds, whose presence cannot be due to human activity. The presence of carnivores in the site could relate to the activity of natural decay or to utilization as a refuge in those times when they were not used by people. We can say the same thing about the presence of microfauna, the product of numerous regurgitated pellets from raptors.

Another problems that we have not been able to deal with extensively is the analysis of structures. Up to the moment, we have only the possible pavements of the cave of el Otero, in its level 4, and the occupation structure of level 8 of Morin, with which are found associated the burials of Morin I and III<sup>(19)</sup>. The fact that we are dealing with unique structures does not permit us to establish generalizations on the patterns of occupation of Aurignacian groups.

The use of mathematical techniques in the study has permitted the exact typological analysis. The purpose of the study by means of the analysis of distances of factor analyses has permitted us to present the cultural problematics from a new point of view. The identification of six factors by means of an analysis of correlations that permits us to follow their importance within the studied sites provides us with a new approach to our Initial Upper Palaeolithic (fig.9). The consideration of the explanation of the different levels of occupation hearkening to these newly established things will permit us to depend on more profound studies considering these factors as new elements discriminating among cultures.

We think that the utilization of these techniques will be of great interest in the future in that we will not only be attentive to problems of cultural classification, but also to the precise typological identification (analytic types). Another field of great interest will be the study of spatial distributions which will permit us to identify latent structures.

The discovery of possible Aurignacian levels in the cave of la Riera and at Rascano as well as the re-excavation of the cave of el Salitre will permit us to rely on both new cultural data and new environmental data against which to test these theories.

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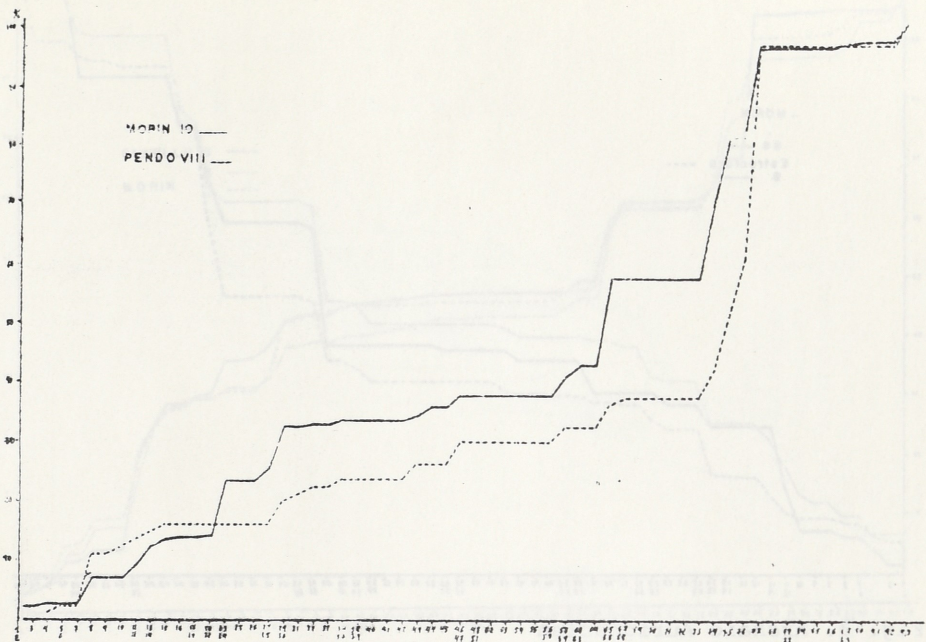


Fig. 1. Lower Perigordian.

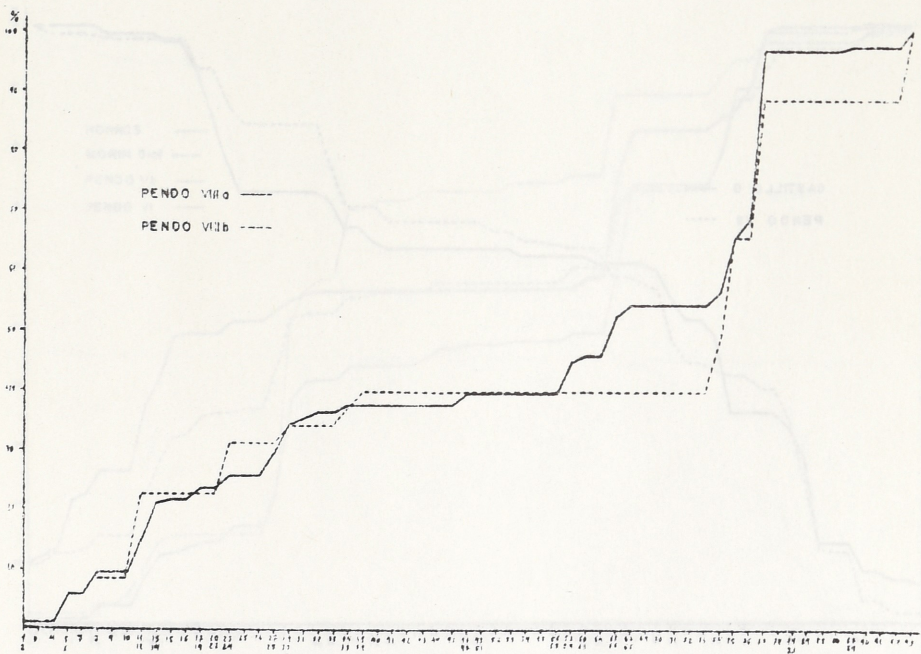


Fig. 2. Archaic Aurignacian

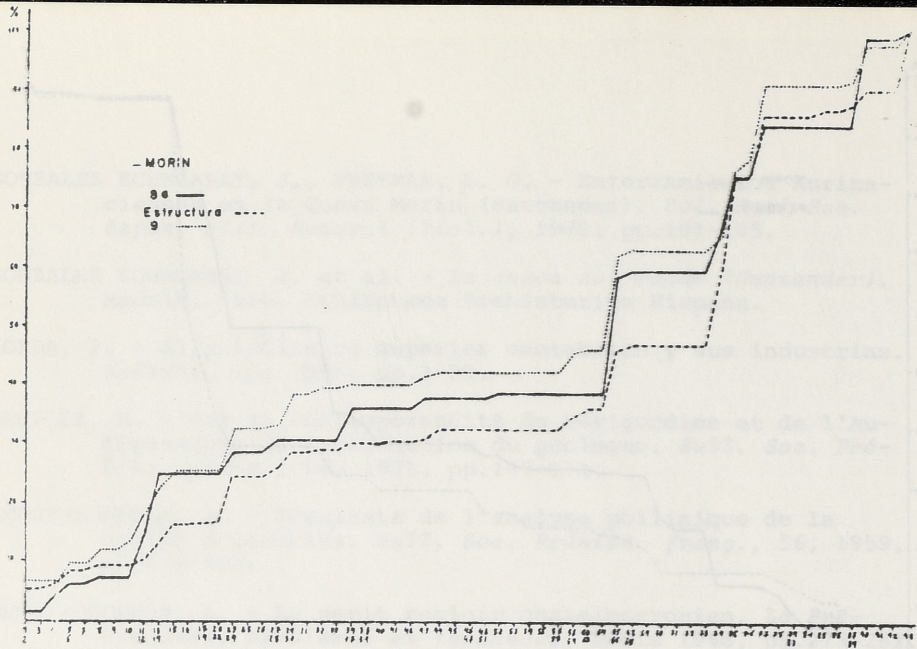


Fig. 3. Archaic Aurignacian

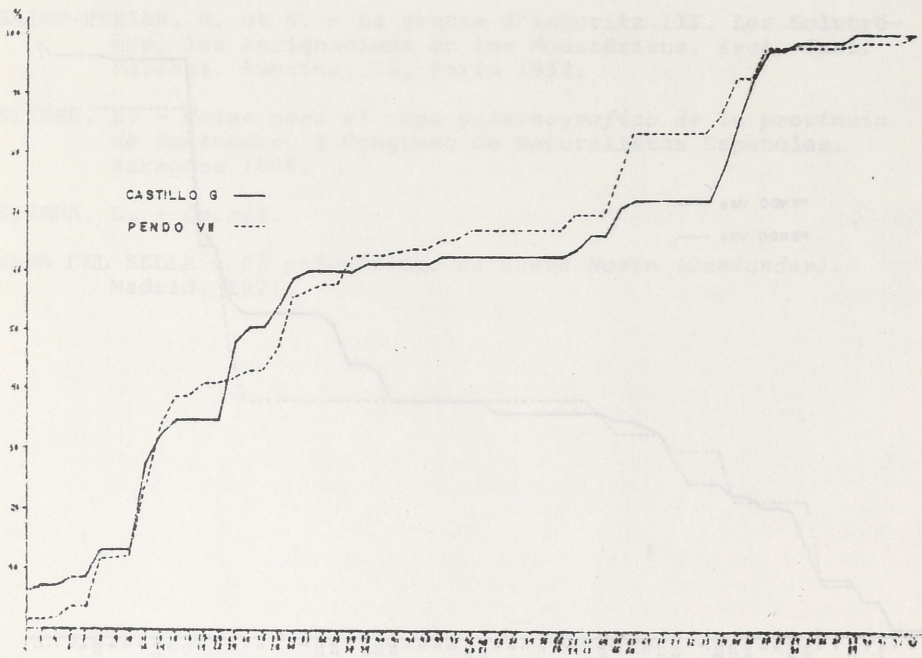


Fig. 4. Typical Aurignacian

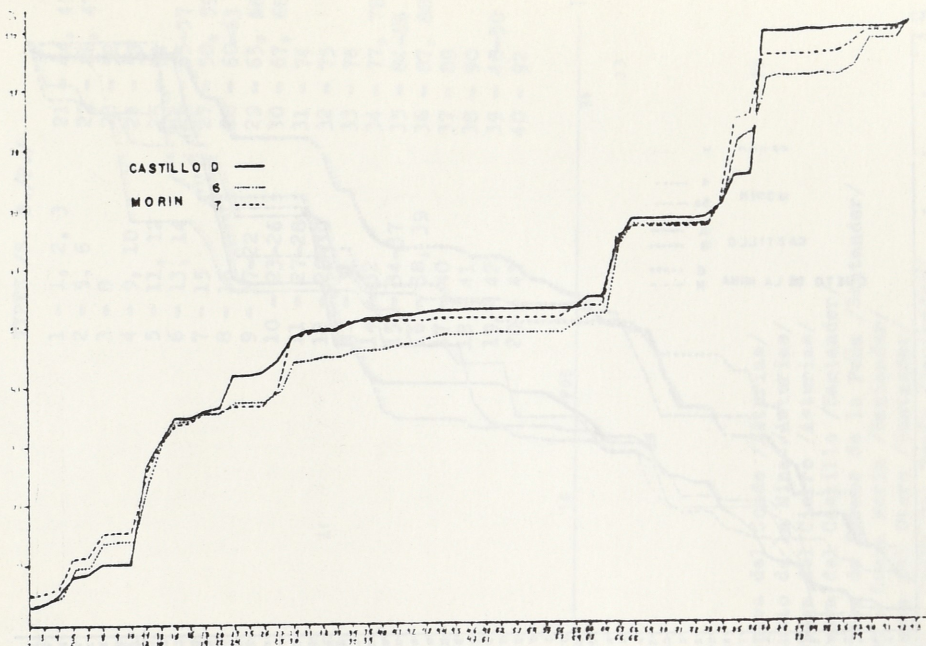


Fig. 5. Typical Aurignacian

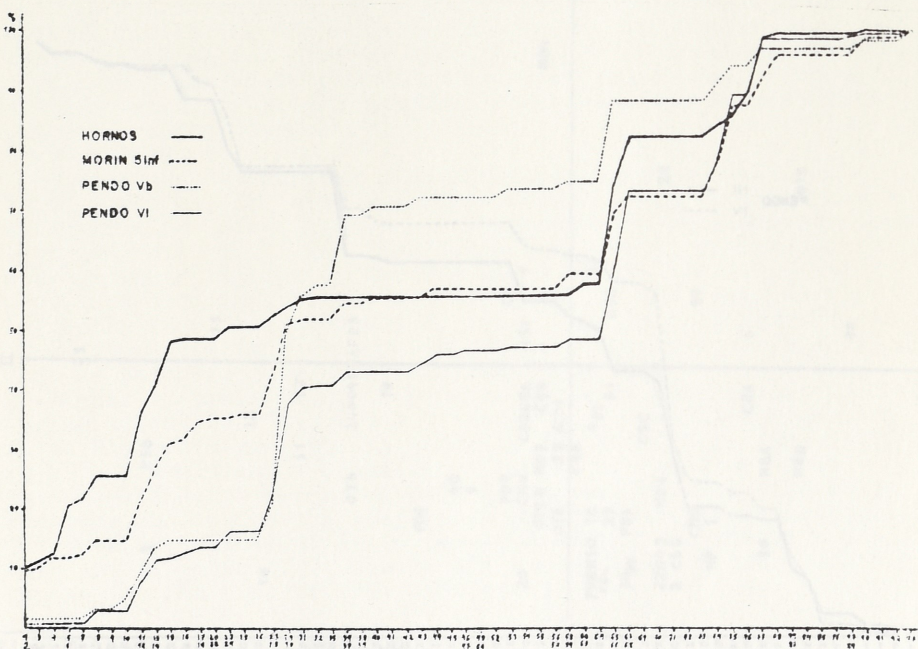


Fig. 6. Evolved Aurignacian

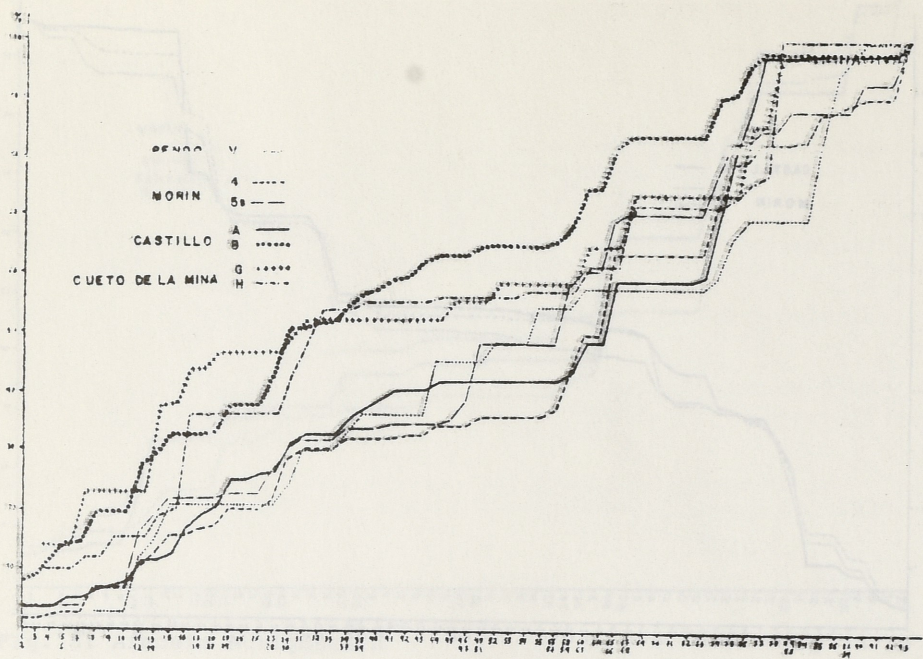


Fig. 7. Upper Perigordian

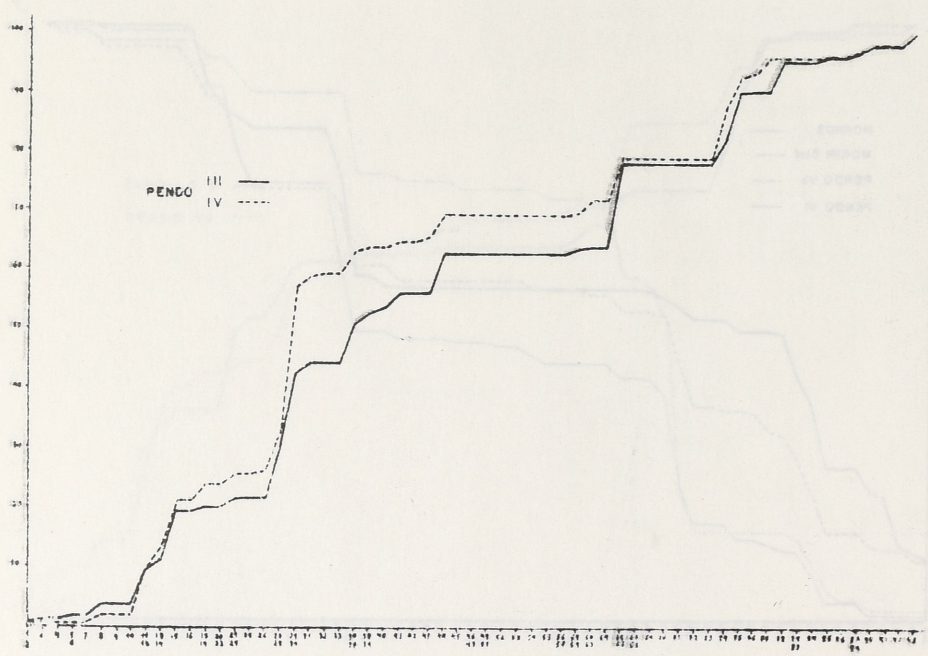
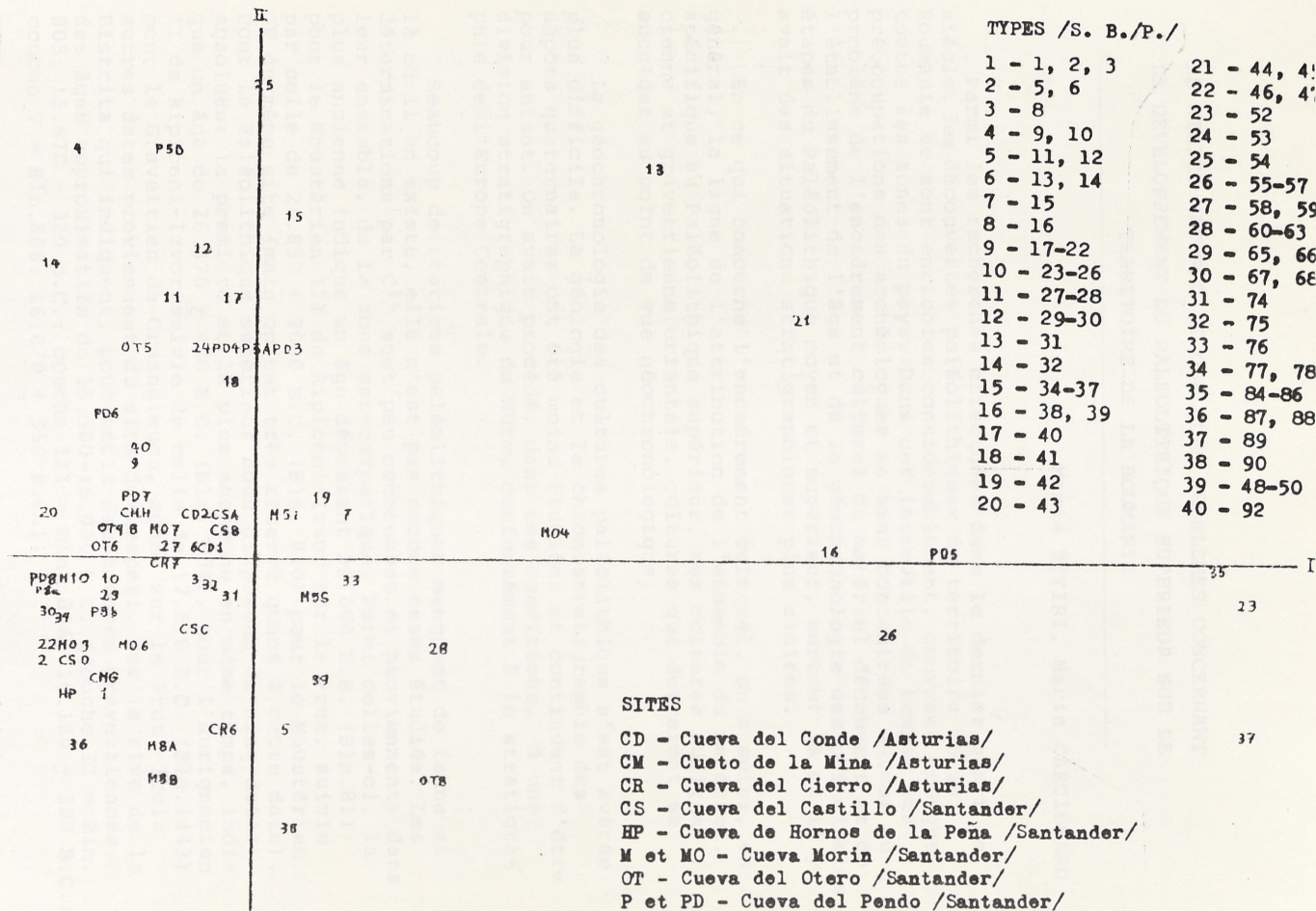


Fig. 8. Final Aurignacian

Fig. 9. Analysis of correlations in Cantabrian Initial Upper Palaeolithic



TYPES /S. B./P./	
1 - 1, 2, 3	21 - 44, 4!
2 - 5, 6	22 - 46, 4!
3 - 8	23 - 52
4 - 9, 10	24 - 53
5 - 11, 12	25 - 54
6 - 13, 14	26 - 55-57
7 - 15	27 - 58, 59
8 - 16	28 - 60-63
9 - 17-22	29 - 65, 66
10 - 23-26	30 - 67, 68
11 - 27-28	31 - 74
12 - 29-30	32 - 75
13 - 31	33 - 76
14 - 32	34 - 77, 78
15 - 34-37	35 - 84-86
16 - 38, 39	36 - 87, 88
17 - 40	37 - 89
18 - 41	38 - 90
19 - 42	39 - 48-50
20 - 43	40 - 92

- SITES**
- CD - Cueva del Conde /Asturias/ 37
  - CM - Cueto de la Mina /Asturias/
  - CR - Cueva del Cierro /Asturias/
  - CS - Cueva del Castillo /Santander/
  - HP - Cueva de Hornos de la Peña /Santander/
  - M et MO - Cueva Morin /Santander/
  - OT - Cueva del Otero /Santander/
  - P et PD - Cueva del Pendo /Santander/