J. Maluquer de Motes: Late Bronze and Early Iron in the valley of the Ebro*

The first important synthesis on the early Iron Age in the Iberian peninsula was published in 1932 by P. Bosch Gimpera. On the basis of earlier work it was possible to group the known material into distinct regions: Catalonia, Aragon, Valencia etc.¹ What predominantly distinguished the new period was its marked "Urnfield" character; and Urnfield culture, appearing south of the Pyrenees, introduced incineration for the first time into Spain. This novel funerary rite proved an extraordinarily expansive force and succeeded in spreading among all the peoples of the peninsula, from Catalan and Levantine to the most westerly, since it is also recorded in Alpiarça in Portugal. All subsequent cultures – Iberian, Celtiberian, Tartessian etc. – were typically cremators and the rite of inhumation did not reppear until the arrival of exotic Mediterranean elements, with the Phocaeans, Carthaginians and Romans.

Assessment of the culture in Spain as "Urnfield" reflects its manifest orientation from the start towards continental European cultures, apparently a complete reversal of what prevailed in earlier periods. This was interpreted as proof of invasions from Europe, the result of expansive movements whose south-eastern spearheads reached the line of the Ebro, to infiltrate throughout the peninsula towards the south-east (Almeria) and west (Portugal). As proof that the south-west (Huelva) was reached, there were also the assertions of ancient classical sources which mention the presence of Celtic (or, alternatively, European) elements round the Guadalquivir. This non archaeological evidence has been taken as a chronological indicator, allowing us to say that by the sixth century B.C. this movement was at an end.

The need to relate finds in Spain with material from north of the Pyrenees led to a further important survey by Professor Bosch Gimpera in 1939, published in England²; because of the current political situation in Spain, it did not become widely known among archaeologists in the peninsula. In this new work there was for the first time a full realization of the duality of invasion routes across the Pyrenees. On the one hand, the Catalan Pyrenees would have been the scene of invasions by "Urnfield" peoples; but at the Basque end of the mountains there would have been other European invaders, crossing

^{*} Aquest article fou originalment publicat a *The Europea Community in Later Prehistory. Studies in honour of C. F. C. Hawkes.* Routledge & Kegan Paul, Londres, 1971. pàgs. 107-120, 2 figs. La numeració original de les figures es conserva en aquesta reproducció.

¹ P. BOSCH GIMPERA, Etnología prehistorica de la Península Ibérica (Barcelona, 1932: with earlier biography); further in El Poblamiento y la Formación de los Pueblos de España (Mexico, 1944).

² "Two Celtic Waves in Spain", Proc. Brit. Acad. XXVI (1939).

Roncesvalles. It had become necessary to consider this second route, for which there was no archaeological evidence at the time, to achieve a better understanding of the development of subsequent cultures, termed *posthallstatticas*, which in this way came to form the archaeological basis for those peoples who, two centuries later, were to constitute the standard Celtiberian culture of Iron Age II. The two invasion routes would bear witness to the arrival of peoples who were essentially different in their material culture. While in the east they would be predominantly "Urnfield", those coming through the western Pyrenees preserved more completely a "Tumulus" tradition.

This simple, straightforward view allowed a series of archaeological facts to be linked with subsequent developments, which are known principally from historical or linguistic evidence. An immediate inference was to identify the peoples who had come across the Pyrenees as Celts. The linguistic evidence indisputably documents the presence of a Celtic element, in numerous place-names which doubtless date from a pre-Roman period, and which could only be attributed to Celtic migration during the First Iron Age, since in no later period is it possible to establish any penetration from continental Europe. A further consequence of the proposed interpretation, given the antithesis distinguished by linguists between the Celtic and Iberian languages, must be to allow that in Catalonia and the eastern parts of the peninsula "Urnfield" peoples were completely assimilated by the native population, who gained the upper hand and whose revival is seen in the Iberian culture which characterizes the Second Iron Age.

On this reading the overrall picture in Spain parallels the classical sequence of western Europe, with its Hallstatt culture in Iron Age I and La Tène in Iron Age II. The convenience and simplicity of the scheme are undeniable, and it was accepted by the majority of scholars. In 1944 the present writer, as a university thesis³, sought to present a material survey of the First Iron Age in Catalonia. This work has not escaped criticism, but in the absence of any new contribution it has served for twenty years as a focus for interpretation.

The material on which this study was based was very heterogeneous and unequal in value. For the most part it comprised pottery without context, from chance finds or from cemeteries in which the majority of the pieces had not been properly excavated. Only one cemetery, Can Missert de Tarrassa, had produced material in quantity; another cemetery in Agullana, Can Bech de Baix, was in course of excavation and finds from there were included provisionally, before they had been reconstructed⁴. A major handicap was Spain's isolation at this time from work in Europe; the author was not *au fait* with finds in the South of France, which are certainly relevant south of the Pyrenees. In these circumstances it was not possible to diverge from the scheme established by Professor Bosch Gimpera in 1939. For many

³ J. MALUQUER DE MOTES, "Las culturas hallstáticas en Catraluña", *Ampurias* VII-VIII (1945-6), 115-84.

⁴ P. DE PALOL, J. MALUQUER DE MOTES, J. TOMAS, "Avance al estudio de la necrópolis de Agullana", *Ampurias* VI (1944); P. DE PALOL, *La necrópolis de Agullana* (Barcelona, 1958).

years Spanish archaeologists have accepted it each time new finds or excavations are published, and discussion has centred more on internal questions and on interpretation of the ethnography of Iron Age I peoples and their character as Celts, Illyrians, *Ambrones* or Ligurians⁵. The archaeological material available today has vastly increased. The wealth of ceramic material, both in its form and its incised and rilled (acanaladura) decoration, demonstrates that we are concerned with a phenomenon far more extensive than has been supposed. Its distribution, not only in Catalonia but throughout the Ebro valley, and with considerable penetrations onto the Meseta, offers new grounds for interpretation. It is certainly not so easy to accept that invaders such as these could have been dispersed among the indigenous population, before an Iberian world could have come into being.

There has also been a radical change in the quality of finds. Numerous cemeteries have been excavated by improved methods: in Catalonia, Molá, Anglés, Agullana, Obagues, Vallfogona, Ampurias, Mas de Mussols, Roques de San Formatge, etc., and Azaila, Atalaya de Cortes de Navarra and Valtierra in the remaining Ebro valley⁶. Many of the finds remain partly unpublished. However, there is now evidence from true village settlements (Molá, Vallfogona, Ullastret, Cortes de Navarra)⁷, as well as the analogous rich finds north of the Pyrenees in the French departments of Aude (Mailhac) and Roussillon (Millas etc.)⁸

The fact that at Ampurias it was possible to locate a necropolis with material which can be shown to belong in the period which we are studying provided the first chance to relate Catalan Urnfield culture with the Mediterranean world, and thus to obtain absolute dates for some features which previously could be arranged only typologically in a relative sequence. Other extensive excavations in the Ebro valley, such as Cortes de Navarra, El Redal (Logroño), Azaila and Monleon in Aragon, and

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⁵ S. VILASECA, "El campo de urnas de Les Obagues del Montsant", Archivo Esp. de Arqueol (1947), 28 f.

⁶ S. VILASECA, El poblado y necrópolis prehistóricos de Molá (Tarragona) (Madrid, 1947) and op. cit. above; M. OLIVA AND F. RIURO, "La necrópolis de Anglés", Pyrenae 4 (1969); M. ALMAGRO, Las necrópolis de Ampurias II (1955), 345-56 (necrópolis Parrallí), 375-99 (Muralla N.E.); R. PITA and L. DIEZ CORONEL, La necrópolis de Roques de San Formatge en Serós, Lérida (Excavaciones en España n°. 59, Madrid, 1968); J. MALUQUER DE MOTES and L. VAZQUEZ DE PRAGA, Avance del estudio de la necrópolis de La Atalaya en Cortes de Navarra (Pamplona, 1957); J. MALUQUER DE MOTES, La necrópolis de la Edad del Hierro de La Torraza en Valtierra, Navarra (Pamplona, 1957). Vallfogona is unpublished (finds in Lérida Museum). Mas de Mussols is still being excavated. There is no general publication of Azaila: for analogous pottery from the settlement J. CABRÉ, "La cerámica céltica de Azaila", Archivo Esp. de Arqueol. (1943), 49; Corpus Vasorum Hispanorum: Azaila (1944).

⁷ J. MALUQUER DE MOTES, A. M^a MUÑOZ and F. BLASCO, *Cata estratigráfica en el poblado de La Pedrera en Vallfogona de Balaguer, Lérida* (Barcelona, 1960); excavations at the oppidum of Ullastret (Gerona) were begun in 1947 under the direction of M. Oliva and are continuing annually, published in the *Anales de Instit. de Estudios Gerundenses*; for a summary M. OLIVA, *Ullastret. Guia de las excavaciones* (Gerona, 2nd. ed. 1947), 1-87; J. MALUQUER DE MOTES, *El poblado hallsttático de Cortes de Navarra* I (1957), II (1958).

⁸ M. LOUIS and J. TAFFANEL, *Le premier âge du fer languedocien* I (1953), II (1958), III (1960): Instituto di Studi Liguri.

also on the Meseta itself (Soto de Medinilla, Valladolid), have extended our perspective⁹. In eastern Catalonia, too, a new study of sites in Lower Aragon¹⁰, together with stratigraphical evidence from Vallfogona de Balaguer and Ullastret, call for a general revision of views and a new approach, including considerable modification of the very concept of a First Iron Age in the Iberian peninsula. The author is currently working on the question, and though it is not possible, within the limits of this volume, to present a definitive study, I shall attempt a number of provisional ideas, which I offer to my friend and esteemed colleague, Professor Christopher Hawkes, who in his own magnificent syntheses of exemplary clarity and precision has contributed so much to the better understanding of European prehistory.

We must first make clear that the concept of a First Iron Age, in the traditional sense of Spanish archaeology, should be rejected. The term "Hallstatt culture", which I myself have repeatedly used, is equally neither permissible nor useful. We have to take account of a phenomenon of "Europeanization" in the peninsula, or more precisely in the Ebro valley; and if we have in some way to set this process in context, it must be to maintain that it fell within the limits of what corresponds to the concept of Late Bronze Age. It is also useful to put aside the notion of migrations or invasions, since we find we are dealing with very complex movements, which took place not only southwards across the Pyrenees, but in both directions; and these connections between distinct groups were moreover persistent. It is also impossible to ignore the indisputable fact that, alongside obvious movements of peoples, there was a highly significant current of cultural influence attributable to trade which, from the eighth century on, intensified connections between peoples on either side of the Pyrenees. At this time, and in consequence of the invasions which gave rise to "Hallstatt" culture of the early Iron Age in Gaul, not only was attention drawn to the south-west of Europe, as Christopher Hawkes has authoritatively described in one of his latest papers¹¹, but there also grew up a marked interest in the Mediterranean coasts of the Peninsula; and there Greek presence since the eighth century, and Etruscan and Punic since the seventh, has assisted in the interpretation of a variety of archaeological material.

Thus we have the outlines of a chronological period which partly overlaps both "Late Bronze Age" and "First Iron Age", without there being at any time a break which could indicate a clear division between them. Sporadic use of iron manufactured objects, for example, is earlier than, and independent of, a true iron-working economy. Again, use of wheel-turned pottery due to Mediterranean contacts also predates, and is independent of, the industrialization of pottery manufacture which characterizes the Iberian world and gave rise to the concept of a Second Iron Age.

⁹ Blas Taracena excavated several times at the settlement of El Redal (Logroño) and the work was unpublished at the time of his death. His collaborator, who has also died recently, wrote a preliminary note, "Excavaciones en El Redal: campaña de 1945" (Saragossa, 1959: *Congr. Arqueol. Nacional V*), 160.

¹⁰ M. ALMAGRO, A. BELTRAN and E. RIPOLL, Prehistoria del Bajo Aragón (Saragossa, 1956).

¹¹ C. F. C. HAWKES, "Las relaciones atlánticas del mundo de Tartessos". V Symposium internac. de Prehist. Peninsular at Jerez de la Frontera, 1968 (Barcelona, 1969).

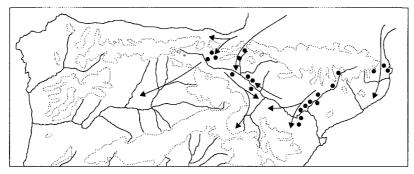


FIGURE 19: Sketch of Late Bronze-Early Iron Age migration into Spain.

It is not an easy task to fix the limits of this period, since they are not uniform throughout all those regions of the peninsula in which later historical units are centred. Exploitation of iron by the inhabitants, and the transformation of household workshop practice into a veritable ceramic industry, occurred at a series of descending dates as we go from the coast towards the interior. In the south, in Almeria and Huelva, the change may be dated well back in the eighth century, in the Levant and Catalonia in the seventh, while in the inland regions of the Ebro valley it began only at an advanced stage of the sixth century.

Nor is it easy to determine an upper limit to the period in question. It falls, quite logically, earlier in the region of the Pyrenees than on the central Meseta¹². If however we accept that it began with the first arrivals of groups from north of the Pyrenees, we may certainly date its inception back to the eleventh century, and possibly into the middle of the century before.

It is of interest to note that from the start there were two access roads across the Pyrenees. In the eastern zone the route along the Segre valley is very obvious; from the Cerdaña it allowed a rapid occupation of the Solsona region. In the Basque Pyrenees and across Roncesvalles the Pamplona basin was quickly reached, with the Arga valley (villages of Leguin en Echauri and Eldorre en Artajona) and the region of Estella (Urbiola)¹³. Furthermore, from Pamplona across the Barranca (Alsasua) it is easy to reach the plain of Alava (village of Kutzemendi) and further west (village of Nuestra Señora de Oro). The two routes converge towards the Ebro, where we find the sites of La Hoya (La Guardia en Alava), El Redal (Logroño) and Valtierra, Arguedas¹⁴ and Cortes in Navarre, with evidence of early arrivals of groups from Europe (fig. 19).

¹² J. MALUQUER DE MOTES, "Bases para el estudio de las culturas metalúrgicas en la Meseta", *Primer Symposium de Prehist. Peninsular 1959*, (Pamplona, 1960), 125-55.

¹³ B. TARACENA, "Una prospección en los poblados de Echauri", *Príncipe de Viana*, 1943 (Excavaciones en Navarra I, 1947), 35-56; J. MALUQUER DE MOTES, "Cueva sepulcral de Urbiola", *Príncipe de Viana* XXIII (Pamplona, 1962), 419-23.

Eldorre is unpublished and still being excavated; finds in the Museo Navarro at Pamplona.

¹⁴ J. M. UGARTECHEA, A. LLANOS, J. FARIÑA, etc., "El castro de las Peñas de Oro (Valle de Alava)", *Rev. Sancho el Sabio* (1965), 121-55; B. TARACENA, "Excavaciones en el Castejón de Arguedas", *Príncipe de Viana*, 1942 (*Excavaciones en Navarra* I, 1942-47), 3-33. Kutzemendi is adjacent to Vitoria and unpublished finds (excised pottery and bronzes) are in the museum there. Unpublished material from the large settlement of La Hoya, where two seasons of excavation were directed by Gratiniano Nieto, also in Vitoria Museum.

All these routes across the Pyrenees had earlier been used by small bands of metalworkers, intent on exploiting veins of copper. Among them, as a novel and unfamiliar element, there stand out some brachycephalic individuals of Alpine type, now recorded for thr first time south of the Pyrenees. It is not easy to determine the absolute date of these first infiltrations, but it appears to correspond to the end of the Middle Bronze Age. Among the material culture there are as yet no elements which can be related to the Urnfield culture. Nor is it easy to decide what funerary rites were practised, sinceit was doubtless exceptional causes, at the two clearest sites, which preserved skeletal remains for study. At Riner (Lérida) an accident at work cost the life of a miner. At Urbiola (Navarre) a small community (a true band, as among present-day gypsies) was buried by a lanslide on the site of former metal-workings where they had camped. Other finds in the Solsonés area of Catalonia seem to indicate that these groups still practised inhumation. All subsequent groups who arrived across the Pyrenees were, without known exception, cremators.

A second phase is represented by the arrival of highly characteristic groups, recognizable principally by their pottery, among which two ceramic families can be distinguished. The one comprises small undecorated vases, in simple forms of cups and bowls, frequently carinated and with the surface burnished or smoothed with a spatula¹⁵. There were developed handles with cylindrical or rectangular extensions (*apéndices*), occasionally bifid. Incised geometric ornament is sporadically found, and also *Kerbschnitt* (Seriña). The other ceramic family consists of large storage containers which make up the ordinary ware, with flat bases and relief-cordon decoration. Antecedents are in part derived from north of the Pyrenees, in part local in origin. These containers performed the role of true *pithoi*, for keeping food in stores and houses, until at a later stage they were replaced by silos. These too were to be abandoned when, with the industrialization of pottery manufacture, large wheel-turned vessels (*dolia* or pseudo-*dolia*) appeared under Greek influence.

Many years ago (1942) when the author first drew attention to the pottery with a knobbed handle extension (*apéndice de botón*) he thought this belonged to very early groups connected with north Italian cultures, and remotely Danubian in inspiration¹⁶. While not denying that this is the ultimate origin, we must today, in view of the pottery's clear association in Catalonia with typical Urnfield ware, allow that its overall transmission falls into two phases. There were first the influences or movements which spread the pottery tradition to the French Midi, where it underwent marked development and came to be mixed with a *Kerbschnitt* decorated ware. Subsequently, at a much later period, it appeared south of the Pyrenees, covering the whole of Catalonia and penetrating into Aragon, via the lower valley of the Segre towards Lower Aragon (Monleon, Caspe). This movement was effected in connection

¹⁵ J. MALUQUER DE MOTES, "El desarrollo de la primera Edad del Hierro", Segundo Symposium de Prehist. Peninsular, 1962 (Barcelona, 1963), 53-69.

¹⁶ J. MALUQUER DE MOTES, "Las asas de apéndice de botón y el final de la cultura megalítica de N.E. de la Península", *Ampurias* IV (1941), 171-88.

with the arrival of what is clearly Urnfield pottery; and consequently we should allow that Urnfield ware from the start represents very mixed groups, some containing a good proportion of elements from southern France, together with others of purer central European origin.

We should emphasize that these first Urnfield people to arrive in Catalonia came at a very early date, which marks the start of the Late Bronze Age. The view expressed by N. K. Sandars in her valuable book¹⁷, in attempting to connect the Catalan Urnfields with a late stage of renaissance among the French Urnfields, gives too much weight to rich and evolved phases of our culture, from which the material is better known because there is more of it. Furthermore, the scarcity of early bronzes in Catalonia, which provides her with an argument from silence, has been overstressed. Nowadays, with excavation of the stratified sites of Vallfogona de Balaguer and Cortes de Navarra, I believe the initial date of the sub-Pyrenean urnfiels shuold be raised. It should be pointed out that scarcity of bronzes is a feature not only of the initial Urnfield phase but of the whole extent of the culture's development, until "Iberian culture" is established, which in Catalonia falls after 600 B.C. This persistent phenomenon allows of only one, obvious and logical, explanation. The presence along our coasts of Greek and Etruscan merchants, who were in fact responsible for introducing iron metallurgy, contributed to a systematic withdrawall of bronze tools and weapons, since they actively bought them up in order to recover the metal for their own industries¹⁸. As a general rule it can be seen that the absence or scarcity of bronze finds in Catalonia bears a direct relationship to distance from the coasts, or from navigable rivers used by these Mediterranean traders. Underwater finds bear witness to this trade in recovered metal¹⁹.

Another point which deserves emphasis is that at the time of the first Urnfield arrivals in Catalonia the native population in the north of the region was still following a megalithic tradition, outdated yet vital, which led to construction of dolmenic cists throughout the Middle Bronze Age. This is of importance for explaining the strength of a barrow-building tradition which we shall see reappearing in subsequent centuries, and which has very little to do with the true Tumulus culture of western Europe.

The initial date for arrival of unfields in Catalonia appears to be long before the eighth century. Excavation of the La Pedrera settlement at Vallfogona de Balaguer has revealed nine substantial levels (fig. 20). The lower levels (V-IX) correspond to typical Urnfield peoples, with rilled ware of early type and characteristic bronzes (pins and moulds for socketed axes). Level VII may be considered as fully eighth century, and we may then suppose that the two lowest layers, VIII-IX, which together are more

¹⁸ J. MALUQUER DE MOTES, *El impacto colonial griego y el comienzo de la vida urbana en Cataluña* (Barcelona, 1966).

¹⁷ N. K. SANDARS, Bronze Age Cultures in France (1957).

¹⁹ E.g. underwater finds at Rochelongue.

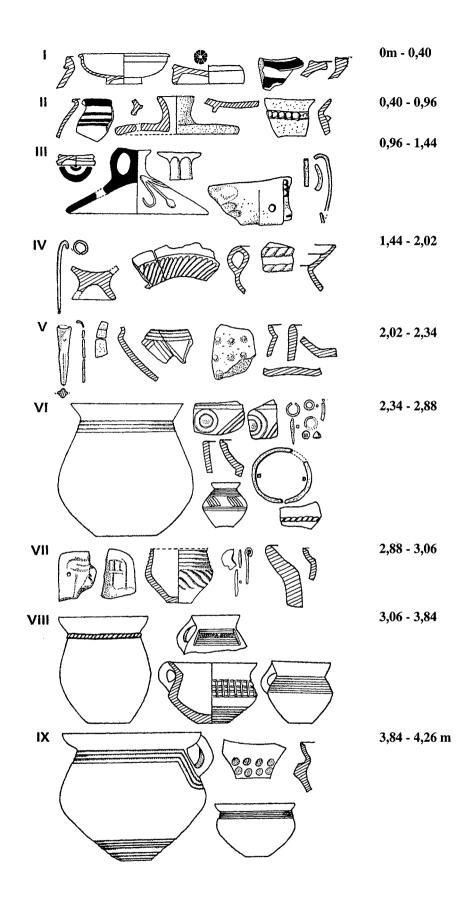


FIGURE 20: Diagram of the stratigraphy of La Pedrera, Vallfogona de Balaguer (Lérida).

than 1,2 m in depth, represent a lengthy period of occupation, at a possible rough estimate, of more than a century. Consequently we should date the first appearance of these people in the valley of the Segre back towards 1000 B.C.

From then on news groups continue to appear across the Pyrenees, and the large number of finds – in cemeteries, settlements and caves – demonstrate an increasing density of population, which explains how the new funerary practice of cremation had the power to grow completely dominant. We can now define the routes by which these people spread, either by migration or through contacts between neighbouring groups, resulting in a certain degree of uniformity in their material culture. We now find not only identical pottery, bronzes and burial practices, but also the same layout of settlements and house forms etc.

Through the eastern Pyrenees and the passes of Pertus and Coll de l'Illa, groups from Roussillon quickly penetrated into the regions of Ampurdan, Garrotxa and Gironés. This is shown by numerous sites, with cemeteries both in the coastal zone (Rosas, Ampurias, Ullastret) and in the interior (Agullana, Anglés, Camallera, etc.). from Gironés along the lower reaches of the Tordera they occupied the littoral of Maresme from Blanes to the Llobregat, also colonizing the flat country of the interior, such as El Vallés.

Through the Segre route, already mentioned, a steady progress of Urnfield groups is documented by finds in Bor (Cerdaña), Andorra, Senyús, Guissona, Vilaplana and Hostalroig²⁰, and from the heights of Balaguer they thickly settled the plains of Urgel and Segriá until they reached the territories of the Ebro and Lower Aragon. The density of finds in these inland regions seems to indicate that penetration routes through the interior were more frequented than those further east, or that the groups who used them followed a more pastoral, transhumant, economy, which lent them greater mobility. We see in fact that from the Segre they spread out along the southern watershed of the Montsec range, towards the lower basins of the Noguera Pallaresa and Noguera Ribagorzana rivers, bordered to the south by the subdesert zone of Los Monegros. This last region was occupied only in years of exceptional rainfall, and no permanent settlements are known there. These movements initiated a permenet occupation of the valley of the middle Ebro, where later "Iberian" villages always begin with the same lower layers of Late Bronze material.

Clearer evidence is constantly accumulating of the importance assumed also by western passes of the Pyrenees, into the Basque regions, already discussed. Once again, the migrations were highly complex, though it is not easy to trace the exact affiliations of the groups who crossed from north of the mountains. Christopher Hawkes has recently produced a survey of these movements, which he ascribed to fugitive groups unsettled by the progress of the new Hallstatt culture into France²¹. His vivid account of a "bronze sword" people crossing Navarre and consequently

²⁰ Most of these finds are unpublished.

²¹ See above, n. II.

conquering the Meseta, to expand towards the south-west, may well be justified; though in the actual Ebro basin there are few traces of their passing. All the known cemeteries in Navarre, Alava and La Rioja are in fact appropriately urnfield, and not barrow-graves; although it is highly likely that the first settlements near the Ebro (Cortes, Arguedas, Valtierra) were occupied by groups who came up the river, and that analogously in Navarre, where we have described them bordering the Los Monegros zone to the south, they moved along the banks of the Ebro, avoiding La Bardena. Only later did they mix with groups who had come across the Basque Pyrenees.

A feature which appears to confirm this view is excised, or Kerbschnitt, decoration. In the eastern zone of Catalonia it makes a sporadic appearance in only one, typically Middle Bronze, find (Seriña), where it is obviously an import. At the same time, more than a hundred sites with rilled or incised pottery, in one way or another relatable to Urnfield culture, have failed to produce a single example of this decoration. Its absence cannot be ascribed to chance, given the present density of material known. By contrast, along the length of the Ebro we find this excised ware in some abundance, principally in its middle and upper valley, on sites between Lower Aragon (Monleon, Roquizal del Rullo, Escodines, Tossal Redó) and those reaching into La Rioja (Redal) and Navarre (Fitero). Finds at Cortes de Navarra were scarce and occurred outside the excavations, which seems to indicate that the inhabitants at no stage made this pottery, but were in contact with other peoples who did. The presence of Kerbschnitt at Pangua (Treviño), and in the villge of Kutzemendi, adjacent to Vitoria, precisely on one of the roads leading to the Basque Pyrenees in Navarre supports the assumption that people bringing the incised ware tradition had arrived over the western Pyrenees, and not through Catalonia.

These features show that the region of the middle Ebro became a meeting-ground for the two currents arriving from north of the Pyrenees which introduced a final Bronze Age culture into Spain. Their conquest of the Meseta initiated extensive Late Bronze developments and an important pastoral culture, on which the *castros* of Castile were to be based.

All these peoples remained ignorant of iron-working for a long period, although from the eighth century they acquired small manufactured objects (knives, *fibulae*) from Greek traders who came up the Ebro. The introduction of iron in thus clearly the result of colonizing activity. In southern Spain the Phoenicians had introduced it from their trading posts at Cadiz, Malaca and Sexi²², and from the eighth century iron is a fairly usual find on archaeological sites. In Catalonia, despite the fact that Urnfield peoples could possibly have acquired a knowledge of iron-working in their countries of origin, commerce with the Greeks was equally responsible for its diffusion.

That there was trading very early round the Mediterranean is apparent in the development of native pottery, which adopted decorative motifs obviously Italian in

²² M. PELLICER, Excavaciones en la necrópolis púnica Laurita de Carro de San Cristóbal (Almuñécar, Granada) (Excavaciones Arqueol. en España nº. 17, Madrid, 1963).

origin²³. This pottery is incised with stylized patterns, anthropomorphic, zoomorphic or generally geometric, such as were current among the population around Cumae when the Greeks first arrived and which consequently may go back to the eighth century. This date exactly corresponds with Greek literary tradition, which assigns the fundation of Rhode to that century (prior to the first Olympiad, or before 776 B.C.). This type of pottery appears on Catalan sites in coastal regions both north and south of the Pyrenees, exactly the regions of earliest contact with Greek merchants, and it is one of the most characteristic features of what I have termed the Agullana group.

In the middle of the seventh century the foundation of Ebussus (Ibiza) introduced a new, Punic, Mediterranean stimulus, chiefly perceptible among settlements round the mouth of the Ebro. These consist ptincipally of urnfiels into which were now imported Phoenician and Greek (Cypriot and Naucratic) goods, as is well documented in the cemeteries of Can Canyis (Vendrell) and Mas de Mussols (Tortosa)²⁴.

Despite the marked influence of Mediterranean commerce, the indigenous communities of Catalonia do not appear completely uniform, and among them two active funerary traditions are apparent. The one is unfield, and the other a barrow-building tradition, in which cemeteries are made up of groups of small tumuli with cists containing the cinerary urns. Recent finds at Puig Alt (Rosas)²⁵ and Seros (Roques de San Formatge) provide the best examples of the survival of a ritual which reappears in classical sites in Lower Aragon, and which poses difficult questions of derivation. It would appear that this type of barrow has nothing to do with the Tumulus tradition of western Europe, but in fact represents continuity with Pyrenean traditions which have their roots in megalithic culture.

During the eighth and seventh centuries the use of iron became generally diffused and it appears at all native sites in Catalonia. Inland in the Ebro valley it is found in villages IIb and IIa at Cortes de Navarra. The existence of large lumps of ore and forges at the latter site is proof of local iron-working. In fact, if we should wish to select a point of division between a Late Bronze Age and a First Iron Age we should have to place it at the beginning of the eighth century, when local peoples began working in the new metal. Sites like Cortes however show that there was a veritable continuity, which does not justify any such division.

In the sixth century settlements in the coastal zone show marked Mediterranean influence and the Iberian culture of Catalonia comes into being, without any abupt change, or alterations in population. The same population which in the eighth and seventh centuries developed a material culture of Urnfield type, in the sixth century acquired new customs, new techniques and new tastes, which the geographers and historians of the ancient world termed "Iberian". This transformation could have taken place gradually, as

²⁴ S. VILASECA, La necrópolis de Can Canyis (Vendrell, Tarragona), (Seminario de Hist. Prim., Madrid, 1962); J. MALUQUER DE MOTES, "El comercio fenicio en Cataluña", V Symposium de Prehist. Peninsular al Jerez de la Frontera, 1968 (Barcelona, 1969).

²³ N. K. SANDARS, op. cit., 316-20.

²⁵ Unpublished barrow cemetery al Puig Alt y Panis (Cadaqués, Gerona).

the result of close connections with Greek, Etruscan and Carthaginian merchants. The presence of known trading posts (Rhode and Emporion), together with probable other, but not localized, ones (Cypsela, Salauris, Lebedontia, Hystra and Sarna), exerted exceptional cultural influence among the local population. Houses grew more complex and changed in plan, reflecting new social requirements, and production increased to augment purchasing power. In the villages a system of storage in silos became highly developed, and there was a start to industrialized output of some products, like pottery, which by now was wheel-turned and imitated Greek and Punic wares in form and decoration.

In summary, and pending fuller systematic treatment, the following *résumé* may be proposed.

At the end of the second millennium small groups from central Europe crossed the Pyrenees, including elements of obvious Alpine derivation, and with a material culture which retained a strong Middle Bronze Age tradition. These appear in Spain only north of the Ebro, but the distribution indicates they arrived via both ends of the Pyrenean range.

Around 1000 B.C. began a continuous influx of groups, using the same routes. These were numerous, but show little uniformity. Among some there was a predominance of elements (pottery with handle extensions) which immediately before had their home in the south of France. Other groups were more or less purely Urnfield. These movements represent, in effect, the start of a Late Bronze Age.

For two centuries there was continual coming and going across the Pyrenees, resulting in occupation of the country as far as the line of the Ebro, and absorption of all earlier indigenous inhabitants. By extending along the Ebro, these people then made contact with other groups, who had arrived via the Basque regions and descended the Rioja valley. There was little uniformity among these latter groups, and a complex process of interchanges and acculturation began, which allows of no simple division into periods. Many of the newcomers were not completely cut off from their place of origin, and maintained active connections between north and south of the Pyrenees. Others, by contrast, penetrated on to the Meseta and made their way towards the Atlantic regions in the west. From the end of the eighth century the growing influence of Mediterranean commerce resulted in a rapid rise in living standards, stimulated sedentary settlement and introduced not only luxury goods but new techniques, such as iron-working, wheel-turned pottery and possibly new methods of cultivation. The preponderance of these influences is found along the navigable waters of the Ebro, reaching into Navarre, the Basque regions and indirectly into Aquitaine.

From the sixth century these processes, accelerated by the stimulus given by Ampurias, result in the appearance of an Iberian culture in Catalonia, which reached Lower Aragon in the same century. A little later, on the middle Ebro and adjacent regions of the eastern Meseta, there also appeared the Celtiberian culture. Shortly after 500 B.C. the Iberian world created its own writing, and the inhabitants of the Ebro valley attained to the status of a historic people.

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