Interdisciplinary and linguistic evidence for Palaeolithic continuity of Indo-European, Uralic and Altaic populations in Eurasia, with an excursus on Slavic ethnogenesis
by Mario Alinei

1   Introduction

This contribution is based on my recent work on the problem of the origins of Indo-European (= IE) languages (Alinei 1996, 1998, 2000ab, 2001, 2002) – and lately on Etruscan (Alinei 2003) -, and is divided in five parts: (A) the first outlines the three presently competing theories on the origins of IE languages; (B) the second summarizes the converging conclusions reached by different sciences on the problem of the origin of language and languages in general; (C) the third surveys recent theories on the origins of non IE languages in Europe; (D) the fourth illustrates examples of how the IE linguistic record can be read in the light of the Paleolithic Continuity Theory, and in comparison with the two competing theories; (E) the fifth concerns the specific problem of the Slavic ethnogenesis.

2   The three main paradigms for the origins of Indo-European languages

At present, the international debate on the origins of IE languages and peoples concentrates on three different theories: the traditional theory and two new, quite recent ones.

2.1   *Copper Age theory = warlike invasion by Proto-Indo-Europeans as pastoral nomads (kurgan) (Gimbutas, Mallory etc.)*

As we know, until recently, the received doctrine for the origins of Indo-Europeans in Europe was centered upon the assumption of an Indo-European Invasion in the Copper Age (IV millennium b.C.), by horse-riding warrior pastoralists.
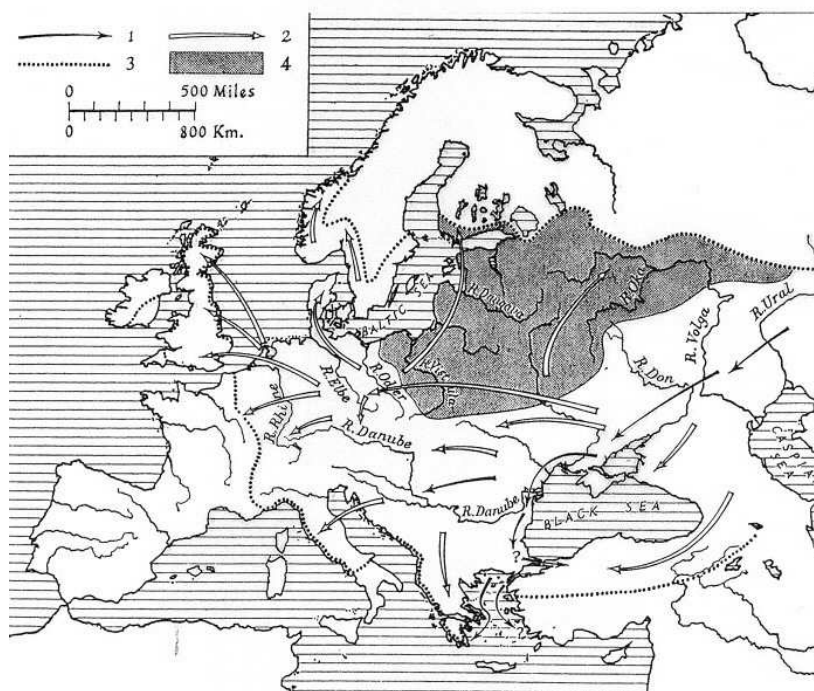

Fig. 1. Map of Gimbutas

The last and most authoritative version of this theory was the so called *kurgan* theory, elaborated by the American-Lithuanian archaeologists Marija Gimbutas, and now defended by the American archaeologist James Mallory (Mallory 1989), according to which the Proto-Indo-Europeans were the warrior pastoralists who built *kurgan*, that is burial mounds, in the steppe area of Ukraine (e.g. Gimbutas 1970, 1973, 1977, 1980).

From the steppe area, the Proto-IE *kurgan* people would have then first invaded Southern Eastern Europe, then, in the III millennium, after having evolved into the so called Battle Axe people (the black area on the map) would have brought IE languages all over Europe, in a series of conquering waves (white arrows on the map).

2.2 Neolithic theory = peaceful invasion of Europe by Proto-Indo-Europeans as inventors of farming (Renfrew etc.)

The second theory is that of another archaeologist, Lord Colin Renfrew, called the IE Neolithic Dispersal theory (Renfrew 1987). It is based on the observation that since there is absolutely no archaeological record of any large scale invasion in Europe in the Copper Age, the only moment in European prehistory which might coincide with a gigantic change such as the presumed indoeuropeanization of Europe is the beginning of farming in the VII millennium b.C. Since farming originated in the Middle East, and archaeology does detect in southern Europe a migratory contribution from that direction, associated with the introduction of farming, Renfrew has concluded that these early farmers were the Proto-Indo-Europeans, responsible for the introduction of IE in southern and central Europe, and that the subsequent IE dispersal started from these two areas, along with the dispersal of farming techniques.

And since an intrusive contribution is especially evident in the two earliest Neolithic cultures of southern Europe (fig. 2), both dated to the VII millennium, namely the Balkanic complex (the checkered area on the map) and the Impresso/Cardial Ware in Western and Central Mediterranean (the black area on the map), as well as in the Linienbandkeramik (or LBK) culture in Germany and Eastern Europe (gray area on the map), dated to the V millennium, these would be the cultures that represent the first introduction of IE into Europe. The philosophy behind this theory is thus that the Proto-Indo-Europeans, far from being warriors who invaded and conquered Europe by sheer military force, are instead the inventors of farming, who conquered Europe by cultural and intellectual superiority.
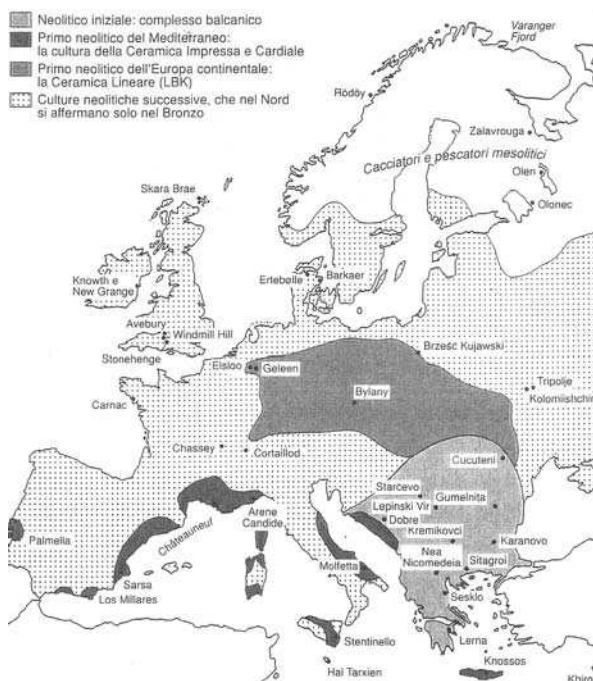

Fig. 2. Map of Neolithic Europe

2.3 *Paleolithic Continuity Theory = indigenism (Alinei, Ballester, Cavazza, Costa, Häusler, Otte, Poghirc)*

A few years after the publication of Renfrew's book two archaeologists and three linguists, all independently from one another, presented an alternative theory of IE origins, which is similar to the Uralic continuity, in that it claims uninterrupted continuity from Paleolithic also for IE people and languages. The two prehistorians are the Belgian Marcel Otte, one of the world major specialist on Middle and Upper Paleolithic, and the German Alexander Häusler, a specialist in the prehistory of Central Europe (Otte 1994, 1995, Häusler 1996, 1998, 2003). The three linguists are, including myself (Alinei 1996, 2000), Gabriele Costa (Costa 1998), and Cicero Poghirc (Poghirc 1992). Two more linguists are now working on the same line (Ballester 2000a, 2000b, 2001, Cavazza 2001).

It is important to note that this theory is the only one, of the three, which has been advanced not only by archaeologists, but also by professional linguists, and therefore carefully checked as to its linguistic coherence, verifiability and productivity.
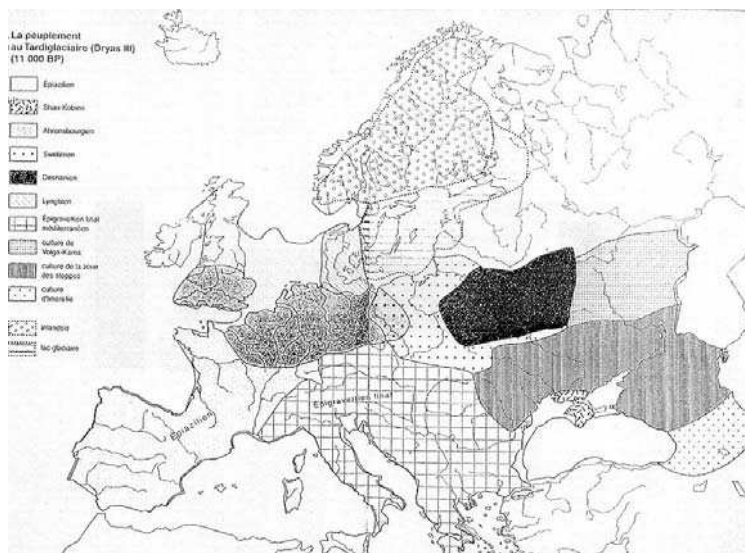

Fig. 3. Map of Mesolithic Europe

The map shows the high degree of cultural differentiation of Mesolithic Europe, which is likely to have been associated with linguistic differentiation of some kind.

3   An interdisciplinary survey of converging conclusions on the problem of the origin of language and languages

Let us now see, more in general, how the problem of the origin of language and languages has been approached in the last years, and to which results this research has led; and let us also see with which of the three theories we have just summarized, such results come closer.

At least five different disciplines, in recent times, have addressed the problem of the origin of language and languages. And though they have done it from different vantage points and with different approaches, they have reached conclusions that seem to show a remarkable convergence. These sciences are: (i) archaeology, (ii) genetics, (iii) general linguistics and, more specifically, psycho- and cognitive linguistics, (iv) paleo-anthropology, (v) cognitive science. To these five disciplines, research on history of ideas can be added, and more specifically history of archaeology and of linguistics,

for the critical light that their conclusions throw on the ideological genesis of the traditional theory.

3.1   Archaeology

In the last three decades, archaeological research has made quite a few revolutionary advances, among which the most well-known is the much higher chronologies of European prehistory, obtained by radiocarbon and other innovative dating techniques. But as far as our topic is concerned, the conclusion that interests us the most is that there is absolutely no trace of a gigantic warlike invasion, such as to have caused a linguistic substitution on continental scale, as envisaged by the traditional IE theory. On the contrary, there is every possible evidence for demic and cultural continuity, from Paleolithic or Mesolithic –depending on the areas- on to the Metal Ages. Even James Mallory – the isolated archaeologist who has decided to die on the battlefield in the defense of the traditional invasion theory - has had to admit that "the archaeologists' easiest pursuit [is] the demonstration of relative continuity and absence of intrusion" (Mallory 1989, 81). Continuity is now universally considered the basic pattern of European prehistory.

3.2   Genetics

It is the merit of the new geogenetic school founded and led by Luca Cavalli Sforza to have made several fundamental discoveries about the relationship between genetics and linguistics, among which I would mention at least the following two: (A) the areal distribution of genetic markers largely corresponds to that of the world languages (Ammerman-Cavalli Sforza 1984, Cavalli Sforza et al. 1988, 1994, Menozzi et al. 1978 etc.); (B) substandard dialect microareas also have close correspondences with the finer genetic differentiation (Contini et al. 1989).

Although Cavalli Sforza himself has pointed out that such conclusions imply that language differentiation must have proceeded step by step with the dispersal of humans (probably *Homo sapiens sapiens*) out of Africa, for the specific problem of the origins of Indo-European languages he has contradicted his own views by opting first for the traditional warlike invasion theory, and later for Renfrew's hypothesis of a peaceful invasion by the earliest farmers, considered Proto-Indo-Europeans. Whatever the cause of this major contradiction, however, even Cavalli Sforza has recently had to surrender to the latest outcome of genetic research, i.e. that 80% of the genetic stock of Europeans goes back to Paleolithic (Sykes 2001, 240 ff).

As Bryan Sykes' has commented: "The Neolithic farmers ha[ve] certainly been important; but they ha[ve] only contributed about one fifth of our genes. It [is] the hunters of the Paleolithic that ha[ve]created the main body of modern European gene pool." (Bryan Sykes, 2001 242).

3.3   General linguistics, Psycholinguistics, Cognitive linguistics

The central idea of Noam Chomsky's revolutionary theory on the psychological and formal foundations of language is the thesis that *language is innate*. Until recently, this claim formed a major obstacle for the integration of his theory in a Darwinian, evolutionary framework. A major breakthrough, however, independently made by two scholars specialized in different sciences, has provided an unexpected solution for this problem.

3.4   Paleoanthropology

The last twenty years of discoveries in the field have brought Ph. V. Tobias, one of the world leading paleo-anthropologists, to conclude that the question now is no longer whether *Homo habilis* spoke, but whether the capacity for language was already optionally present in some *Australopithecus*, to become obligatory in *Homo*, or emerged with *Homo*, as one of his unique traits (Tobias 1996). As himself writes: "Several lines of evidence suggest that the rudiments of speech centres and of speaking were present already before the last common ancestral hominid population spawned *Homo* and the robust australopythecines (Broca's bulge in *A. africanus*; tool-making perhaps by a derived *A. africanus* and a hint of an inferior parietal lobule in one endocast, SK 1585, of *A. robusts*). Both sets of shoots would then have inherited the propensity for spoken language. The function would probably have been <u>facultative</u> in *A. robustus* and *A. boisei*, but <u>obligate</u> in *Homo*" ((Tobias 1996, 94, author's emphasis).

3.5   Cognitive Sciences

On the basis of independent evidence, a similar conclusion has been reached also in the field of cognitive sciences, by Steven Pinker, in his masterly book on 'language instinct', inspired by Chomsky's theory of language (Pinker 1994): "a form of language could first have emerged [...] after the branch leading to humans split off from the one leading to chimpanzees. The result would be languageless chimps and approximately five to seven million years in which language could have gradually evolved" (Pinker 1994, 345). In short, <u>language would indeed be innate in humans, but only as the result of a much longer evolution than traditionally thought, beginning with some Australopithecus</u>.

3.6   History of ideas

As many studies have now shown, the foundation of scientific IE research in the 19th-century was deeply influenced by the contemporary Arian, Pangermanic and colonialist ideology, as first expounded in Count Joseph-Arthur De Gobineau's, *Essai sur l'inégalité des races humaines* (1853-1855) and Houston Stewart Chamberlain's, *Die Grundlagen des XIX Jahrhunderts* (1899), with their emphasis on Indo-Europeans racial superiority and their inclination to war and conquest (e.g. Poliakov 1974, Römer 1985, Trigger 1989, Renfrew 1987 etc.).

Here is, for example, how Adolphe Pictet, the founder of the so called Linguistic Paleontology, in his book *Les origines des Indo-européennes ou les Aryas primitif. Essai de paléontologie linguistique*, Paris, 1859-63, described the "Arian race": «a race destined by the Providence to dominate the whole world… Privileged among all other races for the beauty of its blood, and for the gifts of its intelligence, … this fertile race has worked to create for itself, as a means for its development, a language which is admirable for its richness, its power, its harmony and perfection of forms».

This is why the first IE specialists – imbued with European colonialism of the 19th century - chose to see the Proto-Indo-Europeans as a superior race of *warriors* and *colonizers*, who would have conquered the allegedly "pre-IE" Neolithic Europe in the Copper Age, and brought their 'superior' (?) civilization to it. And since it was necessary for the Indo-European warriors to have weapons and horses, also the choice of the Copper Age was obligatory, because this was the context of Battle Axes, metallurgy and horse domestication. At the same time, while the concept of the Arian super-race gave shape to the myth of the Battle-Axe horse riding invaders, another myth, within the Arian larger myth, emerged: Pangermanism. Within the Arian superior

race, the German father-founders of IE studies preferred to see the Germanic people as the supermen, the purest and the closest to the original blessed race. This is also why the continental Germanic area for a long time was believed to be the Urheimat of the PIEs (Kossinna!).

In turn, the Pangermanic ideology and its political context gave rise to yet another important myth, the consequences of which are still dominating the field of IE studies: namely that of the extremely late arrival of the Slavs: if the Germanic people were the closest to the pure Arian race, then the Slavs must certainly be the farthest ones! Despite their enormous numbers (half of Europe is Slavic), the Slavs were thought of having hidden somewhere, magically leaving no archaeological trace whatsoever of their presence, until in the Middle Ages they unexplainably (and quite regretfully!) emerge and swarm over Eastern Europe…

After WW2, with the end of Nazi ideology, a new variant of the traditional scenario, which soon became the new canonic IE theory, was introduced by Marija Gimbutas, an ardent Baltic nationalist: the PIE Battle-Axe super-warriors were best represented by Baltic élites, instead of Germanic ones (Gimbutas 1963, 1970, 1973ab, 1977, 1979, 1980).

In so far as it explains why the founders of IE studies came to the preposterous idea of a recent invasions of Neolithic Europe by superior IE warriors, the above illustrated conclusion reached by history of archaeology and linguistics belongs in this survey.

4 A few major corollaries of the six conclusions
In the light of these converging conclusions, four major corollaries can be postulated:

4.1 Antiquity and stability of language and languages, in general

Language and languages are much more ancient than traditionally thought. Consequently, also the record of their change and development must be mapped onto much longer chronology, instead of being compressed into a few millennia, as traditionally done. While traditional linguistics, by reifying language, had made *change* into a sort of biological, organic law of language development, the extraordinarily fast tempo attributed to it would fit the required short chronologies of the recent invasion, the new, long chronologies of language origins and language development impose a reversal of this conception: *conservation* is the law of language and languages, and change is the exception, being caused not by an alleged 'biological law of language', but by major external (ethnic) or social factors, in short by language contacts and hybridization, in concomitance with major political, socio-economic and cultural events (Alinei 1996).

4.2 Antiquity of the grammatical structure of natural languages

As a consequence of this new conception and new chronology of language origins and development, the emerging and formation of the deepest part of natural lexica, namely the different grammatical structures of the world language families – including Indo-European - cannot be dated to the Copper Age or to the Neolithic, as traditionally thought, but must be seen, rather, as representing the awakening and the slow development of human conscience in already geographically and culturally differentiated groups of *Homo sapiens*. A linguistic illustration of this principle will follow in the last part of this paper.

4.3 *Genetic and linguistic continuity is the most reasonable and economic assumption for the study of European languages: the burden of proof falls on alternative models*

The convergence of different sciences towards the same evaluation of the antiquity and continuity of peoples and languages in Europe allows to postulate <u>*continuity* from Paleolithic as the basic working hypothesis for the formation of Indo-European languages, both in Europe and in Asia. Consequently, the burden of proof automatically falls on alternative theories</u>. As of now, no alternative theory has provided adequate evidence against the Paleolithic continuity paradigm. As a consequence:

(1) The 'arrival' of Indo-European people in Europe and Asia must be seen as one of the major episodes of the 'arrival' of *Homo sapiens* in Europe and Asia from Africa, and not as an event of recent prehistory.

(2) The differentiation of IE languages from the Proto-IE common language must have been an extremely slow process, associated with the varying episodes of the original migration from Africa, with the different course of development in the different settlement areas, and with the difference in climatic, ethnic and social contexts. For example: (A) The mysterious 'arrival' of the Celts in Western Europe, obligatory in the traditional theory as well as in that of Renfrew's - must be replaced by the scenario of an early differentiation of Celts, as the westernmost IE group in Europe. Western Europe must have been always Celtic, and in the recent prehistory of the Celts - from the Megalithic culture through the Beaker Bell to La Tène - the direction of their expansion was obviously from West to East and not vice versa. (B) The extremely successful (and sedentary) Mesolithic fishing cultures of Northern Europe must be attributed to Celts, Germanic people and Balts, besides to Uralic people. If the Kunda culture must be attributed to Uralic people, as Uralic language specialists have long claimed, then the Narva culture is Germanic. (C) The totally absurd, fairy-tale like thesis of the so called 'late arrival' of the Slavs in Europe must be replaced by the scenario of Slavic continuity from Paleolithic, and the demographic growth of the Slavs explained by the extraordinary success, continuity and stability of the Neolithic cultures of South-Eastern Europe (the only ones in Europe that caused the formation of *tells*).

Needless to say, these are just three examples: much more can be said on the European linguistic prehistory, utilizing the convergence of archaeological and linguistic data, as I have tried to do in the second volume of my recent book (Alinei 2000).

A few more examples will be given in the following section.

4.4 *Archaeological charts as means to reconstruct ethnic and language development*

Once linguists assume Paleolithic continuity to explain the linguistic picture of Europe (and of IE Asia), they can make systematic and fruitful use of archaeological chrono-stratigraphical charts - both of Europe in general and of the different areas of Europe in particular -, in order to come to the identification of the languages (and dialects: a fundamental, more authentic relic of prehistory than standard languages!) involved in the different periods and areas of development in prehistoric Europe.

As is known, these charts aims at representing, on their two axes, the chronological evolution of prehistoric culture in a given, geographic area. This is achieved by condensing the cultural development of the different sub-areas of the territory in the chart vertical columns, while the different periods of prehistory correspond to the chart horizontal lines. As examples, two European charts are reproduced here: the one that Gordon Childe kept publishing at the end of all the editions of his *Dawn of European Civilisation* (Childe 1925-1957), and a combination of two more recent ones published by Lichardus & Lichardus (1985) in their synthesis on European Neolithic and Chalcolithic.
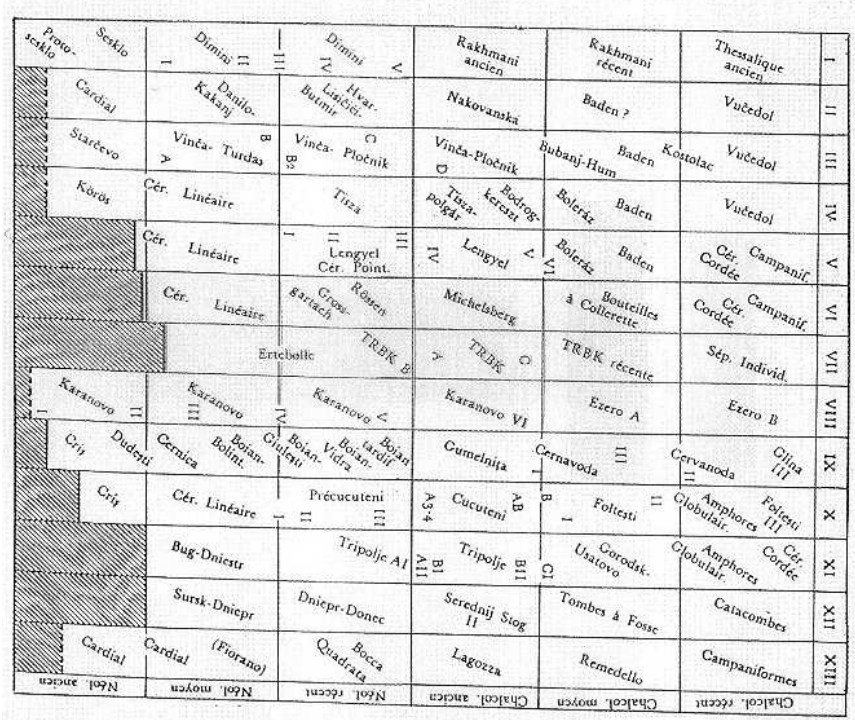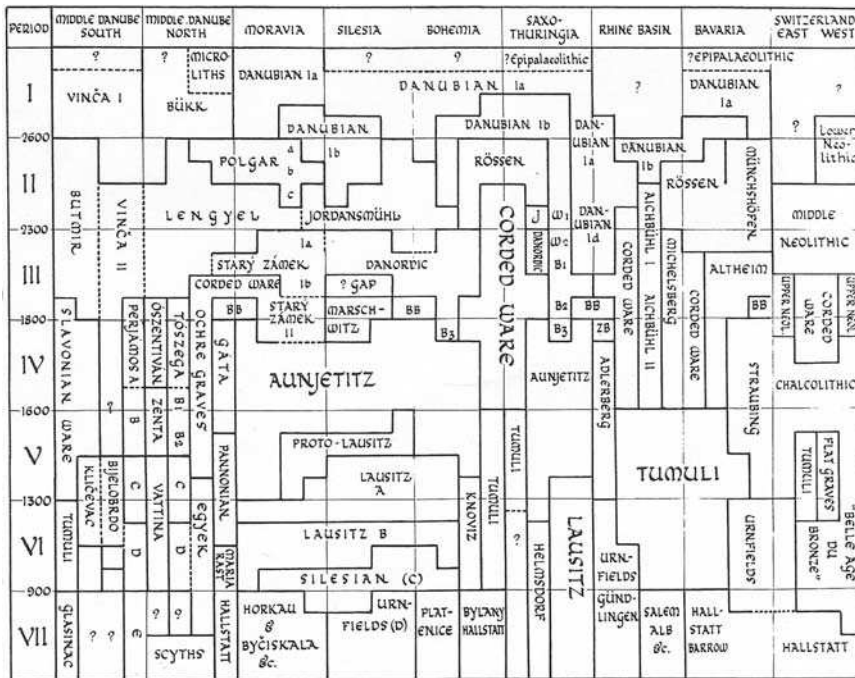
Figg. 4-5

Charts of this kind can be of significant help to historical linguists, and in this regard it is interesting to note that they were first introduced in archaeology precisely by Gordon Childe, the founder of modern archaeology, who, as is known, took a degree in philology before becoming an archaeologist, and was very familiar with both genealogical trees and linguistic maps used by linguists (Burkitt-Childe 1932).

The linguistic (and ethnic) significance of these charts lies in the following aspects:

(i) the choice of the geographical sub-areas, and thus of the chart columns, is not subjective, but is 'governed' by the specific and exclusive sequence of cultural development, which shapes –as it were- each sub-area, identifying and distinguishing it from the others. Each self-generated column has thus its own *identity*. Each of the different developments from the Neolithic Cardial Ware, in each sub-area, for example, can be interpreted as representing a kind of 'dialect' differentiation from the same common 'language'. The same can be said for LBK in Germany and for similar cultural units in other areas.

(ii) The very existence of the chart columns also proves the existence - and the recurrence - of *frontiers* dividing each sequence from the other ones. These frontiers can be neat or fuzzy, but they are always there. And even when they seem to disappear, because of the expansion of contiguous cultures, they usually reappear again in subsequent developments. Depending on their depth, importance and stability, these cultural frontiers can correspond to linguistic-family frontiers, to linguistic-group frontier, to dialect frontiers.

(iii) Each cultural sequence, corresponding to a self-generated column and to a given geographical sub-area, has thus a very distinct and strong cultural identity, which could easily be connected, depending on the period and the area involved, with a language family, a language group, or a dialect group.

(iv) In the framework of the PCP, each set of columns generated by the same root within a given area can be thus considered as a sort of genealogical tree of the relevant sub-areas, and the whole chart as a sort of comparative genealogical tree of the whole area.

(v) As far as Europe is concerned, the picture revealed by these charts, already evident as soon as the archaeological record permits adequate geographical mapping of cultures (i.e. in the late Paleolithic and Mesolithic), is one of the formation of large ethnolinguistic units. This picture continues also in the early Neolithic, until, in the course of Neolithic and increasingly more so in the Metal Ages, a fragmentation of each original 'orbit' takes place. Some periods of frontier shifting and transitional discontinuity, which are caused by the transitory expansion of elite groups in the Metal Ages, usually come to an end in subsequent developments, with the reappearing of the previous frontiers.

All of this seems to correspond quite closely with what we should expect if one or more populations speaking one and the same language –such as the Proto-Indo-Europeans or the Proto-Uralic people- had first spread to Europe from Africa, and then had broken up into different groups, as a result of their exposure first to different ecological niches, different social networks and different neighbors, then to waves of intrusive immigrants introducing agriculture and stock-raising in Neolithic, and later, in the Metal Ages, when stratified societies develop, to waves of invading elites of akin or distant groups, speaking cognate or foreign languages.

Here follow some examples of how archaeological charts can be used linguistically.

4.4.1 The cultural sequence in the Baltic area

CHART I: The cultural sequence of the Baltic countries

	SOUTH	NORTH
Language phylum/group in present Europe	Baltic	Uralic
CHALCOLITHIC (III millennium	Bay Coast Corded Ware/ Boat Axes	(Bay Coast) Pit-and- Comb Ware
CHALCOLITHIC (IV-III millennium)	Globular Amphora	Pit-and- Comb Ware
NEOLITHIC	Nemunas	Narva
MESOLITHIC	Nemunas	Kunda

Within the framework of the now commonly accepted "Uralic Continuity Theory" (s. further), Uralic linguists and archaeologists assume that all cultures of the Northern area (in the chart to the East of the frontier), from the Mesolithic culture of Kunda to the Pit-and-Comb Ware of the Chalcolithic, were Uralic-speaking cultures, and that the first movements of Uralic people into the deglaciated areas came from the Mesolithic Kunda culture. Only at the end of Neolithic, the **non**-Uralic Bay Coast culture spreads to Estonia, but only to be soon reabsorbed by the local Uralic culture. The ethnic and linguistic character of this Northern Baltic population can thus be considered stable, and has already been identified as Uralic. As the chart shows, the cultural frontier between North and South remains very stable for several millennia, namely from Mesolithic to Chalcolithic. Only on the basis of this observation, it would already be justified to infer that also the non-Uralic population to the South of this frontier has been stable. Now, this frontier is also quite close to the present Balto-Estonian language frontier, which is also a frontier between IE and Uralic. Within the framework of the PCT, then, all the cultures of the Southern area be assumed to represent Baltic people and languages.

And the archaeological record confirms this assumption. First of all, the two homonym Mesolithic and Neolithic cultures of Nemunas have been considered two stages of the same culture. Second, the two following cultures - Globular Amphora and Battle Axes -, which are the ones that introduced farming from the South, are universally considered as IE. Rimute Rimantiene, the excavator of the main Lithuanian Bay Coast sites, has concluded that Baltic languages came from the South with the two new cultures, and replaced the language of Nemunas, which, according to her, was probably also IE. She herself, however, assumes that the Globular Amphora and the Battle Axes did not replace the rich and sedentary fishing communities of the Western Baltic coast, but intermixed with them, so that they, together, created the Bay Coast culture. Moreover, the dominant economy remained for a long time fishing, hunting and gathering (Rimantiene 1992). So it seems more logical to assume that the Globular Amphora and the Battle Axes, coming from the South, might have spoken another IE language, probably Slavic, whereas the people who spoke Baltic were the Nemunas people themselves, who eventually absorbed the newcomers.

This hypothesis is further enhanced by the fact that linguistic research has proved that river names in the whole area are Baltic. Now, since the Globular Amphora and Battle Axes intermixed peacefully with the indigenous fishing communities, it

would be logical to assume that it was the fishing sedentary populations of the Nemunas that had already given Baltic names to their rivers.

4.4.2 The cultural sequence in Alsace

CHART II: The cultural sequence in Northern France/Alsace Southern Germany

	WEST: NORTHERN FRANCE	EAST: ALSACE AND SOUTHERN GERMANY
Language group in present Europe	Gallo-Romance	German
CHALCOLITHIC	Bell Beakers	Bell Beakers, Corded Ware
LATE NEOLITHIC	Vienne-Charente, Saône-Rhone, SOM	Rössen
MIDDLE NEOLITHIC	Michelsberg Chassey	Michelsberg, Grossgartach, Hinkelstein, SBK
EARLY NEOLITHIC	LBK, Mesolithic groups	LBK

This archaeological chart shows the cultural sequence in Northern Central Europe from Neolithic through Chalcolithic, with a frontier, between West and East, which like in the previous chart is remarkably stable. As this frontier passes through the French Alsace, exactly where today a line divides the German-speaking minority from the French-speaking population, within the framework of the PCT it can be easily read as the original linguistic frontier separating Celtic from Germanic people.

In fact, as can be seen in the chart, the cultural sequence of German Alsace is basically the same as that of southern Germany, gravitating entirely within the orbit of the LBK, while the western sector presents a completely different developmental picture, typical of (Celtic) Northern France.

4.4.3 The cultural sequence in Western Ukraine and in the Pontic Steppes

CHART III: The cultural sequence in Western Ukraine and in the Pontic Steppes

	Western Ukraine	Pontic Steppes
Late Chalcolithic	Corded Ware, Globular Amphora	Catacombs
Middle Chalcolithic	Gorodsk-Usatovo	Yamna (pastoral nomadism)
Early Chalcolithic	Tripolje AII etc. (farming, fortifications)	Serednij Stog/Chvalynsk (pastoralism, horse-riding)
Late Neolithic	Tripolje AI (farming)	Dneper-Donec (pastoralism, horse domestication)
Middle Neolithic	Bug-Dnestr (farming)	Sursk-Dneper (pastoralism)

Because of the appearing of the famous *kurgan* culture in them, the two sequences shown by this chart can be considered as quite well-known also to linguists. In fact, the evident contrast between the farming cultures in Western Ukraine, and the pastoral ones in the Pontic steppes is what moved Marija Gimbutas to envisage the epochal clash between peaceful autochthonous non IE farmers of the "Old Europe", and the warlike intrusive IE who submerged them. Colin Renfrew has lucidly demolished this myth, but in my opinion has not given a satisfactory explanation of the contrast, which remains quite evident and important.

In the PCT framework this quite conspicuous frontier proves to be the frontier between an already separated and flourishing eastern Slavic population of farmers to the West, and warlike Turkic pastoral nomadic groups to the East, which would be responsible, among other things, of the two innovations of horse raising and horse-riding. Linguistically, this new interpretation has the advantage of explaining the antiquity and the quantity of Turkic loanwords precisely for horse terminology in both branches of Samoyed, in the Ugric languages, as well as in Slavic languages (see also further), and, more generally, the quantity of Turkic neolithic terms in South-Eastern European languages, including Hungarian, which would have been brought into its present area precisely by the *kurgan* culture (Alinei 2003). Interestingly, the uninterrupted continuity of Altaic steppe cultures, from Chalcolithic to the Middle Ages, can be symbolized precisely by the *kurgan* themselves: for on the one hand, the custom of raising *kurgans* on burial sites has always been one of the most characteristic features of Altaic steppe nomadic populations, from their first historical appearance to the late Middle Ages. On the other, the Russian word *kurgan* itself is not of Russian, or Slavic, or IE origin, but is a Turkic loanword, with a very wide diffusion area in Southern Europe, which corresponds to the spread of the *kurgan* culture (Alinei 2000, 2003, and see further).

5 A survey of recent theories on the origins of non Indo-European languages in Europe

Finally, in order to further enhance the PCT as the winning view on the formation of the historical picture of linguistic Europe, it is also important to see how the origins of the non-Indo-European peoples and languages of Europe are currently seen by the respective specialists.

5.1 *Uralic indigenism (Finno-Ugric and Samoyed)*

As far as the Uralic people and languages are concerned, a new theory of their origins was advanced about thirty years ago and is now universally recognized by linguists as well as archaeologists: it is called the Uralic Continuity Theory (UCT) and claims an uninterrupted continuity of Uralic populations and languages from Paleolithic (Meinander 1973, Nuñez 1987, 1989, 1996, 1997, 1998)
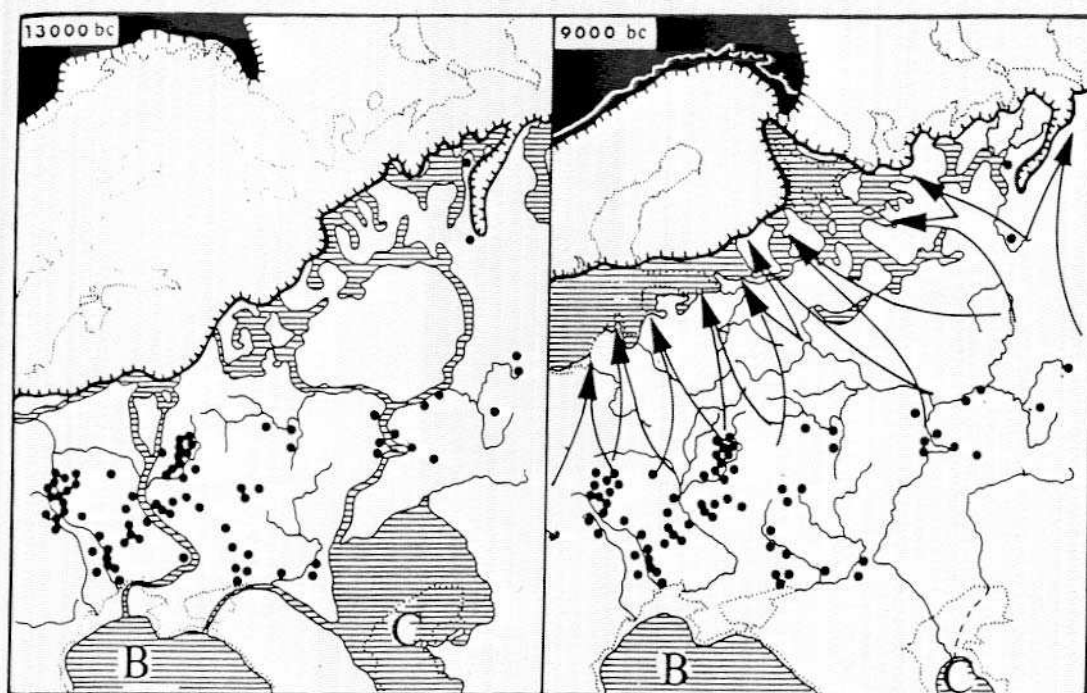
Fig. 6. Map of Uralic settlements

According to this theory, which historically represents the first claim of uninterrupted continuity of a European people from Paleolithic, Uralic people must belong to the populations of *Homo sapiens sapiens* coming from Africa, who occupied mid-eastern Europe in Paleolithic glacial times (fig. 6: map on the left), and followed the retreating icecap in Mesolithic, eventually settling in their present territories (map on the right).

Needless to say, the PCT is the only model that can offer adequate synchronization of the IE language development with the Uralic one, as conceived by the UCT. It would take too long to illustrate this point adequately.

5.2   *Basque indigenism? Recent discoveries*

The main novelties concerning Basque come from genetics, but also traditional linguistics has recently made a most important discovery.

While earlier genetic studies, on the basis of now obsolete methods, saw Basques as an isolated group in Europe, thus enhancing the deeply rooted, traditional idea that the Basques are indigenous, and the Indo-European intruders, recent genetic studies have come to a radically different conclusion. As Bryan Sykes writes: "the Basques have long been considered the last survivors of the original hunter-gatherer population of Europe… [but they are] as European as any other European"; and "If the Basques [a]re the descendants of the original Paleolithic hunter –gatherers, then so [a]re most of the rest of us" (Sykes 2001 182).

True, this conclusion leaves every alternative open as to who are the indigenous people in Europe, the Basques, the Indo-Europeans, the Uralic, or all of them. A recent linguistic discovery, however, has cast serious doubts on Basque indigenism, at the same time producing evidence for a much greater antiquity of Indo-European than traditionally thought. And to make this discovery even more striking is the circumstance that its author is a well-known traditional IE specialist, Francisco Villar (Villar 2000).

In his monograph on Iberian place names and river names the Spanish linguist writes:

"The deepest and most frequent ethnic and linguistic layer, which the study of place names permits us to detect in Catalonia as well as in the Ebro Valley and in Andalusia, is formed by some very ancient Indo-European populations, which created the first network of river and place names, sufficiently dense as to resist successive language changes and to this date"; and "… precisely that part of Spain, which for the last decennia has been called "non-Indo-European", proves to have been the object, paradoxically, of one of the most ancient episodes of the … process of indoeuropeanization of the peninsula" (Villar 2000, 442). And "As far as the Basques are concerned, it is on the contrary unsure whether their presence in the Iberian peninsula was particularly extended or dense. Very few place or people names of Basque etymology can be traced in ancient sources, even in those concerning the historically Basque areas; in these too ancient place and people names have a prevailing IE character" (Villar 2001 229, my translation).

While this conclusion does not solve the problem of Basque origins, it does make in any case evident that the old doctrine of Basque indigenism, opposed to IE intrusiveness, can no longer be maintained.

5.3   Altaic indigenism in the Euro-Aasiatic steppes

Although the origins of the Altaic (i.e. Turkic and Mongol) people and languages has not yet been the object of serious studies, the common opinion is that their presence in central Asia and eastern Europe should be attributed to a recent migration from an unknown focus (with the usual indifference for the lack of any archaeological evidence supporting this event), replacing an earlier layer of Iranian people, in turn considered also as invaders, submerging the prehistoric presumed pre-IE settlers: the typical scenario of ethnic 'merry-go-round' which characterizes the traditional theory.

In my books (Alinei 1996, 2000, 2003), I have argued for Altaic indigenism in Asia and eastern Europe, on the basis –among other things- of the following points:
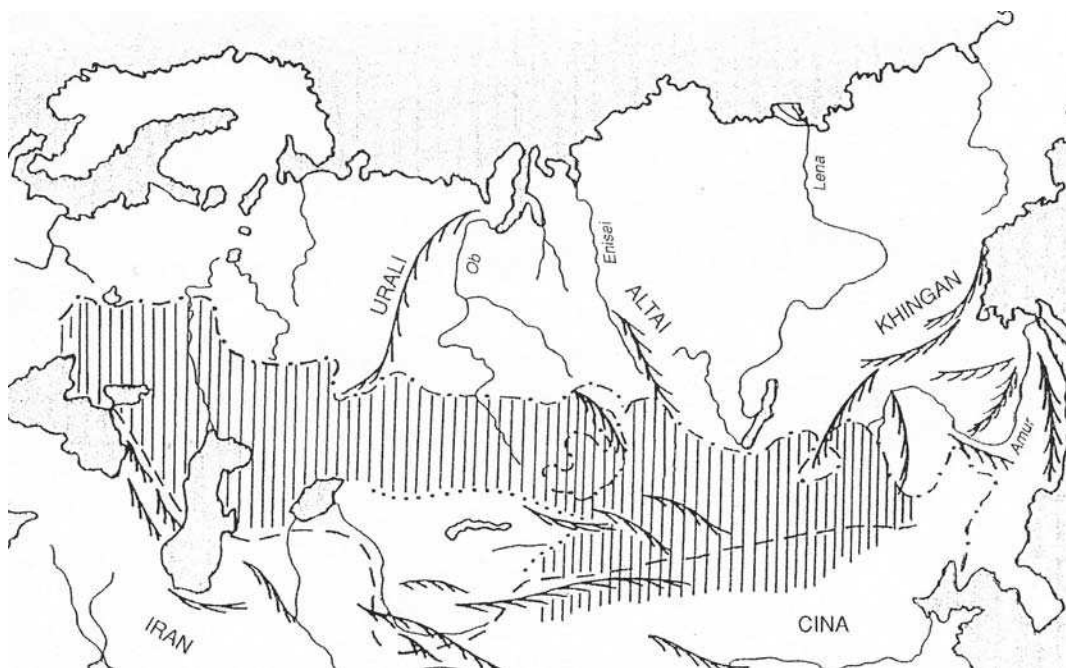

Fig 7. Map of steppes

(1) Throughout history, the Asiatic steppe area has always been inhabited by Altaic pastoral nomadic populations, characterized, among other things, by the use of funerary mounds called *kurgan*.

(2) The word *kurgan* 'funerary mound', which is not only Russian, but is diffused in the whole of South-Eastern Europe (Ru. *kurgán*, ORu. *kurgan=*, Ukr. *kurhán*, BRu. *kurhan*, Pol. *kurhan, kurchan, kuran* 'mound'; Rumanian *gurgan*, dial. Hung. *korhány*), is a loanword from Turkic Tatar: OTc. *kurgan* 'fortification', Tat., Osm., Kum. *kurgan*, Kirg. and Jagat. *korgan*, Karakirg. *korgon*, all from Turkotat. *kurgamak* 'fortify', *kurmak* 'erect'. Its distribution area in Eastern Europe corresponds closely to the spread area of the Yamnaya or *kurgan* culture in South-Eastern Europe.

(3) As is known, the Yamnaya or *kurgan* culture descends from the steppic culture called Serednyi Stog (for bibliography see Alinei 2000). It is within the latter culture that horse domestication and horse riding took place for the first time.

Fig. 8. Map of SS and K
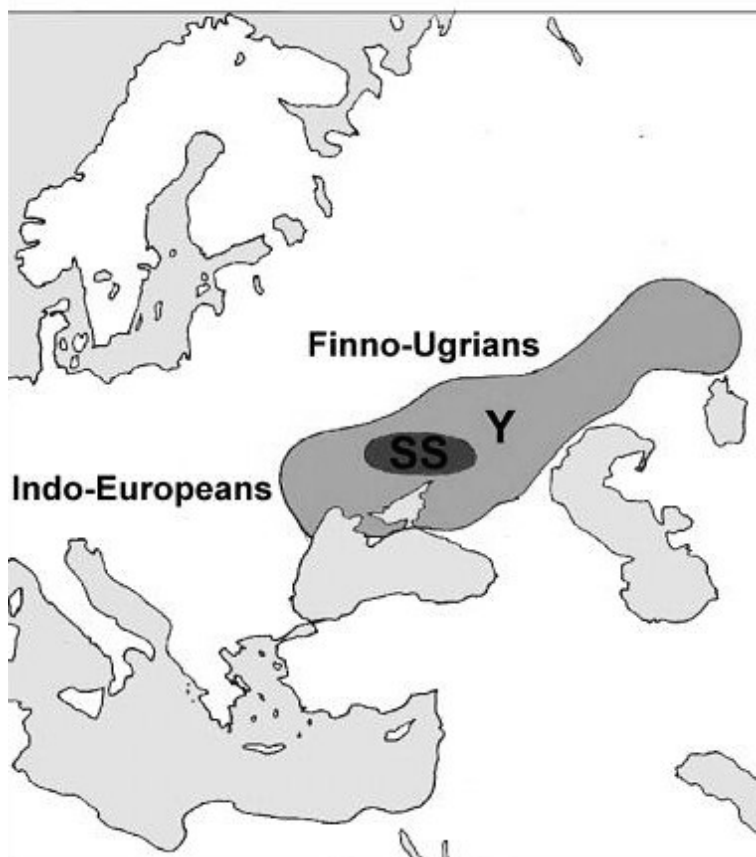
The most economical and productive hypothesis is then to consider both the Serednyi Stog and the Yamnaya cultures as Turkic, which would imply that Turkic people were the first to have mastered horse domestication, and to have passed it on to the neighboring people.

This is confirmed by the presence of Turkic loanwords for horse terminology in both branches (Northern and Southern) of Samoyed and in some Finno-Ugric, the antiquity of which has been proved by specialists, and which imply the antiquity of the Turkic presence in Eastern Europe. For example:

(1) From Ancient Tc *qaptï* , OTsh *qap-* 'to grab with hands and teeth': Proto-Samoyed (=PSam) **kåptə-* (ult. voc. con circonflesso) 'to castrate'; Sam. *kåptə (idem)* 'male castrated reindeer";

(2) From Ancient Tc *yam* 'the typical caravan-tent of the nomads': PSam **yam*, S. *yamda-* 'to travel with caravan-tent';

(3) From Ancient Tc *yunta* (con semicerchio basso su a) 'horse' (generic): PSam **yunta* 'horse', Sam. *yuntə* (con circonfl.) 'idem'.

(4) From Tat. *alaša* 'pack horse' (> Tchuv. *laša* 'horse'), Osm., Crim.- Turk., Kaz., Kar.-Balk. *alaša* 'castrated horse': Mari *alasa* and Mordvin *alaʂa* 'castrated horse'.

Especially important is the presence of such Turkic loanwords for horse terminology in both branches of Samoyed, as it proves beyond any possible doubt that Turkic horse-riders were present in the area after the split between Samoyed and Finno-Ugric - the earliest split that occurred in the Uralic phylum, within the framework of the Uralic Paleolithic Continuity certainly datable to the remote prehistory – but before the split and the subsequent profound differenciation of the two Northern (Nenets, Enets, Nganasan) and Southern (Selkup, Sayan) Samoyed branches, which would be altogether absurd to date after the presumed 'arrival' of Turkic people in Asia in the 3rd or 4th centuries of our era.

This also explains why horse terminology in the European area bordering Asia and in most of Eastern Europe is Turkic (and not IE, nor Iranian!). In Slavic, for example, we have:

(1) From Tat. *alaša* 'pack horse' (> Tchuv. *laša* 'horse'), Osm., Crim.- Turk., Kaz., Kar.-Balk. Alaša: Ru. *lošađ* 'horse', *lošá* 'colt', *lošak* 'mule', Ukr. *łošá* "colt', *łošák* 'young stallion', Pol. *łoszak* 'horse', 'tatar horse', *łosze* (Vasmer, s.v., Buck 3.41);

(2) From Tu. *aygur* 'stallion': Cr., Serb. *ajgir*, Pol. *ogier* 'stallion' (Buck 3.42);

(3) From an Anatolian word, the three groups of cognate terms, represented by: (A) ORu. *komon'*, OPruss. *camnet* 'horse' (lit. *kumelys*, lett. *kumelš* 'colt'); (B) Cr., Serb. *konj* 'horse' 'castrated horse', Cz. *kun* (dia), Pol. *koń* 'horse'; (C) Cr., Serb. *kobila*, Cz., Ru. *kobyla* 'mare' (cp. Lat. *caballus*), (Buck 3.41, DELL);

(4) From Tchuv. *χ⊘mət*, Kasan Tat. *kamət*, Kirg. *kamit* (d), Mong. *χomud* (d): Ru., Ukr., Slovk. *chomút* 'horse collar', Bulg. *chomót* 'idem', Slovn. *homot* (d), Cz. *chomout*, Pol. *chom⊘t*, Sorb. *chomot*, all 'horse collar'. The penetration of this loanword into the Germanic area (Germ. *Kummet*) as well as in North East Italian dialects, proves the importance of the notion, connected with the beginning of horse riding;

In Hungarian and in the other two Ugric languages the main Turkic loanwords related to horse riding and vehicles are:

(5) Ug. **luw₃* (*luγe*) 'horse', Mansi *low, lo, luw*, Khanti *loγ, law* etc. , Hungh *ló* (dial. *lo, lu, lú*), accus. *lovat*; Ug. **närk₃* 'saddle', Mansi *näwrä, naγər* etc., Khanti *nöγər*, Hung. *nyerëg*; Ug. **päkka* 'reins', Mansi *behch* (17th cent.), Khanti

päk etc., Hung. *fék*; Ug. **säkₛrₛ* 'vehicle', Khanti *liker*, *ikər*, Hung. *szekér* (UEW s.vv., cf. Róna-Tas 1999, 97).

If IE or Iranian people had been the first horse-riders, as maintained by the traditional theory, we would expect to find a large number of IE or Iranian words also in neighboring areas, instead of this conspicuous series of Turkic loanwords.

Also the presence of very ancient Turkic loanwords in Hungarian, recognized by Hungarian scholars and unrelated to horse-riding, proves the antiquity of the Turkic presence in the European area bordering Asia. As is known, many ancient Turkic loanwords in Hungarian are related to farming ('corn', 'barley', 'plow', 'wine' etc.), stock raising (pig, calf etc.), and to very ancient customs (totemic clan names), which specialists consider prehistoric and date to the period preceding the so called *Honfoglalás* ('conquest of the territory').

6 Reading the European linguistic record in the light of the Paleolithic Continuity Theory

Coming now to the final, and for linguistics the most important part of my contribution, I will give a few examples of how the rich linguistic record produced by IE scholarship in the last one and half century can be read in the light of the new Paleolithic Continuity paradigm, and at the same of how this new reading compares with the two alternative ones.

6.1 Paleolithic 'I' and other grammatical words

Whichever theory one chooses on the origins of IE languages, cognate grammatical words, such as the pronominal forms for 'I' and 'me', common to all IE languages, should now be considered as to belong to the origins of Homo loquens, and thus to Paleolithic: for they can only represent the awakening of individual conscience. Otherwise, we would have to assume a 'new' discovery of human EGO either in Neolithic or in the Copper Age, a hypothesis that does not deserve a serious discussion. Needless to say, this reading does not tell us anything on the location of the Proto-Indo-Europeans in Paleolithic, but it does constitute firm evidence for the very remote antiquity of PIE.

COGNATE GRAMMATICAL WORDS MUST BELONG TO PALAEOLITHIC: "I" "ME"

PIE	CELTIC	GERM.	ITALIC	GREEK	ALB.	BALTO-SLAVIC
*eg-, ***eg(h)om,** ***ego** Nom. pers. pron. 1st sg.' (IEW 291)		Goth. *ik* OHG. *ih* PNord. *ek, ik* OIcel. *ek*	Lat. *ego* Venet. *eχo*	*egó*		Lith. *àš* Latv. *es* Opruss. *es, as* OSlav. *azŭ* Russ.,Pol., Slovn. *ja*
PIE ***me-** Obl. form of pers. pron. 1st sg. (IEW 702)	W. *fy^{n}* Bret. *ma* Oir. *me* 'I' W. *mi* 'I'	Goth. *mik*	Lat. *mihi* Umbr. *mehe* Ven. *meχo* Lat. *me(d)*	*emeîo, moi, emé, me*	*mua, mue*	Lith. *manè,* OLith. *mi* OSlav. *mene, mę*

6.2 From Middle to Upper Paleolithic: the Indo-European names of 'bear'

Relevant not only for the antiquity, but also for the location of IE languages is then the following example: some I-E languages, such as Sanskrit, Latin and Greek, have preserved the 'real' name of the bear **rkÞo-s*, while others have replaced it with different innovations, all clearly connected with a taboo prohibiting to pronounce the animal real name. In both the traditional and in Renfrew's model we would have to assume that this substitution process would have taken place either in the Bronze Age

for the former, or the Copper Age for the latter. But both of these dates would be preposterous: why would be the bear be tabooed in the Metal Ages, long after hunting had become marginal to production?

Much more realistically, the PCT projects the common IE name of the bear in the Middle Paleolithic, that is prior to the beginning of religious beliefs, and the new noa bear names in the Upper Paleolithic, when religious thinking begins and when, incidentally, many forms of bear cult begin to be attested.

FROM MIDDLE TO UPPER PALEOLITHIC:

THE INDO-EUROPEAN NAMES OF 'BEAR'

MIDDLE			PALEOLITHIC:
Common IE ****rkÞo-s*** 'bear' (cp. Aind. *rksas*, Lat. *ursus*, Grk. *árktos* etc.).			
FIRST ATTESTATIONS OF BEAR CULT IN UPPER PALEOLITHIC			
The different European names of the 'bear' are typical noa names, replacing the tabooed one, and must thus belong to Upper Paleolithic:			
CELTIC 'good calf':	GERMANIC 'brown':	BALTIC probably 'hairy':	SLAVIC 'honey eater':
OIr. *mathgamain*, Ir. *mathghamhain* (from *maith* 'good' and *ghamain* 'calf')	OIcel. *bjorn*, Dan. *bjørn*, Swed. *bjorn*, Engl. *bear*, Germ. *bär*, Du. *beer*, etc.	Lith. *lokys*, Latv. *lacis*, OPruss. *clokis*	OSlav. Cr., Serb. *medvjed*, Cz., Slovn. *medved*, Pol. *niedzwiedz*, Ru. *medved'*, Ukr. *medvid*

6.3 *From Middle to Upper Paleolithic: 'die' and 'bury'*

IE has a common word for 'dying', but not for 'burying'. Within the traditional frame, it is difficult to understand why and how this would occur (and this is probably why no discussion of this problem seems to be present in the literature): given the assumption that the *kurgan* was the typical burial of the Proto-Indo-Europeans, should we not expect a common IE name also for 'burying'? And also in Renfrew's model, why would PIE farmers invading Europe and still speaking a common language, have innovated their common word for 'burial' in every single IE area, after their arrival?

In the PCT framework, on the contrary, the notion and the word for 'dying' can be quite simply projected in Middle Paleolithic, and therefore seen as belonging to the Common IE, while the notion of 'burial' –necessarily belonging to the Upper Paleolithic (when ritual burial began, but IE languages were already differentiated), could only be expressed by different IE words.

FROM MIDDLE TO UPPER PALAEOLITHIC: 'DIE' AND 'BURY'

		CELTIC	GERMANIC	ITALIC	GREEK	BALTO-SLAVIC
MIDDLE PAL.	'to die'	PIE *mer-	PIE *mer-	PIE *mer-	PIE *mer-	PIE *mer-
UPPER PAL. (beginning of ritual burial)	'to bury'	Oir. *adnaicim* W. *daearu*, Br. *douara* etc	OIcel. *jarđa*, *grafa* Swed. *jorda*; Germ. *begraben* Du. *begraven* Engl. *bury* etc.;	Lat. *sepelīre*	Gr. *tápto*	Lith. *(pa)laidoti pakasti*; Latv. *aprakt*, *apbedīt*; OSlav. *pogreti* Cr., Serb. Slovn. *pokopati* Cr. Serb. *sahraniti* Slovn. *skriti* etc.

6.4 Mesolithic: some Indo-European names for 'tar'

The production of tar from trees is unanimously considered by archaeologists as a Mesolithic technological innovation. It is then quite significant to note that Celtic, Germanic, Latin/Greek and Balto-Slavic have a different name for 'tar', though all based on IE roots. The Germanic word *tar teer* etc., for example, clearly comes from the common IE word designating 'tree'. In the traditional, as well as in Renfrew's scenario, this lexical differentiation cannot be explained: why would PIE, arriving in the Copper Age or in Neolithic, and certainly having a common word for 'tar', have innovated it in Bronze or Copper Age, when tar played no special role?

Within the PCT, in Mesolithic IE languages would have already been differentiated, and at the time of the invention each language would have simply chosen its own word.

MESOLITHIC:
INDOEUROPEAN NAMES FOR 'TAR'
(Production of tar from trees begins in Mesolithic)

CELTIC	GERMANIC	LATIN	GREEK	BALTO-SLAVIC
(Gall-Lat.) *betulla* 'birch' > *bitumen* 'tar'	PIE *ter* 'tree' > Engl. *tar*, Germ. *Teer*, Du. *teer*, Dan. *tjœre*, Swed. *tjära*, Norw. *tjøra* 'tar' (> Finn. *terva*.) etc; OIcel. *tjorr* 'wooden haft glued to a weapon'	*pinus* 'pine' > *pix, picis* 'tar' (It. *pece*, Fr. *poix*, Sp. Pg. *pez*, Occ. Cat. *pega* etc.)	*pítys* 'pine' > *píssa* 'tar'	PIE *smel* 'burn' > Latv. *smęli*, Lith. *smelà*, Bulg., Cr., Cz., Ru., Serb., Slovk., Slovn. *smola*, Pol., Ukr. *smoᴎa*

6.5 *Mesolithic: Indo-European names of the 'bow'*

Even more absurd is the reading obtained in the traditional and in Renfrew's model, for the IE names of the 'bow', another fundamental invention of Mesolithic. Assuming the existence of a common IE name at the moment of the invasion, either in the Copper age or in Neolithic, what would have caused an inclination to innovate this name everywhere, after the alleged IE invasion, since neither in Neolithic nor in the Metal ages did the bow undergo any special development? Within the PCT, the already differentiated IE languages would have simply developed a different name.

MESOLITHIC:
INDO-EUROPEAN NAMES OFTHE 'BOW'
(The bow is a Mesolithic invention)

Celtic	Germanic	Latin	Greek	Baltic	Slavic
Bret. *gwareg* < *gwar* 'to bend'	**beuga-* 'to bend' > Germ. *bogen*, Engl. *bow*, Du. *boog*, Dan. *bue*, Swed. *båge*	*arcus* > It., Sp. *arco*, Fr., Rum. *arc*	*toxon*	Lith. *lankas* cp. *lenkti* 'to bend'; Latv. *stuops* < *stiept* 'stirare'	Oslav. *ląkŭ*, Cr., Cz., Ru., Serb. *luk*, Pol. *łuk*

6.6 *Neolithic: *Proto-Slavic *lędo 'fallow land' ~ Proto-Germanic *landa- 'land'*

As is known, English and German *land*, as well as well as all their numerous cognates in the other Germanic languages, are connected with the Slavic names for 'fallow land', which in turn are the basis of the Slavic name for 'Poland' and 'Polish' – Ru. *ljax* 'Polish', Serb. Cr. (obs.) *Leðanin* 'Polish' (> Hung. *Lengyel* 'Polish') -, motivated as 'opener of new fields'. As etymologists have recognized, the specialized meaning 'fallow land' of Slavic languages must have preceded the more general meaning of 'land' of Germanic ones.

Now, while it is evident that this semantic sequence necessarily implies an earlier Neolithic development for the Slavs than for the Germanic people, the traditional scenario makes this implication altogether unconceivable even for Germanic people (not to speak of Slavs!), as we have to assume the arrival of the PIE invaders only in the Copper Age! In Renfrew's chronology, although it is not at all clear as to how and when Slavic languages are formed, this priority of Slavic Neolithic over the Germanic LBK is at least possible.

NEOLITHIC:
*PROTOSLAVIC *LĘDO* 'FALLOW LAND' ~ PROTOGERMANIC *LANDA-* 'LAND'

	GERMANIC	SLAVIC
NEOLITHIC A1		Protoslav. *lędo 'Rodung, Neuland' Russ. *ljadá* 'mit jungem Holz bewachsenes Feld, Neubruch, Rodeland', Ukr. *l'ado*, BRuss. *lado* 'Neuland', Cr., Serb. *lèdina*, *ledìna* 'Neuland', Slovn. *ledìna*, Czech *lada*, *lado* 'Brache', Slovk *lado*, OSorb. *lado* 'Brache' etc.
NEOLITHIC A2		Russ. *ljax* 'Polish', Cr., Serb. *Le⇨anin* 'Polish' etc. (> Hung. *Lengyel* 'Polish'),
NEOLITHIC B	Germ., Engl., Du., Icel., Norw. Swed. etc. *land*	

6.7 *From Neolithic 'enclosure, village' to Chalcolithic 'fortification': zaun town dunum; hortus garten grad*

The semantic development from 'enclosure' 'garden' through 'town' to 'fortification' occurs twice in Europe, in two partially overlapping areas, and with two different lexical families, as shown by the following Table.

FROM NEOLITHIC 'ENCLOSURE, VILLAGE' TO CHALCOLITHIC 'FORTIFICATION'

	CELTIC	GERMANIC-1	GERM.-2	GREEK, ITALIC	BALTO-SLAVIC
EARLY NEOL.		Germ. *zaun* 'enclosure, hedge' dial. Engl *tine* 'enclose, enclosure', OIcel. *tún* 'enclosure', dial. Swed. *tun* 'idem' etc., Du. *tuin* 'garden, orchard', OEngl. *tun* 'garden'	Germ. *garten*, Engl. *garden*, AIcel. *garðr* 'hedge', 'garden'	Grk. *chórtos* 'hedge, court'; Lat. *hortus* 'orchard'	Lith. *gardas* 'enclosure', OSl. *graždŭ*, Bulg. *graž*, Cr. Serb. *građa*, Slovn. (acc.) *grája*, Ru. *goróža*, Ukr. Bru. *horóža* all 'enclosure'; Cz. *hráze* 'garden-wall', Slovk. *hrádza* 'idem', Pol. *grodza* 'hedge', OSlav. *gradŭ*, *ogradŭ*, OSlav. Bulg. etc. *gradina* Pol. *ogród*, Cz. *zahrada*, Ru. *ogorod*, all 'garden'

NEOL.		Engl. *town*, OIcel. *tún* 'town'			OSlav. *gradŭ*, Cr.Serb. Slovn. *grad*, Czech *hrad*, Pol. *gród*, Sorb. *grod*, Ru. *górod*, Ukr. *hórod*, all 'town'
CHALC.	Gallic *dunum* 'fort'				OSlav. *gradŭ*, Ru. *grad*, Czech *hrad*, Pol. *gród*; Cr., Serb. *gràdina*, Slovn. *gradìna*, Bulg. *gradište*, Czech *hradište*, Ru. *gorodišče*, all 'castle, fortification'

Now the first part of this semantic sequence (from 'enclosure' to 'garden' and to 'village') can be explained adequately only if placed against a Neolithic scenario, while the subsequent passage to 'fortification' is a typical development of the Metal Ages.

However, in the framework of the traditional scenario the whole semantic sequence does not make any sense, as no cultural development of this kind can be witnessed after the Copper Age. To make it even more difficult, the areal distribution of both word families implies a direct, territorial continuity from Neolithic to Metal Ages.

Also in Renfrew's model the sequence cannot be explained in any precise and satisfactory way, since the formation of Slavic languages within the Balkanic Neolithic Complex is left to the imagination, and – more important - that of the Celts in the West remains just as problematic and contradictory as in the traditional model.

Only in the PCT is there is a perfect coincidence between the two sets of data: the *grad* sequence, in the Slavic area, corresponds exactly to the extraordinary stability and continuity of Neolithic cultures in South-Eastern Europe, characterized first by *tells* formation (the only ones in Europe!), and later by fortified villages. While the appearance of only the initial stages of the sequence in Latin *hortus* and Germanic *garten/garden* corresponds with a much less stable Neolithic in both areas. Also the Celtic development (*dunum*) fits the model, as it would show the dependence of Celtic Neolithic on the Germanic LBK, and the originality of the Celtic contribution to the cultural development of Western and Central Europe in the Metal Ages.

7 The Slavic ethnogenesis in the framework of the PCT[1]

7.1 Introduction

Three preliminary remarks are in order:
- (A) the Slavic area corresponds to almost half of Europe. As such it is the continent's largest, and the only one that includes three climatic zones (sub-arctic, continental and Mediterranean) and almost all ecological zones: arctic, tundra, coniferous forest, mixed forest, steppe-forest, steppe, semi-desertic, Mediterranean, alpine.
- (B) In spite of their huge extension, Slavic languages are much less differentiated than, for example, the Germanic or the Romance.

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[1] This section summarizes parts of the two chapters of my book (Alinei 2000) devoted to the Slavic area.

(C) Slavic languages have also a unique, asymmetric areal distribution: while Southern Slavic languages (Slovenian, Serbian, Croatian, Macedonian and Bulgarian) form a homogeneous bloc, sharing several common features, for Northern Slavic languages it is necessary to distinguish between a Western branch (including Czech, Sorbian and Polish), and an Eastern one (including Russian, Ucrainian and Belo-Russian), as each of the two branches shares different features with Southern Slavic.

An adequate theory of Slavic ethnogenesis will have to provide a satisfactory and coherent explanation for these three fundamental aspects of Slavic: enormous extension, extraordinary homogeneity, and areal asymmetry between South and North.

7.2   *The traditional theory of Slavic ethnogenesis*

The old version of the traditional theory assumed, as is known, the 'arrival' of the Slavs in historical times, following their alleged "great migration" in the 5th and 6th centuries of our era, from an unknown area. It claimed that this is the reason for their large extension and phenomenal homegenity. Even though this radical thesis is now maintained only by a minority (represented by Schenker), its more recent, variously modified version, at present favoured by the majority of Slavists, does not differ substantially from it: for what is now admitted is simply the presence of the Slavs in the Bronze and Iron Age in a small area of Eastern Europe. So that the 'arrival' of the Slavs is now placed eralier, i.e. in the Bronze or in the Iron Age, while the "great migration" would still have taken place in historical times. In short, 'only' the last, huge wave of the Slavic migration would be dated so recently.

Though – as we have seen in the preceding sections - the real cause for the assumption of such a short chronology for the origins of the Slavs lies in the ignorance of some basic modern developments concerning both linguistics and other historical sciences, Slavic specialists tend to justify it also by appealing to the recent dates of the earliest attestations of Slavic languages (9th century, when the missionaries Cyril and Methodius invented the glagolitic alfabet (from which derives the cirillic one), and translated parts of the Bible and of the orthodox lithurgy into what is called Church Slavic), as well as those of the earliest mentions of Slavic people, in the works of the historians of the 5th and 6th centuries.

However, overwhelming evidence, which I have illustrated in detail in my books (Alinei 1996, 2000), proves that the date of the earliest attestations and the earliest mentions of historians have absolutely no relevance for the problem of dating the 'birth' of a language or of a people. Writing is an entirely separate phenomenon from speaking, connected as it is to the forming of highly developed stratified societies, with a dominating elite needing writing to exercise its full power, and thus to a very recent development of European history. Its appearance can thus vary from place to place. To give only three examples: (i) Baltic and Finnic languages are attested much later than Slavic, yet nobody – even among traditionalists - has ever thought that Baltic has arrived into Europe around that time; (ii) for Finnic, the Uralic Continuity Theory now universally accepted (see above) claims a Palaeolithic origin…; (iii) even more absurdly, the first attestations or the first mentions in writings of most European sub-standard dialects belong to modern times, yet nobody dares think they have 'arrived' or formed so recently. Therefore, we cannot consider the argument of the earliest attestations and earliest mentions as a serious one. We will return to this point further.

As to the prehistoric presence of Slavs in Europe, for a long time the preferred theory was that the earliest Slavs could be identified with the so called **Lusacian** culture

of the Middle and Final Bronze and Iron age, typical of the Polish area and forming a part of the Urn Fields area (see for ex. Neustupný e Neustupný 1963, 195).

At present most specialists agree (cp. Mallory 1989, 78) –with slight variations- on the opinion that the minimal area occupied by Slavs in the Iron or Bronze Age is that indicated for example by Bräuer (1961 I, 29): from Eastern Galice to the upper Don, through Volinia, Podolia, the area on the two shores of Middle Dneper (Kiev, Ǯernigov), Poltava, Kursk and Orel. To the North would live the Balts, and to the North of the Balts the Finnic people. To the South there would be Iranians (Scythians) and (from the 7th century on) Sarmatians. On the Black Sea the coastal cities would be Greek and to the East of the Slavs the Iranians would extend to the Uralic Mordvins, in the area of Tambov.

For Mallory, the area would be slightly larger, i.e. between the Elbe and Middle Dneper (Mallory 1989, 78). The earliest horizon to which Mallory arrives is that of the **Trzciniec** culture, of the Middle Bronze (second third of the 2nd millennium), extending from the Oder to the Middle Dneper, and sharing the main features of the Corded Ware and Battle Axe Culture. In this vision he follows many Polish and Russian scholars, who give particolar attention not only to the Trzciniec culture, but also to Battle Axe cultures such as those of **Komarovo** in the Carpathian area, and of **Belugrudovo** in Ucraine, on the Dneper (cp. Telegin 1994, 403-405). These cultures are considered the origin of the Lusacian one, so that we could say that in comparison with the preceding generation, present scholars have gone one step down in the archaological stratigraphy, reaching the earliest possibile level permitted by the general chronology of the *kurgan* canonic theory. Despite the controversy on Trzciniec (which Gimbutas and Baltic scholars claim for themselves!), Mallory concludes: "It is difficult to deny that there existed a geographical centre weighted between the Vistula and Dnieper which is most commonly agreed to be Proto-Slavic and which appears to display a continuity of cultural development from about 1500 BC (or earlier) to the historical appearance of the earliest Slavic peoples" (Mallory 1989, 81). In more general terms, Mallory admits that "A long geographical stasis for the Slavs [...] is probably the model that would be most readily accepted by linguists who see in the Slavic language group little reason to assume that they have moved much since their development from Proto-Indo-European" (Mallory 1989, 81)[2].

Before Trzciniec, in short, we would have the mysterious realm of the "Old-Europeans", all speaking one or more pre-I-E languages.

7.3 *Objections to the traditional theory*

Let us now test this theory against the three points we have made at the outset: the enormous extension, the extraordinary homogeneity and the geographical asymmetry of the Slavic languages. And let us begin by the last point, which I think has gone unnoticed by traditional scholars.

7.3.1 **The areal asymmetry of the Slavic areal distribution**

As a specialist in geolinguistics, I have always been surprised by the fact that Slavic specialists have failed in noticing or appreciating the extraordinary diagnostic value – from a geolinguistic point of view - of the asymmetric configuration of the Slavic area. Even more so since the cause of this asymmetry is quite well-known, and explicitly stated in all handbooks for first-year students of Slavic: Northern Slavic does not form a

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[2] For a similar position see Andersen (1993, 443).

single unit, but each of its two branchings - the Western and the Eastern - shares different features with Southern Slavic.

Now, from a geolinguistic point of view, there is just one explanation possible for this peculiar and transparent areal configuration: Southern Slavic must form the earlier core, while the two Northern branchings must be a later development, each with its proper history and identity. No other explanation is possible, unless one challenges the very raison d'etre of IE and Proto-Slavic reconstruction, besides common sense.

Needless to say, this simple remark demolishes the whole construction of the Slavic homeland in Middle Eastern Europe and of the Slavic migration in traditional terms, as well as all of its corollaries. But let us check the other two points, before developing it further within the framework of the PCT.

7.3.2 The Slavic enormous expansion

The only evidence for a great migration of Slavs in historical times that traditional scholars can possibly claim lies in a literal reading of the mentions of medieval historians, such as the Thracian Priscus of Panion (5th century), the Greek Procopius of Cesarea (6th century) and the Goth Jordanes (6th century), or those of the Church (e.g. Conte 1990, 33-34). But it is quite evident that such mentions do not point unambiguously to an 'invasion' or 'migration' of Slavs, but can just as simply be taken as to refer to pre-existing Slavs, the presence of which even traditional scholars now admit. When, for example, John of Ephesos, bishop of Constantinopolis under Justinian (527-65) mentions the innumerable raids into the Bizantine territori by "the damned people of the Slavs" he damns them because they were still pagan, and not because they are 'arriving'! And when, in his *De rebus Gethicis* Jordanes describes the location of the Venedi, and writes that they inhabited the area "From the source of the Visla river and on incommensurable expanses", he does not give the slightest indication of a recent arrival of theirs, but simply describes a statu quo. And I challenge Slavic specialists to find any indication of a recent arrival of the Slavs in their area in other medieval sources.

Not only, but when earlier historians, living in the centuries preceding the supposed arrival of the Slavs, write that the population of the Carpatian Basin offered a drink called *medos* (Proto-Slavic *med*= 'drink produced with honey") the Byzantine ambassadors directed to the court of Attila (king of the Huns), and that a part of the funeral rituals for Attila's death was called *strava* (medieval name of a Slavic funeral ritual), only a biased reader can find evidence in this for the "first infiltrations" of Slavs in the Carpatian area, especially as they seem to have left not trace of their coming! (Neustupný e Neustupný 1963, 196).

The much simpler truth is that the Slavs were there from remote times. For, again, the first mention of peoples in writing depends on the birthday of writing, and not on the birthday of peoples!

In short, if such an enormous expansion of the Slavs both to the South and to the North from their alleged homeland in Middle-Eastern Europe had really taken place, the most important evidence we should expect to find would be archaeological. Which is entirely missing. Just as we miss any discussion of this point in Mallory's book –and certainly not by accident, given the fact that Mallory is an archaeologist. I fail to see, then, how an archaeologist can advance the hypothesis of a massive expansion that involves half of Europe, and is capable of entirely changing its linguistic identity, without the slightest archaeological evidence: unless it is a curious case of underestimation of one's own science.

Another fundamental objection to this thesis lies in the fact that, following the traditional scenario, we would have to assume that this 'great migration' involved also the Southern Slavic area: an absolute impossibility, as we have just seen. If there has been a 'migration', it must have proceded from South northwards.

A third, fundamental objection to this thesis is the contradiction between the idea of a medieval migration and the total disappearance of the presumed pre-existing languages. Not even modern mass migration and colonization, despite the enormous technological and cultural difference between the migrants and the indigenous people, have caused the total extinction of all autocthonous languages in the New World. The ideal of the extinction of all alleged pre-Indo-European languages because of a Copper Age IE migration is already hard enough to admit, given the same reason, plus the fact that research on pre-Indo-European has never produced any serious result (Alinei 1996, 2000). How can we accept such an idea for the Early Middle Ages, and for the highly civilized areas of Southern Eastern prehistoric Europe? What and where would the pre-Indo-European substrate be in Bulgaria, Macedonia, Serbia, Croatia, Bosnia and Slovenia? Unless we associate this late migration to a gigantic genocide – a phantascientific hypothesis – this hypothesis does not belong to serious scientific thinking.

7.3.3 The homogeneity of the Slavic languages

Unquestionably, the homogeneity of the Slavic languages, which contrasts so strikingly with the internal differentiation of Germanic, Romance and Celtic, for example, can only be explained in two ways: by positing: (A) a very high degree of cultural and social stability for a very long period, or (B); a most rapid expansion of the Slavs, the tempo of which would have prevented the original Slavic language (Proto-Slavic) from changing in the new areas. Something like what happened, for instance, to the English language of the Pilgrims when they migrated to America, for its rapid expansion into the new continent produced much fewer dialectal differences –despite its enormous area – than, say, British English shows in the island of England.

The traditional theory was indeed coherent with this approach, when it assumed the 'arrival' of the Slavs in historical times, following their 'great migration'. This scenario did indeed involve a sort of blitz-invasion of most Eastern Europe, which in turn would explain the homogeneity of the Slavic languages as they are now. But in the modified scenario now current for Slavic specialists, envisaging a chronological gap of two millennia from the first 'arrival' in the Bronze age, and the later 'migration' of historical times, how can this argument still hold? Rather than beeing stable, the two millennia of the Bronze, Iron Age and the beginning of our era form – on the contrary - one of the most turbulent periods of European prehistory, protohistory and history: Celts, Greeks, Romans, Illyrians and other people (including Slavs themselves, if we accept this theory!), were constantly on the war path, occupying other people's territories, and greatly influencing their languages and cultures, as the numerous Celtic, Greek and Latin loanwords in the Slavic languages abundantly witness.

7.3.4 The demographic explosion of the Slavs, preceding their great migration

Neither version of the traditional theory can provide a satisfactory answer to the twofold question underlying the hypothesis of the great Slavic migration in the Early Middle Ages: What prehistorical or historical circumstances would have brought the Slavic people first to their demographic explosion and then to their great migration, both of

which made them into the dominating population of Eastern Europe, from North to South, and the most numerous group in Europe? Neither archaeology nor history gives us the slightest piece of evidence for such events which, as we have already noticed, would have caused nothing less than the almost total disappearance of the previous populations and of their languages. Notice that we followed the traditional theory we wold have to assume not only that the Proto-I-E people would "arrive" with the *kurgan* culture from the Ukrainian steppes, in the Copper Age, while the Slavs would "arrive" in Central Eastern Europe in the Bronze Age; but also, and especially, that after their arrival they would multiply like ants, and would then occupy almost the whole of Eastern Europe, from the arctic area and the tundra to the shores of the Black Sea. Can such a preposterous thesis be in all seriousness advanced, in the 21st century, with the progress made in so many scientific fields such as archaeology, anthropology, general linguistics, and without a single piece of evidence? If we then also recall that the core area of the Slavs was the South and not the North – as the geolinguistic picture irrefutably indicates - what remains of this construction?

7.3.5 The diagnostic value of the etymological semantic change from *Slav* to *slave*

A last argument against the traditional view of the Slavic ethnogenesis, and in my opinion just as strong as it is new, can be found in the historical events involving Slavs in the very period of their historical appearance in Europe.

As is known, most western European words designating the notion of "slave" derive from the Latin word *sclavus*, originally meaning "Slavic": not only English *slave*, but also German *Sklave*, Dutch *slaaf*, Danish *slave*, Swedish *slaaf*, Welsh *slaf*, Breton *sklav*, French *esclave*, Spanish *esclavo*, Portuguese *escravo*, Italian *schiavo*, Albanian *skllaf*, Modern Greek *sklavos*, etc. The word has also entered Spanish Arabic, where it has become *saklabi* or *siklabi*, plural *sakaliba*, with the meaning of "eunuch". In Italy, Lat. *sclavus* has developed into *schiavo* in the dialect of Florence, which eventually has become standard Italian. But in Northern Italian dialects, in particular in the dialects of Veneto, through regular phonetic developments, *sclavus* 'Slav' as well as 'slave' has become first *sciavo*, then *sciao*, and finally *ciao*, the Italian informal greeting, now internationally known[3].

As to the semantic change from the notion of "slave" to a simple greeting, it can be easily explained by comparing the very similar development by which in certain parts of central Europe the word *servus*, originally meaning "servant", has become a common greeting.

Why is all of this important for the traditional theory of the ethnogenesis of the Slavs? Because of the passage from the meaning of 'Slav' to the notion of 'slave', and its great historiacl significance. Let us see this in greater detail.

There is a whole collection of medieval sources, which would take too long to list, but which have been systematicaly studied by the three fundamental studies on the history of Lat. *sclavus* (Aebischer (1936, Verlinden (1943), (1955)), which shows that the earliest attestations of the word *sclavus* date back to the Early Middle Ages: precisely when the Slavs, in the traditional scenario, should undertake their 'great migration'. Indeed we find the meaning 'slave' associated to the word *sklavos sklavus*

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[3] Interestingly, the same development, but completely independent of the Northern Italian one, took place in South Eastern Italian dialects, where *schiau* has the same origin and the same meaning as *ciao*. Notice that South Eastern Italy was also an area of very early Slavic influence, through importation of slaves (cp... Aebischer 1936, 487).

generally used in Byzantine Greek and Late Latin documents of the 10th century of our era, and most philologists and historians who have discussed the problem are inclined to read "slave" instead of "Slav" in many earlier attestations. Still earlier, the first attestations of the word in the sense of "Slavic" can also be found in Greek, in the 6th century of our era. According to Vasmer himself, for example, the attestation of *sclavos* in Agathias (6th century) already has the meaning of "slave" (Aebischer 1936, 485).

How do scholars explain the semantic development from "Slavic" to "slave"? All historical sources irrefutably show that the Slavic area was the main reservoir of slaves in the whole period of Early Middle Ages, beginning probably in the 6th century, and with a peak around the 10th. This preference for slaves of Slavic origin – so strong as to make Slavs the *slaves* by anthonomasia – has been easily explained: in that period Slavic people were the only ones who were still pagan, and this detail is most important as it explains why, by choosing them, early medieval slave traders - mostly Venetian, Genoese and Jewish - did not violate the new principles of the "Societas christiana", introduced by Pope Gregory the Great at the end of the 6th century, according to which baptized people must be excluded from slavery. So we obtain a safe dating for the word *sclavus*, in the sense of "slave", which will be approximately the period between the sixth and tenth centuries.

Now, as this period is precisely the one in which the supposed 'great migration' of the Slavs should take place, the question arises: how can huge migrating groups that were supposed to be aggressively busy occupying half of Europe, from the Arctic area to the Black Sea, submerging and extinguishing all previous populations, have at the same time been chosen as the European slaves *par excellence*? This would clash against all that we know –and that history abundantly shows- , about the characters of ethnic and racial groups systematically reduced to slavery. In fact, if Slavs in the Early Middle Ages became the historical slaves of Europe, this implies that in that period, rather than being migrating to new territories and exterminating pre-existing people, they were known to have beeen stable in their territories, to be hard workers, and especially to be without much possibility to defend themselves from slave raiders and slave owners.

Without leaving the traditional theory, we now move to the most recent variant of it.

7.4   *Trubačev's theory*

A place a part deserves the theory of the Russian scholar Oleg Trubačev, certainly one of the most serious and original Slavists of our times, and author of a not yet completed monumental etymological dictionary of Slavic languages. Though his theory, unfortunately, does not completely abandon the traditional chronological framework, its structural components, as we shall see, are new and come very close to the PCT.

7.4.1   Extension to South of the Proto-Slavic homeland

Trubačev's main thesis, which *mutatis mutandis* forms the basis of the PCT, is that prehistoric Slavs occupied not only the middle area of Central Europe, but also the Danube basin. Several arguments, to be added to mine, have led him to this conclusion:
(1) "The version about the Slavs coming from 'somewhere' originated long time ago in a misunderstanding of the silence of the Greek and Roman authors about the Slavs as such" (Trubačev 1985, 227). Trubačev here refers to the old version of the traditional theory, according to which Slavs would have 'arrived' in the 6th century.

(2) The absence of any memory of the 'arrival' of the Slavs in the Slavic written or oral record "may be an indication of their (and their ancestors!) original stay in Central Oriental Europe in large numbers" (idem, 206).

(3) Both in the oldest, 12th century Russian chronicle (the so called "Narration of the past times") (Conte 1990, 9), and in the oral tradition represented by Russian *byliny*, the permanence of Slavs on the Danube is remembered (Trubačev 1985, 204-5). "What else, if not a memory of the old stay on the Danube, appears [...] in the old songs about the Danube among the Eastern Slavs who, it should be remembered, never lived on the Danube [...] during their written history and never took part in the Balcanic invasions of the Early Middle Ages" (ibidem). More over, already B.A.Rybakov had maintained that the history of Eastern Slavs began in the South (idem, 225). The Middle Dneper area remains important, but "it is not excluded that in some previous period [...] [it] was only a [peripheral] part of a greater and otherwise shaped territory". This would be also confirmed y the high percentage of anthropological Mediterranean types among Eastern Slavs and Poles (idem, 225, n. 20). In fact, in the middle of the first millennium the Right Bank Ukraine must already be a part of the <u>periphery</u> of the ancient Slavic area (idem, 242).

(4) Many scholars have anticipated Trubačev's thesis: Budimir, supported by numerous ex-Yugoslavian scholars, claimed a greater proximity of Ancient Slavs to the Balkanic region than traditionally thought; Kopitar sought the Proto-Slavic homeland on the Danube and in Pannonia; Niederle admitted the existence of Slavic enclaves in Thracia and in Illyiria already at the beginning of our era; and both Niederle and Šafárik considered as Slavic terms like *Vulka*, *Vrbas*, *Tsierna* e *Pathissus* (s. further) (idem, 223, 227, 229).

(5) According to Trubačev, even the historian Jordanes' collocation of the Veneti to the North of the *Sclaveni*, and Anti to their East, implies the Slavic presence in the South (idem, 228).

(6) Hungarian place names, in Pannonia and on the Tisza, are Slavic, as J. Stanislav has demonstrated (idem, 228). The region's river names, such as *Tisza* (Rum. *Tisa*, Germ. *Theiss*, to be compared with Plinius' place name *Pathissus*, composed with the Slavic prefix *po*-; *Maros* (Rum. *Mureş*, in Herodotus *Máris*, from PIE **mori* 'sea', but with a Slavic suffix); the suffix *-s*, common to river names such as *Szamos* (Rum. *Someş*) and *Temes*, certainly derives from a Slavic suffix *-sjo-* (idem, 228-9).

(7) Trubačev then underlines the importance of the contacts between common Slavic and the different IE linguistic groups, and of the respective isoglosses (often, however, without being able to exploit them owing to the traditional chronology!):

(a) The Slavo-Latin isoglosses, appearing in the social sphere (Lat. *hospes* ~ Slav. **gospodĭ*, Lat. *favere* ~ Slav. **gověti* (dia)), in the construction terminology (Lat. *struere* ~ Slav. **strojiti*), in that of landscape (Lat. *paludes* ~ Slav. **pola voda*); of agriculture (Lat. *pomum < po-emom* 'raccolto' ~ Slav. **pojmo* (Russ. *pojmo* 'handful') (idem, 216. And see also 217: *gŭrnŭ, kladivo, molty*). Within the PCT these isoglosses can be dated, at the latest, to the beginning of Neolithic, when the contacts between the 'Italid' culture of the Cardial/Impresso Ware on the Adriatic Eastern coast and the South Slavic Star➜evo culture were certainly very close.

(b) The Slavo-Illyrian isoglosses (*Doksy*, Czech place name, *Daksa*, Adriatic island, and Hesichius' gloss: Epirotic *dáksa*; *Dukla*, mountain pass in the Carpatians, *Duklja* in Montenegro, *Doklea* (Ptolemy); *Licicaviki*, Polish tribal name, to be compared to Illyr. **Liccavici* (Illyr. anthroponym *Liccavus*, *Liccavius*) and Southern Slavic place name *Lika* (Trubačev 1985, 217-8). These isoglosses can be better explained in the light of the PCT, as from this vantage point the Illyrians were not only a people contiguous to the

Slavs, but , later, they also formed an elite group that dominated a part of the Southern Slavic territory for a period.

(c) Slavo-Iranian contacts, which, as we have seen, according to Trubačev should not precede the middle of the 1st millennium (idem, 241).

(8) Criticizing the excessive restriction of the earliest Slavic area Trubačev finally recalls Brückner's humorous warning: "Don't do to anybody what would not please you. The German scholars would love to drown all the Slavs in the Pripet swamps, and the Slavic scholars all the Germans in the Dollart […] - a quite pointless endeavour: there would not be enough room for them; better drop the matter and don't spare God's light for either of them" (idem, 206).

7.4.2   The problem of the Balto-Slavic relationship

Trubačev also discusses at length the various theories on the Balto-Slavic relationship and maintains –in my opinion quite rightly − that any serious theory on Slavic ethnogenesis must first address the problem of the relationhip between Baltic and Slavic (Trubačev 1985, 210). He does not support the newest of such theories, namely the one that considers Baltic as a the earliest stage of Slavic but, on the basis of the evident discontinuity between the two groups, and of their remarkable differences in lexicon, phonetics and morphology, he prefers the oldest theory of an earlier unity of the languages, with successive, secondary relationships and contacts of a different type (idem, 212).

Very important, however, and in my opinion pointing rather to the newest theory of Slavic derivation from Baltic than to oldest theory of an ancient unity, are Truba➔ ev's remarks on the affinities, sometime extraordinary, between Baltic and Thracian place names: e.g. the Thr. river name *Kérsēs* ~ OPruss. *Kerse*; Thr. town name *Edessa* ~ Balt. *Vedosa*, river of the high Dneper; Thr. *Zaldapa* ~ Lith. *Žel̃tupė* etc. (idem, 215, with more examples). Irrespective of the chronology, this similarity seems to enhance the thesis of a derivation of Slavic from Baltic and would permit a new approach and a new solution of the Thracian problem (s. further). From a geolinguistic point of view, in any case, it would be perfectly plausible that the Thracian area in the South and the Baltic area in the North would have formed the periphery of the Slavic area (where the archaic phase, as usual, would have been preserved), whereas the center of the area (again, as usual in geolinguistics) would have been the most innovative, i.e. the most influenced by the various adstrata and superstrata.

7.4.3   Baltic and Slavic place names

As is known, Trubačev's research on Slavic and Baltic place names is fundamental, and seems to confirm a substancial coincidence between the Slavic earliest area and the area where place names are exclusively or prevailingly Slavic. First of all, the Baltic character of river names of the Upper Dneper would exclude the Slavic presence to the North of the Pripet. The area of maximal Slavic concentration would be that between the Oder and the Dneper area (idem, 206). Trubačev, however, also expresses important methodological reservations, on the unconditional use of place names for the determination of an original ethnic area. The most homogenous toponomastic areas are often those of recent colonization, and not those of the earliest settlements (idem, 209, con bibl.). Also within the framework of Krahe's so called 'ancient European' river names (and similarly Schmidt's, Udolph's and others', 220 ff.), the specific Slavic contribution has now been ascertained (ibidem), which allows us to state with absolute certainty that Slavs were present in Eastern Europe from ancient times. Needless to say,

'ancient' for Trubačev does not have the same meaning as for the PCT, but once the myth of the IE invasion has been eliminated, Trubačev's argument remains valid, and the adjustment of chronology follows automatically. Fundamental, to show how close he comes to the PCT, is the following statement: "We find the compact IE onomastic area *only in Europe*, and that the diagnostic value of this fact for the problem of the localization of the Proto-Indo-Europeans can hardly be overestimated" (idem 223).

To conclude, Trubačev is mistaken only with regrads to the basic question, namely that which opposes *continuity* to *invasion*, as appears from his agreement with Bökönyi: "I agree, in general, with the opinion that «...there is no reason to admit the development in the Palaeolithic and Mesolithic periods of linguistic communities whose traces survive till historical times»" (idem, 244, quotation from Bökönyi 1978, 16).

The truth is, as we have seen, that the PCT has very strong arguments, both interdisciplinary and linguistic, to admit such a development, and to advance a theory of Slavic ethnogenesis quite similar to that by Trubače, but much more concrete and realistic, in that it shows a much greater convergence with the archaeological record and with the global cultural anthropological picture.

7.5   *The Slavic ethnogenesis in the PCT*

7.5.1   Palaeolitic and Mesolitihc

I omit an illustration of human settlements in Eastern Europe in the Upper Palaeolitic, as well as in the last phases of Würm glaciation and at the beginning of the Post-glacial (ca. 11000-7000 b.C.) (Tringham 1971, 36), and I begin with Mesolithic: the first period in which the archaeological record permits to reconstruct an adequate global picture of Europe.

According to the majority of archaeologists, the different lithic industries of East-European Mesolthic can be attributed to two different human populations (e.g. Tringham 1971, 36-7), corresponding to the two basic cultures of Eastern Europe: the South-West of Eastern Europe, characterized by the <u>microlithic</u> industry (sometimes improperly called tardenoisian), common to the rest of Europe, and the Northern part of Eastern Europe, characterized by the <u>Swiderian</u> industry (e.g. Sulimirski 1970, 30 ff., v. mappa a p. 29). As I have recalled above, Uralic specialists, both archaeologists and linguists, see the Swiderian culture as coinciding with the definitive settlements of the Uralic groups in Northern Europe, so that – if we take this as a solid assumption (which it seems to be, given the uninterrupted continuity of this area with later cultures which have been attributed with certainty to the different Uralic groups) – the microlithic culture, common to the rest of Europe, could only be considered as corresponding to the sphere of IE influence in Mesolithic. Naturally, both in Palaeolithic and in Mesolithic it is necessary to consider the consequences that the glaciations first and the deglaciation later must have had on the distribution of populations. When the glacial cap covered North-Eastern Europe, the Northern frontier of the Uralic as well as of the Balto-Slavic groups of the North must have been somewhere in Middle Eastern Europe (see fig. 6 above); their Southern frontier, however, would have still be formed by the Black Sea, the Greek peninsula and the Adriatic. In this more restricted area, Balto-Slavs and Uralic people would have been side to side, the former in the West, the latter in the East. Within the Balto-Slavic area, the Balts would have occupied the Northern part, by definition more isolated and conservative. If we then project Proto-Greeks on the Greek peninsula (given the certainty of the Greek presence in the Mycenean Greece of the 2nd millennium b.C, the numerous stratigraphies showing continuity from Neolithic to

Bronze, the stability of the Greek Neolithic shown by the formation of *tells*, and the uninterrupted continuity, from Upper Palaeolithic to the Final Neolithic, shown by the recently discovered Franchthi stratigraphy); and if we recognize also in the *tells* of the Southern Slavic area a guarantee of uninterrupted continuity from Neolithic on (v. further), we must then necessarily see only the Northern frontier of the Balto-Slavic area as fluctuating, as it would be conditioned by the glacial cap and by the mobile character of Mesolithic hunting and gathering populations.

In the postglacial scenario (that of human populations following the retreat of the ice, already admitted for Uralic people), we could immagine the Balts settling on the shores of the now formed Baltic Sea, with the Slavs behind them, and the Uralic people ahead of them proceding north-eastwards.

The Slavic postglacial area would then form a kind of triangle, the Southern corner of which would correspond to Macedonia, the western frontier of which would pass along the Italid Dalmatia, and delimit the rest of ex-Yugoslavia, Hungary, ex-Czechoslovakia, and Southern Poland, and the Eastern frontier of which would delimit Bulgaria, Romania, Western Ukraine, Belorussia and parts of Middle Russia.

Northern neighbors of the Slavs would be Balts and Uralic people, South-western neighbors the Italids of Dalmatia, of the Eastern Alps and of a Po Valley much larger than now, emerging from Northern Adriatic. North-western neighbors would be Germans, while on the Eastern side their neighbors would be Altaic and, much later, Iranian elites (parts of the Scythians).

7.5.2 The slight differentiation of Slavic languages and the demographic increase of Slavic people as consequences of the stability and the success of South-Eastern European Neolithic cultures

In contradiction with Renfrew's main thesis, prehistorians of South-Eastern Europe never miss to underline that in most cases it is possible to ascertain the continuity of Neolithic cultures from Mesolithic (see further). Moreover, they remark that for a long time the two economies could have coexisted in the same area, as Mesolithic hunters and gatherers lived on the river and the lakes shores, on sand dunes or at the foot of mountains, avoiding precisely the *löss* plains that were chosen by farmers (Tringham 1971, 35). The synchronism and the complementarity of the two economies enhances thus the thesis of the linguistic unity of the area, and of its continuity from Mesolithic.

In the light of this consideraton we can then address the most conspicuous problems of the Slavic ethnogenesis, represented by the enormous span of their area, by the demographic density underlying it, and by the little differentiation of their languages. And we have already seen that it is impossible, without falling into flagrant contradictions, to attribute these aspects to a historical migration of the Slavs.

Within the PCT framework this problems, in all of its complexity, can easily be solved in total harmony with the archaeological record, simply by recalling the main features of Neolithic cultures of South-Eastern Europe. First of all, as it is known, the process of the neolithization of Europe began precisely in the Balkanic peninsula, first in the Aegean area and then inland, in the middle of the 7th millennium. From here, in the course of about 2500 years, the new economy spread along the Danube, to reach Eastern and Central Europe by the 5th millennium b.C. But the first, great Neolithic cultural complex of the Balkans, with all its subsequent developments, is usually subdivided in three main groups (see e.g. Lichardus and Lichardus 1985, 242, 253, 311 ff.), which can be identified, with greater or lesser ease, with as many linguistic groups:

(1) The Thessalian and Southern Macedonian culture of **Proto-Sesklo**, followed by **Sesklo** and **Dimini**, identifiable with the **Greek** group;

(2) The 'Painted Ware' cultures of **Anzabegovo-Vrя́nik** in Northern Macedonia, **Starя̀evo** in Serbia, **Körös/Criş** in Hungary and Romania, and **Karanovo I** in Bulgaria; followed later by **Vinča** (Serbia, Hungary and Romania), **Veselinovo** (Bulgaria), **Dudeя́ti** e **Boian** (Romania), identifiable with **Southern Slavic**;

(3) The Albanian 'Painted Ware' cultures of **Vashtemi-Podgornie** e **Kolsh**, followed by those of **Čakran** and the more recent **Maliq**, to the last of which Albanian prehistorians themselves attribute the origins of **Illyrian**.

The fact that these three cultural facies originally formed a unitary block, far from representing an objection to the identification of three different language groups, provides, rather, a further argument in its favour. Since this original block, in fact, represents the earliest neolithized area of Europe, where the impact of the new economy introduced by the Asiatic farmers must have been the greatest, the new Balkanic culture would have first submerged the pre-existing ethnolinguistic frontiers; and in a second phase, by the time the indigenous Mesolithic populations began to actively participate in the adoption of the new economy, the old ethnolinguistic frontiers would emerge again with the succcessive cultures. Which would of course reflect the original frontiers between Greeks, Slavs and Illyrians. More over, as we shall see shortly, the original homogeneity of this Neolithic Balkanic block can also explain the formation of the so called **Balkanic *Sprachbund***, characterized by a number of peculiar Geek, Albanian, Southern Slavic and Rumanian isoglosses, until now without any satisfactory explanation. These isoglosses can be much more rationally placed in this Neolithic complex rather than in a modern context, and their coming into existence could be connected with the first wave of foreign migrants from the Middle East.

Returning now to the strikingly low degree of differentiation of Slavic languages, let us recall that one of the most conspicuous phenomenon of the Balkanic Neolithic is the formation of the so called *tells*. As is known, *tells* are artificial hills, typical of the Arab (whence the name) and Iranian (called then *tepe*) areas, produced by the agglomeration of debris of prehistorical and proto-historical villages on the same site. In the South-Eastern area, these formation are called, locally or as place names, *magula* or *tumba* in Greece, *mogila* in Bulgaria, *gòmila/mògila* in Serbia, *gamúle/mágule* in Albania. But the word, with the meaning of 'tumulus', 'tumb', is diffused also in the rest of the Slavic area slava (Russ. *mogíla*, Ukr. *mohýła*, Slovn. *gomíla*, Czec. Slovk. *mohyla*, Pol. *mogiła*) and in Romania (Rum. *măgură*). Unfortunately, its etymology is not certain. But given its areal distribution, Vasmer's proposal to connect it with Proto-Slavic *mogo, in the sense of 'dominating site', seems quite plausible. *Tell* are, of corse, prehistoric sites of exceptional importance, not only for the significance of theior stratigraphies, but also as signs of an uninterrupted continuity, both cultural and ethnic (Lichardus e Lichardus 1985, 229). Continuity, of course, that must have been also linguistic! While *tells* are very common in the Near and Middle East, where Neolithic cultures have an extraordinary and well-known duration and stability, in Europe they appear only in the Balkans, and only to the South of the Danube (DP, s.v. *tell*), and thus only in the Greek, Albanian and Southern Slavic area. In the last one, the *tells* are primarily Bulgarian, Macedonian, Serbian and Bosnian, but that does not imply that in the contiguous areas within the same cultural orbit the situation would be different. Here then lies the reason for the little differentiation of Slavic languages (and *mutatis mutandis* for Greek): the cultural

stability and continuity from Mesolithic and Neolithic to the proto-history of the populations of these areas.

At the same time, the enormous success of what we can now call the 'Slavic Neolithic', which includes not only the *tells* cultures of the Balkanic area, but also the extremely rich Neolithic cultures of the Russian, Ukrainian and Eastern Middle European plains (for example Tripolye, see above and below), provides for the first time in the history of research an adequate explanation for the demographic explosion of the Slavic populations, implied by both the size of their area and the little differentiation of their languages.

7.5.3   The two Northern Slavic areas: Western and Eastern

In the Northern area which is now Slavic Neolithic has been introduced by two different (Southern Slavic) groups of the Painted Ware culture: • (A) in the present Ukraine and Moldova, coming from the lower Danube and from the Balkans, farming groups have created the Neolithic cultures of **Bug-Dnestr** and successively of **Tripolye** (Telegin 1994, 376), which we have illustrated in an earlier section as 'frontier Slavic cultures', facing the Altaic ones of Crimea and to the East of the Dneper, quite different ethnically and culturally (Chernykh 1992, 37-42); • (B) in the Carpatian basin, farming has been introduced by (Southern Slavic) groups of the Körös/Criş culture, coming from Hungary and Romania (Telegin 1994, 376). The new culture that emerges in this area is that of **Lengyel**. From the Carpatian basin this culture spread to Southern Slovakia, lower Austria, Southern Moravia, Southern Poland, Slesia, Bohemia, Southern Germany.

This initial difference in the origin of the two new cultural areas (two different branches of the (Southern Slavic) Balkanic complex, plus the differences that come from their separate development, provide a perfectly adequate explanation, in my opinion, for the coming to exist of the two Northern Slavic groups. As we have seen, Western and Eastern Slavic are not branchings of one and the same 'Northern Slavic', but two language groups each with a different connection with Southern Slavic.

7.5.4   The Metal Ages

Also for the birth of metallurgy the Slavic Balkanic area must have played a fundamental role. Recent archaeological research has demonstrated that the most ancient European metallurgy –which in itself begins in Anatolia- comes from the area that the Russiam archaeologist Evgenij N.Chernykh, the main specialists on this topic, has called 'the Balkano-Carpatian metallurgic province'. The most ancient mines are found in Serbia and Bulgaria. Within the same cultural area we also see, earlier than in any other European area and with greater evidence, the first appearance of the formation of super-regional élite (Lichardus e Lichardus 1985, 497). Precisely as it had happened for the Neolithic innovations, and along the same routes followed by the new farming economy, from this Balkanic focus area metallurgy spread to the North, , i.e. to the Carpatian basin and to the Ukrainian area of Tripolye. Tripolye, in turn, introduced metallurgy among the Asiatic nomadic pastoralists, who developed it in profoundly original manners, achieving that unmistakeable metallurgical production of high artistic value which is typical of them, in contrast with the much more functional and industrial-like European metallurgy.

In a context of geographical contiguity and mutual exchange, the (Altaic, as we now know) pastoral warlike cultures of Asiatic steppes, in particolar the Yamnaya or *kurgan* culture, in turn introduced into Eastern Europe their own fundamental

innovations: horse-riding and a patriarcal and warlike ideology that also European late-Neolithic societies were now ready to adopt. The European re-interpretation of these economic and ideological elements, which manifests itself with the Corded Ware and Battle Axe cultures, has nothing to do with the earliest appearance and early differentiaton of the Proto-Indo-Europeans, as Gimbutas claimed, but simply represents the emerging of new élites among already differentiated IE groups, in which pastoralism, horse-riding and patriarcal and warlike ideology are integrated in that original form of 'mixed farming', typical of Europe, which will eventually lead to the birth of Greek, Etruscan and Latin urban civilizations.

And in this new context, the most ancient metallurgical cultures of Europe, that of the Balkanic area, must be seen as Southern Slavic; while Western Slavic will be the Czech metallurgical cultures, and Eastern Slavic Tripolye, which introduces metallurgy into the Altaic area.

Summarizing, the linguistic Slavic area coincides first with the Painted Ware culture (excluding the Albanian one) and with its subsequent extensions to North-West and North-East, and later with the whole 'Balkano-Carpatian Chalcolithic metallurgical Province', to which also the Ukrainian culture of Tripolye participates. Later, not only Tripolye but the entire 'metallurgical 'province ' undergo the influence of the Yamnaya/*kurgan* culture, the expansion of which in the whole of Eastern Europe and parts of Central Europe – one of the main aspects of the Metal Age in Europe – does not bring IE influences, but Turkic ones. In fact, all Balkanic cultures - Karanovo 6-Gulmeni☑a in Bulgaria and Romania (famousa for its *tells*); Salcuța, Gradesnica-Krivodol, Vinča-Pločnik 2 and Bubanj-Hum 1 in central Balkans; Sopot-Lengyel and Lasinja between Slovenia and Hungary (Lichardus and Lichardus 1985, 367); followed by Cernavoda 3, 2 and Ezero in Bulgaria, and by Cotofeni, Baden, Kostolac e Vučedol in the Eastern, Central and North-Western Balkans, and in the Carpatian basin (idem, 394), although they were differentiated enough to represent Slavic 'dialects', towards the end of Chalcolithic they were united again owing to the general influence of the Yamnaya/*kurgan* steppe culture (idem, 384, 398, 405), shown by the new common features: pit graves and mounds (*kurgan*), horse raising and horse riding, patriarcal ideology, formation of an aristocratic elite of warriors, battle axes, corded decorations. Cultural traits that have their linguistic parallel in the enormous number of Turkic loanwords in horse terminology and in other semantic spheres, as we shall see shortly.

7.5.5   The problem of the Thracians: a new hypothesis

The reconstruction of the prehistoric context in which the Thracians slowly emerge has been attempted several times, and lastly by Hoddinott (1981), but in my opinion without noticeable novelties. Even the most recent discoveries, in fact, confirm what we alread know: the Thracian power is just one of the many manifestations of the new stratified societies and of the new elites of a military and superegional type which characterize Chalcolithic and Bronze, and the formation of which was triggered by the incursions of the *kurgan* groups and their successors, coming from the Asiatic steppes. In the new PCT vision, this twofold, but in itself meager result produces the following commentary: (A) we must keep in consideration that the immediate neighbors of the Thracians ancestors –whoever they were – were these intrusive *kurgan* groups; and (B) in the light of the equation of the *kurgan* people with the Turkic group, the existence of the Turkic Thrace of historical times, the Turkic original character of the Bulgarians, and the so many aspects of the close relationship bwetween Anatolia, the Agean Sea and the Balkans become much more relevant than we have suspected until now (see chapter III of Alinei 2000). A single example: the typical shape of the *sica*, the national

weapon of the Thracians (a knife with a curved blade and a sharp point, similar to a zanna di cinghiale (cp. Plinius H.N. XII 1: "apri dentium sicas", and see the illustration in Rich 1869), used by Thracian gladiators in Rome, is typical of centro-Asiatic metallurgy.

Another commentary is triggered by Hoddinott's conclusion, which identifies the earliest sure manifestation of the Thracians in the Bronze Age Carpatian culture of Otomani-Wietenberg (in Transylvania, Hungary, Eastern Slovakia). According to the most recent research, this culture represents a continuation of the Baden and Vu➔edol cultures, and through the latter, is connected to the steppe cultures (see above and cp. for example DP s.v. Vučedol). In the light of the preceding remarks, then, on one hand we could conclude that also Thracians underwent the same Turkic influences as most other Southern Slavic languages; on the other – as both Baden and Vučedol in the framework of the PCT can be read as Slavophone cultures, we could advance the hypothesis that the Thacianas were a Slavic group, which would have been subject to stronger Turkic influences than the other Slavic languages, and eventually extinguished.

A final remark: Herodotus, as is known, describes the Thracians as the most numerous people after the Indians. Mallory comments that it is a "sad irony" they "have left no modern descendant of their language" (Mallory 1989, 72). But is it really so? First of all, if it is hard to admit that a numerous people might completely extinguish, it is even less likely that this pre-existing people would have left no traces in the archaeological record. And since, as we have seen, the demographic explosion of the Slavs must be placed in Neolithic, we could then advance the hypothesis that Thracians was the name that Herodotus gave to the Slavs, owing to the fact the Thracians were one of the most powerful and representative elites of Slavic speaking Eastern Europe, seen with Herodotus' inevitably colonialist eyes. In a first approximation, then, the Thracians would appear to be a Southern Slavic geo-variational group, out of which came a Bronze age elite, first dominating then extinguished.

This hypothesis could be further developed and refined in the light of the results of research on the Thracian language which, with the caution due to the scarcity of materials, can be so summarized:
(1) Thracian is an IE *satem* language, like Baltic and Slavic;
(2) as discovered by Trubačev (see above), Thracian place names show a surprising similarity with the Baltic ones;
(3) in some cases, however, Thracian affinities seem stronger with Slavic: the Thr. place-name suffix *-dizos* e *-diza*, for example, to which the meaning of 'fortress' has been attributed on the basis of the comparison with Gr. *tei~khos* 'wall' (IEW 244), has a much closer counterpart in the metathetic forms of OSl. *ziždo* (o con vg), *zydati* 'to build' *zydŭ*, *zidŭ* 'wall', than in the Baltic ones (also methatetic), meaning 'to form'. And the vocalism of the Thr. river name *Strymōn* (y lg) and place name *Strymē* (idem) seems closer to Pol. *strumień* 'brook' and OSlav. *struja* 'stream' than to Latv *stràume* 'stream' (IEW 1003). The most plausible hypothesis would be then that Thracian was a conservative type of Slavic, still preserving Baltic features and spoken by a peripheral group of Southern Slavs, somehow parallel to the Northern peripheral Balts (following the geolinguistic well-known rule, according to which the center innovates, and the periphery preserves).

7.6 Slavic archaeolinguistics: an outline

7.6.1 Palaeolitihc: the Slavic lexicon shared by the other IE languages

Within the framework of the PCT, the common IE or Proto-IE lexicon must go back to the origins of *Homo loquens*, and therefore – assuming the now current theory - to Middle Palaeolithic. It will include terms which have cognates in all or almost all IE languages, such as the following ones:

The grammatical part of IE lexicon:
(1) 1st pers. sing. Pron. : Russ. Ukr. BRu. Slovk. Pol. Sorb. *ja*, OSlav. *jaz=*, Bulg. *az jaz*, Serb. Cr. *ja* (dia), Slovn. *jàz*, Czech *já*, Polab. *joz jo*;
(2) 2nd pers. sing. pron.: Russ. BRu. OSlav. Czech Pol. Ukr. *ty;* Bulg. Serb. Cr. Slovn. *ti*;
(3) 2nd pers. pl. pron.: Russ. Ukr. OSlav. *vy*, Bulg. *vi*, Serb. Cr. Slovn. *vî*, Pol. *wy*;
refl. pron.: Russ. *sja*, Ukr. *≈a*, Bulg. Serb. Cr. Slovn. Czech Sorb. *se*, Slovk. *sa*, Pol. *sie* (d);
prepositions: Russ. Ukr. BRu. OSlav. Bulg. Serb. Cr. Slovn. Czech Slovk. Pol. Sorb. *po* (cp. Lat. *pono*, Gr. *apò*);
(4) Russ. Ukr. OSlav. Bulg. Serb. Cr. Slovn. *iz*, Czech Slovk. Pol. Sorb. *z* (cp. Lat. *ex*);
(5) Verb 'I am', 'you are' 'he/she/it is': Russ. *esm'*, OSlav. *jesm;*, Bulg. *s⎰m*, Serb. Cr. *jesam*, Slovn. *sm*, Czech *jsem*, Slovk. *som* etc.; Russ. *esí*, OSlav. *jesi*, etc.; Russ. *est;*, Ukr. *jest'*, BRu. *jo≈⍓*, OSlav. *jest=*, Serb. Cr. Czech Pol. *jest*, etc.

Lexical part:
(1) 'two': Russ. Ukr. Bulg. Czech Slovk. *dva*, OSlav. *dŭva*, Serb. Cr. Slovn. *dvâ*, Pol. Sorb. *dwa*;
(2) 'both': Russ. Bulg. *óba*, Ukr. *obá*, BRu. *obádva*, OSlav. Serb. Cr. Czech Slovk. Pol. *oba*, Slovn. *obâ*, Sorb. *hoběj dwa*;
(3) 'name': Russ. *ímja*, Ukr. *im'já*, BRu. *imjá*, Bulg. *íme*, Serb. Cr. *imē* (d), Slovn. *imê*, Czech *jméno*, Slovk. *meno*, Pol. *imię* , Sorb. *mě*, Polab. *jeima*;
(4) 'water': Russ. Ukr. BRu. Bulg. *vodá*, Serb. Cr. *vòda*, Slovn. *vóda*, Czech Slovk. *voda*, Pol. Sorb. *woda*;
(5) 'sun': Russ. *sólnce*, Ukr. *sónce*, Bulg. *slănce*, Serb. Cr. *sûnce*, Slovn. *slônce*, Czech *slunce*, Slovk. *slnce*, Pol. *słońce*, Sorb. *słyńco*;
(6) 'wind': Russ. *véter*, Ukr. *víter*, OSlav. *vetr=* (d), Bulg. *vét⎰r* (d), Serb. Cr. *vjetar*, Slovn. *veter* (d), Czech *vítr*, Slovk. *vietor*, Pol. *wiatr*, Sorb. *wjet≈*;
(7) 'month': Russ. *mésjac*, Ukr. *mísac*, OSlav. *mesec;* (d), Bulg. *mesec* (d), Serb. Cr. *mjesec* (d), Czech *mesíc* (d), Slovk. *mesiac*, Pol. *miesiac* (d), Sorb. *mjasec*;
(8) 'woman': Russ. Bulg. *·ená*, Ukr. BRu. *·oná*, OSlav. Czech Slovk. *·ena*, Serb. Cr. *·èna*, Slovn. *·éna*, Pol. *⊘ona*, Sorb. *·ona*;
(9) 'to sit': *sidét;*, Ukr. *sydáty*, bRuss. *sid•é⍓*, OSlav. *sedeti* (dia), Bulg. *sed'á* (d), Serb., dial Cr.. *sjèditu*, Slovn. *sedéti* (d), Czech *sedeti* (d), Slovk. *sediet'*, Pol. *siedzie⍓*, Sorb. *sej•e≈*;
(10) 'pedere': Russ. *bzdet;*, Ukr. *pezdíty*, Bulg. *p=zd'á*, Serb. Cr. *bázdjeti*, Slovn. *pɜdéti*, Czech *bzdíti*, Pol. *bzdzie⍓*;
(11) 'to stay': Russ. *stoját;*, Ukr. *stojátu* (dia)=, OSlav. *stojati*, Bulg. *stàjati*, Slovn. Czech *státi*, Slovk. *stát'*, Pol. *sta⍓*, Sorb. *stoja≈*;
(12) 'to sew': Russ. *≈it'*, Ukr. *≈ýty*, BRu. *≈y⍓*, Bulg. *≈ija* ('cucio'), Serb. Cr. *≈iti*, Slovn. Czech Slovk. *≈it'*, Pol. *szy⍓* Sorb. *≈y≈*, Polab. *sait*;

(13) 'live': Russ. *ïvój*, Ukr. *γvýj*, OSlav. *ïv=*, Bulg. Czech Slovk. *ïv*, Serb. Cr. slov. ·*ïv* (d), Pol. *Ⓔywy*, Sorb. *γwy*;

(14) 'new': Russ. Ukr. *novyj*, OSlav. *nov=*, Bulg. *nov*, Serb. Cr. *nov* (d), Slovn. *nòv*, Czech *nový*, Pol. Sorb. *nowy*;

(15) 'sister': Russ. BRu. Bulg. *sestrá*, Ukr. OSlav. Czech Slovk. Polab. *sestra*, Serb. Cr. *séstra*, Slovn. *séstra*, Pol. *siostra*, Sorb. *sotⓔa*.

Needless to say this list is purely indicative, and could be easily extended.

7.6.2 Final Palaeolithic and Mesolithic: the Slavic lexicon appears to be already differentiated

On the basis of the following words, the differentiation of Slavic (sometime still Balto-Slavic) from the other IE groups can be dated to a period preceding the beginning of Mesolithic:

(1) 'magic': Russ. BRu. *čary* (*čarováty* 'to bewitch, to charm'), Ukr. *čará* (*čaruvaty*), OSlav. *čarŭ*, Serb. Cr. *čar* (d), Slovn. *čára* 'witchcraft', Czech *čár* m. *čára* f. 'idem', Slovk. *čary* (pl.), Pol. *czar*; Lith. *keras* (d) 'magic'. It is a pan-Slavic and Baltic specialization of an IE word, which could be dated to the Upper Palaeolithic, when magic rituals probably began.

(2) 'bear' (literally 'honey-eater')': Russ. *medvéd'*, Ukr. *médvid'*, OSlav *medvedĭ* (d), Bulg. *medvè'd*, Serb. Cr. *mèdvjed*, Slovn. *medved* (d), Czech *medved* (d), dial Pol. *miedžwiedž*, Sorb. *mjadwjeż*. As we have seen in a preceding section, this noa name of the bear, replacing the PIE tabooed one (cp. Lat. *ursus*), is exclusively Slavic. This name, as well as the Baltic one (prob. 'hairy') and the Germaic one (the 'brown'), can only have been created after the beginning of religious-magic thinking;

(3) 'snake, dragon' (literally 'earthling'): Russ. Ukr. Bulg. *zmijá*, OSlav. *zmĭja*, Serb. Cr. *zmìja*, Slovn. *zmíja*, Czech *zmije*, Slovk. Sorb. *zmija*, Pol. *żmija*. This noa name of the snake is also exclusively Slavic, and proves that Slavic detached itself from the other IE languages when religious thinking began. Probably akin to this (cp. Vasmer) is the name of 'dragon' in fairy tales: Russ. BRu. Bulg. ('slowworm') Pol. *smok*, Slovn. *smòk*, Czech *zmok*, Slovk. *zmoc* 'kobold';

(4) 'bird': Russ. *ptíca*, Ukr. *ptýca*, OSlav. *pŭtica*, Bulg. *ptíca*, Serb. Cr. *ptica*, Slovn. *ptíca*, Czech *pták*, Slovk. *vták*, Pol. Sorb. *ptak*. Here too we are probably dealing with a noa name of the bird, and with a later Palaeolithic specialization of the common PIE word for 'flying', which involves Baltic as well;

(5) 'dog': Russ. *pës*, Ukr. BRu. Czech Slovk. *pes*, OSlav. *pĭsŭ*, Bulg. *pⓀs*, Serb. Cr. *pas*, Slovn. *pæs*, Pol. *pies*, Sorb. *pjas*. Whatever the origin of this pan-Slavic word (see Vasmer s.v. for the various hypotheses), current knowledge on the Mesolithic origin of dog domestication allow us to date it to Mesolithic;

(6) 'hawk goshawk': Russ. *jástreb*, Ukr. *jástrib*, Serb. Cr. *jastrijeb*, Slovn. *jastreb* (d), Czech *jastřab*, Slovk. *jastrab*, Pol. *jastrząb*, , Sorb. *jastśeb'*. Exclusively Slavic name of IE origin (Vasmer);

(7) 'net': Russ. *sét'*, Ukr. *sit'*, BRu. *seć* Czech *sít'*, Slovk. *siet'*, Pol. *sieć*, Sorb. *seś*. Fishing is first attested in Upper Palaeolithic, and reaches a higl level in Mesolithic The Slavic name of the fishing 'net' is different from the Baltic one, which seems to indicate a pre-Mesolithic differentiation of Slavic from Baltic;

(8) 'weir': Russ. Ukr. BRu. Bulg. Serb. Cr. *jaz*, Serb. Cr. Slovk. Pol. *jaz* (d), Czech *jez*, Polab. *jaz* 'canal'. Since the earliest records of weirs are Mesolithic, and the meaning of

the Baltic cognate terms is different, this example tends to confirm that by Mesolithic times Baltic and Slavic were already differentiated;

(9) 'berry': Russ. Bulg. Slovn. *jágoda*, Ukr. BRu. *jáhoda*, Serb. Cr. Pol. *jagoda*, Czech Slovk. *jahoda*, Polab. *jagödói* (pl.). Cp. Lith. *úoga*, Latv. *uôga* 'idem'; the Balto-Slavic exclusivity points to an Upper Paleolithic dating (gathering);

(10) 'wood': Russ. *lés*, Ukr. *lis*, BRu. Czech Slovk. *les*, OSlav. *lesŭ* (d), Bulg. *les* (d), Serb. Cr. *ljes*, Slovn. *les* (d), Pol. *las*, Sorb. *leso* (d), Polab. *l'os*. (Vasmer s.v., Buck 1.41). This family does not have convincing connections with Baltic, and the semantic development from 'wood' in the sense of 'group of trees' to 'building material' is a typical result of the beinning of forest exploitation in Mesolithic;

(11) 'limit, border', dial. 'thicket, grove' (from the notion of 'half, middle'): Russ. Ukr. BRu. *mežá*, OSlav. *mežda*, Bulg. *meždá*, Serb. Cr. *mèda* (d), Slovn. *méja*, Czech *meze*, Slovk. *medza*, Pol. *miedza*, Sorb. *mjaza*. The passage from the PIE notion of 'half, middle' (cp. Lat. *medius*) to that of 'wood' is characteristic of Baltic; the subsequent one to 'border', of Slavic;

(12) 'near, nearby' (from a verb meaning 'press, squeeze', cp. It. *presso* 'near' < *premere* 'press'): Russ. *bliz*, *bliz'*, Ukr. *bly•*, Bulg. *blízo*, *blízu*, Serb. Cr. *blízu*, Slovn. *blìz*, *blízi*, *blízu*, dial. Pol. *blizo*;

(13) 'family, stock, offspring; to generate, birth': Russ. *ród*, Ukr. *rid*, BRu. Bulg. Serb. Cr. Czech Slovk. Sorb. *rod*, Slovn. *rod* (d); Russ. *rodína* 'fatherland', Ukr. *rodýna* 'family', BRu. *ródzina* 'idem', Bulg. *rodína* 'native place'; Russ. *rodíty* 'to generate', *rodýty*, OSlav. *roditi*, Bulg. *rod'á*, Serb. Cr. *ròditi*, Slovn. *rodíti*, Czech *roditi*, Slovk. *rodit'*, Pol. *rodzič*, Sorb. *roźiś*, Slovn. *redíti* 'to feed, to raise'. It also becomes the name of Christmas (Russ. *roždestvó* and cognates), an obvious Christianization of the (Neolithic) 'winter solstice celebration for the sun's (re)birth' (Alinei 1997). Its attestation in Baltic can be explained as result of cultural diffusion. Neolithic or slightly later is probably also the personification of the *rodovize* as 'goddesses of procreation and destiny' (Alinei 1997c);

(14) 'daughter in law, wife, bride' (Latv. 'unknown' (f.): Russ. *nevésta* (*-tka* 'daughter in law', Ukr. *nevísta* 'woman, wife, bride', BRu. *nvésta*, Bulg. *névjesta* 'wife, bride, daughter in law, sister in law', Slovn. *nevésta* (d) 'idem', Czech *nevesta* (d) 'wife, daughter in law', Slovk. *nevesta*, Pol. *niewiasta* 'woman, female' (Vasmer s.v.). This name appears to be a noa name for the daughter in law, replacing the PIE name (cp. Lat. *nurus*), and must reflect a magico-religious conception of the role of the daughter in law for the husband's family, which, to my knowledge, has not yet been adequately studied;

(15) 'old': Russ. *stáryj*, Ukr. *starýj*, OSlav. *starŭ*, Bulg. Serb. Cr. *star*, Slovn. *stàr*, Czech Slovk. *starý*, Pol. Sorb. *stary*. This meaning is exclusively Slavic, as the same adjective in other IE languages means 'big, strong'.

7.6.3 Lexical concordances between contiguous areas: isoglosses or loanwords? Mesolithic examples

In the first volume of my book (Alinei 1996) I assumed that the differentiation process of PIE – which is dated to sometime during Middle Palaeolithic – must have been extremely slow and involve larger groupings, before obtaining the historically known language proto-groups. Though with a completely different chronology, this conception is also that of the traditional theory (cp. e.g. Porzig 1954, Gamkrelidze and Ivanov 1995). As a result of the closer study of lexical materials I did for my second volume (Alinei 2000), this idea must be partially revised. If these larger groupings based on lexicon (phonetic and other isoglosses form a different problem) had really been the intermediate stages of the differentiation process, following a rigid pattern of binary tree

branching; in other words if they had an exclusively <u>genetic</u> character, we should expect to find much more evident and regular traces of them in the linguistic record. Instead, these lexical groupings are quite scarce, datable to different periods, and covering different areas. The only groupings that show systematic regularity and chronological coherence in the IE lexical record – of which I have carefully surveyed the European part - are those that form the separate lexicon of the different traditional IE language groups: Italic, Germanic, Celtic, Balto-Slavic, Greek etc. This must mean that the only really important and stable cultural differentiation of PIE has been that into the traditionally known separate groups, and that therefore there were no really important intermediate stages with larger units preceding this stage. We must then assume that the so called 'isoglosses', with varying dates and varying scopes, which involve contiguous IE languages groups, do not have a <u>genetic</u> character, but are rather the results of <u>diffusion</u> processes, which took place in various periods, with various provenances and therefore also various areal distributions, depending on the focus and the spread of each cultural referent. In other words, rather than with <u>isoglosses</u>, we must be dealing with (groups of) <u>loanwords</u>.

Within this framework, then, we must keep two things into consideration: (A) as I have already noted (Alinei 1996 611 ff.)), contrary to common thinking in linguistics, loanwords can also be associated with prehistoric cultural diffusion, because we must assume that products and innovations also in prehistory might have travelled with their original name. And given the fact that archaeology has recently shown that long-distance movement of materials begins with Upper Palaeolihic (Gamble 1986, 331-337), there is absolutely no reason to exclude that certain loanwords might also have such a date. (B) On the other hand, prehistorians (see e.g. Koz¤owski and Otte 1994, 51-53, 101, Nuñez 1997, 94-95) have underlined the impossibility of contacts between Western and Eastern Europe in the last Glacial, owing to the proglacial basins between the icecap in the North and the Alps in the South. This remark obliges us to place the numerous concordances between Balto-Slavic and Germanic in the Post-Glacial period, i.e. in the Mesolithic.

Lexical innovations covering the Balto-Slavic and the Germanic area (occasionally the Celtic one)

The study of lexical concordances between Balto-Slavic and Germanic has long attracted specialists (cp. Dini 1997, 117 ff.), but its main results, in my opinion, have not been conveniently exploited, owing to the mistaken chronology of both the traditional theory. The same could be said of Renfrew's, if this was a really lingistic theory (which is not).

To illustrate its importance for the PCT I will refer to the main study of this topic, which is Stang's (1972)[4]. It is this author, in fact, who has first noted that within the lexicon common to the three groups the prevailing semantic fields are those of flora, fauna and nature on the one hand, and of carpentry on the other (Stang 1972, 72-73). Both semantic spheres, then, point to a collocation of these lexical concordances in the Mesolithic, that is when the new post-Glacial climate and the new landscapes resulting from it determined, among other things, the emerging of the so called Forest Cultures, based on the importance of forest and wood exploitation and thus on carpentry. Besides, as I have already remembered, it is only in the Mesolithic, with the withdrawing of glaciers, that the plains of Central Europe opened themselves to contacts between the different European groups, which earlier were blocked by ice and proglacial basins.

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[4]. I have not been able to consult Nepokupnyj 1989 (cit. in Dini 1997, 119).

The only question that he PCT cannot yet answer, at least in the present phase, is which of the three groups –the Baltic, the Slavic or the Germanic one – might have been the active one in the spreading of the loanwords underlying the existence of such huge lexical and cultural areas; and wheher it was always the same of the three groups, or they alternated.

Irrespective of the origin of these loanwords, however, it must be rememebered that among the most important Mesolithic cultures so far discovered in Europe (and also extremely well studied) are precisely the specialized fishing cultures of the northern Germanic and Baltic area and those that exploited the forests of Middle Europe.

Forest tree felling and wood industry

(1) Uniting only Baltic (not Slavic) and Germanic, and therefore most likely of Germanic origin and connected with the first great Forest Cultures and their carpentry activities, are a few lexical innovations based on the PIE root *deru- 'tree, wood' (IEW 214-217). In the Germanic area this root is represented by Engl. *tree*, and by Germ. *-der -ter* for plant names, from which come, subsequently, names of wooden manufacts, at times extended to Celtic, such as Engl. *trough*, Germ. *Trog*; MIr. *drochta* 'barrel', *drochat* 'bridge'. In an area extended to Baltic (and from here to the Finnic languages), there appears then the already mentioned innovation of 'tar', typical of Mesolithic. The record includes: OIcel. Icel. *tjara*, Fer. Norw. *tjøra*, Swed. *tjära*, Dan. *tjøre*, OEngl. *tierwe* (f.), *teoru* (n.), OFris. *tera*, MlG. *tere*, MNeth. *ter(re)*, *tarre*, Germ. Neth. *teer*, Engl. *tar*, Lith. *dervà*, Latv. *darva*, Finn. *terva*. The Mesolithic invention of tar permitted the creation of composite tools, also typical of Mesolithic. Some words of this area still evoke the ancient technique: OIcel. *tjorr* (vg sotto) 'sword', but literally 'wooden handle, attached with tar', dial. Swed. *tjör, tjor, tjur* 'piece of resinous wood from an old pine or fir', 'curved part of the bow'. Here it should be recalled that in two other European areas the same technological innovation is designated by a similar relationship between the name of a tree and the product extracted by it: Lat. *pinus* 'pine' and *pix* 'pitch' (IEW 794, Gamkrelidze & Ivanov 1995, 543); Lat. (Celtic loanword) *betulla* 'birch' and *bitumen* 'tar'. The relationship between *betulla* and *bitumen* is exactly the same as manifested in the German compound *birkenteer*. The diversity of the tar name in three different areas of Europe proves, as we have already noted above, that in Mesolithic the main IE differentiation had already taken place.

(2) The semantic passage from PIE *leudh- 'to grow (said of vegetation)' (IEW 684) to the meaning of 'folk, people, community ', shared by Germanic and Balto-Slavic, might have been determined by the innovative context of forest and population growth after deglaciation: OIcel. *ljoðr* 'people, folk, person' (Lapp. *livd*, *lud* 'crowd'), AS. *liud*, OFris. *liōd*, MNeth. *lut* (lg), OHG. *liud* 'people', OEngl. *léode*, OFris. *liode liude*, asass. *liudi*, MNeth. *liede*, *lude*, *luide*, OHG. *liute* 'folk, persons'; OSlav. *ljudije* (pl.) 'free community', Lith. *liaudis* 'people', Latv. *ļàudis* 'folk, people' (ANEW s.v. *ljoðr*). Much later must be the development of Lat. *liberi* 'sons' and 'freemen', and Gr. *eleútheros* 'free', implying an opposition to no longer free individuals, and therefore a context of very advanced social stratification. The Lat. male god of growth *Liber* also shows a late development;

(3) Lith. *aldijà, eldijà* "pirogue, boat', OSlav. *aldiji, ladiji* 'boat', dial. Norw. *olda* 'large trough, often made out of a tree' etc.; probably a term of Mesolithic navigation, which was probably diffused in the area of the great Mesolithic fishing cultures of Northern Europe;

(4) Lith. *balžíenas* 'beam'; dial. Russ. *bolozno* 'thick plank' (Vasmer), Slovn. *blazínas* 'idem', OHG. *balko* 'idem' etc.;

(5) Lith. *dránga* 'lever', 'long carriage', *drangas* (d) 'large wooden bar', OSlav. *drogŭ* 'piece of wood, stick', OIcel. *drengr* stick, wooden bar' etc.;

(6) Lith. *drebeznas* (d) 'rubble, ruins', OSlav. *drobiti* 'to break, crush, smash', Goth. *gadraban* 'to dig' ecc;

(7) Lith. *grindis* 'floor plank', *gristi* (d) 'to plak, pave', *grandà* 'large plank', Latv. *gruodi* 'idem', *grist* (d) 'to pave, plank', Slav. **greda* (d) 'beam', OIcel. *grind* 'fence, loom, rack' etc;

(8) Lith. *stabaras* (d) 'dry trunk', Serb. Cr. OSlav. *stoborŭ* 'column', dial. Norw. *stavar* 'pole', Dan., dial. Swed. *staver* 'idem' etc;

(9) Lith. *stalas* (d), 'table', *pastolas* 'support, pedestall', Pruss. *stalis* 'table', Russ. *stol* 'idem', Serb. Cr. *stôl* 'table, chair', Pol. *stól* 'table', Czech *stul* 'table' etc.; Goth. *stols* (lg) 'chair, throne', OIcel. Icel. *stóll*, Fer. *stólur*, Norw. Swed. Dan. *stol*, OEngl. OFris. AS. *stol* (lg), OHG. *stuol*, Germ. *Stuhl*, Neth. *stoel* etc., all 'chair'. As I have shown in Alinei (1996), while the PIE root **sta-*, **stə-* 'to stay' (IEW 1004) provides one of the clearest examples of the original semantic universe of the Proto-Indo-Europeans, its development to the meaning of 'chair' and 'table', on the basis of the type **stā-lo-*, must necessarily go back to the period in which sedentism was already rooted, and therefore, at the earliest, to the Northern European Mesolithic. The technical, as well as semantic, starting point could be the notion of 'support, base', attestated in Lith. *pastõlai* 'base for beehive', and the most recent outcome the notion of 'throne' of Goth. *stõls*, and OSlav. *stolŭ*. The fluctuation between 'chair' and 'table', typical of the Slavic and North-Germanic area, confirms that 'stand in a vertical position' and not 'sit' was the main semantic feature;

(10) Lith. *strela* (d), Latv. *strēḷa*, Russ. *strela*, Serb. Cr. *strijèla*, OHG. *stràla*, MHG. *strâl(e)*, etc. all 'arrow' (for the Mesolithic dating of the arrow and of its IE names see above);

(11) Lith. *stulbas* (d) 'pole, pillar', OSlav. *stlŭba* 'klimax', OIcel. *stolpi* 'pole, pillar' etc.;

(12) Lith. *žãbas* 'rod, staff, dry branches', *žabóti* 'to fence, to brake' OIcel. *kefli* 'round piece of wood', *kafli* 'skittle, nail, stake, post' etc.

Flora, fauna and others

(1) Though without clear connection with PIE roots (cp. IEW 619), the name of 'roe' shows a typical Central and Eastern North-European (and thus Mesolithic) areal distribution: OIcel. Icel. *hrogn*, Fer. Norw. *rogn*, Swed. *rom*, Dan. *rogn*, Engl. *roe*, Orkn. *raan*, Shetl. *rang*, MEngl. *rowe*, *rowne*, MNeth. *roge*, *roch*, OHG. *hrogo*, *rogan*; in Baltic Lith. *kurkulaĩ*, *krakulaĩ* (pl.), Latv. *kurkulis* (r con acc. circ.) have changed to mean 'frogspawn'. Certainly akin (IEW 619) are Slovn. *krék* 'idem', slovk. *krak* 'idem', Russ. *krjak* 'idem', Pol. *(s)krzek* 'idem', Serb. *őkrijek* 'frog'. Another fish name, exclusive of the Germanic area, seems to be connected to the same family: OIcel. Icel. *hrygna* 'salmon, female trout', Norw. *rygna*, Swed. *rygna ryna*; dial. Germ. *rögel*, *rögling rogner* 'female fish'.

(2) A similar distribution and a similar cultural context is shown by the name of the 'arctic goose': OIcel. Icel. Norw. *gagl*, Norw. *gaul gogl* 'wild goose', dial. Swed. *gagel* 'type of goose', Engl. *gaggles* 'flight of geese', Scots *gawlin* 'type of sea bird'; Lith. *gagalas* 'crane', *gai~galas* 'drake', Latv. *gaigale* 'seagull', OPruss. *gegalis* 'diver', Russ. *gógol'* 'quäkente' (ANEW s.v.*gagl*).

(3) OIcel. *ogr* (o con virg.), MHG. *ag*; Lith. *ašerys* (y con tilde), Latv. *asar(i)s*, *aseris* 'perch'.

(4) OIcel. *gaukr*, aat. *gouh* 'cuculo' etc.; Lith. *geguže* (e con tilde e punt. sopr.), Latv. *dzeguze*, Pruss. *geguse*, Czech *ᴈe·hule*, Pol. *g•eg•ólka*.

(5) OIcel. *istr istra* 'fat wrapping of entrails', MLG. *inster* 'entrails of a disemboweled animal' etc.; Pruss. *instran* 'fat', Lith. *ísćios* (prima i con dia) 'womb' 'entrails', Latv. *ìeškas* 'entrails'.

(6) OHG. *humbal*, Swed. *humla* etc. 'bumble-bee' etc.; Lith. *kamãne*, Latv. *kamane*, Pruss. *camus*, Russ. Slovn. *čmelj*, Pol. *czmiel* 'idem'

(7) OHG. *aspa*; Lith. *ãpuše* (e con tilde e puntino), Latv. *apse*, pruss. *abse*, Slav. *osa* 'aspen'.

(8) Goth. *dailjan*; Lith. *dailýti*, OSlav. *děliti* 'to divide'.

(9) Goth. *graban*; Latv. *grebt*, OSlav. *pogreti*, Serb. Cr. *grèpsti*, Pol. *grzebać* 'dig, excavate'.

(10) OIcel. *heill*, OHG. *heil* 'healthy'; Pruss. *kails* 'health!', OSlav. *cělŭ* 'healthy, wholesome, whole'.

(11) Goth. *mag* 'may', OHG. AS. *mag* 'idem' etc.; Lith. *megti* (d) 'to want etc.', Latv. *megt* (d) 'to be able etc.', OSlav. *mošti* 'idem', Serb. Cr. *mògu*, Pol. *moge* (d) 'idem'.

(12) Goth. *naus* 'dead people', OIcel. *nár* 'dead' etc.; Lith. *nove* (d) 'death', Latv. *nave* (d) 'idem', OSlav. *navĭ* 'dead', Slovn. *nâvje* 'souls of non-baptized children'.

(13) From the PIE root *g^uer- (u con semic) etc. 'heavy' (IEW 476) comes the name for the innovation of the 'milling stone' in the whole area of Northern Europe: OIcel. *kvern*, Icel. *kvörn*, Fer. *kvørn*, Norw. Dan. *kvern*, Swed. *kvarn*, Orkn. Shetl. *kwern*, Lapp. *kværdna*, Goth. *quairnus*, OEngl. *cweorn*, OFris. *quern*, AS. *quern(a)*, MNeth. *querne*, *queern*, OHG. *quirn(a)*, MHG. *kurn*, *kürne*; OSlav. *žrŭny*, Lith. *gìrna*; OIr. *grāvan*, MIr. *bráu*, W. *breuan* (ANEW s.v. *kvern*). Milling begins long before Neolithic!

(14) Limited to Germanic and Slavic is the passage from the notion of 'curve' (PIE *dhel-*, IEW 245) to the name of the 'valley': Goth. *dals*, OIcel. *dalr*, Dan. Swed. *dal*, OEngl. *dæl*, MEngl. *dale*, Neth. *dal*, OHG. *tal*, Serb. Cr. *dolina dol*, Czech Russ. *dolina* (Buck 1.24).

7.6.4 Lexical innovations due to the Neolithic revolution

The presence of the Slavs in their historical area already in Neolithic –and consequently also in the earlier periods-, can be argued in the light of several semantic developments. We return first to one we sketched in an earlier section.

The lexical family of Proto-Slavic *lędo 'fallow land', Hung. *lengyel* 'Polish', Germ. *land*, Swed. *linda*

The Hungarian ethnym *Lengyel* 'Polish' (name of the homonym Neolithic culture) is a loanword from the Slavic name of 'Poland' and of 'Polish' *lęděninŭ 'Neulandbewohner', later abbreviated to (Ru.) *Ljach* (Vasmer s.v., EWU s.v. *lengyel*). Hungarian specialists consider it one of the ancient loanwords preceding the *Honfoglalás* 'occupation of homeland', and as such belonging to the prehistory. How can this opinion be reconciled with the thesis of the arrival of the Slavs in historical times? On the other hand, the Slavic term is also attested in Serb. and Cr. (antiquated) *Leđanin* 'Polish' and (< ungh.) *Lenđel* 'idem', in Byz. Gr. *Lenzanenoi* (pl.), in Crim. Tat. *läh* 'Polish' (Vasmer s.v. *ljach*, cp. EWU), as well as in Arab *laudzaaneh* 'Polish'. All these lexemes come from the Proto-Slavic name of 'fallow land' *lędo 'Rodung, Neuland' (Russ. *ljadá* 'mit jungem Holz bewachsenes Feld, Neubruch, Rodeland', Ukr. *l'ado*, BRuss. *lado* 'Neuland', ORuss. *ljadina* etc., Bulg. *léda* (d?) *lediná* 'Aue, Bergwiese', Serb. and Cr. *lèdina*, *ledìna* 'Neuland', Slovn. *ledìna*, Czech *lada*, *lado* 'Brache', Slovk. *lado*, Pol. *lad* (diacr) 'Land', USorb. *lado* 'Brache', LSorb. *ledo* (d)); to the Swedish name for the same notion (*linda* 'fallow land') and to the Germanic name for 'land', 'country'' (Goth. Germ. Engl., Du., Icel., Fer., Norw., Swed. etc. *land*

(Vasmer s.v., cp.. Stang 1971, 33, ANEW s.v. *land*). Baltic, represented in the same family by OPRuss. *lindan* (acc.s.) 'valley', does not partecipate to this semantic isogloss. As I have already noted aove, etymologists have recognized that the specialized meaning of 'fallow land' in Slavic languages must have preceded the more general meaning of 'land' of Germanic ones. In the traditional scenario it is simply impossible to explain this chronological sequence –which implies a Slavic priority over Germanic. In Refrew's, it is impossible to explain how from a typically early Neolithic notion of 'fallow land' – which following his premises shoud be PIE, and not Slavic! - such a constellation of different meanings, including 'Polish' and 'land', might have developeded, and in such different languages as Hungarian and Slavic.

In the scenario of the PCT, on the contrary, the nature of this lexical family becomes illuminating, and for these reasons: (1) it shows the diffusion of the rotation of fallowed fields, a fundamental technique for the origins and the development of farming, in two different ethno-linguistic areas, that of the Slavs (the first European people, with the Greeks and the other Balkans people, who adopted farming) and that of the Germans (already differentiated from Germanic), who learned it from their Eastern neighbors; (2) it proves, then, the Slavic presence in the area already in Early Neolithic; (3) in particular, it proves the coexistence of Western Slavs (Poles, Czechs and Slovakians) and Germans in the crucial Carpathian area, where Western ad Eastern Europe meet, in the period of the development of Lengyel, LBK and TRB (the last one responsible of the introduction of farming in Scandinavia), which the PCT attributes, respectively, to Western Slavs and to Germans; (4) the passage from 'fallow land' and 'newly broken up field' to 'land' and 'country', with the further development of 'inhabitant of a newly tilled land' and of 'Polish', reflect quite closely the history of Neolithic developments, from East to West, and, at the same time, the chronological gap between the Balkanic complex and the LBK; (5) the technique of fallowing is attested precisely in the LBK culture of Germany and in the Lengyel culture of Central-Eastern Europe, that is precisely in the area that stretches from Germany to Hungary, through former Czechoslovakia and southern Poland; (6) the fact that the typical Neolithic notion of 'fallow land' concentrates in the Slavic area, and appears only marginally in the Germanic one, confirms the Slavic priority in Neolithic development; (7) the absence of these meanings in Baltic confirms that Baltic was already separated from Slavic in Neolithic; (8) the passage from 'breaker of new fields' to 'Polish' (appearing, besides in Slavic, also in Hungarian (*Lengyel*), confirms the presence of Poles in the area already in Neolithic.

To fully appreciate the value of this analsis, however, it is necessary to recall the extraordinary and well-known stability of the LBK culture (the first Neolithic culture of Germany) and the importance of the role of fallowing in the earliest Neolithic cultures. Tringham, for example, has remarked that if the LBK had not used the rotating fallow technique for its new settlements, these would certainly have determined the formation of *tells*, exactly like in the Balkans. The emblematic example is the site of Bylany in Bohemia, one of the most important Neolithic stations of Europa, with its 21 phases of habitation (Tringham 1971, 115).

Other examples

(1) 'barley': Russ. *jačmény*, Ukr. *jačmíń*, Bulg. *ečmík*, Serb. Cr. *ječmen* (d), Slovn. Czech *jéčmen*, Slovk. *jačmeň* Pol. *jęzmień*, Sorb. *jacmeń* (d), Polab. *jǫčmén*. This is an exclusively Slavic name, which some scholars connect to Gr. *akosté* (lg);

(2) 'flour, meal': Russ. *mélevo*, *mélivo*, Ukr. *mélyvo*, BRu. *mélivo*, Serb. Cr. *meljivo*, Slovn. *melivo* (d), Czech *melivo*. The affinity of this lexical family with Germanic, represented by Germ. *mehl*, and with Illyrian, represented by Alb. *miell*, permits the

dating of this isogloss to the period of the earliest Balkanic Neolithic and of its diffusion in Germany;

(3) 'rye': OSlav. *rŭžĭ*, Serb. Cr. *raž*, Czech *rež*, Pol. *reż*, Russ. *rož*; Lith. *rugiai*, Latv. *rudzi*, Pruss. *rugis*; OIcel. *rugr*, Dan. *rug*, Swed. *råg*, OEngl. *ryge*, MEngl. Engl. *rye*, Neth. *rog*, AS. *roggo*, OHG. *rocko, roggo*, Germ. *Roggen*. As this word is considered a loanword from an unknown language (Buck 8.45), in the scenario of PCT we could see it as a loanword introduced by the oriental farmers, which the earliest Slavic Neolithic cultures would have spread into the Germanic area of the LBK. Archaeological research has noted the presence of a "fairly large number of rye grains [...] in several settelements of the Linear Pottery" (Wisłański 1970, 426);

(4) 'threshing flail': Russ. *cép*, Ukr. *cip*, Bulg. *cĕp*, Czech Slovk. *cep*, Pol. Sorb. *cepy* (pl), Polab. *cepoi* (pl.). Slavic agricultural specialization of an earlier IE technical term (cp. Lat. *scopa, scāpus, scamnus*, Gr. *skípōn*, Goth. *skip* etc.);

(5) 'billy-goat': the family of Russ. Ukr. Czech dial. Slovk. Pol. *cap*, Slovn. *càp*, attested also in Hung *czáp*, Rum. *ţap*, and in It. dialects (Latium *zappo*), probably derives deriva from Illyrian (Alb. geg. *tsap*: Meyer 1891, 387, cp. Vasmer s.v.). Irrespective of what its ultimate origin might be, this word clearly reflects the early Neolithic unity of the Balkans, due to the introduction here of the first wave of Middle-Eastern farmers;

(6) 'wool, hair of an animal': Russ. *šerst* 'wool' (dial. also 'goose feathers'), Ukr. *šerst'*, Slovn. *srst* 'hair of an animal', Czech *strst* 'idem', Slovk. *srst'*, Pol. *sierść*. The relationship of this family with other IE words having a different meaning (cp. IEW) implies a Slavic Neolithic specialization;

• (7) 'dog, puppy': Bulg. *kuče* 'dog', Serb. Cr. *kuča kuče*, Slovn. *kúčək*, Pol. *kucziuk*, Ukr. *kot'uha*, Slovk. *kot'uha*, all 'dog', dial. Russ. *kutya* 'doggy, puppy', attested also in Alb. *kutš* 'dog', as well as in Hung. *kutya*, Vog. *kūt'uw*, Syr. *kićan*, Est. *kutsikas*; Osm. *kuçukuçu*, and in Italian dialects (Tosc. *kuča*, Umbr. *guccia, kucciatella, kucciala, kucciola, kucciarella*, March. *kucciola kucciavella*, all 'puppy' etc.). Probably another Neolithic loanword introduced in Eastern and Southern Europe with farming.

(8) 'cheese': OSlav. *syrŭ*, Russ, Ukr. BRu. Slovk. *syr*, Bulg. *sírene*, Serb. Cr. *sir*, Slovn. *sìr*, Czech *sýr*, Pol. *ser*, Sorb. *sera*. Attested also in Baltic (Lith. *suris* (d) 'cheese', Latv. *surs* (d) 'salty, bitter, sour'), this word appears to be a Neolithic specialization of an IE adjective that in Germanic means 'sour': OIcel. *súrr* 'acido', OHG. *sur* (d), Germ. *sauer*, Neth. *zuur* etc. (Vasmer). Its passage to milk products is attested also in Alb. *hire* (d) 'whey' (ibidem) and probably also in Lat. *serum* (which would then be a Slavic loanword);

(9) 'loom': Russ. Ukr. *krósno*, OSlav *krosno* 'liciatorium', Bulg. *krosnó*, Serb. Cr. Pol. USorb. *krosna*, Slovn. *krósna*, Czech *krosna* 'support', Slovk. *krosná* 'loom'. This word family, connected to a typical Neolitic technology, is exclusively Slavic, as the Baltic cognate words mean 'chair' (Vasmer s.v.);

(10) 'wall': Proto-Slavic develops the name of this notion from that of 'stone' (cp. Germ. *Stein*, Engl. *stone*): Russ. *stená*, Ukr. *stiná*, Bulg. *stená* (d), Serb. Cr. *stijèna*, Slovn. *sténa*, Czech *stena* (d), Slovk. *stena*, Pol. *ściana*, Sorb. *sćena* (d);

(11) 'wooden plow, made out of a forked branch': Russ. *sochá*, to be compared to Ukr. BRu. Bulg. *sochá*, Serb. Cr. *sòha*, Slovn. *sóha*, Czech Slovk. Pol. Sorb. *socha*, all 'pole', or 'forked branch' and the like (Vasmer s.v.). It is certainly connected with the invention of the plow in Middle Neolithic;

(12) 'cup': irrespective of its origin, which is obscure, the Slavic family of Russ. *čáša* 'dish, goblet, glass (*čaška* 'cup'), Ukr. BRu. *čáša* 'cup', OSlav. *čaša* 'glass', Bulg. *čáša* 'idem', Slovn. *čáša* 'idem', Serb. Cr. *čaša* 'idem', Czech *číše*, Slovk. *čaša*, Pol. *czasza*,

Polab. *cosó* can only reflect the beginning of pottery typical of Neolithic. In the light of our knowledge on the introduction of Neolithic from Middle East, a connection with an Eastern language (cp. Ar. *tassah* 'cup' > It. *tazza*, fr. *tasse*, Germ. *Tasse* etc. 'idem') would be quite plausibile;

(13) ORuss. *selo* 'village, field', Russ. *seló*, Bulg. *séló* 'village', Serb. Cr. *sélo* 'village', Slovn. *sélo* (d) 'locality', OBulg. *selo* 'dwelling, field', Bulg. *séló* 'village', Czech *selo* 'village, field', Pol. *sioło* 'village'; Lith. *salà* 'village', Latv. *sola* 'idem'; OIcel. *salr* 'dwelling, large room', Swed. Dan. Norw. *sal* 'hall, large room', Goth. *saliþwōs*, 'dwelling, OHG. *sal* 'construction, hall', Long. *sala* 'large room', Germ. *Saal* etc. 'idem'. We have here first a Slavic innovation, connected with the development of the first Neolithic villages (cp. the relationship between 'field' and 'village', and note that the innovation is still close to the original meaning kept by Lat. *solum* 'soil'); then a later Germanic innovation, connected to the LBK culture and to its typical long rectangular houses ('large room, hall');

(14) 'peasant's house': Russ. Ukr. *izbá* (dim. *istopka*), OSlav *istŭba*, Bulg. Serb. Cr. *ízba*, Slovn. *izba* (d), *jspa* 'Stube', *jspica* 'room', Czech *jisba* 'Stube, room', Slovk. Pol. *izba*, Sorb. *špa*, Polab. *jázba*. In the traditional scenario the controversy between an origin from Germ. *Stube* or from Lat.*exstufa* (Slavic scholarship seems to ignore that the derivation of Germ. *Stube* from Lat. *exstufa* is unquestionable), because both etymologies involve considerable difficulties (cp. Vasmer s.v.). In the light of the PCT the problem can be solved by refusing both of them, and accepting as a real etymology – instead- what has been wrongly considered a folk-etymology: the diminutive *istopka* (attested in the form *istobka* in the Nestorian Chronicle, cp. Vasmer) can certainly come from *iz-topítĭ* 'to warm up', Ukr. *topýti*, Serb. Cr. *tòpiti*, Slovn. *topíti*, Czech *topiti*, Slovk. *topit'*, Pol. *topić*, Sorb. *topiś* (Vasmer s.v. *topít'*). In any case, for a Neolithic term a geochronological sequence such as Latin > Germanic > Slavic could not be reconciled with the real prehistoric development. While a Slavic innovation, based on IE materials (the above mentioned verb has connections in Old Indian, Iranian and Baltic (Vasmer)), is perfectly plausible;

(15) funerary mound': Russ. *mogíla*, Ukr. *mohyła*, Church Sl. *mogyla*, Bulg. *mogíla*, Serb. Cr. *gòmila*, *mògila*, Czech Slovk. *mohyla*, Pol. *mogiła*, Polab. *mügåla* (d) 'tomb', to which must be added Alb. *mágul'ê*, and the Rum. loanword *magura* (d) (Vasmer s.v.). Term of unknown origin (but possible Slavic origin) which, as we have seen, is also used locally as a place name to designate the prehistoric *tells* of the Neolithic settlements of the area.

(16) I would place here also OSlav. *tysešti*, *tysošti*, Pol. *tysiac* (d), Czech *tisíc*, Serb. Cr. *tisuča*, Slovn. *tisoč*; Lith. *tukstantis* (d), Latv. *tukstuots* (d); Goth. *þusundi*, OIcel. *þúsund*, OHG. *thusund* (d) etc., all 'thousand'. Irrespective of the word origin, only the new Neolithic economy, with the high numbers associated to stock raising and to the storage of farming products, could have produced the need to develop such a notion (see also Alinei 1996).

7.6.5   From Neolithic to the Metal Ages: the Slavic lexical family of *grad*=

As we have briefly seen in one of the preceding sections, the Slavic lexical family represented by OSlav. *gradŭ* and by its developments has an exact parallel in Central-Western Europe, where Germ. *Zaun*, dial. Swed., ODan. *tun* etc. 'hedge, fence', Neth. *tuin*, AS. *tun* etc. 'orch-yard, garden', Engl. *town*, dial. Engl. *tine* 'to fence', OIcel. *tún* etc. 'town' and Gaul *dunum*, OIr. *dūn*, etc. 'forteress' show the same semantic sequence. And they both reflcct the same pattern of development from the beginning of Neolithic through the Metal Ages.

More over, also its relationships with Lat. *hortus* and with Goth. *-gards*, OIcell. *garðr*, Germ. *Garten* etc. can be read in a productive way in the light of the PCT. In the Slavic languages, in fact, we have the meaning of '<u>fence</u>' (Proto-Slav. *gordia, OSlav. *graždŭ*, Russ. *goróža*, Ukr. BRu. *horóža*, Bulg. *graž* (d), (f.), Serb. Cr. *graða*, Slovn. (acc.) *grája*, all 'fence', Czech *hráze* 'garden wall ', Slovk. *hrádza* 'idem', Pol. *grodza* 'hedge', as well as Lith. *gardas* (d) 'fence, hedge', Alb. *gardh* 'hedge', OIcel. *gerði* 'fenced field' (Vasmer s.v. *gorod*); as well as that of '<u>garden</u>' (OSlav. *gradŭ, ogradŭ*, OSlav. and Bulg. *gradina* (> Rum. *grădină*, Pol. *ogród*, Czech *zahrada*, Russ. *ogorod*), comparable to Lat. *hortus* 'orch-yard'; the meaning of '<u>town</u>' (OSlav. *gradŭ*, Serb. Cr. Slovn. *grad*, Czech *hrad*, Pol. *gród*, Sorb. *grod*, Casciub. *gard*, Polab. *gord*, Russ. *górod* 'town', Ukr. *hórod*); and finally that of '<u>caste, forteress fortification</u>' (OSlav. *gradŭ* (> Russ. *grad*), Czech *hrad*, Pol. *gród*; Serb. Cr. *gràdina*, Bulg. *gradište*, Czech *hradište*, Russ. *gorodišče*).

Even if we could not argue it from the course of prehistory, that 'orch-yard' was the original meaning of the family can also be demonstrated by the fact that this is the only meaning that covers the whole area and is shared by all three groups: PSl. *gradŭ, Lat. *hortus* and Gm. *–gards*. Whereas the other two semantic innovations - 'town' and 'castle'- are exclusively Slavic. In contrast with the family of *Zaun tuin town dunum*, however, in which the different semantic developments correspond each to a different area – resp. German, Dutch, English, Celtic, the Slavic lexeme went through the whole cultural sequence, from 'cultivated field' through 'village' to 'fortified settlement'. Typically, the Celtic *dunum* development reflects the aggressive character of Celtic elites, which during the Metal Ages were able to colonize Central Europe and Italy. In the Slavic area, the fortification of previous settlements, or the foundation of new settlements in easily defendable sites were first the result of the necessity to defend Neolithic groups from the aggressive pastoral groups (as was the case of Tripolye with regards to its Altaic neighbors), and then of the antagonism between akin or foreign elites, which is typical of the stratified societies of the Metal Ages.

If we then recall the hypothesis advanced by specialists in oriental languages (cp. Alinei 1996, 618), according to which the lexical family of *hortus -gards, gradŭ* can be connected to an Afro-Asiatic language, we could easily place the introduction of this word within the scenario of the introduction of farming from the Middle East: the loanword would have landed in the Balkanic area and in Southern Italy with the first waves of farmers, eventually re-absorbed by the autochthonous Indo-Europeans. Starting from the Balkans, and following the expansion of the new economy, the word would have first acquired the meaning of 'stable village', typical of Southern Slavic – the area of the millenary *tells* – later spread to Eastern Slavic, while the expansion of farming in the Western Slavic and in the Germanic area, with Lengyel and the LBK, besides expanding the word old meaning (Germ. *-gards, garðr-*), would eventually lead to the innovation 'fortification, castle', especially characteristic of Western Slavic.

7.6.6 Metal Ages: loanwords and innovations

(1) 'metallic mineral': Russ. Ukr. *rudá*, OSlav. Czech Slovk. Pol. Sorb. *ruda*, Serb. Cr. Slovn. *rúda*. This term, which represents an exclusively Slavic semantic development from the PIE word for 'red', must be associated with the earliest metallurgy, which developed in the Slavic area. As I argued in my second volume (Alinei 2000, 948-9) Lat. *rude* 'raw copper' (neuter of the adj. *rudis*) could easily be a loanword from Slavic; (2) the three groups of Slavic horse names, represented by Russ. *kobýla* 'mare' (cp. Lat. *caballus*, in my opinion a probable loanword from Slavic), *kómon'* 'horse' and *kon'* 'idem', of obscure origin (see the different hypotheses in Vasmer), are certainly

associated with the introduction of horse domestication and horse riding from the Asiatic steppes (Serednyi Stog and Yamnaya cultures);

(3) the Slavic name of the new wheel plough, which replaced the ancient forked-branch plow, certainly belong to this period. It was borrowed from Germanic: Russ. *plúg*, Ukr. *pluh*, OSlav. *plugŭ*, Bulg. Serb. Cr. *plug*, Slovn. *plùg*, Czech Slovk. *pluh*, Pol. Sorb. *pług*, Polab. *pläug* (Vasmer s.v.). As I have shown elsewhere (Alinei 1997d), this word is of probabile Celtic origin, and its attestations in Northern Italy and especially in Albanian (in Albania specialists have ascertained that the plow was introduced by Celts), confirms this thesis. Both in the Germanic and in the Slavic area, the wheel plow seems to have been introduced by the TRB culture (within the PCT a culture carrying strong Celtic influences);

(4) The Slavic word family represented by OSlav. *skotŭ*, Russ. *skot*, Serb. Cr. Pol. Czech *skot*, all 'cattle', has a Germanic *pendant* in the word family of Goth. *skatts* 'money', OHG. *skaz* 'money, wealth', Germ. *Schatz* 'treasure', OFris. *sket* 'money' and 'cattle'. If the phonetic problem underlined by Vasmer (s.v.) could be solved, the greater antiquity of stock raising in Eastern Europe would support the hypothesis of a loanword from Slavic, already advanced by several scholars, with a passage from 'cattle' to 'wealth' identical to that attested in Latin, from *pecus* 'cattle' o *pecunia* 'money'. The cultural context of the passage could be identified in the growing importance of cattle raising for the development of private property, and thus of social stratification and elite forming typical of this period;

(5) 'beer, hydromel and other alcoholic drinks except for wine': Russ. *ol*, OSlav. *olŭ*, Bulg. *olovína*, Slovn. *ôl*, *ôlovina* 'brewer's yeast', Lith. *alùs*, Latv. *alus*, OPuss. *alu* 'hydromel'; OIcel. *ol* (d), Dan. *ol* (d), Swed. *öl*, OEngl. *ealu*, Engl. *ale*. As traces of fermented drinks have been found in the Corded Ware culture (Sherratt 1991), this isogloss could be attributed to the influence of this culture in the Central and Eastern European area. If the focus of the Corded Ware is Baltic (Gimbutas), or Balto-Slavic (cp. Alinei 2000), then the Germanic forms would be loanwords (not so Vasmer);

(6) the Germanic family of **kuningaz* 'king' (cp. Engl. *king*, Germ. *König*, Neth. *koning* etc.) has expanded (besides the Uralic area: Finn. Est. *kuningas* 'king') also to the Balto-Slavic area, where it has acquired different meanings: Russ. *knjaz'* 'prince, groom', Ukr. *kńaź*, OSlav. *kŭne(d)zǐ* 'head, king', Bulg. *knez* 'mayor', Serb. Cr. Slovn. *knez* (d) 'prince', Slovk. *knaz* (d) 'priest', Pol. *ksiadz* (d), Sorb. *knez* (d) 'lord', Lith. *kùnigas* 'priest', Latv. *kungs* 'lord' (Vasmer). This loanword might also be attributed to the influence of the TRB culture, responsible for many innovations, technical as well as social and ideological;

(7) 'evil witch': Russ. (*baba*) *jagá*, Ukr. BRu. (*baba*)-*jahá*, Ukr. *jazi-(bába)* 'witch, hairy caterpillar', *já•a* 'witch', Bulg. *ezá* 'torment, torture', Serb. Cr. *jéza* 'chill', Slovn. *jéza* 'anger', OCzech *jězě* 'lamia', Czech *jezinka* "Waldfrau', 'evil woman', Pol. *jědza* 'fury, witch'. Notice the probable origin from PIE (Vasmer), and the exclusion of Baltic. Religion historians place the birth of evil magical beings specialized in the context of stratified societies.

7.6.7   The Balkanic *Sprachbund* in the light of the PCT

Lastly, it is worth illustrating how the PCT can revise the intepretation of one of the major and well studied phenomena of South-Eastern Europe: the so called Balkanic *Sprachbund*, i.e the ensemble of genetically different languages (namely Rumanian, Bulgarian, Macedonian, Albanian, often Greek, and sometimes also Hungarian and Southern Italian), belonging to five different linguistic groups, which, in spite of their differences, share many important linguistic features. Emanuele Banfi (1985) has

recently illustrated its history and various aspects. The discovery of this anomalous linguistic similarity was made by linguists such as A. Schleicher, Fr. Miklosich, H. Schuchardt, H. Pedersen, P. Skok and others, but the scientific notion of *Sprachbund* or 'linguistic league', in the sense of a complex of isoglosses shared by contiguous but genetically different languages, is more recent, as it was advanced by the founders of linguistic structuralism, the Russian N.S. Trubeckoy and the Russian-American R. Jakobson.

Not all isoglosses are present in all five languages, and a few extend to Southern Italian; others, especially lexical, cover the whole Carpatian basin and extend to Ukraine (Banfi 1985, 113). The main so called 'Balkanisms' are:

• in *phonetics* and *phonology* (i) the presence of a neutral vowel (which spreads to Southern Italy);

• in *morfology*: (ii) coincidence of genitive and dative, (iii) future with 'will', (iv) analytical comparaison, (v) numerals from 11 to 19 with 'on' and 'ten' (extended to Hungarian), (vi) preservation of vocative;

• in *syintax*: (vii) loss of infinitive, (viii) postposed article and (ix) duplication of object;

• in *lexicon* (x) a great number of common loanwords from Greek, Latin, Slavic, Turkish (and Turkic) and Albanian;

• in *iconymy* or *motivations* (xi) a great number of common idioms.

Obviously, also in this case the great change in the chronology caused by the PCT does not modify the heritage of knowledge acquired by historical and comparative linguistics, but simply adds a much greater depth to the traditional stratigraphy, allowing, in certain cases, the solution of otherwise unsolvable problems. I will examine, as examples of a new interpretation of the Balkanic *Sprachbund*, the problem of the postposed article and of some lexical isoglosses.

The postposted article

In the Balkanic area, the postposed article –a very peculiar phenomenon - appears in Bulgarian, Macedonian, Rumanian and Albanian. In order to identify its origin, we must first of all recal that in Europe the areas characterized by the postposed article are three: the one of the Balkans, the Scandinavian and the Basque. In the last one, there is no doubt that the phenomenon is independent. Also in the Scandinavian area, it probably represents a local innovation, which has not involved the other, continental and insular, Germanic languages. Only in the Balkans it is shared by languages belonging to (parts of) different groups: Slavic, Illyrian and Neolatin.

Now, since the remaining Slavic languages not only do not have the postposed article, but they do not even have the article altogether, postposition of the article, as an innovation, can hardly be attributed to the Slavic languages that do show it. Neolatin languages, unlike Latin, do have the article, but always the preposed one, so Rumanian cannot be its origin either. Illiryan – which is the ancestor of Albanian- has been the language of a powerful elite that dominated the Balkanic area and beyond, and as such could very well be the cause of the spread of this phenomenon beyond its focus area. But apart from the fact that it is very poorly documented, it cannot have had this role since its lexicon is very poorly represented in the 'common Balkanic lexicon' characteristic of the Balkanic *Sprachbund* (Banfi 1985, 106 sgg). From the dominating language(s) of a *Sprachbund* we would expect a major lexical contribution. The only remaining hypothesis is that the active role for this innovation has been that of an unknown language, spoken by the imigrating farmers of the Middle East who introduced Neolithic into the area, and who would have had a unifying influence on the

languages of the Balkans, precisely as happened later to Byzantium (Banfi). The postoposed aeticle, in other words, would have been spread along with that so called 'Balkanic originary lexicon' (Banfi 1985, 83-85), for which scholars have not been able to find adeguate etymologies, and that within the PCT, rather than 'originary lexicon', would represent the lexicon of a peri-IE adstratum language.

Lexicon

The greatest support to the thesis of an early Neolithic origin of the Balkanic *Sprachbund*, however, comes from the examination of its lexicon, the only language component that, with the proper methods, can be dated with sufficient precision (Alinei 1996). Seen in this light, <u>Greek</u> terms for notions such as 'tile', 'glass', 'window' - κεραμίδα, ποτήρι and παραθυρον-, diffused as they are in the whole of the Balkanic area (Alb. *qeramidhe*, Bulg. *keramida garamida*, Serb. *ćeramida*, Rum. *caramida* (d), besides Turk. *k'eramit*, perhaps to be connected with the originary language; Alb. *potir*, Bulg. *potir*, Serb. *putir*, Rum. *potir*; Bulg. *paràtir*, Alb. *parathìr*), appear to reflect the earlier neolithicization of Greece, in comparison with the rest of the Balkans. Recall that the 'modern' dwelling typology begins with Neolithic, and that baking techniques connected with pottery are one of the fundamental acquisitions of the same period.

The two <u>Turkic</u> terms for the notions of the 'shepherd' and of 'head of the shepherds' - *çoban* (from Pers. *šubān*), and *baş* – are diffused, respectively, in the Balkans and in the Balkano-Carpatian area: Serb. and Croat. *čoban*, MGr. *tsopánis*, Alb. *çobán* and Rum. *cioban*; Alb. *baç*, DRum. Megl. *baci*, Arum. *baciu bagiu*, Serb. and Croat. *bač*, Mac. *bacs, bacsa, bacsó* (Skok s.v. *bač*), Pol. *baca* 'Tatra mountain shepherd', head of the young shepherds', reg. Czec. *bača* 'shepherd'. The traditional explanation of an Ottoman influence for these Turkic loanwords is difficult to admit. Very rarely colonial masters of historical nations have introduced changes that reach the lower social strata which, on the contrary, they had all reasons to segregate and to isolate from progress. Traditional figures such as the shepherd, the mountain shepherd, the head of the shepherds, are totally alien to their direct interests. On the contrary, such loanwords would be more esaily understable if connected to the introduction of specialized stock raising in the Balkans, by the *kurgan* culture of the IV millennium or by their later successors.

A more recent layer of the lexicon common to the Balkanic languages can be found in Latin loanwords, among which I choose to illustrate Lat. *filianus* 'god-son': it appears in Serb. and Cr. *piljan*, Alb. *fijan*, Rum. *fin*, Arum. *hil'ín*. As I have shown elsewhere (Alinei 1992a and 1996 cap. IV), in Italy and in Corsica *filiano* belong to two diagnostic terminological systems for the social relationship internationally known as *comparazgo*. The pair <*filiano/filiana*> appears only in two variants: the one I called 'Ausonian' (because it is attested in lower Latium and in northern Calabria, besides the area around Ajaccio in Corsica), associated to the pair <*padrino/padrina*> for 'god-father and god-mother', and therefore typically 'patriarcal', and datable to the Bronze Age; and the other that I have called 'Etruscan' (for the areal distribution in high Latium and in Corsica), combined with the pair <*compare comare*> for god-parents, datable to the Iron Age. Of the two systems, it is probably the Etruscan which spread to the Balkans, during the Etruscan 'orientalizzante' period: for precisely the pair <*compare/comare*> for the 'god-parents' appears in Alb. *kumbár/kumbáre*, in Bulg. *kum/kumá*, Serb. and Cr.. *kum/kúma* (d)) and Rum. *cumatru cumatra* (a con semic). In more general terms, many Latin loanwords in Albanian and in Southern Slavic languages must be re-intepreted as due to a pre-Roman Latin influence, that is as reflections of the very close and well-studied contacts between the Italian peninsula and the Balkans in prehistory.

In short, the PCT permits to explain the forming of the Balkanic *Sprachbund* much less in terms of the traditional historical contexts (which, however, are not denied), than in those of prehistoric ones, from the first neolithization of Europe, which took place in the Balkans, to the introduction of metallurgy, in which the Balkans, again, played the primary role, to the Bronze and Iron age, in which the influences of other, contiguous dominating elites must have alternated in the spread of their innovations within the Balkanic area.

8   Conclusion

To conclude, the PCT appears to be not only an obligatory working hypothesis as an explanation for the ethnolinguistic development of Europe (and parts of Asia), but also to provide a set of new methods and reading keys which, once applied to the linguistic and archaeological record, prove to be far superior to both the traditional and to Renfrew's theory.

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