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MODERN URBANISM AND PRIMITIVE CULTURES FROM THE PAST

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Introduction

This is an unusual perspective from which prehistory could be approached and better understood. As a starting point it bears not only conceptual richness drawn in parallel from these seemingly standing far away scientific, educational, and cultural domains, but intellectual traces of a research area that requires rigorous analyses, corrected through the prism of archaeological interpretations based on the novel theoretical developments. The intellectual sources on which I ground the conceptual richness of this approach can be found in the first place in the Daniel Miller's work 'Material Culture and Mass Consumption' [1]. The signs of modernization have always been recognized within the ways of practicing of mass consumption that have different appearances. The diversity of signs that appear in the praxis of mass consumption becomes understood in an inverse order: modern people tend to transfer their knowledge about the present to their knowledge about the past. This problematic conceptualization of the past by modern urban culture pre-defines a logical sequence of investigation steps that creates a radically novel research area. Its logical framework evolves in the following way: first, it has to outline various object domains; second - define the associated with them ideology; third, to reveal the interests of the social actors involved in the processes of knowing, documenting, managing and presenting the past. Contrary to the traditional archaeological approaches that create abstract entities of object domains, I consider them in terms of their co-presences as assemblages of human and social actions that act through built in them internal logic. This approach has several features. First, it does not lead to a deterministic model of social evolution but it is used as an instrument that allows analyzing in better way human and social activities in the past and in the present. Second, this logic cannot be called 'fuzzy' as this term implies total 'unpredictability'. I shall provide examples that will show that the logic behind human and social actions can be modeled and predicted in approximate terms. Unlike the exact sciences, the formal rules in social sciences tend to change after any sequence of few steps made in one direction, reaching a point from where the rule changes and the resultant direction and the associated with it pattern also changes. D. Miller sees social patterns in the changing material expression of human consumption that are objectified through human agency, while my approach tries to answer the question why people show such a whimsy nature in their cultural choices of 'consuming' their human-nature interaction. This leads to better ways of observation and analyses of the variation of the rules of formal logic that stay behind social actions whose rationality become modeled through the ideology and interests of the social agents. I consider ideology not only as a means for balancing political power, but as a way of forging diverse human identities that stabilize communities and are able to integrate the 'foreignness' into local contexts. In my understanding ideology has primary formative function that shapes social action through building strategies of success. These strategies go through creating various personal and social identities leaving behind material traces that express the complex interplay of symbolic complexes. Traditional archaeological approaches see symbolic complexes only in their role of regional and supra-regional constituents that predefine homogeneous social actions. In this light the most common use of this notion is the vague definition of archaeological culture as ethnic, cultural and symbolic entity. This traditional understanding also borrows insights from the modern definition of urban architecture and the public monuments associated with it such as Gothic, Baroque, Stalinist, etc. Yet, the meaning of public symbology in an urban space remains in tense relations with the notion of archaeological culture that is considered to evolve in less cultural, rural environment – seen as primitive counterpart of the high culture of urban centers, associated with true cultural activities and knowledge.

This tension is somewhat mitigated by the insights drawn from the book 'The Corrupting Sea' Horden and Purcell [2]. The notion of corruption here was taken in its positive meaning as something that provides easy access to valuable resources. Sea is presented as such valuable resource and as a constellation of dispersed cultural artifacts that promotes the appearance of urban spaces in the Mediterranean world. The most important feature of the sea is its integrative role in uniting the disintegrated (patchy) Mediterranean societies. The cultural landscapes of their dispersed inhabitants are carved by traces of intense agricultural activities associated with terraced steep slopes, irrigation and plant and animal diversity. The accent is put on the idea that people were united through their diverse practices and identities, but their unification process happens not on the ground of any artificially created, abstract uniformity. Rather than providing a dividing line that separates urban from rural spaces, they show how inhabitants in both places complement one another's activities or, in rare cases, alternate their residences between towns and villages. They present Mediterranean communities as mobile and dynamic societies that web diverse cultures and identities. I take and apply the idea that not the homogeneity of cultural entities but the symbolic diversity of local contexts shapes the long-distance communication and exchange networks. Landscapes are no longer seen as physical constraints that consist of slopes, altitude and visibility, but as cognitive artifacts that through human action structure the social life of neighboring communities that live both in rural and urban areas.

The notion of 'duality of social structure' I take from the A. Giddens' book 'The Constitution of Society' [3]. The key element in it is the 'regionalization of human action' where space is not understood as a container of agents' activities but as a symbolic landscape that is carved up by human ability to separate in different areas his/her daily activities and thus unite them with the activities of the other members of the

community. The notion of agency is not an abstract entity but is constituted by personal identities and with identity of agents with the immediate surroundings of their social structure. This way the neutral physical space turns into different familiar places such as home, work, streets that define habitual social actions, traced down by walking paths or commuting between them on everyday bases.

These theoretical premises contradict traditional archaeological understandings of spatial distribution of physical sites and artifacts that can be measured exactly in terms of time intervals and distances. In my view the true evidence of these archaeological spatial distributions cannot be revealed without modeling and analyzing their internal logic. The latter should be based on the logic that is created and interpreted not through the methods of reproducible scientific experiments carried out in controlled environment but in terms of the theoretical insights coming from the concept of regionalization of human agency as limiting factor imposed on the actual validity of a formal rule, which describes local not regional behavior. For example, the application of Bayesian model for assessing series of dates can be applied locally but at a regional level the results should be interpreted through the variation of their time intervals not through their mean values. I will put special focus of analyzing the positive and negative sides of archaeological application of this formal method.

This seemingly all-encompassing theoretical background that sways between two different poles - remote past and modern urban culture - poses a question: what is the social relevance of such an approach. This does not mean that the focus of this work targets particular social "class" or draws qualities from some social strata from the present and transfers them (builds similarity) with supposing social strata from the past. The most important question that stems out from this controversy is which social groups are mostly interested in the past and how modern (urban) culture studies the past? To the first part of this question, I assume and observe the behavior of the general public that goes to archaeological/historical museums and visits archaeological sites. The second one involves questions such as how modern urbanism is capable of conceptualizing past cultures and how this process reaches out wider audience and forms public attitudes; how these public understanding of the past form life-long lasting attitudes that may construct extreme political views and bring physical and symbolic destruction to archaeological heritage?

In order to be able to disentangle these problematic issues, it is necessary to make an attempt to observe and, most importantly, to better understand the public attitudes towards archaeology and archaeological heritage. Strangely enough studies of public opinion on that matter are not numerous. Studies on museum visitors are numerous but they focus more on technical issues and demographic data than on basic understandings of (pre-) history and its relations to the modern political views, which always bear hidden concepts of the ways of life in modern urban environment. A rare exception of this rule is the recently published in the European Journal of Archaeology study of how public understands archaeology and archaeological heritage (2017). To my disappointment, apart from this initiative, which is valuable by itself, the rest of the study reveals ambiguous results drawn from ambiguous questions. Why is it so? First, the European project - NEARCH - leaves the study to a marketing company, instead of using their own resources, where archeologists create and question not the general public, but the one that they know and that shows interest in archaeology. The problem is that sociologists oriented in market and political studies do not possess enough knowledge about the subtleties of archaeological research practices and how public reacts to them. The study itself shows a rather cheerful picture of "happy" and "understandable" public, already familiar enough with the problems of archaeological practice, and the values it brings to society. In high percentage numbers the authors "find" that the general public values the knowledge of the past. Here I will correct the authors with the fact that in my life I've never met a person who is not interested in history and archaeology and does not value the knowledge of the past. So I would opt here for marking 100% vote by the audience for the value and usefulness of archaeology to society. But the real question that is necessary for proper interpretation of this sociological study is what people didn't say and what did they say and how to understand their statements. Judging from the published results, no one said that archaeology is a 'systematic' study of the past. What did the public say is that archaeology is a science (whatever it may mean) as well as cultural and vocational (so called 'community archaeology') activity. There is some mention of "democratization" of the knowledge of the past by reaching out diverse audience but, apart from these generalizations, no concrete measures were pointed out how to achieve these goals.

My interpretation of these said and not said words about the value of archaeological practice is that European public remains locked into their nationalist historical mythologies, only extended to the deeper (pre-) history. More than that public makes primary association of archaeology with excavations. It cannot be blamed for this attitude as excavations are the most visible part of archaeological research.

Popular culture in urban spaces also sees archaeology associated exclusively with excavations. In itself this statement is right and, at first glance, the main part of archaeological research is based on excavations. But what kind of excavations one may consider as the proper ones? Mass media produce and reproduce the image of an archaeologist as a national hero that unearths lost castles, forgotten religious centers, and treasures. Strangely enough this pattern excludes objects of ancient art such as statues, mosaics, architecture, small objects of art, unique craft facilities. For example, the only TV program (one hour weekly) on Bulgarian National Television has a head image that shows few young men

with picks, spades and equipped with gear for climbing rocks in the moment when they start digging. This image only reaffirms the popular understanding of archaeology as a vocational practice, where one has to solve a mystery of how to find a hidden place with a treasure, dig and unearth it. In other words the equality between archaeology and treasure hunting, set by mass media, has negative social consequences: one can get rich by finding a proper place where a treasure is hidden and by destructing the place through digging (archaeological site) one finds personal satisfaction in this trilling experience. This leads to addictive behavior but, more importantly, in this personal and collective experience there is no room for aesthetic appreciation of the beauty of archaeological sites and the associated with them, other than the treasure, structures and artifacts from the past. Destruction of the past remains is justified as long as the treasure has been found. This type of understanding the past is common among people living in small towns and villages that are close to the archaeological sites where they carry out their destructive practice. This social practice is somewhat negatively valuated by the general understanding of the public but it is not stigmatized and remains within the norms of behavior of a person living in a market economy. The latter justifies the transfer of this practice into the modern urban culture where old buildings with cultural heritage value become often destroyed only to build in their place modern facilities that provide good income for their new owners. While in rare cases such destructive acts may be justified, they remain popular among local and central authorities. This understanding is transferred to practices of destruction or damaging of public monuments, left from previous regimes. Instead of reasonable public debates about the negative sides of the politics of previous regimes, the destruction of their monuments is the easiest way to hide from entering into such debates.

All the above shows that archaeology is not a science like natural sciences, although the former may bear some of characteristic features of the latter. Archaeological practice understood as systematic study of the past may be considered as a craft Shanks, McGuire [4] that is able to touch deeply the feelings and the behavior of its public. The emergence of community archaeology is in its initial stage and its social necessity is not understood neither by archaeologists, state, local and public authorities nor by the general public. Geo-information technologies and other techniques become increasingly available and can help wider popular outreach of genuine archaeological research but they are met by archaeologists and various authorities alike with suspicion. Mass media, museums, scientific and popular publications, and the traditional practice of archaeologists continue to produce and reproduce national mythologies and cheap political propaganda that become significant part of the modern urban culture. But this new culture lacks the aesthetic appreciation of the past that becomes reduced to an irritating for various authorities epi-cultural phenomenon ('second hand' - old one that lacks market value).

The negative impact of urban culture on conceptualization of the past by the general public and on archaeological practice, seen mostly as doing excavations and occasional conservation of the remains from the past, is also accompanied by some positive effects. At first glance it may seem that these are farfetched analogies that cannot be substantiated. A deeper look at the nature of archaeological practice reveals that such comparison is possible and shows a positive and fruitful correlation between these two domains. Urban culture is symbolically rich one not only with its road signs and direct advertisements. Addressing the public through symbols is a good starting point that makes possible comparison of the situated symbols from the past with location of modern symbols. The question is how this comparison between these different domains became historically possible?

Archaeology understood as practice of searching the absolute origin of present religious beliefs, and origin of our civilization was born under the domination of social elites. Gradually, this firmly held by the central authorities practice began to change hands and transfer responsibility to local municipalities. The latest emergence of commercial archaeology in some countries showed that successful conduct of excavations, deposition and preservation of the excavated materials for future studies, and the management of archaeological sites can be responsibility of one of the following authorities: the state, municipality or private companies. Unlike other domains, archaeology is the major symbol producing practice in any national symbolic system. Tourism and advertising companies thrive on this rich of symbols field. The only problem is that these symbols are hidden into the earth and they have to be excavated with increasingly systematic, rigorously measured and scientifically informed methods. As all professional domains archaeology becomes increasingly expensive enterprise that requires well trained and experienced professionals. This professional evolution sets a division line between professional archaeology and treasure hunting. The inevitable enlargement of this professional domain creates the social necessity for taking archaeological symbols outside museums and sites and situates them in all possible public places. Archaeologists, the general public, business and to a certain extent various authorities came to an agreement that the symbols from the past, not mere artifacts, became more important in public life. Urban culture has at its disposal rich possibilities to intertwine symbols from the past into the web of various activities such as marketing, advertising, retail, and diverse cultural performances and activities. A building of a bank situated near the ruins of ancient urban structures gains public value as guardian of the past and as a place recognized by ancient people as valuable trading center at their time. Another example is that if one wants to buy cheese in a shop but all types of cheese are wrapped up in the same packs he/she cannot make any choice. If on the pack there is a sign or image of an artifact that comes from an archaeological site located near the village or town where the cheese is made than a customer will be able to make a choice as it will be easy to remember the different products that compete on the market. These examples show that it is possible to elaborate

a rule that comes out naturally from the situated in an urban space signs from the past and from the present. It may be formulated like the following: 'the proximity of signs does not depend on proximity of the respective physical objects'.

Not only have the symbols of archaeological sites made their way into the highly competitive urban environment. They enter into co-presence with other signs and symbols that are both physically and conceptually correlated. The aesthetic appreciation of ruins in an urban space as a cultural trend gave birth to invention of gardens inside townscapes. Gradually, the presence of genuine and artificial ruins gave way to building pure gardens and especially the botanic gardens. The later attract strongly the general public and they may be seen as the greatest competitors to archaeological sites. These two competing symbolic presences in the modern urban culture develop a pair of complementary notions. The greater impact on modern society has the development of gardens, parks and botanic gardens (green spaces) which are distributed across townscapes. Their spatial distribution based on the measured distances between them approximates Normal distribution. This fact means that green spaces in and around urban areas exert great impact on general public. The content of their strong public message is as old as humanity - purity. "Primitive" cultures use this notion to designate the magical purification qualities of earth, water, air, forest, fire and enter into their religious beliefs, ritual practices, behavioral patterns of everyday life. The Enlightenment takes the notion of going back to pure nature but, most importantly, modern advertisements are full of words designating "pure" meat, pure staff, etc. Why is this popularity? It is natural to say that urban space is polluted not only physically but also as information and propaganda of political, marketing, ideological agencies. The desire to recognize the truth in this information conundrum transfers to desire to know the truth about the rate of pollution of air, water, soil, climate, etc. The positive side of this public desire is the introduction of real time capturing of data that take measures in an automatic way at regular intervals from the polluted materials and areas. Automatically taken, stored and processed these data are considered as sound evidence for measuring the degree of pollution.

The same rules apply to archaeological and cultural heritage measurements. The major positive effect of modern urban culture on archaeological practice is that it enlarged enormously the possibility for quantification of archaeological data. Thanks to the new urban culture developed around the pure/pollution dichotomy the capturing of real-time data of monitoring, preservation and conservation become necessity. For example, the regular measures of how a crack in a stone monument develops can help efforts to stop this process. Remote sensing techniques and aerial photography made at regular intervals and at different seasons may inform about erosion levels, destruction of structures lying near the surface, the actual limits of archaeological sites, scars left by recent human activities, etc.

The evolution of urban culture despite its negative impacts helped the development of archaeology and its transformation into an increasing in its sophistication profession. Their parallel progress as mutually influencing paired domains gradually changed the quality of their quantitative and qualitative data. Urban data evolve around the question of measuring the situated human presence and its qualities in urban space. Most often they start with collecting demographic data. Increasingly archaeology also shows greater interest in studies of the demographic profile not only of the visitors to historical museums but also to people who express interest in archaeological practice and the novelties it produces each year. Attempts to restore the general demographic picture of ancient populations form part of regular archaeological research. The living space also falls into the research domains of urbanism and archaeology. The modern standards of living rooms and other facilities serve as approximate measure for finding out the characteristics of living spaces of ancient societies. The scale of public spaces as a measure of proportionality relative to the living and working areas opens the possibility for comparison of these measures between modern and ancient settled areas which may suggest what the form of their social organization is. The regionalization of human activities between public, private and mortuary domains can provide sound measures and estimates for the ways of everyday live both in modern times and in the past. This also concerns the differentiation of building techniques and their local and regional evolution. Modern storage facilities help assessment of the capacity of the storage containers from the past. This in turn provides evidence for agricultural activities and adaptation to local environmental conditions. The architectural organization of settlements in the past and in the present provide a solid ground for comparison that reveals a clue evidence for the activities of different social agents: trade centers, flint, metal and wood working areas, textile production, places for disposal of waste.

These and other parallels drawn from present and past settled areas can easily be visualized. The modern geo-information technologies and other techniques which are specially designed for facilitating the work of architects, planners and geographers can easily be transferred and used in archaeology. With the increasing application of precise methods of excavations and the usage of novel scientific techniques the local diversity of various in kinds (raster and vector format) archaeological features multiplies the difficulties to study them simultaneously. The solution of these emerging problems requires novel digital techniques, such as comprehensive mapping and use of a growing range of analytical techniques. A 3D reconstruction of an entire built environment is usual practice in the studies and presentation of modern urban spaces and is increasingly applied in archaeology. Yet, the paradox is that no one from the visitors to archaeological museums says that he/she visits the museum because they as visitors are being drawn inside by 3D reconstructions of past structures and artifacts or, because they want to engage with immersive reality presentations. This fact suggest that people seem to be more interested in getting authentic experiences in

in-situ public spaces, recognized as such in the past and in the present.

This paradox shows that archaeology has a high public value and that the general public cannot be reached out only by mechanical transfer of technologies that represent in a novel way artifacts and monuments from the past. The advancement of various techniques alongside the development of conceptual richness of archaeological profession by inclusion of diverse ideas from social, humanitarian, cognitive, urban, scientific, and geo-information and other digital technologies expands the possibilities for interpretation of archaeological record. Present-day interpretations of archaeological data go beyond the formal presentation of chronological lists of major artifact types. They form narratives that in the best cases turn into familiar stories the otherwise 'strange' and incomprehensive evolutionary schemes of past human and social evolution.

A question arises as to what criterion these interpretations of archaeological data one has to use in order to be able to carve up a divide line that is taking apart good and bad experiences of museum public? The answer is "simple" because there is only one option - the only criterion can be the reaction of the public. Normally, in museums long rows of series of similar to one another artifacts lead public in a circular way. The problem with these visits is that most of the visitors do not understand the function, meaning and value of the exhibited artifacts and they soon lose interest in the entire exhibition. A way of improving these kinds of visits is when a group of artifacts are presented as a narrative through a video presentation. I have noticed that visitors tend to watch these video presentations and this stimulates them to continue their visit. For example, I've observed visitors to group and watch video presentation of the process of production of flint blades from a nodule and the different experiments for use of these blades for cutting grass, working wood and bone. By gaining this new knowledge people make their tours into museum exhibitions with greater confidence and leave it with feeling of greater satisfaction. Although simple, this method of presenting the past shows the function and meaning of particular artifacts and monuments, which corresponds to human capabilities to learn from a cognitively dispersed environment. This does not mean only spatial dispersal of physical objects. Rather it forms mental landscape of diverse and correlated concepts and cognitive artifacts that form landscape of affordances that facilitate the comprehension of the incoming information, which otherwise is difficult to apprehend (the value of the exhibited artifacts).

The situated human presence in an urban environment has its physical and cognitive geometry. It is not by chance that the distances between churches in Sofia Tsonev [5] have normal distribution. I made additional experiments with the spread of petrol stations and they show similar distribution. But this is not valid for the spatial distribution of the towns and villages in Bulgaria which have a highly clustered pattern Tsonev [6]. By going further with similar examples, it is possible to extrapolate these results to the spread of retail centers in an urban area. In my view, they will tend to form several clusters in a big town. Apart from the scaling problem that masks to a certain degree the intentionality of social agency, the general property of these spatial distributions is that in-between the sites or clusters empty spaces occur. This is a surprising result because the expectations are that valuable human activities will spread smoothly across urban space without any spatial gaps between them. Contrary to this, the "empty" places in a magic way put an end on otherwise highly valued human, social, and economic activities.

Parallel to these observations of the spread of human activities in modern urban culture, similar observations have been made concerning the spatial distribution of megaliths and rock-cut tombs in southeastern Bulgaria Tsonev [6]. The problem with the existence of "empty" areas between these monuments and clusters of monuments occurs again. In traditional evolutionary understandings, including archaeological ones, the notion of "evolutionary" gaps (missing links) is pervading. This is an abstractly defined space (or species, artifact, monument) that is absent or it is a "neutral" physical area where nothing happens. The major property of this space (artifact) is to divide in a categorical way the designed evolutionary scheme. This is not an innocent division of areas that places a boundary between areas with particular human or other activities and areas where there is a total lack of such activities. In itself this way of conceptualizing the past and present-day human agency reduces the otherwise complex world of intertwined phenomena to categorical distinction that to a large extent forms artificially created phenomena. The consequence is the replacement of real human values with imagined fictitious ones. This approach diverts reality from 'The Order of Things' (Foucault 1994) to simply 'ordering things'. The process of ordering things that became artificially created or selected is a straightforward one. Living entities whose co-presence can be observed and analyzed in assemblages with other living phenomena become reduced to mechanical items. The greatest disadvantage of this approach is that the geometry of movement of these "mechanisms" is restricted only to a simplified physical space. With this quality of mechanical parts, however, it is not possible to create an integrative whole and expect that like a mechanical engine it will work. Such parts are of no use except for replacing the reality with a fictitious one.

This insufficiency of representation of situated human geography through the means of the real geometry is coupled by their inefficiency to create effective analytical procedures. The problem is the extreme fragmentation of archaeological data which, in most cases, makes difficult management and grasping the significant features that characterize a given body of physical facts. The inefficiency lies in the correlative nature of these kinds of data. While in modern urban studies this problem is easily overcome by the possibility of parallel observation of a living culture, past societies through their material culture alone cannot make any correction in the knot formed by correlative ties, coming out

from different parts of archaeological record. Although traditional archaeological method works with one or few diagnostic types of artifacts or cultural styles, the 'ordering of things' comes always short, because there is a lack of possibility to prioritize which one from a number of features is more important than any other. In such analysis the primary assumption is that the logically irreducible traits (attributes) would appear with equal probability and the observed human activities will be normally distributed across certain area? In the majority of cases, however, this kind of distribution has never been observed. Any statistical procedure based on it is false, while the objectivity of the results is taken for granted. In itself, the conduct of statistical analyses based on such assumption is nothing wrong, but the interpretation of the results is often made in an upside down manner. While such a procedure is valuable in showing different deviations from the normally expected results or general tendencies that better describe certain features taken from the majority or the minority of the statistics of the data (representation of portions of total variation), the straightforward reliance on statistical results remains incorrect. Most importantly, this approach averages and makes smooth all the particularities of the data which takes the form of linearly arranged mean values. With these results nothing else can be done but to chop off the data into a series of intervals that can only represent the greatest frequency of any artificially created or selected 'diagnostic artifact'.

This theoretical premises turn into rigid behavioral patterns, which archaeologists carry on while doing their fieldwork, excavations or field survey. Contrary to this, modern urban culture uses location analysis in formal and informal ways in order to define the suitability of a place. Different criteria are put into this practice as long as they satisfy the necessity of making rational decision for choice of a suitable place relative to the surrounding urban space. There is a radical difference in both approaches. While urban culture relativizes the most frequent desirable traits to other traits which makes choices to be taken between several equally valuable alternatives, archaeologists always start their fieldwork from the greatest concentration of materials and structures. At first glance there is nothing wrong in choosing this approach, although it strongly reminds the practice of treasure hunting - finding the most probable place for discovering something valuable. Yet, excavation trenches made in such places will show the averaged numbers of the most frequent occurrence of diagnostic artifact types and structures. Once get used to these materials the mechanical expansion of additional trenches towards the periphery will come across marginal occurrence of other types and features. They, however, have little chance of appearing in the mainstream analyses and presentations, because archaeologists are already accustomed to the mainstream data and the "negligible" number of occurrences of "secondary" types of artifacts is not understood as 'small' but become classified under the category – 'marginal'. This attitude contradicts common sense, where single artifacts or marginal styles that co-occur with typical data may be much more informative about past human behavior than the data that happened to be the most numerous ones.

Archaeological data have this property that they may be considered as reduced images of modern human behavior. Direct parallels between them cannot be made but the origins of the urban culture appear in the spatial organization of the first settlements. For example, the production of waste and the process of waste disposal seem to outline some conceptual similarities. At the beginning of establishment of human society a separate category of waste did not exist. What was not consumed on place was re-worked into useful materials and tools or left on spot for use during later visits. It was not considered as material that pollutes human existence. It is highly likely that the first use of waste was the marking of human presence and more specifically it marks the living space. Material remains that were left behind served as a message in a low populated environment that says: 'we lived here and we will come back'. With the evolution of the sedentary life humans continued to mark their permanent presence within the narrow limits of a single settlement. For example, it is a common practice of Neolithic people to make pits next to their living structures and to their working areas. The dumped in them materials and artifacts were not considered as waste but as markers of their physical and spiritual presence among the other members of these communities. Dumped into pits were not only physical objects but also symbols. Thus, artifacts with higher symbolic value, such as figurines, intact or broken ceramic vessels, and intact animal skulls were intentionally deposited among highly fragmented human and animal bones and flint fragments. It has never been given sufficient explanation why people would leave in such place artifacts charged with high symbolic value. The answer lies in the process of development of symbolic complexes that made possible communication among the inhabitants of a given settlement to establish and re-establish their social networks and enhance community ties. This complex social practice has to do with forging different identities through a wide variety of "professional" (healing practices, ritual performances) and craft specialization.

Metaphors like the above presented one could be seen in modern urban culture too. Waste is a measure that divides intelligent and civilized activities from "wasteful" human practices. Waste marks the marginal population living in ghetto. It possesses the social property to divide and marginalize people. Its presence in an assemblage of negative concepts sends powerful messages how civilized people can turn into waste and vice versa. More importantly, diverse symbols and images of towns turned into waste became a trademark for extreme political actions. The latter forms the greatest difference with the "primitive" communities from the past. Contrary to the traditional archaeological notion of 'hiatus' which means period and area that are "empty of human presence" or place full of waste, the abandonment of a settlement meant to

the people living nearby a continuous care given to that place - not allowing trees and large vegetation to grow. The neighboring communities perceived the "old" places as sacred and used to deposit symbolic objects that marked their presence in the nearby living sites. All these material expressions of past communities are visible in archaeological record but they were not recognized as such and often become replaced in archaeological explanations by the notion of "hiatus".

Another common issue between modern and ancient societies is the concept of 'culture'. There is no doubt that this concept plays a major role in archaeological studies. Not only have this issue been infamously used as identification of abstract archaeological cultures to particular ethnic groups in prehistory, but the search for finding out the origins of national identity and civilization led to enlarging this notion to other, more routine features of human culture. At the beginning, however, the markers of prehistoric culture were chosen among the symbols of social power - hunting equipment, art and materials: stone, copper, bronze, iron. The following example is illustrative of this kind of conceptualizing past cultures. At the beginning of the 20th century, it has already been known that ancient Egyptians used mostly copper and bronze tools and weapons, while Mesopotamian and Anatolian societies used iron tools and weapons, but this evidence was kept in shadow. The reason was ideological: iron is superior material to copper and bronze as social evolution is conceptualized as uni-linearly development from lower quality materials to the more efficient ones. It was thought impossible a society based on lower quality materials to compare with ones using higher quality materials. The technological inequality plays a major role in definition of archaeological cultures and exerts strong impact on understanding human and social evolution. For example, in Palaeolithic it is known the opposition set between Levallois/discoidal core reduction techniques and those from the Upper Palaeolithic. Similar connotations were made concerning the microlithisation of the lithic industries. Another interesting assumption with these Ice Age populations was that they were considered to eat exclusively meat with almost no use of plants. This conclusion was made by drawing parallels with modern ethnic groups living near the Arctic Circle. On this background the natural conclusion was that the first farming populations radically changed this pattern and ate exclusively cereals and domesticated animals.

From the above considerations it becomes clear that the conceptualization of the notion of 'archaeological culture' equates an abstract social category with pure ethnic groups that are homogeneous in their basic social behavior. These populations are believed to be locked that much in their habits that the only possibility for social change is seen in the replacement of entire populations. Examples are numerous: Neanderthals replaced by modern humans, the last hunter-gatherers replaced by Neolithic farmers, and the Steppe populations from Eastern Europe through the late Neolithic Bell Beaker culture almost entirely replaced the old Neolithic population in the British isles. While the latter may look like a modern political dream for some people, all examples underline this essentialist understanding of evolution of prehistoric cultures.

The key element in essentialist thinking is the holistic explanation of complex phenomena through few simplified metaphors ready to be used in any situation. It differs from that of reductionism which serves more as analytical technique and sometimes has useful application by singling out some important features of a given complex phenomenon. The essentialist metaphors of neighborhood homogeneity and domination have been transferred from archaeological thinking, which was part of the evolution of the overall humanitarian and social theories, to the modern urban culture. As always it comes down to the problem of origin. In urban culture it is a matter of personal proud and satisfaction when one counts how many generations before him/her lived in a given town. A further variant of it is the notion of building a "middle class" understood as entrepreneurs and property owners living in urban areas. These 'citizens' are opposed to the working class industrial areas, recent migrants to the big cities, peasants, and minorities. These Marxist understanding of social actions have little validity in present-day social realities as well as when the same ideas are applied to the past. Modern knowledge slowly goes beyond this otherwise 'natural' concept. According to the modern urban planning the division line runs between traditional industries and the newly emerged high-tech business areas. Of greater importance seem to be the factor of proximity in a neighborhood of social units to educational and health care facilities. The paradox is that in the analyses of urban space cultural facilities do not play any role for making a choice of picking up the most appropriate place to live out of a range of urban neighborhoods. Modern culture reduces cultural facilities to epi-phenomena of urban and rural spaces that play little or no role in attracting any residents according to the rules set by the metaphor of neighborhood proximity. But is it true?

In fact the entire book aims to answer the above question. The answer is not straightforward and it starts with critics to conceptualizations of the past and present societies by modern urban culture. In the first part that consists of five chapters I develop the key notions though which I am going to establish the novel theoretical framework that helps to better understanding the essentialist and reductionist understanding of past and present societies. The key notions are the 'directional distribution' of human culture, human dimension, human presence and the geometry of human presence. The second part of the book also consists of five chapters that evolve as a dialogue between modern urbanism and "primitive" cultures from the past that offers critiques of basic modern understandings of past and present social phenomena that are commonly encountered in everyday urban life and are commonly met in archaeological record. The greater accent is put on conceptualization of 'landscapes of retribution and pain' defined by negative technologies of the self, such as cannibalism of the self and 'archaeology of vampires'.

Chapter 1: Intentionality of Social Agency

Introduction

The social world as a whole and the urban space in particular are full of material remains left by social agencies. The basic question that these spatially situated social activities pose is whether they act in a particular way, similar to mechanical entities, when some conditions become fulfilled or they react as intelligent creatures and have individual response? As a starting point it is necessary to look for examples in modern urban culture. For instance, it is interesting to observe what kinds of social agencies become interconnected first by linking them in the process of planning and building the lines of the Metro (underground transportation service) in modern Sofia, Bulgaria. I will consider three different but significant in their own way agencies that combine administrative power with a scientific and educational center, and the source of technical capacity for urban planning (major digital tools) that encompass the overall construction works in urban and other environments. In order to justify my introductory example, I think it is worth mentioning that the first built line of the Metro service did not connect the airport with the main railway and bus stations. This fact is sufficient enough and shows the high volatility of the decisions that are taken in the process of planning where the Metro lines will pass. It is correct to say that the first line of this service linked the most intensely populated suburbs, but still in my view more effort should have been put on linking the airport with the main railway and bus stations. Instead, the second line, which meant to correct this mistake, was set to go in directions with good traditional transport connections to the city center, which considerably delayed building fast underground link to other intensely populated areas.

The first agency of my introductory example represents the major administrative and social power - the Municipality of Sofia. Through its administrative and planning facilities different social agencies bid for passing with priority the lines of the Metro near their neighborhood. Naturally, among these agencies the regional administrations (municipalities of the suburbs) would appear but, as they are governed mostly by the representatives of the ruling party remain subordinate to the major decision makers. In this case the utility of the novel transportation service would be more associated with ideological than practical reasons. Ideologically, the Sofia Municipality represents the middle class of city dwellers with major focus of their economic activities centered on city property. These people do not travel much abroad nor do they go often outside Sofia. Of greater importance for these people are the motorways going around Sofia but not as actual links that establish closer cooperation between different urban and economic areas. Symbolically and practically these faster links are seen as an easier access to leisure practices, while economic and other activities remain on second place.

The other agency in this triangle is the High School for Construction, Architecture and Urban Planning. The very first Metro line linked the station nearby this university and the station nearby the Municipality. Not that there is a direct subordinate relation between these two agencies. Yet their policies coincide considerably. The slogan from the totalitarian times: 'the cheaper the better architecture with taking as little responsibilities as possible' is still in action today. The modern, the totalitarian and the old architecture in the city reveal this policy. Modern architecture does not form meaningful areas (clusters) of business activities; new or renovated buildings that represent valuable cultural activities are few and concentrated in the city center, while the privately owned suburban blocks of flats where most of the population lives undergo state funding program for cosmetic renovation that will not make them look much better. With the lack of well-developed business areas, cultural centers, gardens and parks left entirely to the mercy of natural elements with no recreational facilities in them make Sofia look like a big village with proto-urban characteristics typical for prehistoric times.

The next agency that is situated nearby a station of the second (later) line of the Metro services is the Bulgarian branch of ESRI (one of the companies leading in developing geo-information technologies). To a certain extent this delay of linking the major source of technology for urban planning and architecture to the administrative and intellectual elite of the city shows that novel technologies are not welcome in their management practices. It is much more convenient for the authorities to have disparate archives of various kinds which feed the fertile ground of 'easy access to valuable resources' - the public funding.

With this small introduction based on the examples of the major agencies that are publically responsible for the urban development of modern but with prehistoric urban features Sofia, I illustrate my understanding of the dynamic of social agency. The vivid example of transportation problems and how the responsible public agencies fail to govern it properly reveals that conditions such as funding and public pressure for having such easy transportation are not enough.

Theoretically, the major social changes are being understood as an automatic (deterministic) process that always happens when the proper conditions for its realization are fulfilled. This naturalized conception of major social progress stems not that much from the Marxist doctrine which mostly deals with historic changes - revolutionary jump from one social stage to a higher one. Industrial revolution and the development of science that describes and explains the natural forces that make engines work lead also to reductionist understanding of natural, human and

social evolution. It is considered similar to a chemical reaction in which, when the wright conditions are set, the resultant process will always be the same. These positivist understandings contributed significantly to humanitarian and social sciences. Yet they played also a positive side in developing the novel analytical practices about the old social problems. One of them is the meticulous mapping of human material remains no matter whether these are waste or modern buildings. The other is the studies of the functioning of human brain as it focuses on various elementary activities: influenced by different stimuli, such as visual, auditory, smell, tactile, etc. Another important one deals with human emotions of individuals situated in various built environments, observing old or modern monuments and the associated with these feelings behavior, such as positions taken by observers when trying to make the best photo of a given monument or the trajectories of movement of visitors in a museum exhibition.

These examples show a certain deviation of research focus on collective human actions from deterministic expectations of positivist social science theories. Although some groups of people may still be considered as an abstract whole, the public actions of their members are viewed as idiosyncratic and range from strongly opposing ones to a wide range of nuances in the details. Human desires and individual and collective actions are rarely driven to gaining the maximum positive results that favor, for example, their easy access to fast transportation system or derive maximum financial profits from any action. Spatially the material remains from these actions may be highly dispersed or ordered and may be ascribed to the front-line behavior of social actors, which lacks authenticity in certain cases. A typical example of ordered front-line behavior can be given by the various presentations of mass media. In their urgency to present the most important message as a front line news verbally or in small sub-titles on the screen they order in particular way the other non-verbal semiotic features on the screen that are designed to back the main presentation. Yet such ordered messages have little impact on general public because they are rarely followed by deep analyses and presentation of different points of view that are associated with any of the major themes. Their strength in forming public opinion stems from the multiplication of individual messages. However, at a higher level of shaping the bulletin, the number of front-line news rarely forms a coherent message and although arranged in separate topics, the entire program presenting messages becomes chaotic with little consistency between individual themes.

From archaeological point of view, however, the material remains left by social agencies spread in space in such a way that they do not form random distribution, as it is expected from front-line presentation of news that aim to create chaotic social behavior. The basic reason for the occurrences of these real and imagined spatial distributions of the effects of actions of front-line agencies is the lack of authenticity, which makes clear that the activities around the world and their reflection in the mass media can be predicted with some approximation and their occurrence located on actions of hidden social back-stage agency. The mental template of intentional human action (recognizable on the TV screen) that comes as a result from the strong relationship established between the front- and back-line social agents has been recognized by social theory long time ago (Giddens 1984). While it is easy to recognize it in the modern mass media or in other major social agencies, such as the municipality of a big city, it is not that easily recognizable in the ancient societies.

A problem arises with the question to find simple and instrumental conceptual framework that can immediately recognize the authenticity in social behavior and to predict with fair amount of certainty what kind of distribution of material remains can be expected from the actions of social agencies. Such a framework may be designated with the term ‘human dimension’. It encompasses both human body as a compound entity with its own dimensions and characteristics and ‘human consciousness’ with its cognitive and mental projections onto a web of abstract, physical and social landscapes. This is a conditional division of the concept of human dimension as it is not possible to carve a division line between bodily movements and mental activities. At the same time human agency neither acts in an isolated manner nor does it exclude any materiality that may interfere with it. Material objects have the property to preserve particularities that serve as mnemonic devices and facilitate memory and knowledge transition from generation to generation - the well-known such devices are the different forms of art, technologies of working various materials, knowledge about natural environment, etc. These objects may be simple or monumental and can spread over the landscape. Landscapes themselves can serve as such: they may serve as tools for hunting large migratory animals - Iskar Gorge that crosses the Balkan range from South to North or the Dikilitash (Raised Stones) area in northeastern Bulgaria, where the geometry of human presence reveals its role as sacred space that attracted Palaeolithic and Mesolithic groups to regularly visit the area.

Apart from properties material objects have their own biographies that outline their direct relation with human cognition and social behavior. The most obvious examples are the megaliths or churches which have properties that go beyond any material expression and that have their own biography which to a large extent shapes the particular human knowledge and social behavior of the neighboring communities. Out of all possible human and social values that such monuments bring to the surrounding neighborhood is the notion of authenticity. As it was mentioned in the introduction, the modern building of a bank which is associated with an ancient monument establishes greater confidence in its customers as human perception almost automatically triggers mental reaction that establishes strong associations of images charged with high values. Experiments have already established the existence of such cognitive mechanism that becomes visible in the process of language

production Sridhar [7]; Schmidtke-Bode and Diessel [8]. These properties of the material world increased its capacity to influence and even to shape human knowledge and social behavior in its own way, and made a theoretical shift in archaeology towards a novel understanding of the old established relationship between materiality and human capacity to think and act. According to it the general matrix of human and social praxis is defined not only by the human desires and social requirements but also from the material objects. Daniel Miller defines dynamic patterns of consumption that have the property to change over time and over various locales. This is considered as a process of constant objectification of human - environmental interaction and marks the evolution of society (1987). These premises form a sound theoretical base to consider the relationship between material and human worlds as symmetrical one. To a certain extent this new theoretical perspective is a reaction to the traditional understanding that the material objects from the past are passive signs that are not able to transmit the subtleties of the past cultures Shanks [9]. But the question is whether this relationship is really symmetrical?

The conceptualization of archaeological practice as symmetrical phenomenon that happens between humans and their material world opens a wide range of possibilities for analysis and interpretation of archaeological record. It puts an equation sign between human and material agencies and avoids the dominant practices of abstract archaeological classifications and the hierarchies associated with them. A critical view on these concepts may come from the notion of 'symmetry' itself. If something is symmetrical it is stable and is susceptible to little change which does not correspond to the dynamics found in archaeological record and its relationships with archaeologists and their public. A more appropriate term to be used is 'entanglement' that appears in human and material worlds Hodder [10]. Entangled relationships are numerous and their general property is asymmetrical. Objects can live only through human consciousness even when they are detached from one another by time and space. Symmetry is exceptional in these relationships and can happen only in real-time contemporary events. For example, the building of a mass media is a benchmark that only through its material sign can establish relations of symmetry with its audience. The measure of symmetry is the proportion of trust and mistrust that are being constantly established and re-established in the process of functioning of this media. It is similar to the influence of the shape of the building of a modern church on its neighborhood which is also established according to the proportion of the recognized trust and mistrust. Contrary to these examples, symmetry is absent from the relationship between a megalithic monument and its visitors, despite the feelings of authentic human presence in the past which is not strong enough to build relations of trust between the monument and its modern public. This general mistrust of modern public to the messages coming from ancient monuments requires additional efforts to be made by archaeologists in order they to be able to prepare a proper dialogue between the public and the past. The difficult relations of trust and mistrust that are being constantly re-established between modern public and the past material remains open fertile ground for manipulation and misrepresentation of the past. These relations tend to form entangled realities that are always asymmetrical and show complex behavior in terms of the visible in archaeological record interplay between ordered and disordered spread of material remains.

Order and Disorder in Material Record Left by the Actions of Social Agencies from the Past

It has been shown that the social agency has a complex behavior that cannot be reduced to few analytical entities and deterministic processes that are caused entirely by back-stage agents or conditions that automatically generate the desired results. The measure through which it is possible to study and better understand this complex human and social behavior is the 'human dimension'. It has been derived from the notion of symmetry that opposes the traditionally dominating dualism between nature and culture. Things in themselves can be active agents in shaping human culture. Yet, symmetrical relations are rare and can be established only in real-time, contemporary circumstances. The notion of entanglement seems to be more appropriate as it involves the existing asymmetry in human - thing relation. Yet this notion also comes short, because complex relationships exhibit not only asymmetry but also certain elements in them change with priority than other, and this change goes with different pace through time. Thus, the main characteristic of such a complex system is the degree of order and disorder of the spatial distributions of its material remains. In turn the notion of 'human dimension' allows scaling up and down the physical and cognitive capacities of past and present social agents (human dimension) and helps finding approximately the proportion of the different inputs of intentional and deterministic causes through which social agency governs society.

The idea of 'human dimension' and the structured character of the social agency and human presence both in the past and in the present have practical applications in analyses of past and present societies. In most cases archaeologists lack certainty in their efforts to characterize the spatial structure of archaeological evidence outlined by application of rigorous field surveys. In order to find better solution to this problem it is important to know where this uncertainty comes from. The answer to this question may vary, but it is most likely that the 'uncertainty bias' has been generated by the everyday experience of humans who live in an urban environment. Traditionally, urban centers are being considered as highly correlated structures of living areas, transportation, retail centers, hospitals, etc. Thus from a general point of view the everyday

human experience coming from the life in an urbanized environment may be pointed out as responsible for generating the 'biased expectation' that the spatial distribution of archaeological evidence has to be highly structured and 'autocorrelated'. As a corollary the assumption that comes intuitively to mind is that archaeological spatial structures should be similar to the modern urban ones and can be measured and compared with each other through formal procedures that minimize the 'uncertainty' defined by parameters such as mean value and standard deviation. This understanding has positive outcomes and generates two formal approaches to finding better ways of limiting uncertainty in the efforts for accurate characterization of archaeological spatial structures. The recent one is based on introduction of fuzzy logic into GIS for admission of the nearest neighbor Lieskovský et al. [11]. The second one is that this expectation requires formulation of a general conceptual framework that makes geostatistical analyses suitable for studying archaeological spatial structures and this may be the reason why the application of geostatistical methods started early on in archaeological investigations. Hodder and Orton [12] studied the degree of spatial autocorrelation of geographical distribution of the ratio length/breadth of Bronze Age spearheads. Kriging was applied in tasks for defining successful prediction of occurrence of archaeological sites out of an initially studied small geographic area Zubrow and Harbaugh [13], and in predicting the highest density of lithics in a Mesolithic site, thus contributing to a useful way of functional interpretation of the human occupation Host [14]. These examples outline the range of application of geostatistical techniques that correspond to the interest in characterizing the spatial variation of archaeological sites, artifacts or artifacts' attributes.

This conceptual framework combined with the question how to better characterize the nature of the spatial structure of archaeological record can be further expanded by borrowing some insights from recent developments in social science. Of particular interest to this study is the notion of regionalization of the spatial structure of everyday human activities. According to it, regionalization divides human activity into autonomous and dependable human acts. The first ones cause the occurrence of the second type of human activities. Both types of human activities form spatially differentiated patterns Giddens [3]. Thus, the demand for greater precision in predicting the occurrence of spatial archaeological structures combined with the novel understanding of 'social space' poses the major question explored in this study:

- Is it possible to characterize archaeological spatial structures in terms of spatial heterogeneity and spatial homogeneity so that to be able to identify and spatially characterize the social complexes that are responsible for generating highly structured archaeological spatial patterns?

In order to answer better this question, the possibility of GIS to organize large spatial data and analyze them with wide range of geostatistical techniques comes at rescue. In this respect Kriging techniques seem to constitute a focal point in the process of better characterization of the spatial variability of archaeological data. Their advantages for conceptual framing of occurrences of archaeological events within particular contexts are presented in the table below.

Table 1.1: Advantages of the kriging technique for analysis of archaeological spatial data.

Kriging characteristics	Suitability for archaeological study
Helps to compensate for the effects of data clustering.	Local variation often obscures the larger regional one that may better reveal complex social mechanisms that governed the overall spatial distribution of studied data.
Provides estimate of estimation error (Kriging variance).	Provides greater coherency in the data plot despite reduction of spatial variation.
Availability of estimation error provides basis for stochastic simulation.	It provides a measure of how stable is the correspondence between the actual and the simulated surfaces.

Methods used in the present study

In natural sciences Kriging techniques can be applied in analyzing a wide variety of spatial phenomena caused by one or several factors. For example, in combination with ArcGIS capabilities for management of spatial data they are suitable for precise enough calculation of predicted surfaces that define the spatial distribution of air-polluted zones with differentiated risk for the populations living in the area (the example illustrating the technique in the ArcGIS Toolbox).

In archaeology and social sciences Kriging techniques alone have limited application. In these disciplines the main task is to define which spatial structures are able to generate clustered and 'autocorrelated' social events. For these and other reasons presented in the next section the combination of three geostatistical techniques, simple Kriging, unconditioned Gaussian Simulation and Moran's Index of autocorrelation,

is found suitable for the present analyses of the four datasets. The general purpose for combing the first two is to measure the degree of clustering relative to the overall spatial variation. The third one measures the degree of autocorrelation of the analyzed data.

Thus, the combined application of these three methods covers a variety of archaeological spatial data. The first two case studies concern modern spatial data while the last three deal with archaeological ones. The reason for this inclusion of non-archaeological data is to better illustrate the problems associated with identification and classification of different archaeological spatial data and answer the question whether they belong to one of the two defined above categories: 'autonomous/causal' and 'dependent' social variables. Additionally, for increasing clarity and coherency of this presentation, I provide a short description of the advantages of the statistical techniques applied for characterization of the spatial structure in each case study.

Assumptions for straight-line-model

Some technical assumptions have to be taken into consideration so that to be able to apply these methods correctly.

The general assumption ('assumption of existence') is that the geographic distribution of artifacts, monuments, sites, or any combination of these three categories correspond tightly to the underlying social mechanisms that act in the past and in the present and that cause their spatial emergence, distribution and preservation. For example, an experienced researcher while studying a small geographic area for the spatial distribution of megalithic structures/sites or other monuments can fairly accurately predict the existence of a new monument in the immediate vicinity of the studied area by judging from the spatial configuration of the already registered monuments. In a hypothetical experiment if ten archaeologists repeat this study in the same area but each of them approaching the zone of prediction from a slightly different direction (starts from different initial configuration of monuments) their results would be similar to the first one with small deviation from the mean value of successful predictions. From this example an assumption of existence can be made. It states that it is possible to make fairly accurate prediction of the location of new monuments provided there already exists an identified spatial pattern of sites/monuments in a given geographic region. The good results of this prediction can only be realized in combination with the overall knowledge of 'experienced' researchers (experience based on intuitive or formal knowledge about the existence of typical cases. More specifically this initial knowledge involves intuitive or abstract assumptions about the mean value and standard deviation of the monuments' spatial distribution).

The assumption for 'independence' of the occurrence of archaeological events is difficult to be made. Most of the archaeological regional structures of sites/ mouments/ artifacts are highly clustered and autocorrelated. In this situation Kriging techniques offer an advantage because they eliminate the existing trends in the initial data, 'screen off' the maximal and minimal values and eliminate the effect of small (in-group) clusters of monuments by reducing it to the effect of a single monument. Some archaeological spatial distributions may be considered as "independent" because their spatial structure does not depend on time and on other social contexts. For example, such spatial structure may be the distribution of temples in religious urban centers. Patterns like these, in typical cases, have Gaussian distribution of the mean distances between separate monuments and do not show spatial autocorrelation. However, such patterns may be considered as involving spatially independent events only within the concrete geographic context. In this sense the notion of independence characterizes the spatial structure of occurrence of past social events in a concrete geographic context while at other levels (e.g. ideological, religious, etc.) these events may form highly correlated patterns/relations that are temporary in nature.

Another important assumption is that the mean value of the studied variables has to follow a normal distribution while having equal standard deviations. Hence the estimated error of all predictive statements will also be normally distributed. The assumption is that at least for some of these variables this will hold true, while for the others the variation of the mean value will be used only as a measure for the degree of spatial heterogeneity.

- *Initial case studies, particularities of the in-put data and their analyses through simple* Kriging and unconditional Gaussian simulation

The spatial examples that will be analyzed include:

(i) the distribution of populated places: all modern towns and villages in Bulgaria - data taken from ESRI-Bulgaria's 3D digital data for Bulgaria, Scale: 1:200 000 (the data are owned by NIAM-BAS);

(ii) the distribution of churches in Sofia, Bulgaria. This includes a representative sample of 50 Orthodox churches out of 113. The data are taken from the 'National Register' website (http://www.hramove.bg - in Bulgarian) of religious buildings in Sofia. To each church in Sofia the mean distance to its neighboring churches is assigned. The minimal distance is 1 km as each church has influence on religious public that overlaps with the neighboring ones. The only exclusion is made for the main cathedral 'Al. Nevski' which is assigned the maximal value of 10

kms as it encompasses the entire perimeter of Sofia and has national religious and political importance. The towns and villages in Bulgaria are represented by their perimeters;

(iii) the distribution of rock-cut tombs in the Eastern Rhoropes Mountains, Bulgaria Tsonev [15];

(iv) the distribution of dolmens in the Sakar mountainous region, Bulgaria. As a measured variable the dolmens and rock-cut tombs have the mean distances to the nearest modern settlements (ibidem). This value is multiplied by 2 because of the supposition that the population during Bronze and Iron Ages was at least 2 times smaller than the present-day one.

The geostatistical techniques involved in this study include simple Kriging and Gaussian Simulation (ArcGIS Toolbox). The combination of these techniques corresponds to the above made assumptions. In its essence Kriging encompasses a class of statistical techniques for optimal spatial prediction. The optimal prediction is achieved by probabilistic predictors with standard errors that quantify the uncertainty associated with the predicted values Lagana [16]. This uncertainty or prediction error is minimized by the spatial dependence of the experimental data. Generally, this modeling answers questions such as those defining prediction of quantities of spatially distributed substances in unmeasured points situated in the neighborhood of the already measured ones. For example, if the amount of nitrogen is measured in different locations what is its concentration in an unmeasured location situated in the neighborhood of a set of measured locations? For the estimation of the predicted surface, Kriging uses a semivariogram - a function that quantifies the spatial dependence of data. It defines the weights that determine the contribution of each observed point to the prediction of new values at unsampled (not measured) locations. Hence Kriging is a smoothing interpolator.

The convenience of this technique for archaeological enquiries is the following assumption. Simple Kriging technique assumes stationarity (spatial homogeneity) of data. If so, the data mean and semivariogram are the same at all locations of the data extent. In this case the best predictor is the one that uses a linear combination of the nearby data values. It is useful for studies of general patterns of spatially distributed values. In order to account for the spatial structure based on the entire variance the obtained Kriging surfaces were submitted to unconditional Gaussian simulation. This is so because the modeled spatial variation fluctuates around the expected variation as defined by the process of smoothing in Kriging. This surface is seeded by random numbers close to the measured locations and simulations are made on the base of the amount of the initial spatial variation. In these cases the number of simulations is limited to 10 because the aim is not to measure the uncertainty in measurements which requires larger number of simulations. Thus the goal of the present study is to visualize how well the simulated surfaces represent the structuring of the available spatial data in terms of their initial configuration and the specified distances assigned to the "measured" locations.

With this goal the four sets of spatial input data have been submitted to this procedure. The important value that is observed in the output of these analyses is how much the mean value of the spatial variation changes. The results from the combination of the simple Kriging with unconditional Gaussian simulation are given below.

Figure 1.1 represents the assessment of the spatial variation of the populated places in Bulgaria. The mean value of the overall spatial variation changes approximately 10 times. Other trials have been made involving the estimated standard deviation or trials involving the values from the minimal to the maximal spatial variation: outcomes with numbers from 0 to 9 in program's report, but the variation changes approximately within the same limits. The conclusion is that the spatial distribution of modern towns and villages in Bulgaria forms highly clustered pattern.

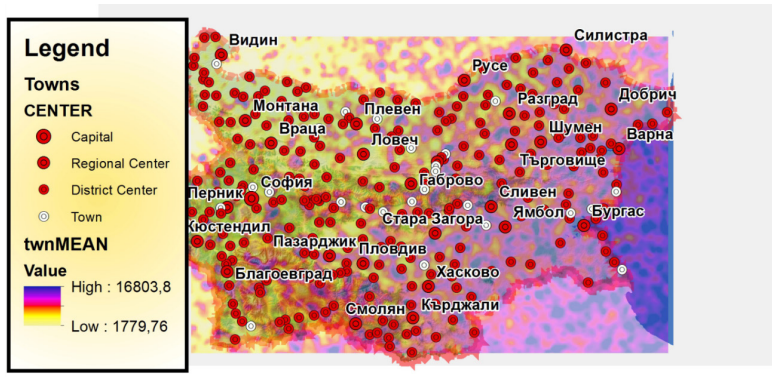

Figure 1.1: The assessment of the spatial variation of the populated places in Bulgaria.

Figure 1.2 represents the distribution of the mean value of the spatial variation of the churches in Sofia. It changes approximately 2 times. Similar trials (as in the previous case) have been made but their variation remains almost the same. This value shows formation of three uniform groups (clusters). This is due to the greater value ascribed to the main Cathedral 'Al. Nevski.

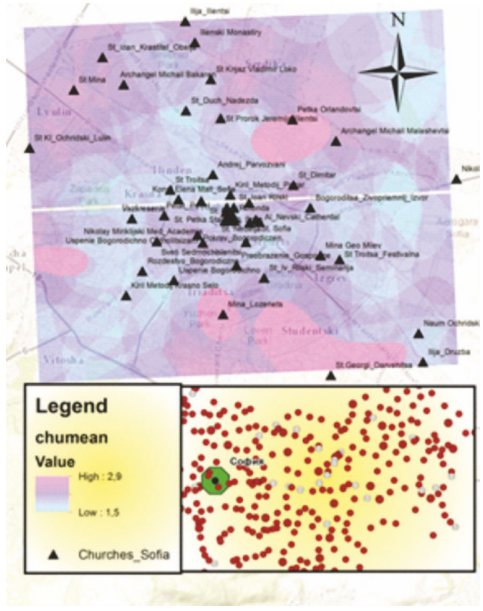

Figure 1.2: The distribution of the mean value of the spatial variation of the churches in Sofia.

Figure 1.3 shows the distribution of the mean value of the spatial variation of the rock-cut tombs in the Eastern Rhodopes Mountains. It changes between 3 and 4 times. This is moderate rate of clustering. Like the churches the rock-cut tombs tend to have local influence on populations that built and used them.

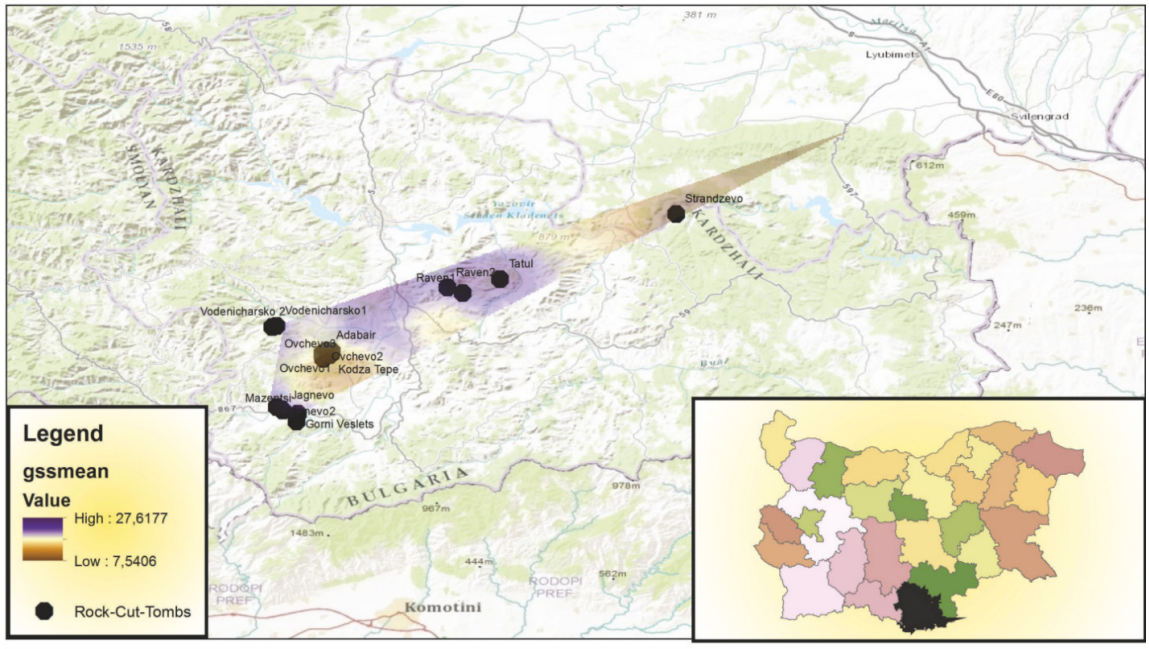

Figure 1.3: The distribution of the mean value of the spatial variation of the rock-cut tombs in the Eastern Rhodopes Mountains.

Figure 1.4 represents the distribution of the mean value of the dolmens. Their spatial variation is very low and varies between the range of 0,3-0,4 km. This means that these monuments have equal spatial importance for the local communities and may have acted as a single monument for wider communities living in a distance of 30-50 kms away from it.

The four examples show that their spatial structure varies from highly structured to random one. However, the general expectation still remains that each of the four examples should have highly autocorrelative spatial pattern. For this reason the four examples are submitted to the autocorrelation test (Moran's Index).

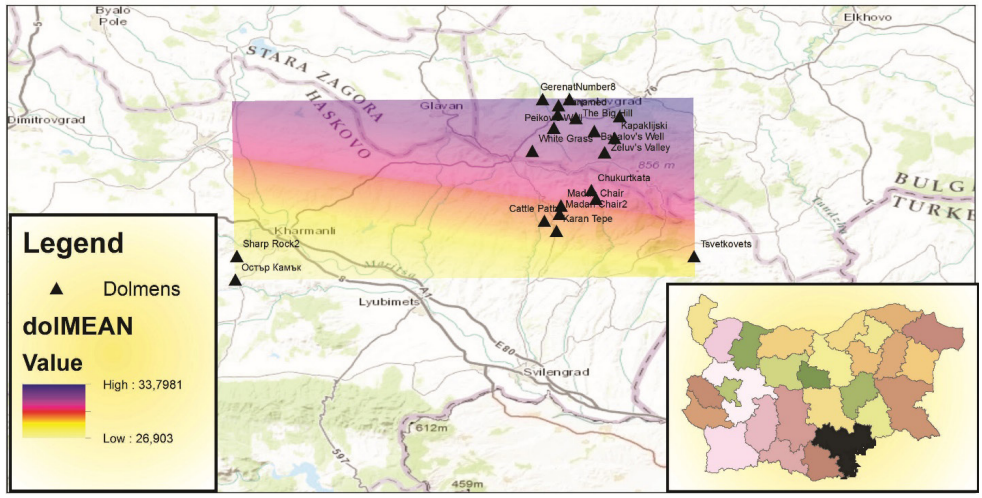

Figure 1.4: The distribution of the mean value of the dolmens.

Spatial autocorrelation of the data from the four examples

Social theory defines the notion of co-habitation in the following way: 'communities of high presence availability in all cultures are the groupings of individuals in close physical proximity to one another' Giddens [3]. Translated in archaeological terms this general definition forms the major task that aims to improve the characterization of the spatial variation of the geographical distribution of an artifact type (or artifact's attributes), or a group of monuments. The present-day experience from living intensive urban life also contributes to this kind of expectation that archaeological and modern spatial variation of humanly induced events will be highly autocorrelated. For example, the usual behavior of an individual in his/her daily walks will be to buy promoted (low price-good quality) goods from a number of closely situated shops (markets). Each individual will follow a number of independent paths (the chance of successful purchase of a promoted good from one shop instead of the opposite one). This will form a constant trend that involves most of the inhabitants of a given neighborhood that forms self-understandable structured patterns of the most successful- 'best profit' walks of autocorrelated spatial configuration that ranges between the limits of the most and the least frequently visited shops. All these examples give rise to the question: do all archaeological and modern spatial structures follow this pattern?

In order to answer this question the four input data sets have been submitted to the Moran's Index of autocorrelation (ArcGIS Toolbox - see Moran's I description of the technique).

Spatial autocorrelation is the formal property that measures the degree to which near and distant things are related. Autocorrelation literally means that a variable is correlated with itself. The simplest definition of autocorrelation states that pairs of subjects that are close to each other are more likely to have values that are more similar, and pairs of subjects far apart from each other are more likely to have values that are less similar. Groupings are examples of spatial structures that are positively correlated, whereas negative correlation may be exhibited in a checkerboard pattern where subjects appear to repulse each other. When data are spatially autocorrelated, it is possible to predict the value at one location based on the value sampled from a nearby location when using data interpolation methods. The absence of autocorrelation implies that data are independent but, as it is pointed out above, this independence is understood to be valid only within the concrete geographic context.

Moran's I takes the form of a classic correlation coefficient in that the mean of a variable is subtracted from each sample value in the numerator. This results in coefficients ranging from (-1) to (+1), where values between (0) and (+1) indicate a positive association between variables, values between (0) and (-1) indicate a negative association, and (0) indicates there is no correlation between variables. In all the tests the matrix of weights between all involved in study locations compares the sum of the cross-products of values at different locations, two at a time weighted by the inverse of the distance between the locations.

Table 1.2: Populated Places in Bulgaria. Moran's I: Given the z-score of 35.85, there is less than 1% likelihood that this clustered pattern could be the result of random chance.

Moran's Index:	0,181598
Expected Index:	-0,000205
Variance:	0,000026
z-score:	35,850933
p-value:	0,000000

Table 1.3: Churches in Sofia. Moran's I: Given the z-score of 0.75, the pattern does not appear to be significantly different from random.

Moran's Index:	0,018515
Expected Index:	-0,020408
Variance:	0,002703
z-score:	0,748658
p-value:	0,454063

Table 1.4: Rock-cut tombs. Moran's I: Given the z-score of 0.24, the pattern does not appear to be significantly different from random.

Moran's Index:	-0,029281
Expected Index:	-0,062500
Variance:	0,019131
z-score:	0,240166
p-value:	0,810202

Table 1.5: Dolmens. Moran's I: Given the z-score of 0.23, the pattern does not appear to be significantly different from random.

Moran's Index:	-0,033722
Expected Index:	-0,052632
Variance:	0,007007
z-score:	0,225901
p-value:	0,821278

The results of the four tests are summarized in table forms taken from the standard ArcGIS Toolbox 'Spatial Autocorrelation Report'. They are presented as follows:

Table 1.2 presents the results of the autocorrelation test of all towns and villages (populated places) in Bulgaria. As it has already been noted the results from simple Kriging and unconditional Gaussian Simulation of towns and villages show marked spatial structuring. The autocorrelation is also very high.

The simple Kriging and Gaussian simulation also produced moderate spatial groupings of the churches in Sofia and the rock-cut tombs (Figure 2.3). The intuitive expectation is that these data will be autocorrelated. But they are not and fall into the random section of the diagram (Tables 1.3 & 1.4).

Table 1.5 shows that the spatial pattern of dolmens is not autocorrelated too.

These results only show that there must be some social mechanisms that are responsible for the spatial patterns of the analyzed above examples in terms of differentiating them into two categories: spatially homogeneous and spatially heterogeneous ones.

Cause-Effects interactions

In social science the notion of regionalization: division of space of ordinary routines of social life into front and back regions offers the conceptual framework for dividing some of archaeological spatial data into ones that cause and the other that depend on the actions of the causal variables. Of particular interest for this study is the further development of this notion by the association of back regions with autono-

mous ritualized social actions, while the front regions are associated with social actions that act on the social surface and hence it is possible to conclude that they depend on causes (situated in the back region) responsible for their appearance Giddens [3].

A question arises as to how can this theoretical framework be applied to better understand the spatial characteristics defined in the case-studies presented above? In order to give satisfactory answer to this question I will provide an artificial example of modern highly clustered and autocorrelated spatial data and their functional link to their social causes which are spatially autonomous, not clustered and not autocorrelated. For example, a farmer who grows crops and wants maximal production of wheat has to fertilize his/her field with chemical fertilizers, spray the crops with chemical substances against insects, diseases, weeds, etc. In the field, as a result of his/her activities over several years, there will be highly clustered and spatially autocorrelated presence of areas with soil erosion, remains of particular insects, weeds associated with production of wheat, and chemically polluted zones. The social causes responsible for these spatial data come from the nearby town where the farmer either lives or attends frequently. In the town market for crop producers he/she meets his/her competitors; in a bank the farmer takes loans and is encouraged to increase crop production; in the church the farmer prays for high crop yields. Thus the various social causes in an urban environment such as the market for crop producers, banks, churches, a school for agricultural management, etc. are spatially independent from one another (situated at almost equal distances from each other). They may form loose groups with no spatial autocorrelation among them. The effects of their activities, however, are visible in the highly structured and autocorrelated spatial data in the farmers' fields of crops.

The applied analytical geostatistical procedures as well as the overall conceptual framework of existence of autonomous and dependent social spaces defined by the social science permits to make a precise classification of the above presented case studies in terms of cause-effect relationships. I will present the archaeological interpretations of each of these examples.

Particularities of the spatial distribution of populated places in Bulgaria

The highly clustered and autocorrelated pattern of spatial distribution of Bulgarian towns and villages places it on the side of the social effects (dependent spatial structures). Indeed, the effects of all aspects in the history and geography of this region are summarized in this spatial structure. The presentation and explanation of all social causes that generate this spatial structure goes beyond the present study. Suffice it to say that behind each town or village a number of social causes can be identified that historically defined its exact geographical location.

Particularities of the spatial distribution of churches in Sofia

The spatial structure of the churches in Sofia suggests that they as a group of monuments have to be placed on the side of social causes. Their spatial pattern is weakly clustered but not autocorrelated. This spatial structure, however, cannot be considered as an exemplary one and that it will repeat in most of the other urban centers. The reason for this is that Sofia was a central religious place in the Balkans since the late Roman Empire. Religious centers take the form of permanent spatial patterns that are capable of generating various forms of social events.

Even Ottomans respected Sofia as important spiritual place for their Christian subjects and turned the town into administrative center of their territories in the Balkans. Under their rule the town remained religious center for Christians which probably is the reason why Sofia did not develop into commercial or industrial center. Later this status played significant role in turning Sofia into a capital of Bulgaria. In competition with other towns Sofia overpassed much better developed commercial and industrial centers in north and later in south Bulgaria. The major result of this case-study is that the distribution of churches (or temples of other religion) within a religious urban center has to be expected to form locally independent and not autocorrelated spatial patterns.

Particularities of the spatial distribution of rock-cut tombs

The spatial structure of rock-cut tombs from Bronze and Iron Ages is moderately clustered just as the spatial pattern of the churches in Sofia. Both examples, however, remain not autocorrelated. The pattern of the rock-cut tombs is mutually exclusive with that of dolmens. The rock-cut tombs group themselves into small clusters which may signify their local use but preserve also the overall spatial structure of a center of ritualized human activities. This is in contrast to the nearby towns and villages that, as it has been seen from the example of populated places in Bulgaria, exhibit highly clustered and autocorrelated spatial pattern. Thus rock-cut tombs may be classified as a social cause that has the potential to generate settlements and other human activities around them.

Particularities of the spatial distribution of dolmens

The spatial distribution of dolmens is quite similar to that of the churches in Sofia. As a group of monuments they were able to influence human rituals and beliefs over significant distances. This is also visible from their complete absence in the "peripheral zones" of their distri-

bution (northwestern Bulgaria). This fact also suggests the specificity of these monuments as expression of human beliefs and ritual practices and classifies them among social causes that were able to generate particular human activities around them.

Conclusion

There is no doubt that the above analyses and examples show that the intentionality of social agency is a complex phenomenon. Positivist understandings of it always require from any social agent to seek maximum profit from any situation, which, as an interpretation, comes short in any attempt of analysts to reveal and explain the underlying causes of social phenomena. In this respect, the most significant result from the above ones would have been those where the spatial distribution of populated places in Bulgaria would have shown "random" distribution. This would have meant that all the towns are historically and geographically situated at the best place for interaction with the surrounding villages. The above example and analyses shows exactly the opposite. For the same reasons (positivist assessment of the economic, cultural, historical and political development) the other big towns in Bulgaria should have become the capital city. Yet history shows the opposite outcome. On this base, it can be made a generalization that when important decisions have to be taken, the 'subjective' social causes overcome the 'objective' ones or that there is a strong intentionality in governing the activities of social agents.

Archaeologically, this intentionality may be detected by using deviations from linear correlative methods of geostatistics. The results from the analyses of the above examples help to better understand the previously established by social science categories of structuration of social systems both in the past and in the present. They provide fairly good formal illustration of the back-stage and front-stage human activities or between autonomous (independent) and dependent social variables. It should be noted that this distinction is not absolute and while a set of social variables has the potential to generate a set of spatially dependent social variables they, in turn, may come as a result of influence exerted by another set of independent variables. Also it should be noted that the relationship between independent and dependent social variables does not lead to formation of strict hierarchies. Rather within a given set of autonomous (independent) social variables temporary combinations are possible that dominate for a certain period of time and then collapse and become replaced by another temporal correlative structure.

The advantage of this approach becomes even more visible when combined with better understanding of the nature of spatial patterns of high-status archaeological monuments and artifacts. The fact is that the spatial distances between the autonomous (independent) social variables may be considered as functionally related to their relative social importance. If local variation is ignored as in Kriging than it becomes clear that each monument is built at a certain mean distance from the other monuments in a given region.

In the cases of spatial structures that consist of social causes, the distances that separate them will follow Gaussian distribution. In turn, Binomial distribution will be more appropriate for description of spatial variation of socially dependent variables. In both cases other distribution models with pronounced mean value may be used. These models are necessary in order to characterize the spatial variation and make predictions about probability of occurrence of artifacts and other social events.

Thus interpreted in slightly different terms the results show the importance of deviations from the mean value as a measure of systems' interaction. 'Social causes' form spatially limited networks with relatively autonomous local centers. They, however, have the potential to generate social effects in the form of propagation of spatially grouped and autocorrelated interactions. It is this relational approach to the two different categories of social events in terms of the variation of the spatial patterns they form that opens up new possibilities for their research not only as formal entities but also as active social agents that shape the complex behavior of multi-level adaptations of societies in the past and in the present.

Chapter 2: Social Agency and Identities

Introduction

In humanitarian and social sciences and, especially in archaeological studies, the notions of social agency and various personal and social identities remain permanently separated from one another. Social agency is seen in the shadow of social conditions that through the "progressive" means of production change the entire society from one stationary state to a more advanced one. Through this dogmatic approach, permanent division lines become carved up onto the web of relations which society constantly creates within a wide range of application of different modes of particular social actions. The permanency of the division lines in present-day society is mostly visible in modern urban culture. For example, the location of inhabitants in an urban environment is the definite feature that causes either their marginalization/ghettoization or their recognition as culturally refined "old" population. This deeply embedded political and "cultural" practice affects not only transportation systems, but also the housing, economic development, access to recreation facilities, and 'peri-urban' (immediate surroundings of a city) areas which are left without any planning for development of their potential for economic, recreational or cultural activities. Even more, large urban areas dominate the landscape of the surrounding populated places and subdue or deny the smaller towns and villages proper economic, cultural and recreational development. In this respect, the capital city of Sofia is not the only example and the other big urban centers can show this pattern (with few exceptions) of concentrated and imbalanced development.

These polices are continuation of the Marxist's firm division of society into artificially designed classes that are considered as bearers of progressive and regressive social variables that inevitably lead to class struggle, always presented as the only way for social progress. These general political views shaped the old and modern urban planning. The old politics was to build large industrial facilities near big urban areas with the hope that the suburb areas of working class will change the worldviews of the "old" bourgeois population of the towns. In the modern urban culture and governance this political view was inversed exactly to its opposite and large industrial centers were being gradually closed down, which as a systematically carried out policy targeted the small towns and suburban areas with expectation they to be gradually depopulated. This policy deliberately aimed to deracinate large groups of people, cause systematic social disturbances and create chaotic conditions as a potential for mass migration. Thus the fictitious notion of class struggle continues to shape the governing policies in the modern world. The only change is that the figure of the omnipresent consumer has been artificially added to the general political and economic situation with the vague expectation that consumers have the potential to shape in a positive way the entire society. Imaginative virtual reality created to blur the reality in the mass media "predicts" a future society that is built entirely on productive activities of serving and satisfying human desires and consumerism. From this process, however, the role of science, technology and popularization of their effects on development of positive social practices is denied. Hence, it is not clear where the resources for building the entirely consumerist society would have come from.

The 'human dimension' of social development points to an entirely different direction. As a starting point it may be used the notion of 'alterity' Csordas [17] as a prerequisite for beginning to shape any religious thought, which also stays at the bottom of social and personal constitution of personhood. This idea is to a certain extent contradictory to traditional archaeological interpretations that thrive on dichotomy: personal individuality is a modern social invention vs. ancient societies that were collective in nature, which reminds the behavior of animal species ('important is the survival of the species not of the individual'). Thus in traditional archaeological thought the metaphor of the 'struggle for survival' of human groups in the past appeared as a naturalized expression of the modern metaphor of class struggle.

Although the notion of alterity is conceived as acting more on the side of automated actions and understanding, it has far reaching consequences for the conscious constitution of society. For example, the general process of constituting metaphorically rich language is grounded on the notion of 'alterity' and expressions of individuality. Historically, this process started with the human quantification of the surrounding world Tsonev [18] and with creation of symbolic complexes based on symbolically rich communication skills. In material record the proliferation of symbolically rich language and expressions is visible through the increasing number of 'banal' forms, materials and colors, which are set in contrast to few high-status or symbolically rich objects. Thus material culture is a continuation of the vocal one with the only difference that it forms its own metaphors through a range of non-verbal semiotic expressions. The image creation and expression through images becomes a "banal" way of communication via the means of developing representational cognitive capacities. What is characteristic of representation as a basic means for communication between an author and its public is the authenticity of human behavior. According to M. Foucault, in his consideration of the Velasquez's painting of the royal family, the painter captured a moment of an authentic human behavior (1994). He also added his own face as hidden observer of the scene thus revealing the two sides of the notion of representation. On the one side is the formal scene of the signified and the signifier as representing the real world and, on the other side, stays the observer that provides a critical reflection of the represented realty.

On this theoretical background the notions of production and consumption take different meanings. They represent multi-vocal metaphors of 'human dimension' as a correct measure of human existence and presence, rather than pure desire based on biological instincts for minimization of efforts and increase of species safety. The behavior of producers cannot be reduced to the simple knowledge how technically to make useful things. Even in serial production of goods such as chairs, tables, cloths, there is always a place for inventive design. Human and social intentionality (schools, traditions, culture) play major role in the production process. The course of invention of a new product is always divided between the most useful and economical design to standards of safety and avoiding environmental pollution. Meeting these ends is not a calculation of a static average cost because this value changes in time with priority moving from one goal to another that meets the various requirements of society. The whimsy nature of mass production deviates from the dominance of rational calculation of costs and efficiency in use. Even production of simple utensils requires mastery, knowledge and discipline. It necessitates these human qualities to be actively engaged in local communities that may turn some of them in tradition and cultural heritage. It is suffice to say that the products made with mastery cannot be measured simply with money. They invoke feelings of genuine proud in masters and public alike and become ambassadors of the local communities or collectivities that made them that popularize the mastery of their makers to the wider world. Although less pronounced there always exists an attitude among producers to make selection (real or imaginative) to whom they would like to sell their products. This public attitude does not concern mass manufacturing with some exceptions of specialized production. It is more related with high-status goods and services that involve mastery and invention in the process of their production and delivery. This kind of public attitude has the potential to develop and make socially valuable human knowledge, mastery and invention in making not only beautiful and useful objects but also proud masters that enrich economic and cultural traditions of a given community and beyond.

Similar characteristics are typical for consumption practices. Mass consumption does not mean a large social group to consume similar goods nor do the members of this group have to buy only the cheapest products. Even a single object of mass production when appropriated takes the personal features of the one who uses it. This is a continuous process of acceptance of foreign knowledge and mastery through incorporation of their material product into the private environment of creating personal landscape of affordances. Thus individuality of a human being turns into individuality of a material artifact that establishes and shapes complex relations between them. Sometimes symmetrical but mostly entangled these relations develop into personal biographies with long memories that pass down through generations and thus develop a culture of particular tastes, knowledge and communication not only with the members of the local community but also with the wider world. The presence of a foreign object into private and personal environment serves as a major vehicle for communication with the 'Other'. If nothing else, museums in the urban centers are created by this particular conceptualization of the foreign and exotic, and the incorporation of these notions into the modern culture.

From the theoretical background presented above it becomes clear that individuality of a person depends strongly on social agency of the complex culture created on equally shared ground by both producers and consumers. It shows that even in the so-called modern consumer society the individuality remains 'dividual', just as in non-literate and prehistoric communities. Despite the large amount of turnover of material objects and services, some of them become 'in-alienable' not because they are made in a better way than others, but because of the "whimsy" personal choices that have to be made from a range of materials and forms, and through which a personal individuality will project its very own personal cognitive affordances. It is a deeply embedded human cognitive mechanism that makes possible intimate engagement with other members of the family or kin group. The familiarity of personal objects builds familiarity with people that extends the social web of communication and trust Strathern [19]. On the one hand, in Melanesian, non-literate society gender relations are definitive for constitution of close relations between members of a group through gift-giving that creates social space from a range of in-alienable objects. On the other hand, in modern society social space forms a framework where personal belongings (collections of artifacts) serve as mnemonic devices through which a dividual person objectifies his/her own individuality by projecting it on collective agency. Both in the case of the past and in the present the personal gift of a beautifully made pot or a piece of cloth gives visual expression of this concrete personal relation, which is imagined to be established permanently. Yet such a relationship remains volatile to the changing social environment and needs constant reaffirmation with hope to project its permanency on the duration of the material from which the gifts are being made.

Another side of this complex relationship in gift-giving societies is that just as Melanesian women gets to know the world through representation of their focused on gender relations world, the same is equally valid for modern consumer society. The basic gender relations have the ability to incorporate different materials and objects and through this complex interaction build the cognitive canvas of mental representation of the world. This is one of the basic cognitive mechanisms through which modern people get to know society and nature. This enables humans to make primary abstractions of selectively chosen qualities of the surrounding people, materials and objects and remember and retrieve in a better way the large amount of incoming information. Thus personal individuality lies in the 'dividuality' of a person and his/her socially established gender relations. It can be sought also in the social codification of personal features, materials and objects and in individu-

al, capricious nature of choices based on taste, education, culture. Both ways, however, a 'dividual' person creates his/her own knowledge not only by the mentioned above way of turning human and gender related features and objects into banal verbal and material expressions, but also through making them look strange, somewhat mystified and charming. These qualities of a mental representation, although artificial and abstract, create possibilities for encounters with other unknown people or making tests with unknown materials and objects. This process underlies the dynamics of social identities that are able to move from one object to another and from focusing on one network of relationships to another one. People are flexible to travel not only through the physical world but also through different objects, human relations and social practices. Rarely a person is a specialist in one narrow social practice. In fact, to achieve better knowledge and mastery in one domain he/she has to acquire additional knowledge in other domains too. Banal or strange this additional knowledge and the associated with it practices make possible the objectification of individuality as relational to the other members of the community through individualization of the process of making material objects or services. Thus the individuality of a person is the real producer of his/her own social relations, based on ability to create or consume objects that are estranged from his/her personality.

It is often considered that individuality and identity are different personal and social constructs. They are somewhat dissolved in the multiplicity of the human - thing relationship. This view mostly comes from the notion of hybrid 'human - material object' reality, which has an imaginative nature of a kind of virtual reality Latour [20] In my view the criterion for validation of such an understanding is whether an artifact or natural object can acquire the same individuality and personal and social identity as a person. To a certain extent an artificial or natural object can have strong individuality as it has particular features of use or ways of natural formation. Even materials that underwent similar natural processes of formation such as the Alpine 'jades' differ significantly according to the whimsy choices made by prehistoric people who exploited different sources, exported different materials relative to their texture (Alpine eclogites are absent in the Aegean region) or color (jades with bright color travel to the North Europe, while those with darker shades go to the West, East, South Europe). Quite similar is the situation with the central Anatolian obsidians, which come from two different but closely located sources. The greenish ones coming from the one source go eastwards, while the blackish from the other source - to the west. The Eneolithic flat-bone figurines occur in eastern Balkans, while remain absent in its central parts. These examples reveal that artifacts and natural objects always have individuality that enters human - object hybrid relationship. However, this way of conceptualizing human - thing "virtual" reality is more imaginative than real. It conflates human existence to the existence of materials and objects that as an intellectual tradition may stem from the intuitive reaction to the common sense 'anthropocentric' ideas that crown the natural evolution with humans. The problem with this approach is that neither the mechanical forces of nature nor their mechanical use in production and consumption of made by humans artifacts have similar evolution as the one shown by humans and society. Thus geology and sociology may use a set of similar analytical methods, but they differ fundamentally from one another not only in their subject-matter, but in the basic and specific qualities of the objects they study.

The "missing link" in the concept of "hybrid virtual reality" established between humans and objects is the quality that M. Foucault found to be 'in-alienable' from any representation of human behavior. In his consideration of the painting of the royal family he interpreted the figure of the painter not that much as a desire of Velasquez to remain associated forever with the royal persons, but with the critical way of observing the people who dominated the political and social realities of his time. The irony is that these "extraordinary" people were represented in an ordinary way with their true human features that lack intelligence and glory. In this way M. Foucault adds the missing link of the otherwise considered two-sided relationship between humans and objects. The presence of critical reflexivity to human - thing entanglement redirects its focus on actuality of personal creation and projection on its own landscape of affordances. This means that there are no typical, all-encompassing relationships. They always remain concrete and individual. Thus people may have typical reactions to sensual or cognitive experience provoked by various stimuli, but each reaction is individual. For example, most of the people learn to read, while, in the same time, the process itself is imbued with individuality in the ways it was triggered and develops skills that also differ on an individual base.

This 'triad' of human dimension is equally valid in defining the attitude of modern public to 3D and immersive reality of presentation of archaeological and cultural heritage. The mechanical copping of physical qualities and representation in traditional historical narratives of ancient sites, monuments and artifacts has little or no impact on modern public. The novel technologies have great potential in representing the past to the present public as they can transcend the simplified relationship between artifacts and public, which is typical for historical museums situated in large urban centers. The basic problem with representation of the past through modern technologies is the 'uncertainty' generated by the inability of a visitor to appreciate properly an ancient artifact, monument or a site. I have observed how people hold in their hands prehistoric flint nodules and artifacts, which is quite similar to holding in hands a trivial object printed from a 3D printer. In both cases they rotate the object as they are not sure, which of its sides is more important than the other ones. By using these gestures they are trying to find explanatory clues about the purpose the artifact was designed for or those that more genuinely represent the artifact qualities Tsonev [21]. In these cases rotation of the unknown object reflects the cognitive efforts to prioritize any of the internal or external qualities of the

object in order it to be classified and memorized according to its strange ("exotic") traits. Experimentally it has been observed that viewers make 'beat' gestures when they discuss the qualities of ancient objects and monuments represented in an immersive 3D reality Galeazzi, Di Giuseppantonio [22].

Apart from modern 3D immersive reality, the social agency and intentionality reveal themselves better when language is involved in the complexity of human - thing interaction Foucault [23]. For example, language plays an important role in artist's creation of an art object and enhances the public's understanding of a particular artwork. In general, language and speech concern both intuitive and rational parts of any personal familiarization with an unknown object. Thus the important element in the proper representation of an artificial object is the frame that unites the artist's and observer's standpoints. Finding the proper 'frame' for unification of different observational points is more cognitive than technical procedure. It consists of different forms of comparison of language similitudes that create a frontier situation, a marginal position, and archaically performed silhouette. These are prototypes of typical human behavior that outline particular mechanical adjustment of different observation points, where the frame moves either around the object or the object rotates around the observer and makes possible the unique human ability to physically experience the constant interplay between the viewer's motion and emotion.

The interplay between an unknown object and the frame through which it is not only observed, but also allows the object to shape, to a certain extent, the observer's reactions has not only been revealed through theoretical considerations (Foucault 1994). The process of mutual interaction between the artist and his unworked piece of material has been observed and described by anthropological research on traditional communities and by modern artists. For example, an Eskimo carver of a piece of unworked ivory would hold it in his hand and ask different questions: 'Who are you? Who hides there?'. In most cases the artist works aimlessly until he sees the form emerging out of the ivory piece Layton [24]. In this case the rotation is mental (the carver unconsciously rotates the piece of ivory), that corresponds to tightly related (in terms of culture, tradition, craftsmanship) expressions through language. These cognitive resources are complementary to one another and become integrated in the moment of engagement with the unworked piece of ivory in order to help the carver realize a logically coherent tangible form that is related to his cultural milieu.

This kind of "whimsy" intentionality of social agency can also be illustrated with numerous examples. Here I provide archaeological evidence that reveal the unique general qualities of Palaeolithic art. I will show that this process is governed by formal logic of rules that were created by the complex interplay of communication, production and consumption practices. Although both types of rules have universal qualities, they are applied locally and their validity remains always limited to particular geographic region.

Archaeological Evidence

Archaeological evidence differs from the data of natural sciences, because they cannot be reproduced in controlled environment. From this point of view, there are two possible approaches that can help deepen the understanding of past societies. The first one is related to the novel development of humanitarian sciences in combination with studies of human cognition. The second one concerns the spatial distribution of archaeological evidence. Space adds special angle of observation on material remains of past societies, because they cannot be reproduced in a controlled environment, and the only expectation for studying properly their characteristics is the necessity to observe how archaeological record reproduces human behavior across space, and, more importantly, how it inscribes it into different geographies. In both cases, however, it is important to understand how rules of cognition become created and used and how they influence and change patterns of human and social behavior: learning, communication, production and consumption.

Palaeolithic Art in Local Contexts

As a starting point it may be used the following quantitative example. In most archaeological contexts the occurrence of objects of mobiliary art is associated according to their relative to one another proximity with other mobile artifacts. If compared the number of the associated artifacts with the occurrence of the most frequent/rare art objects in one particular site with the number of associated with art objects artifacts counted across different sites (contexts), it will remain approximately constant. This simple example shows the subtle mechanisms of human cognitive resources and memory capacity and their ability to create and store only a finite range of concepts.

This rule is valid too for the modern urban culture. For example, in most of the towns the buildings of art galleries are associated with smaller or bigger gardens around them. They are almost never associated with open market places or supermarkets, unless they themselves are turned into art galleries. From this formal logical rule the following generalization can be formulated. It states that since Palaeolithic times, culture is a firmly separated domain from the living and working space and has little to do with the question where the major subsistence human activities are located in a given settled area. As in the introduction of this book, I will express doubt about the validity of this generalization.

This common understanding of context-free origin and development of art is due to the fact that art transcends all human activities, which makes them to look like they are socially separated from artistic behavior. If the presented above generalization were true than it would have been possible to create a syntax-based rule that will predict correctly the occurrence of objects of art in association with other ordinary artifacts. This kind of formal syntax-based prediction rules cannot be created. The reason for this is that artistic expressions are always concrete in the way they convey messages to their public. The social agency and intentionality are the major factors for distribution of art object both in prehistory and in modern days. They form a kind of 'illusion' formed by the interplay between the "grammatical order" and "creative disorder" and maintained by the sensitivity of the social context and the richness of the cultural content. From this point of view, culture plays the major role in positive social development. The opposite statement is also true: past and modern societies that are featured by poor cultural context and little sensitivity to social problems cannot develop proper positive social practices and have negligible cultural and social achievements.

Another reason for this specific way of distribution of art objects in Palaeolithic and in modern times is the 'similarity structure' of any object that becomes included in the humanly projected landscape of affordances. The 'similarity structure' of such material objects forms 'representations' that are composites of hidden unit selective activation pattern in human memory (the reflexive side of the signified - signifier interaction) that respond to particular notions that are able to cross many different cultural contexts. For example, the hidden unit activation pattern that represents a horse is an averaged illustration (image), formed by several activation patterns in response to concrete images of horses encountered in various local contexts. As internal representations these averaged images acquire different attributes in order to make subtle distinctions between appearances of a horse in one context from appearances of a horse in another. All of these concrete representations differ from one another and no two representations of one object are exactly identical.

This composite similarity structure contributes to explanation of the representational asymmetry of animals in Palaeolithic art Vialou [25]. The number of representations of animals of everyday use is significantly underrepresented compared to the representations of the 'big', 'strong' and 'beautiful' - cats, bison, and bears. The latter seem to be attractive enough and form better medium for conveying deeper ideas about the world and the humans living in it. The explanation for the occurrence of this representational asymmetry differs. One way of looking for explanation is to search in possible differences in cult practices, religious visions and altered state of consciousness. Yet these human and social practices do not leave sufficient material evidence. The evidence that can be studied today is the variability of human perception, which, as an inherent human mental capability, may turn out to be responsible for the representational asymmetry in Palaeolithic art. It is not clear for now how far human perception is influenced by cultural contexts, but the fact is that cats, horses, and bison have greater perceptual variability than reindeer. This, however, is not a strong enough evidence, that will arrange in a single hierarchical order all the animals starting from the most to the least represented ones. This also does not mean that one animal will always over-represent another one in all local contexts. This fact, however, explains the existence of representational asymmetry and its irregular occurrence in different local contexts. This typically human capability of variable perception and learning seems to form the base for intuitive notions about the world. It underpins artistic expressions of various emotional and mental states of early people in their interaction with animals because they were one of the rare means, through which humans expressed the knowledge about the self and the surrounding world.

Matrix-Like Notation and Intentionality of Human Agency

Unlike the attempts made to typify Palaeolithic art through cultural and temporal affiliations showing the frozen picture of an artificially made evolution, I will present the human intentionality that stays behind the artistic expressions of the early people. 'Symbolic revolution' is not the appropriate concept that may represent the proliferation of symbolic expressions or their absence in the Upper Palaeolithic period. Instead a more proper concept may be used - the 'increasing quantification' of the world. Humans, artificial and natural objects, and landscapes become countable and as such they enter human culture as intentionally created webs of personal and social relations.

The material evidence that point to the existence of this kind of evolution of human culture is formed by the often encountered patterns of matrix-like notations engraved on various materials. One of them is the complex pattern of incisions made on a rib from the Laugerie Basse.

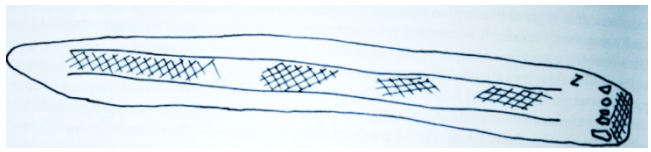

Figure 2.1: Matrix-like patterns incised on one side of a rib (Magdalenian), Laugerie Basse, collection of Musée de l'Homme, Paris.

The narrow space of one of its sides is further limited by two almost parallel straight lines. Inside it there are four patterns of parallel straight lines that cross each other at almost right angle made by the same technique. This angle is somewhat rotated to the plane formed by the two parallel lines that limit the space. It looks like the rib was being held with the one hand, while with the other a person incised at regular intervals parallel lines. By changing the hands and repeating the same operation at the opposite direction the crossed pattern of straight lines was formed. The four incisions are of different size but their orientation remains almost identical. At the far right end of the rib, just behind the dotted line formed by small discrete rhomboid to oval incisions, another pattern of crossed straight lines is made. The technique of incisions is quite simple compared to other representations made on ribs or bones. The incision lines are of equal form, depth and intensity and do not suggest or underline any preference of one place or pattern over the other.

There is no doubt that the notation of these patterns goes beyond perceptual similarity and variability. Early modern humans appear to differ from other animals by their ability to use language to communicate, their use of logic to reason, and their ability to create and maintain abstract relations. The matrix-like notations seem to correspond to exactly these human and social capabilities. A matrix notation is a specific design of space that may express relations between two abstract concepts: 'identity' (diagonal entries) and differences (all the other entries). It is likely that the early modern humans did not make clear distinction between these notions. These patterns seem to represent relational co-occurrences that link the owner of the rib with the other people and the world. These notations may act in a similar way as the present-day Excel table where one can made various notations and use a wide range of logical operations. Each of the entries of the table may represent co-occurrences or comparisons between two different persons or objects. This simple syntax-based rule reduces the perceptual variability and facilitates communication through abstract concepts.

The question is how this relatively simple notation pattern can play significant role in enhancing the process of human communication and cognition. The obvious reason for making such notations is that they are able to train humans to think using relational patterns. The concept connected with one entry of a matrix may have just one element but also it may form association between many elements. They, in turn, may form relation across the matrix diagonal with another entry from the other side of the matrix. More than that, the general design of the rib contains several matrix-like notations. This means that the design and the shape of the object is mobile and it can be taken away and used in almost any situation where it is capable to enhance the process of communication and cognition through analogy making. It makes possible the capability of prehistoric people to fully develop their engagement with novel experiences, objects, situations or actions as being "the same" as the old ones, and after making this analogy make them act in an appropriate manner French [26]. The analogy thinking allows a matrix to relate people and objects in a formalized way by ascribing abstract signs or notations to its entries. As such this type of enduring physical object with visual representations is capable of directly representing speech and acts as a memory retrieving device. It increases the cognitive capacity in problem-solving, planning personal tasks and creating personal strategies.

In fact the matrix-like notations act as cognitive mediators between personal individuality and 'dividuality'. It has the ability to immediately situate a person in relation to other persons. These relations are not restricted only to the members of his/her kin-group or lineage. While dividual relations confine themselves mostly to this social network, the matrix-like notations show that personal individuality goes beyond this limitation and situates any concrete person on equal grounds with relatives and foreigners alike. From this perspective the social agency of prehistoric people is freed sufficiently enough from domination of collective demands and makes possible the increase and sophistication of their symbolic expressions.

Apparently the modern social element in this old notational design is that these kinds of notations are tangible evidence of use of complex language based on formal reasoning for creating social rules. Rules as imaginative and real social phenomena are recognized to appear in classical urban societies from Antiquity. Prehistoric societies are denied such possibility as their cognitive, human and social characteristics have been objectified only through classification of formal features of their material and artistic expressions. Yet rule-based cognition is typically human feature in the domain of concept learning. The process of creating concepts and operation with them are primary cognitive means by which people organize things in the world Wilson, Jonassen [27]. Universally, when people speak they convey a wealth of information. Much of it is systematically integrated with the timing and the content of speech, while a fraction of selected information is stored in memory. The formal reasoning through a matrix or other device does not differ fundamentally from everyday speech but display different semiotic properties (Peires 1965 (1932). Speech is highly codified, linearized, discrete and conventional. Matrix-like signs which accompany speech differ from it not only with respect to modality (visuospatial rather than vocal/aural) but also with respect to semiotic ground (more iconic than indexical). While different semiotic modalities can be employed to convey similar information (compare the sound of the word 'up' with the graphic display 'UP' and the sign) these different modalities have different semiotic affordances Zhang [28]. These different signifiers convey identical information, but the employment of one rather than the other imply different kind of thinking, including different effects on memory, reasoning and imagination.

This evidence from cognitive studies of human brain and the semiotic affordances in the process of language production and non-verbal communication signs supports the interpretation of Palaeolithic art as a phenomenon made by the mastery of individuals. Humans are social animals but the cohesion of a social group depends strongly on personal knowledge and ways of communication of common expressions and metaphors. From this viewpoint social agency is nothing else but a convention established in various ways between members of a group, community and society. Contrary to this, these conventions are not rigid conceptual rules that obey formal logic in the same way as do all natural phenomena and forces. The logic of such a rule is always situational and valid in certain location. I will illustrate these qualities of early human cognition that are visible in the mastery of creating individual images and in the mastery of knowing materials that reveal strong idiosyncratic approach to them.

The Individuality of Horse Heads and the 'Initiation' of Long Blades

At Laugerie Basse, there were found two horse heads: one sculpted on bone (Figure 2.2) and the other incised on both sides of a rib (Figure 2.3). The sculpted head represents an integral image of a single animal at a particular time. It is impossible to differentiate separate facial expressions on both sides of the sculpture. A likely explanation may be that the technique of sculpture requires presentation of unique objects associated with a single image or idea. This uniqueness is underlined by the technique itself. It consists of deep incisions and sculpting the material in order to form the head of the horse, giving it the desired features of a concrete animal or an idea of animal.

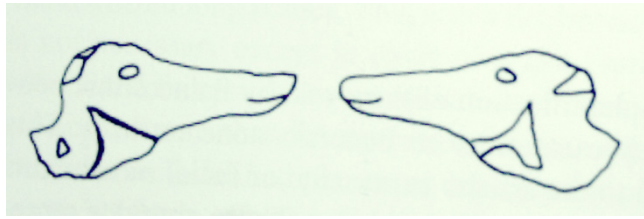

Figure 2.2: Sculpted head of a horse (Magdalenian), Laugerie Basse, collection of Musée de l'Homme, Paris.

The second head presents a slightly different idea. Although it still may represent a single animal, the images on both sides of the rib have slightly different facial expressions. From technical point of view the combination of different intensity, depth, and shade of incised lines conveys different facial features that may be associated with different emotional states or age of the horse. What counts is determined by artisan's 'differential attention' to facial movements with respect to their interpretation made by a particular person (creator of the image) that is engaged in this concrete human-animal interaction. From the point of view of a present-day viewer the representation of the second horse head falls into presenting separate 'informing signals' coming from the different sides of the rib. The image leaves the conviction that the artisan created different images. It looks like the artisan is mobilizing all the possible technical means in order to solve a cognitive and representational problem. He/she was working to make sure that their piece of art is attended to and understood by their addressees. And their representations of a horse, specifically the different facial expressions, are recognized by viewers as part of the general idea of a horse that represents a particular animal in two different life situations.

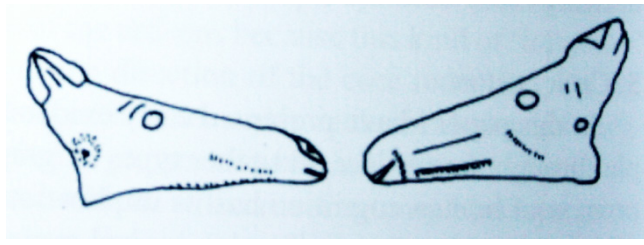

Figure 2.3: Incised head of a horse (Magdalenian), Laugerie Basse, collection of Musée de l'Homme, Paris.

Both representations of horse may be considered as personalized narratives. They are highly codified images in terms of details of the facial expressions of horses. It reveals existence of intimate knowledge of the behavior of these animals that acts as similitude of human behavior. Perhaps they stand for human heads of close relatives or partners. More likely, however, is that these heads may represent the identity of a given person, his personal features and names he/she acquired through their practices. This personal identity appears in a linear fashion: the sculpted head represents a unique person at a particular time, while the incised head represents a unique person at two different times. Thus from the point of view of a critical observer the process of personal familiarization has been carried out through embodied experience, logical meaning and enactment of social relations. In the first place it is not the intimate knowledge of the body of the horse, but the knowledge about

the human and animal emotions that forms the experience of the artisan. This experience and knowledge were represented through semiotic and iconic similitudes in a timeline of differentiated in depth, form and shades incision lines that create a unique frame for observation. The observers appear in the matrix-like patterns incised on the other rib and show that this personal identity is situated in concrete relations that structure the social life of these early communities.

Another characteristic feature of social agency and identity are the 'initiation' rites that accompany persons throughout their entire lives. Archaeological record contains only tiny fraction of the materials and objects from the remote past that were associated with these rites. In most cases these material remains may be found in the unexpected social place of everyday activities, such as flint-knapping techniques. The quality of these techniques for revealing 'unusual' exploitation of special materials and production of special artifacts is the possibility for reconstruction of the production and "consumption" process through refitting of the debris (debitage) of the detached blades and flakes from a single nodule. This is a common analytical technique, but I use it to illustrate the unusual social behavior of prehistoric artisans. On the one hand the production of pressure made long blades is a usual prehistoric technique. In this light, during the Eneolithic, the production of long blades and superblades with symbolic significance in the eastern Balkans is the most studied phenomenon. On the other hand, the Upper Palaeolithic Magdalenian culture offers the most numerous symbolic artifacts compared with the other Upper Palaeolithic cultures, and among the rich paraphernalia of symbols appear the mastery of production of very long blades made of special, often taken from long distances materials. The longest ones in Western Europe are even longer than the known Eneolithic ones from the eastern Balkans. Their knapping technique, however, is simple - a strong blow on a single platform striking surface produces blades with a robust form, longer than thirty centimeters. Yet other more sophisticated techniques were applied in production of long pressure made blades. These are not only associated with the mode of detachment of the blades (pressure or using hard hammer, soft hammer or mediator of softer materials) but also with the way of formation of semi-circular flaking surface. The latter produces small series of blades detached one after the other. After exhaustion of the flaking surface its angle with the striking platform has to be repaired. A new series of shorter blades can be detached and this technique becomes repeated as many times as possible or as much as it is desired.

This specific technique of production of long blades is observed on the series of over forty long blades of different size (collection Vibraye, Musée de l'Homme, Paris) Tsonev [14]. They form four refitting series and three of them are associated with their initiating 'trimming' blades (Figure 2.4). This combination shows that after each phase of exploitation and reparation of the core the new phase of exploitation starts with detachment of a trimming blade. The entire series comes from a single or few cores. Some of the blades from each of these exploitation phases are missing, but the refitting of the remaining ones is good. This means that the artisan that produced these blades in four occasions gave away perhaps as 'gifts' one 'initiation' trimming blade and few more usual blades from each of the four series. The rest was found as structurally deposited cache of collective artifacts. The aim of the artisan to deposit most of his/her artifacts is visible from the way of their production and the manner in which he/she perceived this process. This kind of 'initiation' of each phase with a trimming blade is not necessary from technical point of view except in cases when it is necessary to make major correction of the direction of the core reduction sequence. Either way this was a deliberate choice of the artisan that aimed detaching standardized series of blades. It was a planned production of blades divided in four phases each of which has a particular variation of the blade length. When refitted and arranged according to the sequence of the blades from each phase, the blades show a smooth decrease in their length (Figure 2.4).

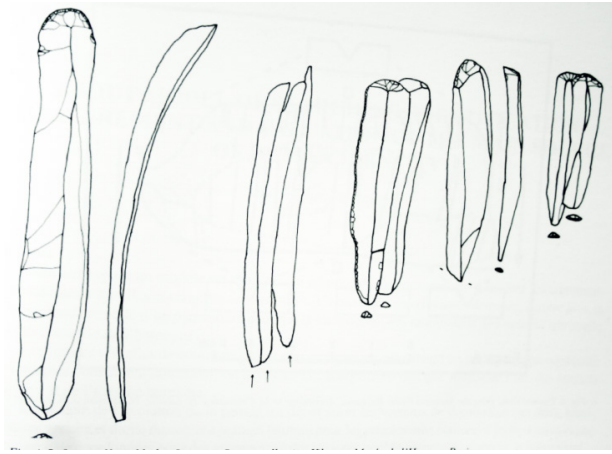

Figure 2.4: Refitting of long blades. Laugerie Basse, collection Vibraye, Musée de l'Homme, Paris.

On the other hand, the perception and execution of this linearized production process corresponds to the process of rule-based cognition that channels the planning and execution of particular tasks in a formalized manner. Both the well-defined phases of exploitation of the core are parts of the artisan's efforts to finely articulate the consecutive stages of production in order to make it comprehensive to his/her addressees. Perhaps, the series of blades served as external representations that facilitated and probably enhanced ritual behavior through either gift-giving or depositing them according to a ritual practice. As such they served as external cognitive artifacts that enhanced learning practices of novices how to master their work for production of valuable artifacts. Or this entire production is an illustration of the cognitive capabilities of these early people and how they were able to establish and re-establish social relations that were important for maintaining the cohesion of these small collectivities.

These examples redirect the traditional approach that focuses on how art and ritual become shaped only through religious beliefs and performances (for example, through altered state of consciousness). This kind of traditional understanding makes deterministic the relationship between myth and art - mythology as a primary source and illustration of religious beliefs and practices becomes the ultimate source of artistic behavior. Yet both mythology and art are seen as static social constructs that depend exclusively on stages of social conditions and the associated with them typical forms of production of art, which understood in this way becomes an exceptional social construct that stays away from everyday life. Thus the modern imagined world of the prehistoric past is populated with shamans, priests, and chiefs that operate exclusively with high-status objects that are the only artifacts considered as art. Instead I look for a wider range of objects and social processes that express human artistic behavior which is grounded in the cognitive capabilities of early humans and the intentionality of social agency. In my view the 'triad' of human dimension frees cognitive space for expression of individuality that acts as mediator between the signifier and signified. Thus these representations have the 'special' quality of inverting the ordinary relationship between representation and its object in the real world such that the imagined serves as a basis against which appearance is judged (e.g. the double face of the horse head). Through this process the abstract thought realizes itself as an intrinsic part of everyday practice and as such it becomes another situated, concrete practice or artistic presentation. The visual representations of this kind and the associated with them artifacts, technologies and notions form the window through which culture can be understood from the distance of time and space. It is a tool left by artisans to facilitate communication between prehistoric people on the one hand and popular knowledge and scientific research on the other.

Conclusion

In this section it has been shown that social agency has specific characteristics that go beyond what in traditional understanding is assumed: large social groups have to act always in a uniform manner. This traditional approach has been illustrated with examples from modern urban culture as a source of creating policies for managing large urban living and public spaces. The paradox naturally built in these assumptions comes from an unexpected source of evidence - the individual choices of where in an urban area one would choose to live and work. Studies and the software programs that facilitate individuals to make this kind of choice recognize the primacy of economic, educational, and health/recreational advantages for everyday life of a given person that for convenience is called "customer". Culture seems to be detached from "normal" human life.

On this base the policies of central and local authorities directed to management of urban spaces focus exclusively on centralized way of governing citizens by separating culture into the central areas of the towns. The result of these policies is as unexpected as the illusionary paradox of existence of clear cut division between everyday ("normal") life and culture. The lack of cultural facilities and developed local culture that plays vital role in integration of populations (except general ideological and political dogmas) turns large suburban areas into living ghettos. The opposite example taken from the depopulated rural areas is quite informative. Despite the dwindling population and lack of local sources for economic development, in most of the small villages almost always a critical number of people remain. These small living areas will never look like "ghost towns', created on the grounds of a short-time perspective for exploitation of local resource and after exhaustion of this resource the settlers abandon them. The sticking element that holds local population together is local culture based on foundation myths, common agricultural or craft practices, unique natural environment, specific plants, local culinary habits, etc.

This short-sighted view on the role culture plays in governing the modern urban spaces is transferred in one-to-one manner in studying and understanding past "cultures". Traditional archaeology puts the same emphasis on the notion of 'archaeological culture' that assumes homogeneous human and social behavior. These assumptions pervade any interpretation concerning the social behavior of past societies. For example, despite the ample evidence for complex settlement patterns, early farmers are viewed always as residents in a single village, while last hunter-gatherers are viewed as nomads. In the same vein, Neanderthals are described as nomads, which correspond to the present-day expectations of such small population and the variability of dispersed natural resources, while early modern humans are rarely being termed

as nomads. There is evidence that not all early modern humans migrated following the herds of large migratory animals and year-round camps started to appear at that time.

These examples show how much modern urban culture shapes the understanding of its citizens about the life of past societies. In this section, I presented the fact that social agency, in the past and in the present, have been formed by the complex interplay of formation of personal identity expressed through individual characteristics and via this process becomes negotiated among the members of a given community. This process is founded on the basic human cognitive feature of 'alterity' through which any individuality becomes conceptualized as unique relationship with the divine world. On this ground personal identity is constantly being shaped by the interplay between the 'individuality' and 'dividuality' of a given person. This interplay enhances the human - thing relationship which may be symmetrical in exceptional contemporary contexts but mostly it forms an asymmetrically entangled reality that creates the landscape of affordances of a person and his/her cognitive and social world. The only criterion through which it is possible to observe, study and understand this entangled reality is the 'triad' of human dimension. It goes beyond the arbitrary relationship between signified and signifier with the help of the critical reflexivity of the observer. Thus it is not only the imagined that serves as a criterion for selecting or ascribing attributes to an observed object, but also the critical reflection on both the imagined and real qualities can help better understand the magic of representational frame of human - object and human - social relations. On this theoretical background, I have provided few archaeological examples that illustrate and trace down personal individuality in realization of pieces of art and in specific everyday techniques. The origin of this complex behavior is related not as viewed in traditional understanding as "exceptionality" of artistic behavior, related to transcendental values and religion, but as an expression of personal individuality that enhances personal and social communication and learning practices - the notion of gradual quantification of the world (development of rational knowledge) that replaces the old concept of 'symbolic revolution' that is supposed to happen during Upper Palaeolithic.

Chapter 3: Human Presence

Introduction

Modern anthropological and sociological studies focus at large and in details on questions about how socio-cultural entities (social groups and classes) function in present-day societies. The back-staged actors that request these studies are mainly interested how different technological, educational, cultural, economic, mass media conditions are able to change the social behavior of large groups of people (masses), that in turn may be used for governing and manipulation of these "social segments" (social groups and classes). The basic aim is to know as precisely as possible the expected typical reaction of the masses relative to particular change or manipulation of the above mentioned conditions. Yet the real time social experiments with high expectation of likely results most often lead to 'unexpected consequences' Giddens [3]. The example given by A. Giddens is very informative. As a short-term measure, educational authorities invested greater resources and efforts in helping school children who do not show good progress in their formal learning. The general expectation was that these efforts would be enough to improve their learning behavior but the efforts had the opposite effect of even worsening the performances of these children in class. The 'unexpected consequences' were that these children had better social experience compared to their class mates that showed better performance in class. The 'bad learners' do not see good perspective in education that would be able to give them good financial income in the near and distant future, and valued more the options offering part-time job, while still being in school, and thus earning some money that would make them more independent. This "irrational" choice based on short-term rational decision of replacing education with earning money permanently derails them from future job market and diminishes their chance of getting better paid jobs.

The reason for this wider social behavior may be sought in the basic manipulation of their sub-culture. The manipulation consists in taking away from these children the 'perspective' of social progress. From early age onwards they know that social paths such as education, sport, and cultural performances are closed for them. They know that back-stage selectivity will choose the lucky few and that the principles of meritocratic societies are an illusion, which makes senseless putting any efforts in education, sport, and cultural performances.

The 'unexpected consequences' constitute the main problems that show the inefficiency of the policies of management of modern urban culture. What features these policies is the linearity of the expected cause - effect relationship. For example, providing more or taking away more from masses of people provokes massive reactions of the public to the contrary of the required goal. What is wrong with this linearly arranged manipulations and expectations is that the 'social presence' (presence of artificially divided large groups of people) of the masses excludes the 'human presence' of individuals. In 'human presence' here I understand the basic human values that allow human co-habitation.

The difficult question is to find the real criterion that can make a distinction between any artificial social presence and authentic human presence. One side of this complex criterion consists of understanding what kind of a role marginal human values play in shaping modern urban society. The social bearers of these values although real, have more imaginative features and tend to appear in unexpected urban places. Instances of presence of these human values in urban environment are numerous, but I shall provide one such example, which is sufficient to show how apparently "marginal" values can play central role in determining public behavior. I vividly recall an open-air exhibition of beautifully drawn on large sheets of textile, hanged across the pathways of the Luxemburg garden in Paris, urban characters, among which was the image of a beggar, presented in Hindus style cloths. The exotic representation of his cloths and his general appearance underlined how well the notion of a beggar fits to modern urban environment. This fitness of a beggar to some aspects of urban life is more pertinent to communist and post-communist realities. While in the first case beggars were chased away from cities and towns, in the second case they are deliberately shown off, and begging become socially and politically manipulated profession. These realities, however, have nothing to do with the conceptual representation of the Hindu beggar in the Luxemburg garden in Paris. This is a representation of the marginal to the modern society notion of leaving away all material temptations, engaging with "noble poverty", and thus achieving immaterial existence and eternity of personal life. In fact, this is the modern urban fairy tale of attaining the state of timeless life.

On the other side of the criterion that makes the distinction between artificial social presence and personal presence is the notion of 'social elite'. This notion also differs from the reality where social elites are viewed mostly in negative light. To a certain extent the modern conceptualization of 'elite' is grounded on the similar notion expressed by small-scale, non-literate societies. Even in cases of tribes reduced to few members due to epidemics as observed in Amazonia, there is always a chief with major responsibilities for managing all aspect of the life of the group. His qualities (it is male) have to be wisdom in negotiation with the other groups, knowledge about the existing natural resources and valuables, courage, etc. Sometimes this figure is replaced by the shaman and successful healer who possess the right knowledge in their interaction with the supernatural and natural, that is viewed as genuine sources of human health and security Lévy-Strauss [29]. These qualities are universal and did not change over millennia. What changed in modern urban society is that the public's notion of 'elite' involves social sensitivity to the values of human responsibility. This is a fundamental ontology that divides modern urban understanding of what is a respon-

sible action. The division line passes through the conceptualization of different values that underpin responsibility. From the point of view of this work, the one side of this division concerns the understanding that responsibility is always directed toward the members of someone's own social group or better said social 'milieu'. Responsibility is defined by external factors such as ideological, political, and religious where individual understanding of these issues is not important. These form hierarchical and centralized social structures with strong relationship between center and its periphery. The other side of this division line consists of a more complex notion of responsibility. It involves notions of responsibility and personal identity that relate to the notion of 'free will' and how it works in the complex cause - effect structure of the human and natural worlds and the how responsibility evolves through time Ingarden [30].

From this perspective some of the national mythologies work in a positive way in shaping public understanding of the past and relate it to the present. Although banal, the occasional reminding of the national heroes and their sacrifice for the common good have positive repercussions in forming public attitudes towards the acts of the modern social elite. In reality, the selectivity of the presented in public media heroes invokes superficial notion of individual and social responsibility just as the figure of a beggar in the street. Contrary to this, the deeper understanding of social elites as objectification of social responsibility makes time historical that has the ability to arrange human acts not only along a timeline but also according to their social significance. It involves also the geography of human acts by uniting or fragmenting social space into different areas of living and working areas, leisure activities, and common culture, high- and low-culture, etc.

Thus the notions of the 'noble beggar' and the 'social elite' are able to unite the extreme polarization of the modern urban population. Although looking marginal, both notions are ubiquitous at personal and social levels and can act according to a range of personal and social rules that makes possible the spread of the material remains left by human acts to become visible not only in urban environment but also in rural and natural landscapes. The first trait of their common way of acting is that they seem as evidence of the dichotomy between 'self-sacrifice' and 'selfishness'. However, their role is much more important, because they both act as a method of discovery of genuine human activities. They provide the clue in public understanding whether a solution of a transportation problem is right or wrong. Examples in this direction can be numerous but they all come down to assessment of how unselfish social acts lead to positive social practices. These notions relate to primary cognitive adaptation of humans to build close relations within their group or society that increases trust among its members and provide greater security through generously providing common good.

The second mechanism consist of two conceptualizations of the social opposition 'absolute poverty' vs. 'the powerful and rich' that act together as it is visible in their popular understanding. On the one hand they are intrinsically related to one another when they are observed on the social surface: a beggar in the street is the absolute opposition of the passing by luxury car or elegantly dressed person. On the other they are hidden away from public eyes as they are intentional personal features. Their intentionality becomes visible only in association with other social acts such as simulation or substitution of genuine human and social acts and possession/dispossession of valuable objects. This specific intentionality is objectified through their third characteristic: they can be both realistic and imaginative. This feature is part of the concept of human - thing entanglement as all artifacts and natural objects and landscapes are real and imagined. Thus the notion of social inequality is realized through real possession of high-status objects. Through development of technologies most of the high-status objects could be afforded by low-income people, but still these objects may or may not continue to be considered as real sign of social inequality. Their ability to perform as social symbols and the selectivity of their meaning turns their value into social activities that support or obstruct social development.

The most important social role human presence takes is that by its ability to unite the extreme views in modern urban culture that makes the spatial occurrences of the interplay between opposite views more predictable. Human presence may be looked upon not only as a criterion for distinction of 'bad' from 'good' social practices but also as a method of discovery. The question is how to use it in order to be able to find places in a totally artificial urban environment that contain genuine human behavior. As in other cases human presence becomes visible in unexpected and small human gestures that reveal the true nature of humanity and its adaptations through the diverse means of culture. In such gestures past and presence live inseparably together. For example, during my first visit to Asikli and Musular Pre-Pottery Neolithic sites in Central Anatolia, one of the guardians of the site - a man from the local village - planted on the top of the mound a young peach-tree. This act is in absolute violation to the rules for conservation of the mound, because the roots of a tree grow deep and can destroy the cultural layers beneath the surface. Yet the conceptualization of the past made by this act of an uneducated villager shows the total lack of a fresh professional view from the present. He discovers the past by putting a living human value (a fruit tree) on top of the ruined past that is equally valid both in the past and in present. This makes the site much more understandable for the lay visitors than the concepts of archaeologists, who in their majority are educated and dwell in large urban environments. This human value given by a single fruit tree is quite the opposite of what archaeological excavations look like. Archaeological investigations are destructive in nature and excavations often leave barren places full with ruins from past human life. Thus a freshly planted peach-tree on top of a mound full with ruins is a nice symbol of human presence and an attempt

to cross the separation established between archaeologists coming from an urban environment and the uneducated rural communities where excavations happen to occur.

This act of the uneducated villager shows how wrong are the archaeological conceptualizations of social inequality that are literary copied from modern society. Yet even in modern society this social division is quite arbitrary. Their problematic conceptualization cannot view or explain that humans do not possess but perform with high-status objects and through these acts social divisions are more permeable than rigid. Back-stage agency tries to maintain formal criteria (labels) for social divisions (e.g. white supremacists vs. black activists) but once the label that is artificially placed on opposing social groups is taken away, the division lines start to melt down and transform into a diversity of human presence. In a similar way traditional archaeology understands the 'archaeological cultures', where once without their "typical" formal criteria, these cultures turn into a landscape of different traces of human presence.

This way the concept of human presence makes visible other division lines carved up between, for example, the administration of an urban center and the citizens living in the urban peripheries. Looked from this perspective it becomes obvious the denigration of the original human culture that made possible the existence any town or village. Sofia is notorious with its deliberate resignation from exploitation of the rich mineral sources in and around the city. The other towns also suffered from deliberate destruction of typical for their culture traditional crafts, manufacturing facilities, growing particular plants, local cuisine, exploitation and public display of other natural and cultural resources.

This way of thinking about the center - periphery relations in archaeology puts division lines that divide the often single, cultural behavior of past communities. Centers are imagined to act in a similar way as the modern urban centers do that govern their periphery by outlining different zones of activities. The social rules issued at the center have equal value along all the directions running across the surrounding human population, which is expected to act as a single entity. But once this imaginative function is taken away from interpretative schemes, it becomes visible the diverse presences of different human and social agencies, which emerge locally and are not imposed by a single, central authority. Thus human presence turns into a more precise than the notion of 'human dimension' criterion for discovering the individuality of social actors from the past and the social significance of their acts.

Human Presence in the Remote Past

The presented above features of the notion of human presence turn it into a convenient instrument to study the occurrences of intentional human 'being-in-the-world' even in the remote past. Common sense would argue that these immaterial human and social characteristics will reflect similar behavior in terms of presence of material artifacts left by diverse human and social activities. These material artifacts have to exhibit some intrinsic qualities that make them suitable for 'location analyses' of human intentionality. These intrinsic features may include different forms and shapes that have appeal to aesthetic, religious, cultural values, etc. They may also include exotic materials imported from long distances, regional materials coming from shorter distances or local materials. But they all have to be 'exotic' in some of their qualities and the ways they reveal themselves as co-presences in particular (not all) locations.

Some of the artifacts that are made from exotic materials have the specific feature to appear as extensions of human body. From these perspectives human body becomes the major instrument through which human presence in the past can be measured correctly, studied from different aspects, and understood in a better way. It is the lens through which the remote past can be viewed clearer. Thus the physical characteristics of a human body can tell how tall a building can be, how far an individual can travel for one day, how much he/she can eat. These are not exact measures as it is done in the modern urban culture, where customer's studies show in correct measures the human habits. Yet this possibility gives an approximation of the correctness of the studies of the remote past. On the other hand the general characteristics of human mind can reveal unsuspected qualities in artifacts, monuments and sites from the past. Symbolic behavior is nothing else but working of human mind in achieving specific goals and results through the 'habitus' of everyday individual practices. This is a very important characteristic as in archaeology it is common to consider that all the inhabitants of an early farming village behaved in the same way: each individual and family had to grow and eat equal quantities of the same types of cereals, domesticate the same animals, hunt the same species, build the same houses, etc. Contrary to this, the concept of human presence puts on a completely different plane the understanding of the economic activities of the past societies. For example, the major occupation of hunting-gathering communities was not to hunt. These people could control wild herds of animals, which makes of primary importance not the hunting as important social practice, but the negotiation between neighboring communities related to questions, such as how much one group can exploit (for consumption) particular resources (e. g. wild pigs) so that to avoid the risk of depletion of this resource. The perspective, stemming from the better understanding of the process of negotiating risk avoidance strategies, provides a clue for deepening archaeological knowledge of social change in prehistory, which mostly happens through cooperation - hence the human presence is marked by different artifacts, monuments, and presence of foreign people in local settlements. Below I shall present archaeological examples that always stayed in the focus of mainstream research but have never been studied from the perspective of human presence.

Triticum aestivum/durum and local development of prehistoric cultures

The mainstream archaeology considers social change in the past as a linear cause - effect phenomenon. This has grave consequences on archaeological interpretation as it is a pseudo - scientific base for creating mythological explanations about the past. If this approach were true than social change could exclusively be seen as mechanical movement of large populations - migrations. In their understanding past society was firmly divided between, for example, farmers and hunter-gatherers. Farmers would have formed homogeneous population across vast territories starting from the Fertile Crescent and consequently move or invade other territories by replacing the old hunter-gatherer communities. They are the ones that have the knowledge to exclusively domesticate plants and animals and build "civilized" symbolic culture. This leads to the invention and continuous use of the notion of 'hiatus' - the absence of human presence at a given locality. The same notion is also applicable in explanations of the existence of large territorial gaps between occurrences of similar archaeological phenomena, which are considered as product of long distance contacts of migrant people. In the same time, mainstream archaeological interpretations established a practice through which any evidence showing that different phenomena may co-exist side by side are silenced and excluded from any consideration.

The problem is that social change is exclusively non-linear phenomenon, which to a greater part depends on individual decisions made by local populations. Although exact formal models backed with precise calculations cannot be made for past societies as it is possible for studying modern social phenomena, non-linear models may explain to a larger extent the 'missing' and poorly understood archaeological evidence. For example, one such model describes the behavior of taking optimal individual decisions, based on the relationship between variation of population density estimated per area and the amount of growing cereals (maize). On the phase space drawn from differential equation showing the change in the growing maize, three zones of human behavior are outlined Freeman et al. [31] (Figure 4). These consist of zones with attractors of high productivity of maize, a repellor zone (unstable harvest branch), and the area of impoverished harvest attractors. The subtlety in this result consists of conceptualization of the stability of the system. The unstable harvest branch allows shifting the system from one stable state to the other and vice versa. The instability of the productive harvest branch increases with the decrease of the distance to the unstable one. This means that a population that practices some farming cannot be considered as a homogeneous entity, where all the individuals practice one and the same economic activity. At least part of the population can live on high productivity of cereals, while another part will switch to medium or low productivity of cereals. In this light it is plausible to conclude that hunter-gatherers would be prone to frequent changes of their subsistence strategies, where the majority of the population would depend on hunting, fishing and gathering. Farming communities would be more stable in their subsistence as only minority of their members would opt for hunting and gathering. It is another question how both types of communities dealt with the risk of avoiding depletion of their resources, which is connected with increasing sedentary life, mobility between settlements and creation of proto-urban societies.

The above presented model of non-linear relationship between foraging and farming helps also explaining the existence of chronological and spatial gaps in archaeological record. It is flexible enough to outline the possibility for almost instant shift of the system from one mode of production into another one and vice versa or to stay in unstable conditions. Social systems, however, are not mechanical devices and they have the ability to memorize their past movements and make new decisions not only based on the knowledge accumulated during the previous changes, but also to be able to formulate entirely new decisions. This means that formal rules have only limited, local applications and after few steps they tend to change significantly. This particularity of the social systems in the past and in the present is visible in archaeological record, which so far has been overlooked or deliberately excluded from the mainstream research and explanation models.

Human Presence in the Asikli - Musular Pre-pottery Neolithic Complex

From this perspective the fact that have never been taken as an example by the mainstream archaeological explanation of the hunter-gathering - farming transition is the early appearance of *Triticum aestivum* and *Triticum durum* in Musular and Asikli Pre-Pottery Neolithic sites. This problematic becomes even more complicated because of the so-called "cultural" differences between the two neighboring sites - the distance between them is no more than four hundred meters away, and they are largely contemporaneous to one another. For example, the lithic styles between the two sites differ significantly as well as the house construction and the hunting practices. The only similarity is in building the big houses - temples with lime plastered floors inside Duru, Ozbasaran [32]; Ozbasaran [33]. In Asikli it was found *Triticum durum*, while in Musular - *Triticum aestivum*. Both species, however, have equal value for those communities, because they are man-made artifacts. The social control in creation of these species is high at each stage of their multiple-stage creation process. Both species do not have counterparts in nature, and they are product of long-time selection process at a year round base. Thus each year farmers have to select the best grains until wild forms become a stable species with the required by humans qualities. This selective and intentional process of production of new species of wheat takes about 80 - 100 years. It needs more than three generations to be changed in order to obtain this type of wheat. Another interesting question is why the two sites show such selectivity in their choices: Musular prefers bread wheat, while Asikli - wheat that is suitable for making pasta. Moreover, the fact is that in both sites cereals and, in particular, wheat is found in negligible quantities.

The above facts raise the question how is it possible two different archaeological cultures to exist one next to another without a chronological and spatial "gap" between them? As a starting point for answering this question is the well-known rule in Pre-Pottery Neolithic of vertical evolution of houses and structures in the tell-sites (mounds). Asikli offers the best example in this direction as a series of ovens built exactly one on top of the other is visible on the large central profile of Asikli. This vertical rule of evolution of mounds is always associated with agglomeration of the nearby population organized in satellite "flat" sites. In this case there are two more satellite flat sites near Asikli Duru, Ozbasaran [32]. The mound of Asikli seemed to be a center of larger population lived around the mound and possibly the social significance of the mound spread on even larger territory. Thus Asikli and its satellite settlements was representative of these larger corporate-like populations that had different subsistence strategies. Their dominant subsistence strategy must have been, according to the formal, non-linear model presented above, on the low branch productivity of cereals.

On the other hand, the occurrence of artifacts such as *Triticum aestivum/durum* must be one of the first appearances of these made by humans species. One would expect that their occurrence would have happened in the settlements in and around the Fertile Crescent, where, according to the mainstream archaeology, early farming began by forming an epicenter from which it spread through diffusion of farming populations. Contrary to this, Asikli - Musular occurrences happened on a high mountain plateau and they showed whimsy selectivity of sites: the inhabitants of Asikli preferred *Triticum durum* (wheat for pasta), while inhabitants of Musular - *Triticum aestivum* (bread wheat). This fact means nothing else but the different human presence at the two neighboring sites that comes from the larger surrounding population, which, however, remains invisible in archaeological record. For most archaeologists this space remains not inhabited and forms a kind of spatial hiatus. Yet the existence of two "culturally" different sites side by side and the selective presence of two different kinds of wheat which has little importance for maintaining their subsistence strategies mean exactly the opposite. The large prehistoric mounds and their satellites served as representative centers of wider population living in the surrounding territories. Mostly they were used as centers for ritualized negotiation practices, which are visible in the selective and difficult to predict occurrences of burial practices in the mounds. The presence of different lineage and kin-groups on different parts (segments) of the mound and on the surrounding satellite settlements through their material expressions served for memorization of community life that had to be passed down from generation to generation and between the community members.

A good illustration of this social organization is presented by the evolution of houses and the general organization of the settlement in Asikli Ozbasaran, Duru [34]. The lower levels had mostly oval houses divided by open spaces for working different materials and pits with multiple uses, which is visible by the way of development of phytoliths. On the bottom of the pits, they are rare and, most often occur on the upper parts of the slopes of the pits, which remain for a relatively long time influenced by weather conditions. The settlement was arranged around an inner open space that may have served as a central area where the meetings of the different lineage and kin-groups used to perform their ritual activities. The upper levels of Asikli developed rectangular, agglutinative housing and building of big houses - temples. The agglutinative housing separated by open areas is a well-known feature in Anatolia and the Balkans. Its aim was to reduce the outward presentations of differences in wealth, power and prestige, which may be considered as evidence for the social presence of outside communities that are represented by part of their population living on the tell (mound). In these cases the ritualized behavior was carried out in the formalized place of temple buildings, which from then on became the major feature in the human settlement systems.

The Anatolian sites - Asikli and Musular - show the various ways of human and social presence on a central living space - mound. The different material expressions of social memory, however, are better visible and understandable in the case of the Neolithic Knossos, Crete, Greece.

The Untold History of Neolithic Knossos

If a question were asked, which in modern urban culture is common, where in absolute and measurable terms the first farmers of Europe settled, the answer would have been - Knossos, Crete, Greece. There is no doubt that Mesolithic and Neolithic sailors possessed the knowledge and abilities to cross the Aegean in all its directions. The material evidence for these highly developed maritime travels is the distribution of obsidian from the Melos Island, which spread on the Aegean islands and western Anatolia, mainland Greece, and Central Balkans. In this light the common expectation is that the first farmers arrived in Crete from Anatolia or Cyprus Douka et al. [35]. This sequence is well dated and the dates from the new and old dating of the Neolithic Knossos were modeled through Bayesian statistics. The major result is that the lowest occupation level has been well-dated to the time range of approximately 6 900 - 6800 BC, while the second occupation at the site is estimated to start at about 1000 - 1400 years later. This raises two questions: one is formal and the other concerns archaeological theory and common sense. According to the authors Douka et al. [35] (Figure 3) the start of the occupation level 39 (the oldest one) is well defined both through the highest probabilities of occurrence of radiocarbon measures and their standard deviation. The next date from this level is considered problematic in terms of its region of highly probable occurrence of measures and their standard deviation, which is the biggest one among the entire

series of dates. In it, there is a peak with high probability that goes beyond 7000 B.C. and sways back approximately to 5600 BC. This date, however, is considered as 'outlier'. The next three dates are centered with their highest probability regions and standard deviations within the range above 6500 BC. The problem comes with the last two dates, which overlap slightly the line of 6500 BC, but their standard deviations are extended towards the lower values that even cross the limit of 6000 BC. Thus the summary of the results of the end of level 39 shows a range of the highest probability that point to dating above 6500 BC, while its standard deviation goes as low as 5200 BC.

In the same vein the first date from the next level 37 has highest probability at the time range of the previous level, but it is considered as outlier. The next three dates, although have high probability range at about 5500 BC, they have standard deviations stretched to 6500 BC, 6300 BC and 6000 BC respectively.

In fact, the calculation of the range of the highest probability and the calculation of standard deviation differ as the first parameter in the case of Bayes formula is double conditioned and depends on the range of the intervals and the number of occurrences at each interval. It is similar to the scaling problem in spatial analyses that is also known with the problem of the scale dependence of calculation of absolute numbers and probabilities of occurrence of any studied phenomenon. On the other hand the overlapping of the standard deviations of a given range of measurements, although done through the prism of calculation of the highest probabilities with the Bayes formula, is not likely to vary significantly.

Even in this case of linearized arrangement of the dates, it becomes visible how variable is the time scale of the Neolithic life in Knossos. Archaeologically, it is difficult to separate all the features that occur during excavations. The large standard deviations and the outliers from the ranges of high probabilities may show also that some features (containers and later ceramic pots) may have been used and re-used, that moves the measure of time towards the lower and upper limits. This also means that the human presence cannot be "arranged" in clear time-intervals and specific areas.

These problems with absolute dating raise the question of existence of hiatuses as an absolute absence of human presence at a given locality. Even if accepted the hypothesis for arrival of farming population from Cyprus and a second arrival about 1000 - 1400 years later this time from western Anatolia, the common sense of even lay people asks the simple question: is it possible? Every experienced archaeologist and ordinary person know that if a place in the field is left untouched by human hand or grazing animals to clean the fast growing vegetation above it, in no more than 20 years the place will be unrecognizable. In the case of archaeological sites the cultural layers below will be strongly disturbed by the roots of the trees and shrubs that would grow on the surface. Thus any place that is abandoned has to be recorded in exact geo-referencing terms and techniques available by modern society. Only this way any new settlers both from the past and in the present will be able to identify and recognize the exact place where to settle again exactly on top of the old settlement (the rule of vertical evolution of mounds). The social memory of a community that once settled an area then abandoned it for more than a thousand years cannot work that long in order these people to be able to find and settle again on exactly the same place. This is an impossible task even for societies living in historic times with all the advantages of writing systems and possibilities for recording the life of a given community and the associated with it data about when and where its members lived and abandoned certain locality.

The unusual feature of the Neolithic Knossos is not its early dates but the presence of large amounts of *Triticum aestivum* from the Aceramic levels onwards Livarda, Kotzamani [36]. First, it expresses the intentionality of human presence in the surrounding landscapes. The continuous cultivation of bread wheat in large quantities means an intentional decision to try to permanently change the environment from wild to domestic one. This means also a physical presence not only in the immediate environment but also in communities living far apart. This practice is in stark contrast to the common cultivation of einkorn and emmer during the Neolithic in Europe and the Near East. The latter are species close to their natural counterparts, and they often form mixed fields with little difference in their qualities for human consumption. The bread made from them is, however, healthier than the bread made from *Triticum aestivum/durum*, which is free from the grain scales and causes problems to people with gluten intolerance. This health problem of prehistoric populations and how it was overcome during the Neolithization process is not well studied. The common sense suggests that Upper Palaeolithic and Mesolithic populations in Eurasia used to consume an increasing amount of wild cereals which helped them adapt to these foods and the majority of the population overcome the gluten intolerance. If this is the case, then the sporadic occurrence of *Triticum aestivum* throughout the Pre-Pottery and Early Neolithic is not surprising, but the meaning of its laborious creation and maintenance should be sought in a direction different from social profit.

Thus the growing of large fields with this artificial species does not mean the presence of newly arrived population of farmers that want to maintain their social presence in the area. Although small population exchange with the oversees communities may have been a regular practice, this persistent cultivation may also mean that local foraging - farming communities accumulated enough knowledge about farming

and growing cereals that allow them to impose a permanent mark on the landscape. This newly discovered artifact took part in the ritualized behavior of gift-giving societies that is capable to involve a large number of the surrounding communities. Their ritualized human presence in the center of their common community life - Knossos - is marked by donation of wheat bread. The representatives of these communities living in Knossos objectified their social control on the surrounding communities through the requirement for cultivation of this artificial and laborious wheat type. Thus the interaction between the social control and identification practices may have easily acted together through this particular wheat type, and the bread these communities produced enhanced their identity through its consumption that distinguishes them from their close and distant neighbors. Fields with growing different types of cereals and plants may have acted in a similar way as modern or past built environment do. For example, a traveller that passes by these fields can immediately recognize some of the typical characteristics of the inhabitants of the village lying ahead. He/she would understand from the symbolic stamp made by the crop fields the knowledge, crafts, cuisine and the goods in offer that the villagers may present to him/her.

In the light of these considerations, it is proper to raise the question of existence of 'hiatus'. Is it possible caesura of such a strongly embedded in human culture ritual behavior to exist? In rare and extreme cases such a hiatus may occur but not in the densely populated Mediterranean world. As it was pointed out above, social memory cannot work that long and keep the knowledge exactly where the settlement was located, so that after more than thousand years new inhabitants to come and settle there. There is additional evidence that supports this hypothesis. The aceramic level is rich in figurines which are made from different materials and show great variability in artistic styles. The materials used for their making are stone, marble, clay, semi-baked and baked clay. The semi-baked and baked clay figurines and some rare pottery shards show that the inhabitants already started to experiment with production of ceramic vessels and symbolic objects. The new material - clay - gave them new possibilities to symbolically express their presence in the territories they already domesticated through growing bread wheat. As a smooth continuation of these practices, an unexpected diversity of the production of ceramic pottery occurred at the levels of Early Neolithic. This fact causes some troubles to the traditional archaeological interpretations as the existing variety of ceramic styles has been attributed to different farming communities that came from the oversees and settled Knossos. If it were true than it would have been normal to expect that when different groups of people come to live in one place, an initial unification of their mostly used utensils, such as containers for food to happen. Contrary to this, if a population that represents different communities living within the same cultural cycle were firmly and continuously established at one place, then it would have been expected that these different communities will maintain their local identities through their representatives at the main site. The second consideration is more plausible as an explanatory hypothesis and supports the fact of existing diversity of ceramic styles. This also shows that such tight ritualistic behavior at local and regional scale cannot be broken and left forgotten for a long period of time and then out of nowhere to be restored again. If the mound of Knossos were abandoned, it may have happened for a very short time, only to be resettled again by the same communities that used it as a center for their communal life. Thus the initial question that asks in absolute terms 'who are the first European farmers' should be reformulated into the following: 'where is it possible to find the first intense agricultural presence in Europe'? The answer according to the present-day data is the long local evolution of the first sedentary communities in Crete with probable community center at Knossos. Although settled on an island, these communities had extensive and regular contacts with the oversea communities from where they draw some of their knowledge about agriculture and animal domestication that they developed in a unique and unknown from any other place way.

Human Presence and Alpine and Aegean Jade Axeheads

The utility of hard rocks for work and the perceptual properties of high mountains and seascapes form a distinctive way of expression of human presence. The question is whether the sources of 'jade' rocks from the Alps in Liguria and the Syros Island in the Aegean may be regarded as cause for rivalry between different Neolithic and Eneolithic populations? If they are considered in a dualistic way of opposing closed social entities, then the answer of the above question is positive. The two different social entities that interact in a mechanistic-like way would have formed a clear boundary that would approximately divide the two distributions of jade artifacts coming from the two different sources. The dimensions of the axeheads in the two areas would have varied approximately in the same way. In a similar manner the variation of raw materials such as jadeitite, omphcitite and eclogite would have shown similar proportions across each of the two distribution areas.

These expectations, however, are not met in the actual distribution of jade artifacts in both areas, where each area has its own spatial characteristics, while social agencies caused particular human presence at specific locations. For example, it would be reasonable to expect that large axeheads would have spread on islands, as both regions include Mediterranean islands. The reason for this expectation is that large Alpine jade blades have been discovered in the eastern Balkans and in western and northern Europe. In the case of Aegean and Mediterranean islands close to Italy, however, only small axes in small numbers are found Sørensen et al. [37].

Of particular interest is the distribution pattern in the Aegean region. The distribution is featured by the almost entire absence of axeheads on the islands which is compensated with greater concentrations in mainland Greece, West Anatolia, Bosporus, and Central Anatolia. A general formal rule for the spread of jade blades can be figured out, which is similar to the rules elaborated for representing the evolution of cellular automata. Approximately it may be formulated in the following way with starting area of the spread - the Aegean islands: two Alpine and one Syros jades turn at the next step into two Syros and one Alpine, which at the third step turn into its initial stage - two Alpine and one from Syros. This oscillation rule between Alpine and Syros jades cannot be studied through creation of a formal model, as in social sciences formal rules tend to break after making only few steps. But it is possible to observe where this rule breaks and stops working, and how it starts functioning again at another region, situated far away. Thus it is approximately valid in eastern Peloponnese, followed by the distribution in southern Thessaly. The second step is valid in Troy region and in the case of Bosporus. It is not valid in the findings in Selcuk, but they are spatially associated with two Alpine jade occurrences on Samos Island and one far to the east in Denizli area.

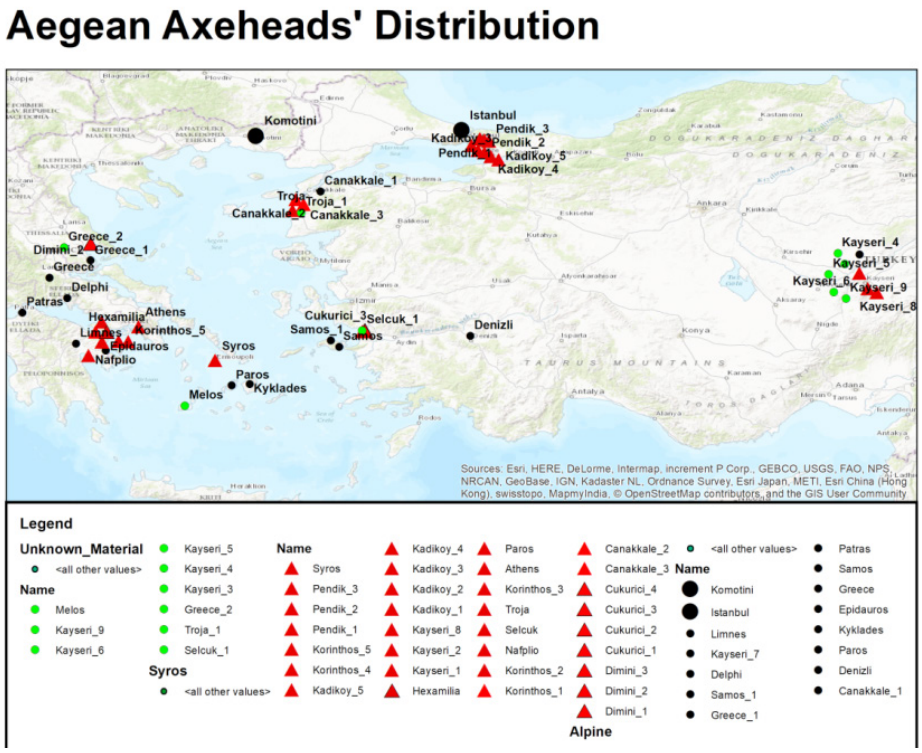

Figure 3.1: Distribution of Aegean Axeheads. After Sørensen et al.2017 and Pétrequin et al. 2017.

This rule-based pattern recognition procedure, however, cannot answer the basic question: why the distribution of jades from both sources (Alpine and Syros) have similar features in two geographically different settings, such as marine (Aegean) vs. high plateau (Central Anatolian) environment (Figure 3.1). It seems that it is not possible to work out an exact formal rule that can generate this kind of complex behavior. In order to explain these patterns it is necessary to elaborate another conceptual framework. It can be nothing else but the intentionality of strategic human presence through distribution of small number of particular 'jades' at strategic areas that guarantee social visibility and promotion of long-distance contacts. A look at the map (Figure 3.1) immediately reveals this peculiarity of the intentional human presence through the occurrence of jades from both sources. For example, there is only one axehead found on the island of Syros - obviously most of the axeheads were exported to the mainland where the need for working wood and hides with these extremely hard materials was high. Perhaps this explains the very early appearance of the Syros jade axehead in the final Neolithic (Anatolian chronology) at Cukurici, West Anatolia. Not only this, the import of Syros jades continued till the Bronze Age as finds from that period appeared at the same site. In this light it may be considered the presence of the three jadeite axeheads at Dimini, mainland Greece. Because of its strategic position, opening routes towards settlements in Thessaly, the three axes are present there more as representatives of the 'hardness' of material rather than as finished tools. Perhaps they served for carrying out particular working tasks, which do not require from them to be finely made, and thus their outward appearance remained as roughly shaped pieces of rock with visible natural surfaces of the initial concretions Sørensen et al. [37], Figure 9. The primacy of the material over finely made tools, as they are known from the entire Europe, is also visible in the absence of eclogites (with only two exceptions), which are otherwise known materials both from the sources in the Alps in Liguria and the well-known sources in northern Greece. This may

also be due to the preferential selection of colors of jade artifacts as it has been noticed. The spread of Alpine jades with lighter colors develops to the north of Alps, while jades with darker color tended to go in direction to the south Pétrequin et al. [38].

If jades from Syros were preferred for their hardness, which is greater than that of the Alpine jades, the latter were preferred for their greater ability to be turned into finely made blades. It is highly likely that this is the reason why two small but finely made axeheads from Alpine jades are found in the neighboring to Syros islands - Paros and Kyklades. Probably for the same reason the axehead from Denizli, which is situated at a distance almost one third of the distance to the central Anatolian distribution of jades, was deposited there. Perhaps of all the presences of both types of jades the most strategic one is made by the axehead found on the Melos Island. The material from which it was made - jadeite - is not recognizable and cannot tell whether it comes from Alpine or Syros sources. On the other hand Melos is known source of obsidian which spread over the Aegean world since the Upper Palaeolithic onwards and it reached Central Balkans, Eastern Thrace, and West Anatolia. In this light it is plausible to make a conclusion that all the above examples of human co-presence of different materials aimed to guarantee long-distance communication and exchange networks.

Conclusion

It was shown that the dualistic oppositions of the social extremes such as the notion of 'noble beggar' and social elite tend to replace authentic human behavior both in the past and in the present. Thus the process of building models of societies based on dualistic social entities (large groups of people) touches the surface of social life and masks the actual causes and effects associated with various social phenomena. More importantly it blurs the boundary between imaginative and real in the process of making reasons and reflection on how reality works. It acts in a kind of illusionary bias of control over history which is automatically transferred into control over present society. Addictive in nature this bias appears in almost every act of public demonstration of national mythologies and in "modeling" human history. Thus apart from the physical manipulation of the materials and excavations of the past human presence, it manifests itself in the interpretation of archaeological record where inconvenient data are silenced, while other is overexposed and popularized.

Contrary to this ill-understood knowledge of the past, I provided few examples with interpretation that revolves around the notion of human presence in opposition to the well-known from traditional archaeology concept of 'hiatus'. Through these examples it was shown that human presence is ubiquitous and intentional, which helps explore questions so far considered difficult to explain. In this light the formal archaeological similarities between the Mesolithic populations living on Cyprus and Crete are not enough to substantiate the migration of the first farmers to Crete. On the other hand the cultural differences between Musular and Asikli showed the typical features of a common center of an agglomerated wider community, living within the surrounding territories. The process of introduction of farming was seen as a non-linear phenomenon that allowed multiple transitions from hunting-gathering and farming practices or as a mixture between the two. It was shown the special social role *Triticum aestivum* and jade axeheads played in constitution of prehistoric societies. Their strategic presence at particular localities is as much surprising with the advanced geographic knowledge and long maritime travels of these early communities as are the 'unexpected consequences' - the location of their occurrences at the margins of traditionally considered core areas. Their important particularity that contributes significantly to the present-day knowledge of the past is the creation and extensive use of metaphors of monumentality of 'mountainscapes' (Alps, Cappadocia) and seascapes as well as the hilly fields surrounding Knossos. They all took significant part in the ritual behavior of local communities that allowed them to unite their knowledge through 'exotic' materials, special artifacts, various ceramic styles, and making visible extensions of human body, such as figurines and other decorative objects of art.

Chapter 4. Geometry of Human Presence

Introduction

Modern urban culture has not only the ability to create mass art installations and performances inside urban environment but also to project them outside towns, which extend mostly in monumental landscapes. For example, there was a monumental art installation made by Kristo (internationally renowned artist for such artistic installations) in the Iseo Lake, northern Italy. The installation itself consisted of building large floating paths that crossed the lake in different directions. The public had the advantage to freely walk along on these installations as each individual person would like. Despite this individuality of personal presence at the event, the main crowd always happened to group itself walking in one direction. The majority of the visitors - the crowd - had the ability to define directions, which, however, changed arbitrarily. This means that the greater part of individual visitors was unconsciously following the main trend of the movement of the visitors' grouping, which behaved (changed directions of movement) in a complex manner.

There are several features that provoked this complex behavior. The first one is that the geometry of the installation itself does not coincide with the geometry of the visitors' walks. Second, the general environmental setting of this installation happened in a very specific space - the Iseo Lake which is flanked with high mountain slopes. The visitors staying on the lake surface could observe the high mountain points and also standing on higher ground could observe the lake. This place served as a monumental amphitheater and the visitors were performing on its stage. Yet the environmental settings near the Iseo Lake differ considerably from an urban amphitheater. Natural environment with its rugged tops and outline of horizon has greater perceptual variability than the equal in height urban stadium. Apart from the simple formal rules designed by the complex science that describe the flocking behavior of birds, the sudden change of direction of the crowd of visitors would depend at any moment on the fixation of the majority of the visitors to the different perceptual qualities of the mountain tops and slopes surrounding the lake. Thus this thought provoking and interesting art installation creates a kind of 'augmented landscape' that with its complex geometry outlined by the flocking crowds of people underlines the importance of this 'augmented reality' for the people living in any urban environment.

These complex 'augmented reality' events show also the dependence of the crowd movement either on varying perceptual qualities of the surrounding landscapes or on a sufficient, not necessary large, number of "visitors" that can easily redirect the crowd's movement. Yet these two qualities are not the only way to impose control on the behavior of a large group of people visiting such an 'augmented reality' event. In this case the relationship between the past and the present is very strong. For example, there is an often cited relation called 'Sex, Violence and Rock-and-Roll', which can be transformed in one to one manner to the prehistoric social relation - 'Sex, Violence and Rock Art'. Thus not far from the Iseo Lake up in the valley, the famous Valcamonica rock art sites are situated on the Alpine slopes. In a way they form physical and mental natural amphitheater dotted with sites, where inter-visibility between them does not play any significant role that define their location. Here of primary importance is the locale itself. Each locale consists of a number of representations on one or several large blocks of stone and perhaps present images and notations left by an extended family or a kin-group. Probably these sites functioned similarly to the tell-sites (mounds) in the Near East, Anatolia and the Balkans where communities from afar would visit a given tell according to their religious and ritualistic calendar. Most of the rock art representations are dated to the Copper, Bronze and Iron Ages and present different weapons such as daggers, axeheads, and warriors with swards, shields, and bows and arrows. These scenes and presentations tell stories about the histories of the communities that used to visit each locale or represent their mythical narratives. It seems that gender and sexual signs and representations are much rarer than the presentations of symbolic violence. This proportion of representations differs from the ordinary picture in settlements where female signs and symbols are numerous and often outnumber the male ones. This may suggest that only a small number of 'initiated' people, mostly men, would visit these sites and leave their symbols. This ritual behavior may also be interpreted as strengthening the ties among the members of a given kin-group or lineage in order to increase its control over the settlement where they live with other groups of people. From this perspective the local history and mythology recorded at particular places assures the diversity of the sources of political and religious power of settlements that may be situated far away from Valcamonica. The social significance of this and the other Alpine rock art sites has long-distance implications. Formal and ritual similarities can be drawn from Western, Northern, Southern Europe, the Near East, and as far as the Central Asia. The 'augmented reality' of the monumental landscapes in the Alps may have played major role in featuring the political and religious constitution of the late pre- and proto-historic societies. The spread of Alpine jade axeheads in the entire Europe and in Anatolia suggests the importance of Alpine communities for the social constitution of the pre-urban societies.

In order to better understand the nature of the "augmented landscapes" it is necessary to consider two additional notions. The first one may be presented as 'agglutinative human presence'. Intuitively and formally 'agglutinative' means continuous space where a given phenomenon moves smoothly from one place to another and has contagious features. This general behavior also means that there exists an external

force that governs and controls entirely the behavior of the studied system within the range of its spread. The particularity of the agglutinative thinking of social space is that it assumes the existence of a geometric center, which, however, has the quality to remain hidden from the observers. It also outlines a sharp boundary of the spread of this phenomenon, or well-defined islands within it where the phenomenon of agglutinated human presence does not work. For example, during one of the spread of cholera in London, most of the people who used to drink water from contaminated sources of water (water pumps) got ill, while others who used to drink beer remained in good health.

It is not only the main features of the geometry of this notion but the way it is conceptualized in modern urban culture that causes its major influence on shaping the life of any urban population. Urban planners tend to put firm divisions of the urban space, separating human activities according to primarily formed criteria. The choice of these criteria is influenced by the dominant ideological, political, religious, cultural, racial, etc. worldviews of the time they live in. Despite these differences, there are some elements in urban planning that remained almost the same. The most obvious example is that at the beginning of urbanization thinking 'urban gardens and parks' were exclusively reserved for the aristocracy and the town elites. But the democratization of the urban space was marked by the development of town orchestra and opening gardens and parks for the ordinary citizens. While at the beginning the division line was firmly set between the elite and the ordinary people, with the opening of green urban places a more varied picture of town dwellers started to appear, which consisted of various professions, craftsmen, cultural and educational institutions. Yet this emerging diversity was soon channeled into urban spaces that are firmly divided in industrial zones, living neighborhoods, central administrative areas that tend to include high-culture institutions, such as theaters, museums, and opera. Sport's facilities like stadiums and sport's halls, swimming pools, etc. were pushed away as they were considered as low-culture activities, associated with leisure facilities and recreational centers. It is tempting to remind that the sport's facilities used to form a conspicuous part of human activities that were situated at the hearth of the urban life in the Classical times of Ancient Greece and Rome. In this respect, modern urban culture has greater similarities with the towns in Ancient Egypt where the palaces and temples of the Pharaohs and religious cults were the only buildings that merit, while the rest were quarters of servants and slaves. The towns in Ancient Mesopotamia, Greece and Rome had much greater diversity of urban life with marked variability in ordinary houses.

From this point of view the 'agglutinative' way of thinking has grave effects on modern urban culture as it treats citizens and visitors alike as masses of "consumers" with their ability to reason reduced to primary biological instincts. It is not that the process of mass production, delivery in bulk, and mass consumption can be automatically blamed for being the wrong doers for all the inconveniences of living in large urban centers. To the contrary, mass production and consumption promotes long distance trade and exchange of goods and ideas, but the real problem lies in the "modern" urban agglutinative thinking of small craft, educational, cultural and recreational activities, which are not met with public and private recognition as valuable acts that objectify individuality and personal qualities.

The same ideas are well-manifested in the thinking about past societies. For example, the living environment of Palaeolithic people was considered as a homogeneous one made of tents, caves, and round structures. To a certain extent this conceptualization may have been true as these structures were ephemeral and left little or no traces at all in archaeological records. But this conceptualization of the living space of these early human groups does not account for the existing diversity of the occupation floors, which along with other technological traits and the location in different environment may suggest the existence of specialized groups that built various living structures. Even more problematic is the case of conceptualization of aceramic and ceramic tell-sites. Their agglutinative, homogeneous housing has been exposed and over-represented as something exotic, unseen elsewhere, and hard to access: the entrance was imagined to happen from the top of the "flat roofs". This raises the question how such a structure will support the load of a heavy snow-cap on top of it as the winters even now (today the climate is warmer than that at the beginning of the Holocene) are cold, long with a lot of snow fall. It was a surprise for the staff of the British Institute at Ankara when it became clear from the excavations in Catalhoyuk that these homogeneous living structures are in fact separated by smaller or larger open spaces. Similar is the situation in Asikli (presented in the previous chapter) and in other sites in Anatolia and the Balkans.

What would help to better understand the past and the present settlement structures is the concept of 'aggregated communities'. This notion has some basic characteristics. Its geometry is dissipated and not continuous and does not require a geometric center. In fact central feature may be one or several areas that may lie away from the geometric center, and each of them can represent central zone of activity of different phenomena. Influences from external factors are not that strong as they interact with internal factors and develop specific occurrences at different locales. Aggregation is a notion that contains more discrete and probabilistic features than continuous ones as in the case of agglutinative spaces. Ordinary statistics based on average value, standard deviation and normal distribution are not applicable to analyses of these phenomena. The latter are more prone to be described through probability distributions. For example, there are well developed methods for assessment of aggregated vote in modern elections. These exact methods cannot be applied to assessment of public behavior of past communi-

ties, but, for example, it is possible to calculate the chances of occurrence of prehistoric sites in an area of visible traces of a settlement system from Antiquity. The latter are much better visible on the surface of the modern terrain, and such a probabilistic estimate can be valuable for any investor that would like to make developments in certain area. This is due to the fact that the co-occurrences of both types of settlements are highly correlative and despite that this measure may vary from context to context, normally the correlation between them remains high. The basic reason for this high correlation between differing in time settlement choices is that the geometry of human presence depends strongly on locations that offer better quality of human life. It is equally valid for the modern urban culture. The latter already developed easy to work programs for statistical assessment of best location of a business or what choice a person has to make for living in a certain urban area. Additional methods can also be used in order to make assessment of how the quality of life in a given area can change, if some new businesses, cultural and recreational activities are introduced - for example - interpolated surfaces can tell advantages and disadvantages of such changes.

The notion of aggregated communities helps better understanding of settlement organization of, for example, the late Neolithic in Bavaria. A GIS analysis of the settlement location of the Münchshöfener culture and its relation with natural environment were presented at the Session AR16 entitled: 'Interpreting Archaeological Record: GIS' by Stephanie E. Metz at the EAA Conference in Glasgow 2015 https://www.youtube.com/watch?v=Hy2t1jLX0Fc&list=PLBjeGwwG0rtSc_3DmoU-8f4sxNj4WZOdd . The study involved the relationship between the settlements and their location relative the major geographic features, such as aspect, slope, altitude, distance to water, major soil regions, and soil fertility. More than 300 sites were involved in this study, of which the majority of the sites are situated at an altitude of 350 - 450 m above sea level, 59% on loess soils, and 64% on good grassland. These average values, however, do not show the nature of these aggregated communities. Outliers are important, such as that 13 sites are situated on high ground - at more than 550 m altitude, one third of the settlements dwell on poor Tertiary soils, but the greater number of sites is situated along river valleys. The settlement system consists of several clusters of sites. The sites in these clusters lay at a distance from each other of no more than 5-10 kms. Outside these core areas the sites are rarer with a distance between them of 10 - 20 kms away. Burial sites are fewer but cover the main area of the spread of the settlements. In summary, about half of the population had access to fertile lands and good pastures, while the other half lived in poorer conditions, including about 5% of the population settled on high mountain ridges and steep slopes. Thus represented the overall settlement pattern may be interpreted with great amount of certainty as typical representation of an aggregated community that consists of extended families, which through the spread over all the possible environmental niches aimed to reduce the risk of crop failure and epidemics on animals. The dispersal of closely related to one another settlements makes more difficult the spread of contagious diseases on humans and animals alike and provided greater possibility for communal and individual support between the inhabitants of these settlements. There is no community center but this type of tightly related settlements can produce much wider social network of communication and exchange, which can be illustrated by the example of the well-known 'spatial phenomenon' of Bell Beaker culture. Perhaps these small groups of Bell Beaker people were involved in long-distance trade and exchange of goods. The reasons for this is that they had settlements situated at long distances from one another, showed typical signs of symbolic violence - daggers, arrowheads, etc., and well pronounced gender (male/female) tension, visible through the beakers and the other characteristic pottery types. These signs of political, religious and gender tensions have the meaning similar to the Alpine rock art sites that played significant role in constituting the late prehistoric societies across vast territories of Europe.

While the above example represents aggregated non-centralized society, another example shows similar social behavior but in a centralized settlement system. An illustrative example may be the Minoan Knossos. Traditionally its spectacular buildings have been interpreted as palace or fortress. In my view, and from the perspective of the concept of aggregated community, these monumental buildings play similar role as the one known from temple economies from the early Bronze Age in Mesopotamia. They are centers of large aggregated population where people donate part of their crop yields to a centralized depot. The development of centralized ritual centers along with writing system that enhances administrative control is necessary social tool for reducing the risk of crop failure and epidemic diseases on domesticated animals. Once a community transfers its basic subsistence practices on farming, the necessity for appearance of such a regulatory system occurs. The monumental buildings in Knossos show exactly this kind social functioning. It is not a fortress as such structure denies access of outside people except in a strictly controlled narrow space. The entrance in Knossos is large and its architecture differs significantly from that of a fortress. It limits the social power of any leader (chief) by building specific device at each of its entrances. The aim is to slow down the advancement of a chariot, cart or horsemen by building staircase and dead-end that aim to redirect movement to the next track, which is moved slightly aside. This technique has been applied on each entrance and on each ring-road path that leads to the next level. The main central court has several different levels all of which are rectangular. Thus organized the space does not allows large crowds to dominate and, in case of unrest, a small group of people can easily divide the crowd and press each of its parts into the different corners or block their entrance to the other levels (Figure 4.1).

Figure 4.1: Upper left image: the main entrance; upper right–the entrance to the main courtyard; lower images: storerooms with decorated large ceramic vessels.

Below the different levels of the courtyards there are large store rooms and large ceramic vessels. Their extraordinary decoration matches the decoration of the rooms and meeting halls and courtyards. Although executed in the same artistic style, they all represent different themes and narratives. To a visitor the clockwise movement reveals gradually rich and colorful artificial and natural landscape that exerts great impression on human perception. Its monumental character differs from those of a citadel or palace, which have the quality to hold back or separate them from the outside visitors. The monumentality of Knossos is divided into multiple high buildings that converge to the lower and higher courtyards that enhance participation into common ceremonies and rituals. In this way the societies on the island of Crete found their own, unique way of organizing their society around the aim to reduce the risk of depletion of their agricultural resources.

These examples raise the question how it is possible two different societies in time, space and social organization - having centralized and dispersed settlement patterns - to function in similar ways. Agglutinative mode of thinking does not allow such comparisons. The concept of aggregated community allows it. But the more formal presentation of how the social mechanisms of aggregated communities work will be presented and illustrated in the next part with one modern and one prehistoric example.

The Concepts of 'Cultural Gradient' and 'Central Place' of Aggregated Communities

Archaeology has the potential to develop more formal and objective studies of aggregated communities both in the past and in the present. But it can be done only through the interface between the particularities of the past human presence with the present-day ones. For example, it has long been recognized that human presence had the potential of something like gravity in the physical world that could be described with the notion of 'cultural gradient'. Thus traditional archaeological interpretations are based almost exclusively on the concept of existence of 'cultural gradient' that features spatially the spread of archaeological phenomena. In most cases it is used as an intuitive notion grounded on recognizing formal similarities and differences between particular types of archaeological artifacts and structures. Attempts at describing in a formal way the phenomenon of "cultural gradient" have rarely been made in terms of comparing the frequencies or distances to the occurrence of archaeological phenomena Pétrequin et al. [39]. The most done so far in similar descriptions is the often subjective observation of gradually decreasing similarity of ceramic (lithic) styles. This is the only effort made to put an explanatory framework over the phenomenon of spread of a given archaeological artifact category or structure from a central place to its periphery (vaguely assumed). This approach leads to establishing a single hierarchy which, in most cases, has a pronounced center. It consists of one or few dominant styles (lithic or ceramic) that have the ability to spread stylistic similarities and differences 'down the line' to their loosely defined peripheries. This approach, however, leads to epistemological bias as it tends to ascribe the unique presence of some archaeological styles in unique geographical settings. For example, the common conceptualization of farming is that farmers work in their fields. Fields are usually associated with plains and any other geographical features such as mountains or marshy areas seem irrelevant to farming activities. Perhaps this is the reason why the common understanding

is that the earliest Neolithic culture in Bulgaria is a lowland phenomenon (encompasses the middle of the Thracian plain) despite the location of some sites that show the opposite tendency.

When this doubling of archaeological with geographical features is combined with the quest for "uniformity" of archaeological material outside these cultural entities, the problem grows beyond its explanatory framework. The lack of objectivity becomes apparent in the subsequent recognition of additional cultural units that are chronologically situated between the initial ones and combine features from two or more adjacent entities. For example, simple evolutionary explanatory schemes in the form of cultural units such as Kodjadermen/Gumelnitsa/Karanovo VI have been elaborated instead of any other explanatory framework that is able to outline the significance of this archaeological phenomenon. These contradictory outcomes pose the necessity of developing more objective and theoretically grounded approaches to analyzing the spatial distributions of archaeological materials.

In this chapter I focus on presenting the true nature of 'central place' in the past and in the present. On this theoretical ground I establish a new concept based on measuring 'central places' in terms of objective criteria. The most important criterion whether a place in an area is central or not is its degree of self-similarity. I develop it on the base of a present-day example of distribution of supermarkets in a particular area in modern Sofia and how they inscribe themselves in terms of attracting clients from the neighboring suburbs. I measure how well they are grouped together (Spatial Statistical Tools, ArcGIS Toolbox). These results I compare with a sample extracted from the spread of the early Neolithic sites in Bulgaria. By comparing the characteristics of the two sample distributions I develop a novel approach to understanding the concept of 'central place' as a trend of spatially distributed local centers. Further I present it with the help of an example of a particular prehistoric artifact category that is imported from long distances and has an intensive local use. Thus through the introduction of this novel concept I show the possibilities of the analytical power of GIS for bridging the gap between archaeological formal research and archaeological theory.

How central is a central place?

Human settlements both in the past and in the present are complex phenomena and involve features, where the spaces between them cannot be measured only with Euclidean distances. For example, the nature of a place that can be called central consists of its self-similarity that has to be maintained at least at several scaling levels. For example, it is known that the coastline of the British isle is measured to have a bit more than 1.5 fractal dimensions (M. Mitchell, on-line course: 'Introduction to Complexity', www.complexityexplorer.org). One fractal dimension means a clear-cut line that outlines or separates adjacent areas. The increase starting from one to two dimensions means that the two neighboring areas become increasingly fragmented and get more and more fitted together in terms of the property(-ies) responsible for their fragmentation. The degree of how the fitted areas integrate with each other may be expressed either by their geometry or by other measures such as frequencies of occurrences of specific for these areas phenomena that are also able to outline curved geometric areas. Figure 4.2 illustrates how the type of the boundaries integrates or separates adjacent regions. The dotted lines are the ones that separate, while the zigzag line integrates the neighboring areas. This scenario is only possible if the zigzag line maintains the same or similar geometric pattern at several scaling levels.

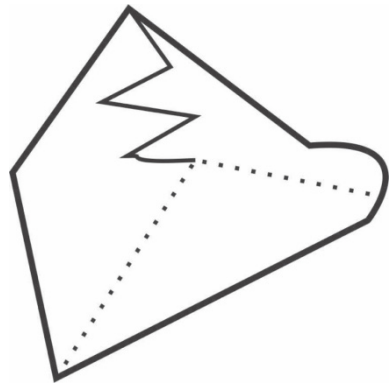

Figure 4.2: Illustration of the role the type of a boundary (zigzag or straight line) has in separating or integrating two adjacent areas.

From this point of view a central point in such a fragmented region is not its geometric center or any point close to it. Rather it will consist of few points that depend on how well the fragmented region is bound together according to a set of initial criteria (e.g. frequencies of visits, traffic intensity, etc.). Their position will depend on places that offer the best link to the neighboring or more distant fragments of the region. In this respect the best example of a central place would be the distribution of supermarkets in a given urban area. Although far from prehistoric

settlement patterns modern urban studies can provide good examples of human-environment relationships that are able to throw light on how past communities inscribed themselves into the natural and human landscapes Tsonev [5]. For this example to be a proper one there is a requirement that has to be fulfilled. The urban area that comprises the distribution of the supermarkets from the chosen sample has to be defined by communicative routes that contribute significantly to the increase of the intensity of human traffic and thus separate it from the neighboring areas. For this reason I have chosen an urban area of modern Sofia which is situated between two neighboring stations of the underground with two business centers at each end. The size of the overall area is measured by walking distance of about 15 minutes needed to cross it at every direction (Figure 4.3). The general expectation would be that this area has few points that offer the best links to the adjacent areas in terms of the frequencies of the clients' visits to these supermarkets. In reality the position of each supermarket may correspond approximately to such 'central' points. If assumed that a trend is formed by the frequencies of the clients' visits to the different supermarkets then it would be possible to geometrically represent it as a set of line features on the GIS map. On this base an average angle of these directed lines can be calculated. This average value is called directional mean Mitchell [40]. Apart from its mean value the Directional Distribution is expressed by its standard deviation. It represents how well the studied features are grouped. If the features on the map form a proper group then it is expected that they will spread within the boundaries outlined by 1 standard deviation. If not boundaries of 2 or 3 standard deviations are calculated. In the present study I use 1 and 3 standard deviations areas that provide good illustration of how well the features are grouped. To this analysis I add the calculation of the 'central feature'. In my view it better illustrates the idea of the central place in a fragmented environment than the 'mean center' which as an abstract value reflects the geometric center of the studied area. The mean and median centers also provide good illustration of the grouping of the features on the map but they lack the direction and orientation of the spread of these features.

Figure 4.3: The spread of supermarkets in a fragmented urban area in Sofia. The ellipse shows their directional distribution within one standard deviation from their mean center. The central feature (Lidl) is also presented.

Since 2015 when the above analysis has been made some changes in the distribution of the supermarkets occurred. The central feature remains the same and the directionality is similar, which is visible even with naked eye. Figure 4.4 shows this distribution and also the comparison between the two dispersals shows that the movement of the local centers and the most central feature is towards the boundary of the area.

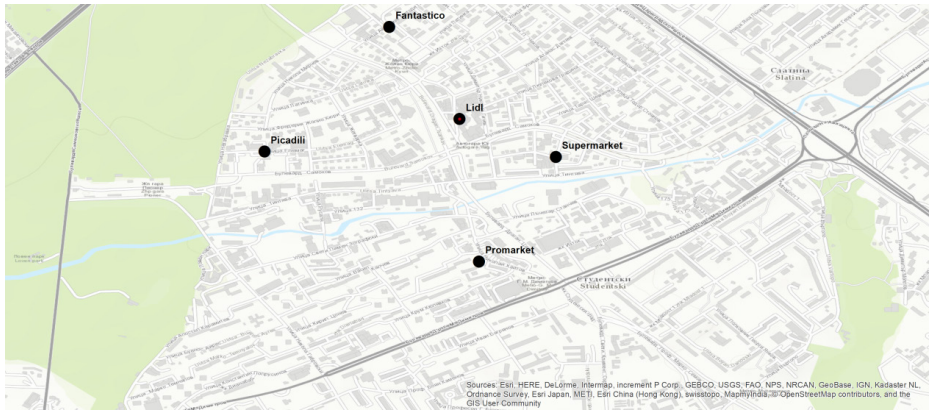

Figure 4.4: Illustration of the distribution of the supermarkets in 2017. The central feature remains the same – Lidl.

The direction and orientation of the spatial distribution of the supermarkets in this urban area reveals the possibility of existence of similar scaling properties in terms of the frequencies of visits of clients living or working in this area. It is reasonable to assume that not all of the potential clients visit some or any of these supermarkets because they work away and do their daily shopping in other more convenient for them places. Thus the ellipse made at a distance of 3 standard deviations should contain the tips of the maximal distance from which individual clients go to visit one or more supermarkets in this area. By getting inside the ellipse where people live closer to the supermarkets more clients will join this trend. The resultant geometric shape will be a zigzag that outlines the whole area. The geometric shape that is formed by the frequencies of visits to the supermarkets will remain the same at different scaling levels. For example, it will remain similar at the level of groups of blocks of flats or houses and at the level of the individual blocks of flats or houses (Figure 4.5).

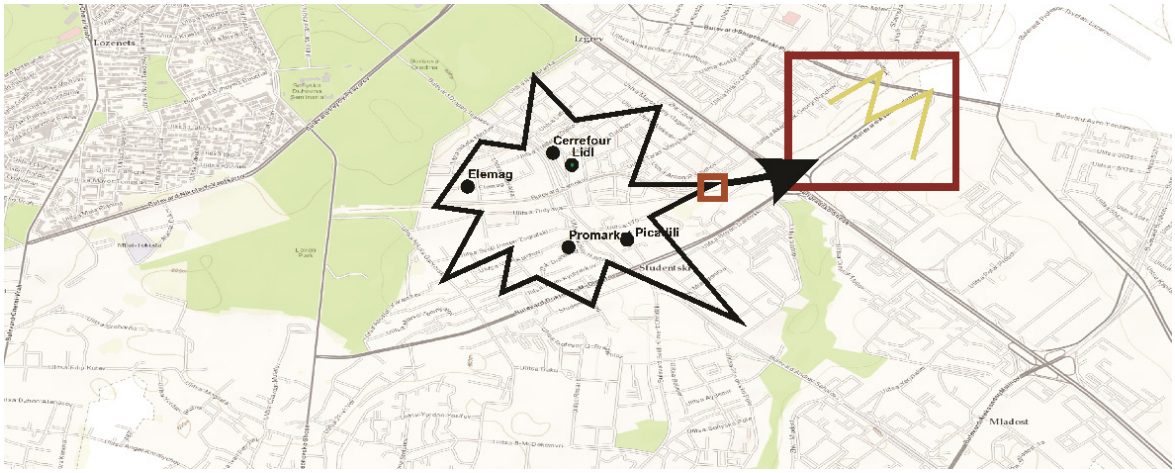

Figure 4.5: Illustration of the logic that reveals the similar scaling properties of the spatial distribution of supermarkets.

The high degree of self-similarity means that the supermarkets are built in places where they may be considered as central in terms of attracting maximal number of potential clients. Although the 1 standard deviation ellipse leaves one supermarket outside and the rest are situated away from the geometric center and on the periphery, they all can be assumed as central places that define the dynamics of the human traffic in that urban area.

Early Neolithic sites' distribution

A sample from the distribution of the early Neolithic sites in Bulgaria has been drawn (Figure 4.6). The reason that stays behind choosing each of them is that these Neolithic sites are characterized by the presence of architectural features (most probably houses or other permanent structures) as well the fact that abundant archaeological material has been recovered from them. Their geographic characteristic is also typical. They all are situated at foothills that fringe either fluvial basins of big rivers or marshy areas. By facing the higher ground they offer access to mountains, hills or plateaus.

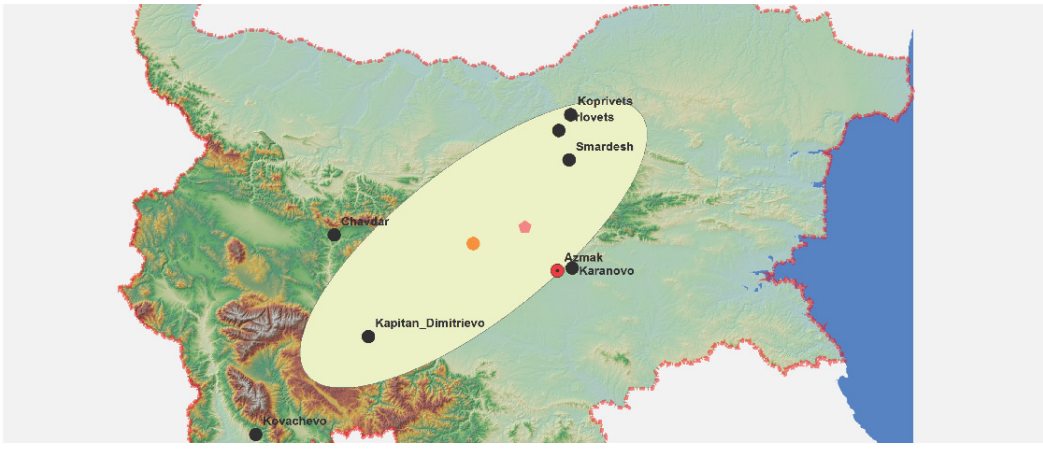

Figure 4.6: The spread of the sample of early Neolithic sites in Bulgaria. The ellipse shows their directional distribution within one standard deviation from their mean center (the mean and median centers are shown). The central feature (Azmak) is also presented.

The choice of the geographic spread of these sites is deliberately made so that they fall into three different regions. It is expected that despite the differences in the geographic features near which they are located they will exhibit similar characteristics of central places. This means that there must have been considerable dynamic of population movement and activities which make them sensitive to changes in their material culture that is visible in archaeological record over vast geographic regions. Thus the Koprivets site is situated at the junction between two small rivers - Baninski Lom and Kajadjik surrounded by low-hill environment. The Orlovets site is located on a plateau and above the big spring of the Baninski Lom River. The Smardesh site is located at the junction of the foothills of the Pre-Balkan and an extensive marshy area spreading to the north. The Chavdar site is founded at the southern foothills of the Balkan Range where it meets the valley that divides it from the Sredna Gora Mountain. The Karanovo and Azmak sites are situated at the southern foothills of the Sredna Gora Mountain. The Kapitan Dimitrievo site is located higher up the slope of the northern Rhodopes Mountain. The Kovachevo site is found above the non-flooded terrace of the Pirinska Bistritsa River.

The dynamic of the Neolithic population movement and activities is better visible when compared with the distribution of the supermarkets. Thus this comparison shows that both distributions are strikingly similar. The location of each supermarket has been carefully assessed by marketing studies and urban planning. By analogy it can be assumed that the location of the early Neolithic sites has not been made by chance. Their geographical distribution makes a convincing suggestion that communities with considerable knowledge about the subsistence potential of the local landscapes in terms of farming and collecting wild species made the choice for situating any of these sites at its particular environment. Thus the surrounding landscapes of each site differ but there is one unique feature in common for all sites. They all are located at the convenient center for reaching out diverse ecological niches. As a whole these ecological niches take the middle ground between mountainous (hilly) areas and lowland features such as plains, river valleys, and marshy areas.

Another characteristic of the notion of central place that appears at each site's location is that it fits the general trend of distribution of all settlements (the orientation of the long axis of the ellipse). In the modern example with the supermarkets it approximately coincides with the direction marked by the two underground stations. In the case of the distribution of the early Neolithic sites, it spreads across the most diverse landscapes: southwestern - northeastern direction. The geographic distribution strongly suggests that the most attractive places to start a permanent settlement would be the hilly areas that take the middle ground between mountains and plains, valleys, and marshy areas. This property shows that each early Neolithic site can be considered locally as a central place that also inscribes itself into the general trend of farming across the eastern Balkans. This spread should be considered as an individual choice of the settlers that carefully assessed the potential of each location. The decision for each choice probably included the potential for farming, collecting wild plant species and herding domesticated animals on the surrounding landscapes as well as the potential for networking with close and distant communities.

As a proof for the existence of this distributional trend, the spread of long blades from the northeastern outcrops of high-quality flint varieties may be used. They form a typical artifact category that characterizes the early Neolithic sites in the eastern Balkans. The only site that lacks such blades is Koprivets which is situated close to these high-quality flint outcrops but also has abundant local flints Zlateva [41]. In addition to the archaeological significance of this artifact category, the potential of this settlement patterns for local and extra-local networking is also visible from the organization and spatial distribution of the locations (types of flint-knapping workshops) for production of long blades. There are three major types of workshops. The first one is formed by the domestic techniques performed within the settlements. These techniques use wide variety of hard-hammer small core reduction strategies. Through these techniques long blades with length of 6-7 cm happen to be made but they bear the disadvantages of the non-specialized techniques and the restrictions of the flint varieties that are of low, local quality. At the same time flakes coming from initial and advanced preparation of large cores made of high-quality imported flint varieties are not being found in early Neolithic contexts. Most probably the imported pre-cores have been exploited in workshops situated outside the settlements. But their products - long blades - occur in the settlements. The third type is constituted by the highly specialized workshops near the outcrops of high-quality flint varieties. Their products in the form of long blades and pre-cores and cores travel long distances that cover most of the eastern Balkans.

The import of the highly specialized products such as long blades and their intensive use for working probably wood, bone and cutting grass/cereals (traces of marginal and invasive scaled retouch along the lateral edges and gloss on the remnants of their dorsal parts are often found on them) shows deliberate actions for managing the surrounding environment. This fact suggests that the focus of human activities have been set on those that were performed outside the settlements. A similar pattern of human activities have been observed in the late Neolithic in the Central Balkans where herding of domesticated animals formed a pattern that moved around the settlements Orton [42]. Although not to the same extent and based on the evidence for production and distribution of long blades, a similar pattern may have been followed by the early Neolithic populations in the eastern Balkans.

This study, however, has the disadvantage that detailed terrain studies around the "big" tell-sites (mounds) from the Neolithic have not been carried out. Where such studies have been made as in the region of Drama, southeastern Bulgaria traces of presence of Neolithic activities is visible in numerous surrounding places. In the case of their lack, the above presented criteria of the organization of flint knapping techniques on the sites and outside them can be used as a proof of existence of aggregated prehistoric communities. Thus the possibility for regular and occasional movement around the basic settlements and maintenance of long distance contacts may be considered as expression of the basic metaphor of 'ever-giving nature' that is objectified through building identity practices through the gender roles in close interaction with nature Bird-David [43]. From a modern perspective the perception of the central places as they are integrated with the surrounding environment cannot simply be considered as resources that are recognized as places where to find with highest probability the best plant, or the best price for consumers' goods. By settling or visiting these places "customers" do not only avoid making a cognitive mistake of risking failure in achieving the best price (central places are always imagined as having the "best" offers), but they play the role of cultural interfaces - the most appropriate places for interaction with other people.

From the point of view of the novel understanding of the notion of 'central place' it is better to use the idea of 'directional distribution' instead of 'cultural gradient'. While the second notion accentuates the existence of a single center with maximal self-similarity of the dominant archaeological styles, the notion of directional distribution allows existence of some or more local central places included within the frame of a general trend. When working with the idea of directional distribution instead of cultural gradient the advantage is that it is possible to integrate local characteristics with those of a general trend that may spread over different geographical features. This technical shift is instrumental for proper study of the scaling properties of different phenomena in modern urban environment which may throw light on settlement patterns and other spatial distributions that are formed as a result of the lifestyles of prehistoric populations.

Yet modern urban analyses should not be compared in one-to-one way with prehistoric ones. Thus the directional distribution of the supermarkets coincides with the direction of the urban underground line. This corresponds to the idea of the 'least cost path' analysis known from the GIS analytical package. The directional distribution of the early Neolithic sites follows the maximal diversity of landscapes including high mountains and hilly areas. This would correspond to the 'maximal cost path' analysis, which has not been recognized as a practice within the GIS analytical tools. Yet, cost path analyses are important as they have the potential to reveal the innovative practices of human interaction in perpetuation of a given cultural tradition.

Despite this difference the two distributional patterns remain strikingly similar and well grouped. This similarity is based on their properties as local centers. While the supermarkets integrate fragmented areas with increased human traffic (underground line), the early Neolithic sites integrate the locally diverse landscapes. At a theoretical level this property helps overcoming the existing tendency to equate the dominant archaeological styles with the dominant geographical feature (e.g. Neolithic styles = fertile plain). Thus the shift of the research focus from the abstract 'mean center' to the real 'central feature' helps to redirect researchers' attention to revealing past and present-day human lifestyles and their relationship with the environment.

Conclusion

In this chapter it has been shown that modern townscapes can extrapolate some of their cultural performances outside themselves and situate them in the settings of monumental natural landscapes. In a way this process represents the conceptualization of emergence and, more importantly, multiplication of modern urban environment into nature. The long-standing notion of domestication of the wild continues till the present-day political, religious, cultural and artistic realities. Both in the past and in the present this concept has been objectified through the creation of temporary or permanent 'augmented reality' settings. The latter have strong influence on the general public because they form personal expectations of aesthetic appreciation - a major part of emotional engagement with an "unknown" and unexpected natural place. In marketing of commercial goods the creation of personal expectations of an aesthetic appreciation of an object or scene forms part of the 'pleasure principle' of personal emotional satisfaction with the use of a brand new product.

This concept enriches the intuitive notion of human presence by adding new characteristics that feature its acts in strictly defined social space. Euclidean geometry cannot help measuring and assessing the qualities of social space because of its complex nature and establishing of non-linear relationships. This theoretical framework gives rise to two other notions that are helpful for analysis of social space both in the past and in the present. The first one is traditional and it features the evolution of settled life as a continuous, agglutinative space. This type of environment has a geometric center from where a given phenomenon springs its effects that tend to spread in a form of a gradient down the line that reaches vaguely defined peripheral area. It has been shown with examples from the past and present that settled environment, when featured by its continuous, agglutinative arrangement of human presence, can linearize within the limits of a local context the complexity of

any phenomenon that develops through the process of accumulation and consumption of goods and services. But this capability for linearization of organized in complex way traces of human presence of townscapes tends to break beyond its appropriate scale of development. In order to make it stable settled life built itself around an aggregated social structure with probabilistic distribution of resources and facilities.

From this theoretical perspective it is possible to explain the striking similarities in functioning of two completely different social structures such as the dispersed settlement pattern of the late Neolithic Bavaria and the inhabitants of Knossos, Crete, Greece. In addition their social organization built with the aim to diminish the risk of depletion of resources and enhance interaction between different social agents makes possible the subsequent development of long-distance, supra-regional social networks that are exemplified by the Bell Beaker phenomenon in Western Europe and the Minoan world in the Aegean. This theoretical framework also helps in assessing the social organization of Neolithic communities in the eastern Balkans, where despite the lack of proper data, the notions of cultural gradient and central place reveal the complexity of the distribution of local centers with directional spread oriented towards the greater possibility of local and regional interaction between different communities.

Chapter 5: Foundation Myths - Foundation Pits and Pitfalls

Introduction

Even small villages, just as small and big towns, always have foundation myths that generally tell an interesting story how the settled life began in a given local, and that individualizes the human presence in that particular place and its immediate natural environment. In most cases the foundation myths become objectified through the existence of 'sacred places'. In urban areas these are normally presented by big cathedrals or monuments. In small villages the sacred space most often becomes externalized into a prominent natural environment, such as neighboring hill or just particular place. In urban environment the sacred spaces take an aggregated form that covers approximately the entire perimeter of the populated zones. In small villages sacred places are loosely distributed around the village and along some of routes that connect it with the other neighboring settlements.

The importance of local history for the inhabitants of a given settlement, which is equally valid for the small and big ones, is that it shapes the unique biography of that area and develops sense of place. Modern people just as the ones living in traditional small scale societies are 'dividual' persons Strathern [19] and they develop similar 'relational epistemology' with their neighbors and the surrounding natural environment Bird-David [43]. Any individual relates with its fellow citizens through a web of social relations that form his/her own personal features. What is normally called the educational, cultural, political, religious, etc. background of a given person is the way that he/she features how deeply one can form or adopt the common discourses of his/her own time. Individuals have at their disposal tools through which they are able to manipulate and develop these public discourses that form the theoretical framework of their everyday 'habitus'. These tools involve identification practices, the personal ability to label typical individual and social behavior, and the technologies of the self. From this point of view the traditional sense of place as something static and passively inherited from previous generations gives way to the notion of dynamic involvement of all personal capabilities in the process of building a proper sense of place, which concerns both small villages and big towns.

The role of foundation myths influenced differentially the urban environment in post-communist countries. There are positive examples when foundation myths are in coherence with developing or preserving symbolic places and signs in the respective towns. Most are, however, the negative examples of violating or destroying the true nature of or the symbol itself. On the positive side may be presented the example of the harmonized presence of symbols of foundation myths in Krakow, Poland. Under the royal castle, built on the symbolic for Polish history hill, an iron statue of a dragon that blows out from its mouth fire flames is made. This is based on a local legend of existence of such a dangerous creature that underlines the mighty of Polish kings that dwelled on the castle above. The other symbol of Krakow is the broken melody of the main tower on the Main Market place at the city center. The story tells that a guardian that watched from the tower saw the coming Tatar invaders and started playing the melody for alarming the citizens of the incoming danger. Only he couldn't play the entire melodic signal because was hit by an arrow. In honor of this brave watch-guard who saved the city, the signal is played from the main tower as a broken melody.

Both the broken melody and the statue of the dragon are not aesthetically appealing: the broken melody does not sound good with its abrupt end and the metal statue stays somewhat robust to the towering above castle and palace. If considered as stand-alone symbols they look ugly and in other circumstances may be taken as dangerous. But set in their proper context - fine melody with an abrupt end lures the passersby's curiosity with the offers in the market stands, while the dragon statue remind the legend of once wild and dangerous place that turned into sophisticated royal residence.

These symbols of the settled areas are highly context dependent. They are the material evidence for the emergence of an unnoticed institution of the modern urban culture - the administration of the foundation myths. Myths are being considered as archetypes of the absolute origin of all aspects of human life and they are as old as humanity. Modern thought tends to picture out the archetypes of the origins of humanity in a similar way as modern monuments. For example, Lascaux - the cave-site with famous paintings on its walls is called the Palaeolithic Cappella Sistina. Such labeling stems from the institutionalized approach to foundation myths. Perhaps this process of real and imaginative establishment of the institution, which occupies itself with the official search for the absolute origins of human life, began with the mass pilgrimage to the Holly Land and the crusades in the middle Ages. This institution emerged from the development of judicial system and the Enlightenment that gave new impetus to creation of the first formalized inquiry of the past as part of an institutional (royal or aristocratic), administrative effort. Private and public collections started to appear as symbols of continuity between the legitimation of the modern social power that comes from the past and the exotic and curios objects from the same times. This symbolic unity, however, generates misunderstanding, which stems from the fact that modern public does not understand the true meaning and value of these artifacts. Because of it the only approach to familiarize with these "strange" objects remains the meticulous description with words. The language, however, is clumsy enough for representation of these otherwise visually appealing or repulsing objects. Large corpuses of data started to appear that posed problems how to manage and compare them. The extraordinary, strange and exotic became the only conceptual tools that were at disposal to explain the ordinary life of past

societies. The modern people in Europe followed the example of ancient Greeks who invented their mythology in order to explain the absolute origin of everything. As a consequence the classicism appeared as a model for picturing out the myths from the past in a realistic way that matches the present-day imagination about the past and the mythology it bears with its discovery. Italy, followed by Greece and the Near East became the new "sacred" territory that contained the secrets of the origins of civilized world. The following Romantic Movement was nothing else but reinforcement of the mythological past, enlarging it with the newly appearing nationalistic mythologies of the origins of different nations and their claims for world or regional domination.

These mythologies brought positive development of urban life as they helped establishing state, regional, and town museums and research and educational institutions that opened to the wider public the exotic and curious past. In communist and post-communist realities, however, this institutionalized presence of the past through its symbols lost its authenticity and, while deviating from the foundation myths of the urban and settled places, became part of the shallow political propaganda. The greatest pitfalls of these politics are in the substitution of genuine urban and settled contexts that are imbued with valuable social practices and artificial historical monuments. This is the case with Sofia, the capital city of Bulgaria. By far Sofia outruns with its glorious past Krakow and most of the capital cities and towns in Europe. The foundation myth of Sofia says that 'monkeys played on the trees next to the hot mineral springs' (reminding that African fauna still existed in the late Antiquity in the Balkans). The daughter of a Roman Emperor cured herself in the mineral baths in Sofia and the city was seriously considered to become the capital of the Eastern Roman Empire. Because of its mild climate and hot mineral springs Sofia was chosen by the early Christian authorities to convene for a symposium - such symposia lasted for more than few months as travels in these times were long and tiresome. Even during Ottoman times, Sofia was one of the centers of Orthodox Christianity within the entire Ottoman Empire. It was called 'The Little Saint Mountain' after the Saint Mountain - the monastic republic in the present-day Greece.

On this background the communist and post-communist propaganda effectively erased this glorious and rich past. The first major step in this politics was the creation of the 'National History Museum', which was accompanied by similar decisions in the other countries from the Eastern Block. These institutions started a kind of shallow nationalistic propaganda through all the possible media, excavations, research where manipulations of results and even arrival of aliens were fostered. The first pitfall of this politics was that the National History Museum was established into the building of the Palace of Justice - after all judicial system was reduced to mere formality. After long battle judicial authorities managed to return the Place, but this move was effectively repeated by moving the Museum of History of Sofia into the historical building of the Central Bath with mineral water. This kind of thinking and managing of urban life led to abandonment of all of the old recreational centers in and around Sofia, which was outrun as spa and recreational center by far smaller and with much less mineral resources small towns such as Hisaria, Velingrad, etc. This politics deprived Sofia from what Roman Emperors and high authorities of the early Christianity considered as a major recreational center and even considered it as possible capital of a vast Empire. From this perspective Bulgaria developed as a tourist destination of cheap tourism and short touristic visits and failed to put itself on the map of highly valued and better paid touristic destinations. This cheap management of urban environment is also visible in the current destruction of the monument of the foundation of Bulgarian state, which stays in relation to the major urban center of cultural and congressional life - the Palace of Culture. Both the palace and its twin abstract monument were built in a place of old barracks and a monument of the soldiers that lost their lives in the Balkan and European wars. This act was as a result of the communist propaganda that replaced a co-memorable and valuable social space with artificial urban space that was meant to present the success of the social progress of the nation under the communist regime. Present-day authorities decided to destroy the new monument and restore the old one, which is a continuation of the communist practice of destruction of old monuments and urban spaces as long as this is in compliance with their propaganda. If the new monument, which matches the basic vision of social progress defined by the big building of the Palace of Culture, becomes destroyed and on its place the old one - restored, this means planting an old value into a completely different urban setting. In my view if these two monuments stand together side by side, by the very contrast of their meaning and the social value that they bear, they would have been able to increase each other's authenticity and would have added greater value of this particular urban space, than the one or the other would have done as a standalone public marker.

Urban and settled culture has the potential to unite old and new urban spaces and monuments. Although spaces and monuments may be contradictive as ideology, culture, religion and differ in their urban characteristics that range from monumentality to miniature forms hardly noticeable on the streets, these spaces can partially or completely overlap one another and form united 'prospective' environments with distributed human values. This is so because human nature has built-in cognitive capability to engage with the surrounding world and the other people. As a general characteristic it requires diversity from the environment and variety of the incoming information. For example, the necessity of diverse information and stimuli becomes visible from the human capability of memorization. Very few people can memorize large series of telephone numbers in a telephone book. Still, even the most gifted persons in this practice have to group or characterize groups of telephone numbers so that to be able to recall them. In a long-term memory such information cannot be retained without regular repetitions and it gradually declines to the state of permanent and irretrievable loss. The same rules are valid for built environment. For example, with little variation

of the outside stimuli such an environment becomes monolithic and poses difficulty in spatial orientation. Thus, a different shape of a façade of a building or any other non-typical feature in an urban space gives a cue for orientation.

These external visual, audio, sensual, smell and other stimuli play a particular role in human cognition. It stems from the object's place in the subject - object relationship that takes part in the formation of unconscious skillful action Miller [1]. The latter cannot be established only through a rational scheme of logical sequence that can be precisely described by formal or informal language. Syntax as a logical backbone of verbal expression cannot be flexible enough to satisfy the requirement of the mind to immediately respond to incoming external stimulus that is important or dangerous. For this reason it is not appropriate to use the term 'syntax' when it is applied to the structure of an urban or settled environment. There is little logic in it and remains always contradictory when unifies one or several human values. This is so because the process of creation of personal and social values has an arbitrary element, which is significant to both conscious and unconscious processes of creation of embodied knowledge. To a greater extent it is determined by education, culture, family, etc. that are mostly applicable at the early stages of childhood and adolescence. Later individuals and social groups become exposed to the arbitrary play of various environments and in particular to the environment that they live in. For example, a desert or an arctic space can look to a visitor as a barren place, but for the native people this landscape is full of life. Explanation for this fact may be sought in the conceptualization of the unconscious receiving of information through the different cognitive channels such as visual, audio, smell, palpitation, etc. that become grouped into consciously assessed categories - good, bad, beautiful, ugly. In this process of categorization language starts to play the major role in arbitrary definition of what is beautiful and what ugly. Family traditions, education, culture, etc. determine these arbitrary categories of aesthetic appeal which remain somewhat superficial. In most cases, however, the moment of engagement of an individual with an object of the surrounding environment is sufficient to form an opinion. For example, tasting wine can send immediate signal to human brain and determine whether the wine is good or bad. Language is too clumsy in describing the taste of wine and this is why in wine cellars producers and customers always taste the wine - never rely on its language description. As the wine may differ from year to year and from one small region to another, the same happens with urban and any settled environment. Foundation myths diversify and give particularity to the sense of place of individuals and the groups of inhabitants in a big town or city. The existing arbitrariness of citizens' aesthetic appreciation of the development of the surrounding urban features and facilities becomes anchored by their compliance with the foundation myths, which help them immediately recognize the positive and the negative values that they bear for their own existence. The latter cannot be conceptualized properly and remain as vague, difficult to verbalize ideas, similar to sensing the taste of wine that cannot be well-described with words. People either like or dislike a certain monument or building but it does not deviate them from their daily routine. Yet the accumulation of these outside stimuli through daily commuting or walks forms particular life-long views on very important issues of modern life. For example, the greater part of the visitors to historical/archaeological museums consists of town dwellers - this is part of their culture. People from small villages rarely go to museums but they tend to visit in-situ archaeological remains that integrate past with the present-day natural environment. Thus the interaction between people through the interaction between them and the environment both built or natural goes through the process of naming, labeling and ascribing human qualities to natural and artificial objects.

Foundation Pits and their Context

Foundation myths are often expressed by deliberate deposition of broken human and animal remains and various artifacts: lithic earlier and pottery shards added in later periods. They define the foundation of a settlement or a house by both marking the building of the architectural structures above and the subterranean ones below the surface. Their evolution reflects the complexity of the interaction between the different elements of foundation myths. The latter act not in an automatic way and the resulting social structures form trajectories of evolution with diverse patterns. Although they look simple, their social role is complex and deviates from the modernist notion of material and human 'refusal' that aims at denigrating and labeling the so-called marginality of human existence. The material expression of the foundation myths is ubiquitous phenomenon and tends to appear in diverse contexts separated by vast distances where communication between the founding communities at two different points may look hidden. Most likely, at the beginning, these subterranean structures were used as inter-communities meeting point where to celebrate the ancestors' cults and negotiate exploitation of natural resources. These were cave-sites with parietal art but also some caves and sites were used as places for demonstration and execution of diverse techniques of production of lithic artifacts. For example, the tasks of butchering animals and cutting grasses can be done with few simple tools. Contrary to this assumption, at certain places the typological and technological diversity of lithic artifacts is high. In this light an interesting relationship has been observed. According to it the variability of operational chains depends on the dimensions of the living space - the bigger the places the greater technological diversity. This dependency is better visible in the scraper reduction sequences that have been observed in the Polish, German and Bulgarian Middle Palaeolithic. The opposing end points of this variation are marked by the two Polish sites: Ciemna and Okiennik. The first is a cave with a big

chamber hall, while the latter is a small one Tsonev [44]; Tsonev [45]; Tsonev forthcoming. Thus the Ciemna industry is similar to the Bockstein types of Fauskeilblatt (leaf-like handaxes) - Buhlen and Germolles industries, while the Okiennik - to triangular hand-axes, such as Bockstein, Klausennisches and Königsaue types - Bockstein group of industries, considered in the narrow sense of the word. This type of variation of bifacial artifacts seems to be ubiquitous and appears in some Palaeolithic cave-sites in North Korean part of the peninsula.

Apart from the cave-sites during the Palaeolithic, the foundation pits play significant role in the early sedentary and farming communities. Their appearance and spread is a non-linear, complex one. I used the Pontriagin's principle of maximum to describe their spatial behavior Tsonev [46]. This principle is used in the mechanisms of control of the trajectories of the flight of ballistic missiles, where any change in the control parameters can lead to radical re-direction of the trajectory of flight, which makes obsolete the political pressure exercised in the modern world that uses that kind of weapons. In the case of the spread of early farming, the aim of the qualitative model based on Pontriagin's principle of maximum is to simulate the spread of this phenomenon in terms of few controlling parameters that show that this is not a homogeneous process, and mass migrations are not necessary condition for the spread of farming, because, according to the model, the cultural diffusion is independent process from the culture gradient. This means that the diffusion of culture can happen only through particular channels of communication, despite the appealing characteristics of the culture gradient. It is the strategic goals of the human presence that shape the spread of special and exotic materials over long distances that equalize the symbolic complexes of the communities involved in this process.

Apart from the positive and negative structures such as the Alpine sites of rock-art and the Palaeolithic cave-sites, the natural formations like karst areas played significant role in 'augmenting' human communication and exchange systems and marked the initiation and evolution of social change. Generally, karst areas are somewhat neglected from the point of view of their role in the constitution of human society as understood by traditional archaeology. They are more common in Palaeolithic studies, but they are assessed according to their properties that channel particular sedimentation processes, the traps for micro- and macro-fauna both of which are used exclusively for reconstruction of paleo-climatic changes.

Karst areas are not barren places that predetermine the poverty of their inhabitants. They possess rich and diverse resources, natural monuments growing above the surface and below it, and have strong micro-climatic conditions that define the possibility for cultivating different kinds of cereals and fruits. Their most important social function is that they act as what is designated by the Turkish term 'Taksim' - one of the most critical urban places in the past and in the present. These places are normally situated above the populated urban environment and distribute the water along the channels leading to the different suburbs of the town. Karst areas play similar role. With their varied and monumental geo-morphological features and the abundance of large and small sources of water and karst lakes, these places play vital role in supplying the surrounding villages with water. For example, the large Beljakovets karst plateau above the town of Veliko Tarnovo, north-central Bulgaria served for supplying water to the town. It also channeled from the west the big canyon of the Jantra River that is known with its annual floods that devastate the town with a cyclic regularity with length of 7 - 8 years. At the same time few kilometers to the north of the Beljakovets plateau the Samovodene tell is situated. This is a Neolithic-Chalcholitic tell and despite the fact that it lies on the banks of the Jantra River, a single sign of flooding activities cannot be found on its profiles. Seemingly the Neolithic engineers were much better than the present-day ones.

A similar role played the Trieste karst area, northeastern Italy. The local Mesolithic communities used to exploit the distributed flint outcrops of the plateau. They show remarkable variability in their core reduction strategies. On the place of the flint outcrops masters used to test the natural concretions for their exploitation qualities. Yet, these people possessed prior knowledge and rarely their preliminary test for suitability of the collected material went as random hit that breaks in two parts the initial nodule. Most often they opened the one side of the concretion as a striking platform and the subsequent exploitation may go on by peeling off the cortex and make semi-round flaking surface. There was also a tendency of opening two opposite striking platforms that allow exploitation of the narrow side of the concretion by detaching alternating series of blades from the two opposing platforms. The blades detached in this way are characterized by straight or weakly concave profiles. The possibility of GIS for the analysis of this diverse pattern of distributed raw material supply and the core reduction strategies has been described by Tsonev et al. [47]. Perhaps the greater accent put on the demand for blades with straight and weakly concave profiles led to the import of long blades made of high-quality flints. Such long pressure made blades were found in the early Neolithic layers of the Grotta dell'Orso, Trieste karst and shown in the prehistoric exhibition of the Archaeological Museum of Trieste. The flint's variety from which these blades are made do not come from the Italian sources. In my opinion, they come from the high-quality Pre-Balkan flint outcrops in north and northeastern Bulgaria Montagnari Kokelj and Piano [48], Figure 3; Tsonev [49]. Perhaps this fact has to do with the geographic location of the Trieste Karst, which lies on the route for distribution of Alpine 'jade' axeheads into the Balkans that go eastwards - to the opposite direction of that of spreading Balkan high-quality flints to the west.

Foundation pits and social change

The Pre-Pottery Neolithic and the later Neolithic have been considered as exemplar phenomena of uniformity in architectural styles and material evidence. What has been popularized is the exclusive use of dried clay as building material. The two building techniques associated with it are wattle-and-daub and laying mud bricks - 'kerpic' walls. From the point of view of the comfort of living provided by these material and techniques it is that their insulation qualities is 5 - 6 times better than the modern concrete buildings and second to the better insulating baked bricks walling. The other natural and artificial materials such as stone, lime, specially prepared wooden beams, reed, grasses, and mud - are not mentioned at all even if they appear in archaeological record. For example, wooden beams survived in clayey and anthropogenic sediments not only because of the good preservation conditions but also because they were treated with a mixture of horse urine and bovine blood with additional water extractions of various plant minerals. Thus treated the wood does not decay when planted in postholes and receives fireproof qualities. Aligned with stones and a floor made of lime plaster under high temperature or just trampled clay floor make these buildings extremely difficult to be destroyed, healthy for living inside because of the annual plastering of the walls - clay has medicinal effects, and comfortable enough due to their insulation qualities that protect from cold and hot climatic conditions.

For example, the prehistoric inhabitants in Cayonu, Pre-Pottery Neolithic site in eastern Anatolia Ozdogan [50] recognized the diverse qualities of various materials and building techniques and used to change or combine them in the process of continuous occupation of the settlement. The beginning of the settlement started at the shore of a small lake on clay plain with building semi-subterranean huts with the use of bundles of reeds. The small round and oval huts were arranged around a circular open space as a center for community's activities. This is one of the many ways of building a habitus that incorporates not only the inhabitants of a given settlement, but also makes strong connections with the wider aggregated communities living in the neighboring areas. The attractiveness of Cayonu as a choice for foundation of a permanent settlement lies in the properties of the transient zone that unites diverse natural environments and resources - low lands, lakes, low and high mountains. Thus the central position of the settlement and the social care with which the central open space was created pre-determine the large scale evolutionary changes (without "hiatus") of architecture, building techniques and the layout of the village. For example, at this initial phase of the settlement wattle-and-daub technique appears in combination with stone foundations of the huts and plastered floors that are placed below the ground - perhaps to raise the buildings above the subterranean water and insulate from moisture. The reason for this change is not only to increase the comfort of living. This shows the greater accent placed by the inhabitants of each house on their living space that reinforces their inspirations for negotiations with the public authorities and the foreign individuals as part of the public life of the wider aggregated community.

At the end of the initial stage of the settlement Cayonu became known with the presence of "garbage" pits. The latter have particular interpretation which is typical for traditional archaeology and is related to the history of excavations in Cayonu. The tell-site itself was one of the first sites where the Pre-Pottery Neolithic was found and since then considered as eponymous of this early human culture. At the time the interest of this site spurred vivid debates among archaeologists about the models of transition from "nomadic" to sedentary ways of life and from hunting-gathering to farming. The publication of the excavation results, however, was partial and incomplete. The reports and different publications and novel excavations summarized by Asli Ozdogan (1999) give the picture of the end of the Round phase and the early Grill building phase associated with "garbage" pits and open spaces, considered as "rubbish" areas. In archaeological university courses and in textbooks the term "garbage" pit and "rubbish" areas do exist and are common designation of areas where past human activities were related to 'structured deposition' of symbols of their culture. This terminology comes from modern urban culture where an equation sign is put between "primitive" people from the past and "modern" people whose occupation with small-scale recycling of garbage was typical for marginalized, "semi-urban" population. Thus the created with special care open area that stands out in the general layout of Cayonu and plays significant role in aggregated structure of the life of local population is denigrated to "rubbish" area. This way of conceptualization of the past and the present is also typical for the modern urban culture, where the presentation of the news by modern media consists of mixed messages sent by "culturally" opposing calls both against racial discrimination and by calls for stopping "gypsies' violence". This eclectic attitude of modern culture does not have the quality to unite different symbols of the past as the settlement organization of Cayonu did for the communities that used to inhabit it.

In this interpretation scheme, the beginning of craft specialization and long distance communication and exchange came along with the second phase of the Grill Buildings, which have lime plastered floors that played the role of 'platforms' and the central rooms became larger and with rounded corners. The open spaces also enlarged, while part of them are still termed as "rubbish" areas, and with the start of the domination of the 'Channelled' building phase two large buildings stand out - the Flagstone and the Skull ones. In the first building three monumental steles, without decoration, have been discovered and this supposes the existence of similar monuments to be present in the Skull building. The evolution of these structures is typical for the burial places on tells - steles were broken and the buildings were buried with a fill of clean

(non-anthropogenic) sediments. The next stage - the Cobble-paved Building phase is associated with new technique of making 'kerpic' walls on stone 'socles' and creating larger inside spaces - closed courtyards. The next Cell building phase develops under somewhat different concept of building another Skull Building and Terrazzo building. The latter has floor of pinkish limestone brought from a great distance and a stone basin with carved human face. They are associated with the Plaza - large open space that takes central position in the general layout of the settlement. The final building stage is only partly discovered and has Large Room building with no burials in and outside it. It is also associated with gradual decline of the single style buildings which become more diverse, less spectacular and some of them are built directly on the Plaza. The important aspect of this evolution is the end of the mound's life. Pits from pottery Neolithic are made close to the old settlement.

This remarkable social dynamic, represented by diverse building techniques and materials started with pits and ended up with pits. This extraordinary sequence shows in a better way than Knossos or other tells that the act of abandonment of a mound does not mean that the area is totally depopulated. Right from its foundation Cayonu developed as a center of the wider communities' network where cults of ancestors took place in combination with burials of important persons. This hypothesis is supported by the fact that the last Large Room building phase contained no burials. It is likely that at this phase cemeteries started to develop outside the mound which determined its "abandonment". In fact, human presence continued with the nearby pits made by Pottery Neolithic people who by executing particular activities and deliberate deposition of artifacts paid their due respect to this specific for them place. In this sequence three main social changes happened. The first one is the establishment of a village that played central role in integrating the communities living in diverse ecological niches with distributed resources and environment settings. The second is marked by the beginning of the Grill building phase. It consists of activities typical for a ritual center dedicated to ancestors and which is associated with some rites of passage - stone basin with carved human face or the monumental steles in the Flagstone and possibly in the Skull buildings. The third stage is its "abandonment" which turned it into a sacred place where later Pottery Neolithic people paid their due respect to their ancestors.

The problem with Cayonu sequence is that despite its remarkable remains and diversity of artifacts it became deliberately forgotten. It is hardly mentioned in the novel interpretations of the process of transition to sedentary life and farming. The inconvenience this site poses to traditional interpretation schemes in archeology is that it shows continuity from the beginning to its end. This local continuity reveals gradual introduction of cereals, domestication of animals, increasing preference of obsidian over flint, and experimentation with semi-baked and baked ceramic figurines. The other inconvenient for traditional archaeology feature of this rich and diverse culture is its uniqueness. The other similar but unique in their own richness of material expressions sites are Nevali Cori, Gobekli Tepe, Catalhoyuk and all the other Pre-Pottery Neolithic sites. Despite their diversity, all the sites are united by the somewhat vague term 'Pre-Pottery" Neolithic lifestyle. The bewilderment of traditional researchers comes from the large settled areas that look like modern villages or even towns. Normally, the concept of pre-urban societies is associated with the end of Chalcholithic and the beginning of the Bronze Age in the Near East, Mesopotamia and the Pontic steppes (Tripilie culture in Eastern Europe). The earlier centers of aggregated settlements, including, for example, the Palaeolithic sites Dolni Vestonice and Pavlov are not considered as pre-urban communities. Despite that they have larger settled areas and outnumber in diversity masterly made artifacts crafted from different materials than many of the so-called per-urban settlements from the later periods they are still not taken into consideration as a possibility for the earlier appearance of urban-like societies. Modern urban culture seems to exert strong influence on archaeological explanation of this important human and social feature of the past societies (pre-urban lifestyle) that hide from the eyes of the wider public an important source of knowledge and its potential for developing touristic and cultural resource management of these and many other sites that spread from the Near East to Atlantic Europe.

Foundation myths and the wider social contexts of culture change

Modern urban culture conceives social change exclusively in terms of 'reterritorialization' where the process of replacement of old with new "progressive" human activities works in a mechanical way, while keeping its transcendental character. The "progressive" social variables that underpin the thus conceptualized social change are presented as universal features of ahistorical nature that exist outside human knowledge - just as nature is understood in opposition to culture. These essential conceptual dichotomies separate humans from their human nature, from their immediate human neighborhood, and from nature. In this light social change is seen as foreign to humans and they need to be constantly guided from an external to their social system force. Any approach to better understand the inherent characteristics of social change and how they evolve made from the point of view of the above outlined theoretical framework inevitably leads to uniformity of described social phenomena, their evolutional linearization as a simple sequence of time-space blocks of events, and as simplification of their technological diversity. Studies and analyses reach only the surface of the phenomena under investigation, which have no other option but to comply with the universally accepted criteria. Thus modern urban culture develops on the grounds of the mechanical 'reterritorialization' of large human groups - the so-called 'urban nomads'. These are the people that regularly commute from the surrounding small villages to the large urban ar-

eas or suburbs where their working places are. This process constitutes considerable part of the city traffic. These people tend to aggregate in transport centers and do not have time to visit the cultural and historical attractions of the urban area. Yet for these people, despite their marginal position for perception of cultural and heritage information, the foundation myths of the urban area where they work in is good enough to re-establish or create a strong sense of place. From this point of view, urban "nomads" with their specific territorial position and information poverty in terms of knowledge about the basic symbols of the urban areas they use to cross on a daily basis define their social role as a reserve on which the revitalization of the urban life entirely depends.

In prehistory such groups that are also called sometimes 'nomadic' are used to explain social change. For example, the increased nomadic way of life and climatic change are blamed for the decline of the thriving settlements with developed architecture, such as Pre-Pottery Neolithic B and C that are replaced by smaller villages with huts and small houses. For similar reasons the Pottery Neolithic in northwestern Anatolia and the Balkans is considered as uniform in terms of settlement layout and architecture. A closer look at these phenomena, however, does not confirm this uniformity and shows diverse settlement structure and application of different building techniques. The role of the prehistoric more mobile groups is not like that of the passive commuters in modern cities, and they participate on equal base in shaping the social life in their central settlements. The most visible signs of this complex interaction between the different social agents in these larger aggregated communities are two opposing architectural forms: tells and negative forms, such as pits, sunken houses, and dugout structures Tsonev [51]. Despite that these settlements are being considered as uniform, their "dominant" building techniques tend to change and co-occur with other techniques. Traditional archaeological interpretation will seek differences in the life on prehistoric mounds to be found in their territorial distribution. In this light the formal comparison will show that the eastern and central Anatolian tells live longer lives and seemingly tend to change on a smaller scale than the shorter lived but more varied as architecture tells in northwestern Anatolia and the Balkans. Yet the example of the great variability in settlement layout, architectural forms and building techniques in Cayonu is valid to a certain degree for the rest of the tell-sites, situated in these two vast geographic regions. The problem is that these changes tend to occur locally or at a small regional scale, thus creating wider mosaic-like landscape of different architectural forms.

The possible explanations of the question why these changes happen only locally may be found in the role the prehistoric "commuters" play in shaping their 'urban' environment. They consist of different ancestrally related groups of people that have to permanently negotiate their rights for exploitation of natural resources and assure access to communities' rites and values that are guarded by their representatives living on the mounds. Tells are 'special' places that conflate the interaction between the public, private and mortuary domains. Their correlative nature relative to the communities' rights and values transforms into condition that causes social stability and change. Stability is maintained through the constant influx of outside commuters that bring various gifts and knowledge that enhances the identity practices of the permanent inhabitants of the tell. Change is caused by the incoming knowledge that helps building new personal and group identities based on introduction of new techniques, knowledge, ritual, and craft specialization. This increased diversification of human experience can act in two alternative modes. The first one acts as an increased symbolic of social inequality in the public domain which in a gift-giving society is unstable and leads to fragmentation and dispersal of large, aggregated communities. The second one acts as a barrier that provides a strong denial of overt expression of 'wealth' and 'prestige' that leads to a visible outward homogeneity of the village architecture and lack of house decoration. The second mode may be considered as self-regulatory mechanism, where the wider network of settlements negotiated sustainable growth of food production and exchange through increased labor division at the expense of diminished manifestation of power and prestige.

The stability of a given tell-site is vital for the prehistoric communities represented on it because the tell itself conceived as a focal point of the wider network of settlements provides the constant flow of circulating object, services and social reproduction of the entire community. In such an economic and social environment stability may be achieved only through strict denial of aspirations of any clan, lineage or craft group for domination and exclusive control over circulation of gifts and services. The tightly knit together egalitarian network of intense human relations makes possible the further growth of tell-sites as tightly packed house settlements. Yet, this condition does not always guarantee the endless stable development of a given tell. It is rather a dynamic process that often shifts the focus to another center of the wider network of communities or, establishes control of a single clan or a kin group and thus causes radical changes of the settlement pattern, architecture and even abandonment of the settlement or appearance of twin sites like in the case of Asikli - Musular, Central Anatolia. In this dynamic environment the houses constitute this cultural element that undergoes numerous changes in building techniques, spatial distribution within settlements, house interior and decoration. This is mostly visible in northwestern Anatolia and eastern Balkans. Yet, a particular point of juncture that links this western sphere of development of the tell-settlement model with that of eastern Anatolia - Mesopotamia may be considered. Catalhoyuk East is called a Neolithic town by Mellart [52] and this shows the astonishment of the first excavators of the existence of these early, large aggregated communities. Whatever the doubts we have about the authenticity of most of the painted scenes, traces of numerous wall decorations (mostly geometric motifs) and some painted scenes (leopard) remain genuine (R. Matthews, personal communication). If we compare the richness of these house decoration and prestige artifacts in Catalhoyuk with the less dramatic assemblage character of the

northwestern Anatolian and Balkan Neolithic it evokes modern notions of central - periphery, rich - poor relations between these two regions. In my view the uniqueness of Catalhoyuk is that it shows extreme diversification of labor not only through sexual division, but it includes high craft specialization and varied gift circulation. The richness of the different social identifications (the numerous and varied paraphernalia of prestige objects and decoration) remained, however, closed within the walls of the houses. This overt expression of power and prestige had to be counterbalanced. The private domain (houses) left little room for 'privacy' between the tightly packed living spaces and conveyed the message of outward homogeneity and equality of the different social actors. Thus the monumental (positive) artificial landscape forms such as tells play the important role to maintain the cohesion between the members of the local community living together in a small place. The degree of this tense opposition is visible if compared with the free stand-alone houses at Ilipinar Neolithic village, Bursa region, Turkey Roodenberg [53], where the pressure caused by the emerging public domain was not strong. At Ilipinar, there is much less openly expressed prestige, which shows less agglutinative architecture. Contrary to this, Catalhoyuk East continued to develop as tightly packed settlement. The tell itself as a growing artificial hill continuously restricted the living area and finally it had to be abandoned only to move few hundred meters away and form a new tell-site Catalhoyuk West. We do not know how exactly it happened - whether the end of the East mound coincides with the beginning of the West mound or not (N. Hamilton, personal communication). But even if there is a certain gap between the two settlements, Catalhoyuk had better chance to continue its existence (with a short break or not) that shows the importance of the information feedback a given tell receives from the surrounding communities as a focal point for their activities.

The notion of monumentality that Neolithic tells imply is even better visible from the way the early Bronze Age mound Troy was established. There is a pronounced contrast between establishment and development of early Bronze Age mounds and Neolithic tells. Soon after settlement on a virgin soil, the inhabitants constructed a prominent citadel, probably, dated to the final Troy I Korfmann [54]. It is important to stress the fact that the settlers of Troy came to this new place with almost ready made concept of a 'citadel' model of social exclusion, which probably was rooted in the Neolithic past. The evolution of the tell settlements in Mesopotamia and the Balkans developed in two different ways. The real explanation of this generalized division can be sought in the ability of the prehistoric communities to conceptualize their different identities within their living environment. While in the East the concept of gods that unifies the community is internalized in the compartmentalized homes some of which turned gradually into temples, in the West the unification of a community goes through externalization - the overall monumental and homogeneous appearance of the tell-site conveys the message of a strong egalitarian order, that becomes rapidly replaced by its opposite - the citadel (the most obvious example is Troy).

This opposition reveals the ideology that lies behind the establishment of the early Neolithic tell settlements in northwestern Anatolia and eastern Balkans. A single tell-settlement as a monument itself puts an emphasis on continuity and durability. A tightly packed tell-dwelling alters through its monumentality the natural and human landscapes. As a product of an ancestry ritual it involves groups of people that control the practices of exclusion of within an outside - inside dichotomy (the commuting groups of people). In the same time such social organization of a settlement has the potential of creating lineages based on common ancestry and it provides a ground for an equal access of individual and collective social actors to the communities' values through home rooted ritual practices. That tell-dwelling emphasizes the ideology of unity and continuity even more becomes clear when we consider the settlement pattern of early Neolithic sites that surround the big tell sites. It shows rather small, satellite tells or short-lived settlements giving an impression of impermanence and variability, to which the big tells in the center stand in clear contrast. Thus tell-sites may be interpreted as social reproduction of strictly egalitarian society but also it may mask competitions that inevitably occurred within groups and separate households. While these competitions were kept inside the settlement, they needed a clear distinction from the outside world.

Contrary to architecture and positive artificial landscapes (tells), the negative forms provide different meaning and correlate different community values. As a metaphor they imply intense human occupation. It represents the symbolic transformation of a living area into a productive territory of altered materials, meanings, rituals and community memories. Negative forms are product and at the same time incorporate complex interactions between human and natural factors. They are not simply a material backdrop that illustrates certain aspects of life of prehistoric communities. Unlike tells and houses negative forms represent the discontinuity of human occupation through their general meaning as a boundary. Even disposal or deliberate deposition of certain artifacts and materials into a pit means establishing control over a part of a living area. It is conceptualized as a periphery that delineates personal, house and group identity. The foundation pits of a house or settlement take the meaning of symbolic border with the world of ancestors. Generally, negative forms relate the symbolic cycles of transformation of various materials and provide ground for their final deposition. As a mode of social activity they oppose architecture and positive artificial structures and thus incorporate human strategies of development and change through their qualities - productive territories and symbolic frontiers.

All these suggest that the establishment, growth and abandonment of tell-sites are dynamic processes, even more pronounced in northwestern Anatolia and the Balkans. The theoretical model presented above provides the possibility to give satisfactory explanation of the

strange development of architecture in some sites of that region. In general, the Ilipinar site, Bursa region shows three types of building techniques: (earliest) post wall, (middle) mud-slab, and (latest) mud-brick. The mud-slab building phase was abruptly changed by the mud-brick techniques at phase VII. The earliest houses are free-standing, single room, while the later show an increasing compartmentalization and became more agglutinated. The tell ends up with an abrupt change of architecture - appearance of temporary dugout structures before its definite abandonment Roodenberg [53]. A similar pattern has been observed in northeastern Bulgaria. The early Neolithic rectangular surface houses are present in the Samovodene tell Stanev [55] and the Ovcharovo-Gorata site. Yet in northeastern and northern Bulgaria the late Neolithic is presented by spacious sites constituted by dugout structures, such as the Usoe I site Todorova, Vajsov [56], while strictly rectangular houses are considered to appear in late Neolithic. In the late Neolithic in Thrace spacious open-air sites with dugout living structures also occurred Boyadzhiev [57]. These houses show extreme diversity in construction, compartmentalization and development.

It seems that these structures were subjected to intense and diversified activities. For the example, in Usoe II there were found more than 1200 end-scrapers Tsonev [58]. This is the biggest end-scraper assemblage from a single site that has been found so far. Architectural forms in combination with dugout structures also show greater local variability. In Thrace, each separate building in settlements with dugout structures shows its own independent from the other buildings evolution. Pits started to play major role in late Neolithic in the eastern Balkans as a whole. They tend to appear at the periphery of the settlements or form entire villages of houses with sunken below the ground floors. These types of settlements rarely appeared during the Eneolithic period. This relative geographical and chronological distinction underlines the symbolic significance of pits, dugout structures and houses with sunken floors. Their symbolic significance is characterized by several characteristics. The first one is that they emphasize continuity of a given settlement. The second one is that they mark changes in the roles different social actors play in the public domain. If compared the lifetime of open-air settlements such as Usoe I and II, Kachitsa, Kalugerovo with that of the big tells, the inevitable conclusion will be that open-air sites form short-lived settlements that cover large space and include often “hiatuses” that separate the different cultural and building horizons.

The appearance of negative forms as opposed to positive artificial ones such as tells symbolically conceptualizes the topographical and environmental complexity of the prehistoric eastern Mediterranean world. Peripheral areas with pits, pit-dwellings, shafts, dugout structures and sunken houses inform about the symbolic transformation of the settled area into productive territory. These may be intensive domestic use of end-scrapes as in the case of Usoe I and II or complex flint-knapping techniques in the Samovodene tell that accentuate labor relations with the surrounding landscape features rich in particular flint varieties and other hard rocks - quartzite. The range of ritual complexity involved in living structures is impressively large. Additionally, the diversity of the negative structures opposes the singularity and monumentality that characterize tells. While tells imply continuity and durability of human settlements, pits and other negative forms accentuate short and intense human occupation. This enlarged the potential of the social model of tells to incorporate successful strategies of change. This forms the following sequence of social transformation: living area - productive locality - archive of common memory and ritual activities. As a powerful tool for social change this sequence makes possible sudden and radical alteration of architectural forms, general layout of settlements and their spatial distribution. For example, the ritual shaft dug into the center of the Samovodene tell shows human occupation with increasing intensity at a particular area - dugout structure at its periphery and the system of kilns for baking pottery. They act not only as archives of transformed materials as leftovers of certain particular human activity, but also as archives of collective memory of the particularities of the settlement. More than that, the opposition between the positive and negative forms generates dynamic patterns of imposition of control over the periphery of human settlement and its natural and symbolic environment. This happens through accumulating rational and sacred knowledge that are expressed by different material forms. For example, in the ritual shaft of the Samovodene tell a variety of symbolic artifacts were found such as buccrania, an altar, and special vessels. This process is followed by increasing and intensifying practices of ‘sacralization’ and ritualization of the living environment (e.g. the clay altars in the large house at the Topolnitsa-Promahon site, southwestern Bulgaria). Pits start and end life of prehistoric mounds. Thus metaphors of working earth, keeping and cooking foods in pits, earthen ovens and other utility and ritual human activities do not show that much a passive admiration of the human and social lifecycles. It forms a far more dynamic concern with the whole surrounding environment and its uncontrolled periphery.

Conclusion

In this chapter it has been shown that the foundation myths and pits were equally used in the past and in the present for exercising control over the periphery of urbanized places. This control incorporated rich and dynamic social and technological tools such as transportation systems, transformation of different materials, building archives of collective memory, and dynamic scenes that enhance human perception. Elements of this social process can be traced back to the living spaces and flint-knapping techniques of the European Middle Palaeolithic that can be found as far as North Korean part of the peninsula. With the populating the Earth, elements of this bifacial technique with alternating

detachments of flakes made with strikes directed at wide angle to the blank's edge for forming arrowheads, spears, and tools are known from the Proto-Indian cultures in the Americas and in particular on the Pacific coastal areas of California in the North and Chile in South America.

It has been shown that the urban life is shaped by the arbitrariness of perception and conceptualization of the surrounding environment, either natural or artificial. Although the vagueness of this conceptual framework of human - environment interaction it exerts strong influence on the construction of settlement layout, architecture and monuments as archives of collective social memory. In this respect positive and negative examples of modern communist and "post-communist" urban culture have been shown. According to these examples what adds value to an urban environment is the diversity of monuments that come from different time, political regimes, religions, and cultural traditions. This is so because the arbitrariness of human perception and assessment of the social value of different monuments enables the urban environment to unite this diversity into unique mythological and stylistic features that enhance the sense of place in the local communities.

While the above considerations describe the stability of modern urban environment the bearers of social change in it are the regular commuters coming and going to and from the city central areas. They bring new mythologies and styles that require changes not only in transportation system but also in popular and high culture of the urban areas. In this respect the open spaces and subterranean structures (cafes, covered markets, architectural features such as archs and other) become convenient places for regular and short-time meeting of people. Because they are both personal and anonymous they are better positioned in creating common stories than the virtual media.

These features of urban life become visible in prehistoric past. Traditional archaeology sees prehistoric settlements as uniform in terms of their architecture, building techniques, layout structure. Contrary to this, it has been shown the extreme diversity of prehistoric settlements. It has been shown the complex interaction between the positive and negative artificial forms of prehistoric villages and their role for social change. The latter is constituted by the following cycle of repeated human experience: foundation of a settlement through inventing a foundation myth - transformation of living environment into a symbolic productive territory - abandonment and transformation into a sacred space.

Chapter 6: From Homo Habilis to Humans that Perform

Introduction

Personal ontogenesis is considered as playing one of the major roles in creation and evolution of human culture. It takes off from the gradual process of establishing subject - object relationship and the increasingly complex engagement with the outside world. Beyond natural instincts, it forms conceptual frameworks of immediate reactions based on 'pleasure principle': feelings of immediate pleasure and disgust. For example, home cats drink water from toilet sink basins, while humans do not. But this attitude is more complex than it looks like. For example, some people like spiders, while some form strong arachnophobia. It is not known (experimentally proven) why and how some people develop this condition, but it remains as one of the key elements of interaction between humans and their environment. This newly established component ('embodied exchange' as mediator with the outside world) of the personal ontogenesis creates a strong relationship between the human desire/disgust and the process of establishment of the subject - object distinction. Modern urban culture, in its mass consumption variant, views this prior relationship (abstraction of the notion of 'embodied exchange') as a basis for development of human society. This understanding has a profound effect on the building of the theoretical edifice of modernism seen as consumption (appropriation) of goods and services, which starts with the relatively simple assumption of 'immediate satisfaction' of a desire. Thus the consumption of 'Chili sauce' has a totalizing effect on human satisfaction as a rational choice that immediately satisfies the consumer. It becomes an exclusive tool for rational abstraction of the notion of embodied exchange, as its social role is to mediate between the field of desires and their satisfaction and the continuous through the entire human life process of establishment of subject - object relationship. This leads to the well-known Marxist theory of abstraction of labor, revolutionary development of the means of production, and the necessary condition of social contradiction (class struggle) as a means for progressive social change.

This conceptual framework leads to many contradictory consequences not only in the past but in the present. The most prominent one in the present-day realities of mass consumption is the bewildered personal choices which lack coherence in building consumption strategies. This fact is in stark contrast with the Marxist assumption that the process of abstraction of the notion of social exchange evolves infinitely, which pre-supposes "rational" consumption of goods according to the rule 'minimal cost - maximal satisfaction'. The modern culture of mass consumption shows that the process of personal satisfaction reaches level of saturation, which turns choices for purchase of most of the goods arbitrary. No one buys always at the lowest cost and is not always loyal to the products of a single company. Thus from the perspective of this controversy, the historical materialism that is considered to provide a single and all-encompassing explanation of human history through its revolutionary changes of the means of production (the cheapest products made by the novel means of production at any particular social stage) mediated by the measure of abstraction of human exchange systems - the appearance of money, fails to explain the simple fact of the existence of the economy of ancient Egypt for more than of 5000 years. This is the longest civilization in the written human history and only the hunter-gathering societies showed greater longevity and diversity in different geographic and climatic settings. The exclusivity of the ancient Egyptian economy lies in the fact that this is entirely based on funerary practices. From the poorest people to the rich and powerful ones and the Pharaohs, the entire population accumulates goods along their life only to deposit them in their graves as grave goods that are necessary for their afterlife. No other society in the past and in the present developed that far these practices of funerary economy. This fact turns upside down the modern understanding of the economy as rationalized relations of profit seeking self-aggrandizing agents. From their perspective, the assessment of how stable in terms of the functioning of the ancient Egyptian economy and society is, leads to the conclusion that such a society will inevitably fall apart after few decades. This is so because annually the Gross domestic product will be cut off by the loss of the social wealth accumulated through many decades of active life of the deceased persons that are deposited in their graves. The state would sink into deepening budget deficit and soon would go into bankruptcy. Thus this essentialist but otherwise well-developed theory of Simmel, critically presented by D. Miller [1] explains the phenomena that occur and are visible in consumer's society. It develops further the Marxist notion of fetishism and underlines its devastating effects on modern culture, which are mostly visible on social surface with their contribution to the superficial division of society. 'Thus vast supplies of products come into existence, which call for an artificial demand that is senseless from the perspective of the subject's culture.' Simmel continues to describe the effects of these mass consumption practices: 'The infinitely growing supply of objectified spirit places demands upon the subject, creates desires in him, hits him with feelings of individual inadequacy and helplessness, throws him into total relationships from whose impact he cannot withdraw, although he cannot master their particular contents' Miller [1]. For Simmel (ibidem: 80) the Walbiri's intimate relation to the objective forms taken by their social products, and their classifications of the landscape, might well appeared more 'cultured' than the attitudes of his German contemporaries, who, in spite of having at their disposal the enormous possibilities of mass culture, did not possessed the means for assimilating these into positive development of a person or group'.

The question that is raised by the above presentation is whether the mass culture and its enormous consumption practices establish a social organization with entirely negative consequences for society as a whole that has the potential to destroy the very foundation of social

web of relations. The real problem stems from the situation where humans create and diversify with an increasing pace the field of desires and by the increasing pace of their satisfaction through mass supply of goods, and through their indiscriminate consumption they fail to contribute to the personal and social ontogenesis. It looks like culture and cultural expressions step back and leave space for the infinite development of mass production and mass consumption where only cultural forms that possess the effect of immediate consumption and satisfaction of a desire have place.

The failure of modern archaeologists to properly understand the formal nature of the abstraction of the notion of 'embodied exchange' as a mediator between the field of desire and the humans - things entanglement Hodder [8] has devastating effects on professional and public understanding of past societies. This approach entails conceptualization of the past through uni-linear evolution schemes that are based on formal classificatory systems of artifacts, sites and monuments. Their abstract taxonomy and endless division into smaller classificatory entities has similar effects as the indiscriminate choice of objects for mass consumption, where immediate satisfaction is of primary concern. The consumption of low cultural forms (some modern urban sub-cultures) transfers into production and consumption of abstract but with lack of human content archaeological presentations.

There is a positive side of the culture of mass consumption, which is not obvious and requires efforts in order to make it a 'public good'. Contrary to the modern urban culture, which denigrates the role of mass consumption as public good and designates it by the label – "low cultural practice", this side of modern society proves that mass production and consumption are always associated with innovative technological development. On the social surface their main driving mechanism is the increasing satisfaction of the increasing diversity of human desires. There is one major misunderstanding with the notion of 'mass satisfaction'. It is a major simplification of social relations, because desire - satisfaction relationship transcends all characteristics of human existence throughout the entire human life. The all-encompassing role of this relationship is also reflected by modern technologies, which have the potential to raise ethical issues and raise social awareness of the complex problematic that coexist with technologies. In this respect modern technologies enable professionals and their public to better understand the past and the present society. This line of considerations, however, is superficial enough and does not provide satisfactory answers to the question why the culture of mass consumption is a 'public good', and how it reconciles the seemingly opposing notions of culture, conceived as human projection on natural and artificial landscapes, and on consumption - immediate satisfaction of a desire relations, that all provide conceptual framework for the continuous process of establishment and re-establishment of landscapes of high-technological production of goods and services.

The key concept for understanding the emergence of the culture of mass consumption and how it can be appropriated by the mass-consumers as a personal and public good is the nature of human culture itself. Its unique characteristic is that the relation between personal features and the general morphology of any artificial or natural objects forms a continuous process that evolves from the moment of personal engagement with it. This means that humans not only temporary project their cognitive capacity onto outside objects but through their memory they remain latently related to these objects and whenever necessary are able to retrieve back or activate this relationship again. The real problem in the proper understanding of this process is to find out criterion that can make a distinction between the kinds of objects that will establish permanent relations with humans and the objects that cannot do it. Such a criterion can be the survival of a human group and the biological and cultural adaptations related to it. Yet human culture is too little concerned with the problems and adaptations that lead to the survival of humanity. What constitutes its intrinsic and omnipresent feature is the play as an individual act of adaptation to the outside world. It occurs in the entire process of personal ontogenesis as a means for simulating the basic social roles and knowledge and thus transcending the boundaries of social control or taboos. The world that a person understands and dwells in becomes both imagined and tested in practice. It is imagined through mental creation of rules/constraints, representation of the playground, and active movement or decision-making according to the chosen rules/constraints and the defined layout. Play evolves as an individual act of performance that may grow or not in competition with close circle of individuals. Normally, it happens among the members of high-fidelity social groups and represents an individual learning practice of knowledge or social roles. In this light this is a typical element of the process of creation of human culture because the player cannot be separated from his/her play. From the point of view of the E-cognition Hutto, McGivern [59] different plays require different proportions of mind and body projections onto the field of play. At an initial stage of the play the naïve player would use greater part of its conscious control over its act of playing. This is an increasing process of embodiment of an action, which betters player's ability to perform with increasing precision and speed. As a self-improving behavior it is part of the technologies of the self and promotes personal development. The question is how an act can be transformed into a skillful action. The obvious answer is through repetition where the major role plays the multi-modality of perceptual experience. The visual control is not enough as it triggers other motor, somatosensory, and emotion-related neural networks in the brain. Motor neurons control movements of the body alongside various stimuli such as visual, auditory, tactile, and also map the space of action with the objects at hand and the actions of others. The embodied simulation allows linking space, objects and the actions of the others to our body Gallese [60]. These actions, however, are not unique of humans just as play is typical feature of many animal species. For example,

the above cited body and brain activities are endowed with mechanism for direct mapping of action perception and action execution, which is called Mirror Mechanism. The motor neurons involved in these actions are most likely analogous to macaque's mirror neurons (ibidem).

On this background although play constitutes a necessary condition for creation of culture through its qualities for improving personal ontogenesis, it is not enough to be able to create and maintain human culture. What lacks is the social element that can bring to it not only aesthetic appreciation but also ethical valuation. From this perspective only the humans that perform can build creative culture. This aspect of human culture involves not only the immediate "feeling" of inter-subjectivity and inter-corporeality in the playground but creates narratives and discourses that involve people that are strangers to one other. Digging deeper into the archaeology of human knowledge, traces of archetypical discourses can be found in the remote, non-literate past. Their narrative features are reflected and mapped out by the stylistic characteristics of their visual representation Foucault [61]. From this point of view performance consists of dynamic movement of representational acts that are able to create multi-modal stimuli to human perception. Although extremely diverse, all representational acts have similar characteristics that belong to verbal communication and literary formation of texts. According to M. Foucault they start with the 'enunciative' function of a statement. The accent here is not placed on the rules of phrasing statements but on their openness to the outside public. It is based on qualities like rarity, exteriority and accumulation, which, in turn, entail the priority of history in creating archives (stores of human and collective memory). Based on retrieving, human history discourses have features such as originality and regularity, through which they can create contradictions by allowing comparisons of facts and thus undergo change and transformations (ibidem).

On this base the proto- and early-literary traditions play significant role in formation of human culture. One way of establishing proto-literary traditions is the enactment of cosmological beliefs. The most prominent example is the monumental stone structures and art at Gobeklitepe, southeastern Turkey. Their elaborate construction indicates that at that time an already developed cosmology existed and appeared as a gigantic theater. Its orientations to the celestial bodies and the numerous carvings of snakes and vultures suggest that the theater represents and links together the sky, the earth and the underground world. The building of the round structures and their orientation and exposure indicate the existence of public mediators - shamans or priests that performed in front of the public scenes of the foundation myths with the theatrical means of dramatization. Although the space is formally locked up by the circles of monumental steles it is evocative in representing the entire universe Tsonev [62]. This monument poses the question why the tradition of building of this type of monumental architecture ceased to exist and has never been repeated in other places during the entire history of humanity? Another question that begs asking is why one of the most frequently carved pictures of snakes on the steles almost disappear and occur rarely in decorations in later prehistoric periods? The answer may be sought in the particularities of the discourses that are involved in public representations. The overrepresentation of some motives and elements make them banal forms, which as an element of oral human tradition is vulnerable to replacement. Thus the monumentality of the community center such as Gobeklitepe was replaced by the monumentality of the tell-sites, which require less communal efforts and acted with similar efficiency. The representation of snakes also becomes banal and was replaced by other more abstract depictions of the underground world. Rarely do they occur on megalithic settings such as the menhirs of the dolmen of Navalcan, near Toledo, Spain Ramirez et al. [63], (Figure 9).

Human performance played an important role in formation of modern urban culture. In the early urban centers, such as the town-states of the Classical Greece, the architectural buildings - the amphitheaters - are situated in urban centers and outside them in plain natural environments. They build visual relationship with the nature. Inside the towns they are constructed on natural hills and, despite this technical requirement for creating sloping platforms for the spectators, they underline the overall characteristic of a natural hill. Thus they introduce the wild but tamed world into the urban environment. Opposite to it, amphitheaters built in nature evoke the extrapolation of human nature into the wild or taming the wild through superposition of human cosmology. Ideologically, these large public buildings are quite similar to that of Gobeklitepe. Still cosmological views play significant role in creation of urban environment, where the places of entertainment are somewhat withdrawn from the public life at the 'agora'. They are disguised as something wild that has to be tamed by human nature or human nature is exposed to the wild. The architectural style matches the cosmological order that conceptualizes these public buildings as well as the literary tradition. In Greek drama the major heroes depend on the will of gods that determine their fate and give them the flavor of popular mythology. It is possible to speculate that the performances that were enacted at the various platforms of Gobeklitepe had similar mythological content that evolves through the simulation of a general cosmological order, achieved through dynamic architectural and natural settings. The personal fate of the hero in literary drama started to be related to political life through the works of Shakespeare. This literary move that severs heroes from the established social cosmology changed the geometrical position of theaters in large urban spaces. They remained tucked away from the centers of political power in urban centers where they still find their place today. Perhaps this is the reason why a large public building, such as theater or stadium or a hall with artistic performances can never be found at the very center of urban places and this rule is valid with no exception round the world.

Prehistory of Human Performance

Human performance may have occurred as early as *Homo habilis* and its way of making simple stone tools known as choppers and chopper-like forms. These are simple tools made from hard rock pebbles where two-three or more initial flakes were detached from them and the rest of the pebble - the chopper - may have been used for some work and then discarded. Probably the flakes with their sharp edges were used, while the core (chopper) was left on the spot for later exploitation - further detachment of flakes. These kinds of tools constitute the so-called Lower Palaeolithic Olduvai culture in Eastern Africa and they are found in low density sites with low density of dispersal of choppers and chopper-like tools.

Although simple, this early Palaeolithic culture poses important questions. Some researchers deny that the groups of *Homo habilis* and early *Homo erectus* were high-fidelity social structures. They use the term 'zone of latent learning solution' in order to explain the behavior transmission among the members of these early hominin groups Tennie et al. [64]. The general biological evolution of the gracile hominin forms (*Homo habilis* and early *Homo erectus*) in combination with the not that simple morphology of the choppers reveal a quite different possibility for explanation of their behavior. These groups of hominins derive from the evolution of robust australopithecines that lived about 2.5 million years BP. They adapted to the East African grasslands and to consumption of hard foods. Their tooth-wear was similar to that of chimpanzees. Alongside these robust populations more gracile populations - *Homo habilis* started to appear. The groups of Homo had to develop adaptations to more sophisticated food in order to avoid the completion from the low grade food of the robust australopithecines and the baboons and herbivores Layton [65]. The selective competition between these species must have been strong because there are three major adaptations of the masticatory system of the robust populations but seemingly they were not sufficient enough and they died out at about 0.9 million years ago. The adaptive response of *Homo habilis* was creation of tools that helped them to better adapt to additional food resources. These facts suggest that the groups of Homo must have had built in high-fidelity social relations. In fact, such relations are typical for the groups of other apes and monkeys such as baboons, chimpanzees and even among other species. Even if they used the sharp edges of the flakes elsewhere, which may be considered as primary working place, they would regularly return back to the sites where they can produce more. The low density of the artifacts may also mean that small groups of Homo would go to particular place and execute the same tasks of detaching flakes from previously worked pebbles - there are chopping tools with more than 7 - 8 negatives which regularly circumvent the sharper end of the pebble. This means existence of 'mental images' of forms that had to be attained and that the repetitive acts of re-visiting one and the same place over many millennia creates a cumulative learning culture that helps the gracile populations *Homo habilis* and later *Homo erectus* to develop successfully. And these sites may have been places that were situated off-site the main subsistence activities of the small groups of *Homo* that turned into places keeping memories alive and served as learning "platforms" where the skills and knowledge of how to make tools were passed down from generation to generation. This kind of behavior is the only way of accumulating knowledge and successful adaptations of gracile forms from *Homo habilis* to *Homo erectus,* where the later Lower Palaeolithic shows significant change in their behavior. The bifacial technique further evolved in shaping masterly made bifacial forms, for example, of the type 'tranchet cleavers' in the Eastern Levant Quintero et al. [66]. Human groups were able to plan and execute hunting on large fauna living on lakeshores, where workshops for manufacturing tools were also used for butchering with these more effective tools.

Similar features of human behavior are visible in much later archaeological examples. At the scale of the in-site distribution patterns, human performance remains situated next but off the production activity areas. My own observation and study of the materials coming from an occupation layer at Mentese site, Bursa region, Turkey showed exactly this pattern. The proximity of the artifacts has been determined by the difficulty in excavating this cultural layer. It consists of a strong clayey sediment matrix with practically no mixture of send that makes it like glue. The excavators had little choice how to excavate this sticky layer. The only option was to extract thin lumps of clay that were further excavated with precision. The archaeological materials from each lump of clay were collected and put in a single bag. Thus the material which I had in view consisted of spatially distributed individual human gestures that sometimes led to practical coincidence of the past and present human manipulation of the same material culture. Each bag of this archaeological archive opened a discrete view with different degree of the chance with which contemporary excavators discovered coherent past activities. This is a unique view because excavations like these are rare and imposed by circumstances such as unearthing archaeological materials in clayey matrix or in harder formations like breccia. Normal excavation practices aim at opening large enough surface with exact spatial recording of the artifacts. The spread sheets of the dispersal of individual artifacts within the existing structures makes possible the immediate and more formal assessment of how human activities group and develop. The problem with this method is that the overall dispersal of artifacts and structures lacks the scale of the individual human act that confines within the peri-personal space - measured by a hand stretched away from one's body. Besides, excavators deal with a palimpsest of diverse human activities and never know whether they excavate at the center of a structured activity zone or at its periphery. Further by applying formal methods to study the entirety of materials (human inclination for achieving totalizing reconstruction of past life) some important

artifacts are made by force to correlate with marginal and not-important ones. This is a method of one-to-one transformation of fragmented past reality into fragmented modern understanding about the past reality. On the other hand, the sheets with spatial dispersal of artifacts and structures can be informative but one has to go through several formal analytical trials in order to decide what constitutes the human nature of the important elements on the map and how to approach and study them.

The other approach, as it has been presented above, involves consecutive examination of a series of individual human acts in the past, and the present-day chance for discovering a genuine, past human activity, defined within the peri-personal space. According to it the chances for "unearthing" authentic past activity in one act are little but the focus of the observer is set properly. The latter 'augments' the past reality into a series of individual acts that evolve continuously, where the focus of the observer changes with one step at a time. This was the way I had a chance to study two occupation areas with dimension 4 to 2.2 m^2 - area 21; 4 to 3 m^2 - area 22, and two other smaller areas: 19 and 20. The first one - area 21 consists of 10 individual small series of artifacts. The second one - area 22 consists of 4 individual series of objects. Area 19 has one series and area 20 - three series. The number of artifacts in each series of all areas varies within the range of 4 - 5 to 7- 8 - 10. They involve artifacts made of flint, obsidian, clay (figurines), bone. The areas create a place called 'Open dump area' and according to the approximate frequencies of occurrence of the different artifacts four major activity zones appear, which are presented as follows:

I. Bone spatulas/piercers, pestles, animal figurines, sling balls, chipped-stone blank manufacturing, malachite pieces.

II. Grounding pebbles and retouched tools.

III. Obsidian bladelets and medium size blades.

IV. Blanks made by pressure technique and blanks made by soft (mediated) hammering.

Six small clay cones probably used for counting and play were found somewhat separately in area 21, while few anthropomorphic figurines are found among the materials of this open "dump" area, associated with a small figurine of a wild boar.

According to the proximity and the frequency of occurrence of the artifacts the, following two activity zones can be distinguished:

I. Inclusive pattern of activities: grounding stone and grain, bone and cooking, sling balls - probably associated with hunting, flint core reduction and making blanks, changing sickles - composite tool inserts;

II. Exclusive pattern of activities: presence of rare obsidian cores for bladelets - probably they have been processed elsewhere in order to obtain bladelets, initial preparation of blanks by reduction of flint cores, where further exploitation of cores took place outside the settlement - in specialized workshops, complete lack of quartz, quartzite, and sandstone with quartzite matrix - the tool production is entirely based on imported materials: flint and obsidian.

The inclusive area consists of domestic activities related to production and repairs of tools, cooking, performing time and energy consuming tasks, such as grinding stone and grain, some preparations for hunting particular small game animals. The other area is focused on import/export of valuable materials such as flint and obsidian and initial preparation of flint nodules for their further exploitation outside the settlement (probably in specialized workshops). This area may have been more associated with male activities of acquiring valuable materials and objects such as obsidian cores for bladelet production and initial training of apprentices in flint-knapping techniques. From this perspective the entire open "dump" area looks more like an active community center that is dedicated to carrying out important communal activities. The two particular areas do not form exclusive entities of human activities. They are defined in terms of the frequency of occurrence of artifacts, which is based on their relative proximity. On this ground a sharp boundary between them cannot be drawn. There are some unique occurrences and associations: malachite pieces are found only in artifact series 682 and 658 (the highest position) that belong to area 21. In the former setting (682) they are associated with two bone tools, while in the latter - with flint blade fragment, intact obsidian bladelets and a sling ball. This shows that the boundaries between the different human activities are once well-defined but most often they remain relative to one another. Yet the strong association and opposition between malachite with bone tools and malachite with flint, obsidian and sling ball may mean activities that define personal identities. The powder of malachite could have been used for making green color but green and blue colors have not been culturally recognized by prehistoric people. Another possibility would have been if green color were used for body paint, but then it would have appeared on stone bawls, pestles and clay figurines as some of them may have been considered as extensions of human body. Green stain on a bone figurine has been observed in a much later Eneolitic context in the eastern Balkans. But it may have been an accidental taphonomic change of the surface of the figurine as it may have been lying on top of a copper object that tinted a small part of its surface Zidarov [67]. The only other interpretative option that remains is that malachite pieces may have been personal belongings and some of them were used as beads or making other substances - medicinal mixtures, for example - that were associated with different activities. In one case it is related with a

bone piercer; in another, with possession of flint and obsidian blades and bladelets. This means that the one person was involved in domestic activities, while the other with exchange of valuable objects and materials and hunting particular small game (sling balls).

These activities cannot be classified entirely as material expression of professional (possible preparation of medicinal or other mixtures) or personal preferences and identity practices. The presence of material like malachite that possesses qualities for making various objects and substances that are not obvious in its initial, natural form may suggest that its presence in association with activities related to domestic and public domains turns these everyday practices into public performance. People enact their private and public roles with the help of unusual materials in association with their regular tools and activities. Spatially, these two series of artifacts occur at the opposing ends of the activity area 21: series 658 and series 683. This also means that the two types of activity areas: the inclusive and exclusive ones had two centers of performance of different types of human presence at the opposing ends of their central area, which is situated between three other larger areas.

Somewhat off-set from this complex and hierarchical open "dump" area, six small clay cones have been found. In modern urban culture such objects can be associated with games such as chess, 'tabla' - mobile game of competitive movement of objects according to the scores of one or pair of dies. It seems that Mentese Neolithic inhabitants had a special place for entertainment through competitive games. From this point of view the two malachite areas and the area with the clay cones created a multi-hierarchical spatial structure within and outside the main working area where personal and social performances have been carried out. This distribution also explicitly shows that the overall matrix of human activities does not evolve as domination of one or few productive activities. It looks more like a complex mosaic of alternating working areas with spots for personal performance and entertainment. On the other hand this miniaturization of the human presence through play and performance stays in contrast to the grandeur of the large stone and earthen works which remind modern public about the existence of strict cosmological order of the world and society. Modern researchers and their public alike tend to think about past societies as people imbued with religious and mythical beliefs which they take seriously as deep devotion that had them to work hard in order to build their monumental temples: tells or megaliths on hills - through which they recreate the cosmological order of the world. The inhabitants of Mentese showed exactly the opposite behavior. The tell itself is a small, hardly noticeable from the ground. Their alternating between work, performance and entertainment public area reveals that these people stayed away from the solemn behavior of builders of religious or mythical monuments and these activities constituted most of their everyday life. Yet archaeologists and their public still consider these people more like machines where their acts are pre-determined by dominant religious and mythical beliefs that make them work hard. Perhaps prehistoric people smile at their boring presentations in the museum exhibitions in large urban areas imbued with monumentality.

Drama and space

The arbitrariness of aesthetic appeal and the arbitrariness of form that stands for some idea make difficult sense making of any artistic presentation or craft object. The assessment of artistic objects derived from a different culture is almost impossible without knowing their aesthetic criteria, religious and cult practices, and the values that are shared by these societies. Thus raised hands of a figurine can be interpreted as an act of devotion to Gods - most often interpretations in archaeology are based on this formal criterion, while this act means simply greetings in a given small-scale society. In my view of greater importance for sense making is the knowledge of the underlying values of the society that creates individual artistic representations. Thus values of rhythm, harmony and peace can tell a lot about the complex patterns of textiles and carvings of a given society or take different meanings in other contexts of man-hunting communities Layton [24]. The symbolism of this sort makes little difference not only to the form through which the ideas are expressed, but also provides a deliberate ambiguity of the personalities that bear particular social values and related to them roles, which largely depend on the actual social and political context. This is the reason why the sense making of the interplay between symbols and aesthetic criteria depends to a larger extent on 'dramatization'. Drama is an artistic invention that aims the give a concrete meaning of generally accepted social symbolism. It provides the context and precise social characteristics of the enactment of emotionally charged representations of who is after whom and how the story evolves. Both the social context and enactment need a platform - space, where the stories happened and are given representational forms. In other words the space is a codified platform where social actors perform and address their messages to the wider public. It is exactly this codification of space that makes impossible artistic representations to be exhibited in the plain nature, unless these natural places are not imbued with human characteristics that underline the vividness of the messages. Thus drama and space interact together in order to make coherent the otherwise difficult to understand symbolism of a different or even our own culture.

Modern artistic behavior just as the prehistoric one creates codified places where to show the intimate relationship between past and present symbols of art, which finds its settings in highly formalized expression in the art installation in the Hilton Hotel Foyer, Malta Tsonev [5]. It consists of motion presentation of the emotionless representation of Roman-style 3D figurines on the background of emotionally colored panels (Lagana www.Academia.edu). This is a highly codified representation that opens the door for thinking about the ordinary past - emo-

tionless figurines situated in an unusual place - foyer of the Hilton Hotel, which is not accessible by the modern, ordinary public. As an emotional scene it underlines the exclusivity of engagement of only selected public with the past realities that promises emotional journey, which is excluded from the ordinary museum exhibitions. This is a completely novel way of discovering the past where the drama of present social exclusivity is transferred into the drama of the true knowledge of the past. The effect of this dramatic rendering of fragments of past reality is the irreversibility of this scene. For example, the entire representation cannot be put into a cave or a closed dark space, because it will lose its dramatic effect. Out of place would be also a large copy of the statuette or representation of the Venus of Willendorf II put in the foyer of a Hilton Hotel. Contrary to this, the large statue (a copy) of the small figurine Venus of Willendorf II suites perfectly well in the natural environment of the Wachau valley, lower Austria where it was found in the eponymous site. The reason for this incompatibility between Roman figurines and Palaeolithic ones is that they belong to two different cultures that relate to two different concepts of high art. The Roman art is conceived as belonging to urban culture, which is opposite to the Palaeolithic art that belongs to nature. "Highly civilized" people would opt for urban expressions of art and would rarely go to the countryside to visit old 'ruined' archaeological trenches of layers containing remains left by not yet 'civilized' prehistoric people. These are the roots of the source of drama that evolves with the Hilton presentation of Roman-style figurines. It is only the civilized past that is allowed to be presented in a novel way in modern urban settings. Perhaps this is the reason why the Venus of Willendorf II is exhibited in a special dark hut at the exhibition of Naturhistorisches Museum, Wien. The role of this hut is to protect this figurine from the surrounding urban environment and conveys in a better way the spatial and (special) place this figurine has on the travelling routes of the Palaeolithic hunting groups along the Danube River.

Figure 6.1: The statue – copy of the small figurine of Venus of Willendorf II and me when I studied the origins of the Gravettian culture.

The presented-on Figure 6.1 modern statue of the small figurine suggest the special role anthropomorphic figurines played in the changing mode of life of the Upper Palaeolithic communities that is increasingly featured by territoriality. Although these communities were mobile in nature following the big herds of migratory animals, they seem to develop specialization of hunting practices on different animals and control over wild or semi-wild herds of animals (not all animals from a wild herd migrated, some stayed at one place to pass the winter). Thus some locations became very important places on their long routes of seasonal migration and developed as almost year-round camps. Anthropomorphic figurines may have marked the importance of certain places within the wider geography of human occupation. They also signal the particular human presence and individuality inside the settlement. In this way they may be considered as spoken out reality Tsonev [62]. In particular the female Venus figurines are iconic presentations. Formally, they are made in highly stylized manner without facial features. Perhaps, this generalized iconic representation along with the great variation of the individual iconic features shows that the ancestry of a given group of people is related to particular place.

Another important feature that these figurines have is that they represent an introverted image. It is connected to the humans' strong regularity of the perception of these images. This is based on human intuition that automatically corrects the 'right' position of observation. It is like we have a center of "gravity" in our minds that corrects immediately "wrongly" placed images. This is not the case with some Neolithic and Eneolithic figurines. Some of them are quite abstract and stylized and if we look at them from various viewpoints this makes little difference

for our perceptions. There is not a center of gravity in our minds that would suggest what is right or wrong position. The Venuses are made in such a way that they fix the observation points around them. The space from which they can be observed is explicitly outlined by the small dimension of the hut covering the showcase of the Venus from Willenforf II - this is the peri-personal distance. This also means that the design of the makers of these figurines aimed an intimate, individual interaction between the figurine and the observer. Thus this introverted image may be compared with an extroverted iconic sign such as postal stamps. The latter consist of a blank, simple form and a superimposed image that combined meaning is reduced to simple utilitarian and decorative functions. Whatever position they are fixed on the envelope the letter will go to its destination address.

Another important feature is that the Venus figurines represent certain 'autonomy' of aesthetic criteria and communal values of rhythm and means for measuring time. The rhythm comes from their compact appearance - they are often made from a single piece of sandstone or ivory and are thick and hard to break. Each part of their body, especially hands and legs are recognizable and despite their different style of execution they differ from the Neolithic and Eneolithic figurines. Thus each part stands for the whole and bears different meanings of community origin and human life-cycle. The often encountered 'steatopygia' probably means pregnancy and thus this female representation means measuring time according to the approximately equal length of time for pregnancy.

The overall effect of singularity of the appearance of these figurines is achieved by the singular way each part of their body is made. The figurines themselves are a summation of these separate, mutually incompatible according their proportions components. This is why the Venuses show quite voluminous or out of proportion bodies. Their common particularity as a result of this way of making them is that they can be observed equally well from any arbitrary angle pointing to their front, back or sideways. Most importantly the figurines are designed to stand alone in an open, non-organized environment. They may be transported in a bag or, placed somewhere in a dwelling without any associations with other objects or furniture. A Venus alone stands for the whole world of Palaeolithic people and as such it preserves human integrity.

Because of these qualities Venuses do not need an artificial environment such as the foyer of Hilton Hotel or museum exhibition halls. This is also due to their emotional appeal that intimately reaches their observers. They directly appeal to our imagination and intrigue us. Later Neolithic and Eneolithic figurines do not possess this quality. Perhaps this effect is achieved by the singularity of execution of each of their parts that relates to the present-day symbolic culture that is deeply embedded in human consciousness. They are able to literally draw their observers into the micro-social context of the behavior of Palaeolithic communities. They signal out something that stands for significant events in our past and compose important expectations for the future.

From this standpoint we can understand the Venuses sudden appearance, short lifetime of their existence (few thousand years) and rapid and almost complete disappearance. We do not know their exact meanings but we know the qualities of those meanings. The figurines constitute a "compact" and "complete" message shared and valued by almost all Palaeolithic communities. They stood for the growing complexity of human relations to a point they become redundant (banal) from the "repertoire" of the final Palaeolithic communities. But the initial signal was so strong and their iconic presence so vivid and finely tuned with human relations that the "image" was remembered and re-appeared in more or less similar form in later periods but with entirely different meanings. Perhaps this was the first and the most widespread human performance during the Upper Palaeolithic and the entire human prehistory.

Conclusion

Personal ontogenesis and the ways of carrying out techniques of the self and communication turn individual and social agents into makers of genuine human culture. At first glance this understanding of the origins of human culture both in individual and historical meaning puts the primary role of 'play' into the center of human activities. There is no doubt that such activity enhances learning of new knowledge and defining social roles. But it is based on human instincts. In it, human perception is 'augmented' by an artificial, imaginary setting through providing a range of cognitive stimuli that have the capacity to turn into practice repeatable, formal exercises. The successful handling of this practice by gradual reduction of the generated by this concrete play cognitive load and conscious control makes possible achieving the state of 'skilled action'. The nature of skilled action, however, is related to peri-personal space, while remaining separated within the technologies of the self - for example, mastering control over a ball, running, skiing, etc. These practices are more related to the physical activities of hunting where the body agility and fast reactions help achieving success. This type of understanding puts an equation sign between present day hunting and that of the prehistoric hunters, and gives negative coloration of Palaeolithic hunters and gatherers as primitive cultures. Modern urban culture depicts them as ape-like creatures armed with clubs or wooden spears. This, however, is only a small, marginal part of their rich and diverse culture. This is so because, it is not the play as such that creates cumulative human culture. What lacks is the interaction between the author of the play and the public, which inevitably leads to ethical and technological problematic. Thus moral environment and ethical discourse are necessary for re-creation of cosmological order or the humanitarian base of social relations. They are the fields of the proto-literary and

literary traditions that are objectified through monumental buildings like the one on Gobeklitepe, or the amphitheaters of the Classical Greece and theaters from Shakespeare onwards. Because of their sensitivity to the various problems of ethical and humanitarian issues their place in urban environment remains always in the periphery of the centers of administrative and political control.

This spatial and special 'situated-ness' of the places for entertainment and genuine human performance is an inherited social feature from the times of the hominins - *Homo habilis* and *Homo erectus*. Their tool-making practices turned into places where cumulative culture was created that allowed them to outrun the other robust hominin forms of australopithecines, baboons and herbivores.

Similar feature of human performance have been presented by the much later aceramic communities of Mentese, Bursa region, Turkey. Special materials and specially made clay cones were used for building personal and group identities through various social performances and entertainment - mobile games. It has also been shown the special role the social and cultural contexts play in sense-making of the arbitrary interplay between the aesthetic criteria and symbols. In this respect examples have been provided that illustrate the public understanding of symbolism of representation of Roman-style figurines in the foyer of the Hilton Hotel in Malta. While this installation possesses innovative technical qualities and social meaning, it is irreversible compared to the public exhibition of the figurine of the Vennus of Willendorf II in museum settings, and its large copy in the form of a statue in the natural environment at the site it was found. This contrast between these three types of public installations of works of art from the past at the background of modern urban and natural settings reveals the importance of the new technologies for sense making in the modern societies of mass consumption. The public's good that is created by mass consumption practices can be achieved only through technological development and high craft that help "consumers" to consume objects that become hermeneutically characterized and conceived as valuable ones. Thus Palaeolithic hunters survive due to their ability to perform with objects and ideas that are capable of reaching out the hearth of modern urban culture.

Chapter 7. Modern and Neolithic Skyscrapers

Introduction

Among the strongly developed, inherent human desires there is a particular one that makes people wish to rise up above the ground and look from bird's eye the world below. It is conceived as celebration of senses that "opens" up at a high point the proper view of what is below and imbues a sense of individual superiority. High grounds are the physical measure of personal success and play the role of markers of personal and collective strategies for triumph. These triumphant feelings are expressed by common language markers such as the definite article in most of the languages I use; for example, it is said 'the top' or 'at the highest ground', etc. More than that the 'high grounds' are the holy grounds of everyday life because they superimpose not only diverse visual, sensual, and even tactile stimuli but also accumulate individual and collective memories. They are the usual social marker on which the interplay between the stimulated perceptions of an 'augmented reality' interplays in a complex way with the accumulation of knowledge and memories on an imbued with individual and collective features praxis. The high grounds in and around a village (small or big) create the analytical framework that provides ethical discourse, aesthetic criteria, and rational argumentation of the identity practices of the entire community and of its individual members alike. The simplest example is to ask where the sacred places of a small village can be found. The prevailing answer would be that they are situated at the nearby hills or raised ground. In these natural but sacred settings, the modern religious views play a superficial role, while the traditional pagan views of the villagers more correctly integrate local communities with their physical and social environment. These social markers provide the social space for the individual and collective calendars of alternating seasons of labor and festivities that present the villagers with the cognitive and conceptual ability to make sense of their personal identity and social relations.

The social significance of the high grounds encompasses the entire life of a given community. Because of their multi-modality in accumulation of various and often contradictory views and memories, they can play their social role not only through the disguise of religious sanctity but also through 'historical significance', 'high or low culture', 'natural or human beauty'. For example, the village settled nearby the famous site of Troy, Turkey originally comes from the town and the villages around the town of Sevlievo, Bulgaria. After the liberation of Bulgaria these people were resettled by the Ottoman authorities in the region near the ancient hill of Troy. After few years the entire village moved few kilometers away exactly next to the monumental site of Troy. The reason for this was that the local population was not quite positive in their attitudes towards the migrants from the Balkans. In order to protect themselves from these hostile neighbors the migrants moved and settled next to the monumental town of Troy so that the famous site could protect them and legitimate their rights to live in that region. At that time the news from Troy full the European newsletters with news about the 'great' archaeological discoveries and the stories that made Greek mythology reality.

Another example of the multi-modality and multi-vocal nature of high grounds is the tallest tower in Siena, Italy - Torre dell Mangia. It is taller than the main cathedral and its name is far away from the religious piety and devotion. The tower is named after its first bell-ringer and his notorious gluttony. In a wider context the citizens of Sienna found better way to defend themselves from foreign invaders and local rulers by melting their hearths with excellent food. This culinary understanding of the town's history is somewhat shaded by the modern tourist and advertising industry. The shape of the tower is almost always present on the postcards and materials advertising Sienna, but its name is rarely mentioned and remains unexplained to the public. The overall presentation of the town falls within the conceptual framework of traditional historical narratives of feudal and religious institutions and buildings that unfold the stories of the great families that ruled the city. Yet the 'profit-eating' tower shows that the small medieval town had a big hearth for making excellent food, and people valued more this side of town life than the borrowing 'historic' narrative of great historic events.

Towns even in medieval times needed towers that had to compete with the tallest religious buildings. The tower in Cremona, northern Italy is the oldest and tallest brickwork bell tower in Italy. Little higher are the tower of St. Martin's Church in Landshut, Bavaria, and that of the Church of Our Lady in Bruges, Belgium. Yet the tower in Italy is in conceptual contrast with the religious towers in Bavaria and Belgium. The Cremona tower has at its top the largest astronomical clock, representing the sky and some known celestial bodies and the movement of the Sun and the Moon. It dominates the town of the workshops of the high-craft masters, who make the famous musical instruments.

Towers in towns are associated with other famous stories. For example, the inclined tower of Pisa is known for the experiments of Galileo Galilei with gravity. It seems that the accumulation of knowledge and crafts, such as the medieval towns in Italy, posed the social necessity to build towers at the center of their public life. It is related with the problematic of measuring time and appearance of modernity - the new pace of busy life in townscapes and their inhabitants. Although necessary this is not a sufficient condition for the appearance of modern urban life. Urban environment offers a variety of visual, sensual, tactile and auditory stimuli to its inhabitants. The high towers alone by their physical appearance alter significantly the visual landscape of the town. This is traditional understanding of the 'skyscrapers' whose tallness is the main feature. Such buildings, however, are associated with a number of other important human activities that not only depend on time but also on

distributed human knowledge and embodied experience. For example, the simplest but one of the most significant examples of the influence of towers on life of urban dwellers is the dress-code. The sense of community belonging and shared values of creating productive and profitable environment makes citizens to be aware of their appearances. Fashion design became a distinctive feature of citizenship and appearance of urban style of life.

The dress-code related to tall buildings and urban culture remains somewhat poorly understood and mystified phenomenon that sometimes-provoked amazement. For a mechanical engineer it is not understandable how a dress made by a top fashion designer is more expensive than a luxury car. The amount of labor, put in producing a motor and an automobile, is incomparably greater than that of the design of a piece of cloth that is cut and sewn together in some fashion. How is this phenomenon possible? It is obvious that neither the engineers that build a luxury car nor the fashion designer cheat. The public willingly buy both types of products, but the preferences are on the side of fashion: cloths, shoes, bags, jewelry, etc. The mystery that associates this choice is related to the almost unconscious, deeply internalized understanding that objects such as clothes, shoes, and other personal belongings form inalienable extension of human body. In this relationship it is not important that a person plays with expensive toys. Also, these items cannot be seen as a mere satisfaction of a desire of a consumer to put on some professionally designed cloths. Contrary to this way of understanding, the personal belonging of body related artifacts has the social quality of permanency. This is another way of expressing the social role of personal performance in private and public domains that underlines the lifelong professional or public profile of a person. Once inherited or acquired the particular social role becomes permanent and as such it requires artifacts and public environment that enhance it. Thus, a king will be associated with his/her crown, while the bagger - with his/her bowl. Both, however, would require the shadow of a public tall building or tower where people meet and perform their personal and social roles. Why do they need the public tower and not another artifact or environment such as luxury car, expensive house or even palace? Palace is more appropriate for a king but still it lacks permanency as human history is full of examples of deposed rulers that make this association a bit unstable. Luxury cars or expensive houses also lack permanency because wealth is associated with fortune and this is vulnerable to change. A person can be driven in a luxury car one day and the next one can walk on the sidewalk. On the other hand, personal belongings that embody particular personal and social behavior such as clothes, shoes and jewelry underline the unchangeable social status of a given person. A deposited king still can behave as a king or a ruined rich person can continue to behave as such. The social status and personal behavior and family tradition have the quality of longevity that survives the changeability of social relations.

The excellent food that Sienna is famous from its medieval times cannot be considered only as tourist attraction. Towers and open spaces that often share or compete for the place at the center of public life provide the permanency and neutrality on which sensuality of food consumption is set as primary feature of public life in an urbanized environment. The latter forms a complex node of superposition of events over experiences that turn back into events. The perception of this live culture differs from that of experiencing a palimpsest, a notion that is used to conceptualize the artifact distribution in an archaeological layer. The first type of perception involves the wider rural region near the town that supplies foods necessary for the culinary practices, typical for part or the entire urban space, and for the sensual experiences of the consumer. In this way the town dweller or a visitor develops strong sense of place that is unique, and that puts greater accent on personal and collective profile of the citizens of a given town and the villagers living in its vicinity. This type of communication projects shared values of doing excellent work (culinary practices), which is highly appreciated by the local population and foreigners alike, onto the wider rural environment that has the potential to integrate different types of dwellers and economic practices with foreign cultures and natural wonders. This projection of cultural and political habits has no limits as long as there are contacts that may stretch overseas. For example, the coffee making and drinking combined with smoking Caribbean cigars is embedded in typically tea drinking and light cigarette smoking culture in the area of western Baltic Sea and South Scandinavia.

Another set of stimuli: visual, tactile and auditory come from high crafts concentrated in specialized workshops in towns. For example, the artifacts made by Master of Musical instruments please customers and visitors with their harmonic sound. In addition, the tactile experience of touching beautifully made objects stimulates immediate satisfaction of pleasure, combined with the visually appealing forms and materials. In the same way artisans combine foreign materials, designs and styles into a local product with its own singularity as combination of meaning, value, and old and new aesthetic criteria. The exhibits of such artifacts formalize space, because most of them require specific points relative to the distance and angle the observer has to take in order to perceive properly their qualities.

All these different experiences of various human activities necessitate the presence of neutral space. If knowledge, memory, skills, and embodied action are distributed and operate with mental cues within real and artificial landscapes, then wisdom - the intensive process of sense making - requires independent and neutral environment. The former process needs to be validated according to the value system and profit/cost assessment of not only everyday life, but also in view of delayed expectations of profit and creation of personal and public good. In this way the complex process of assessment of accumulation of knowledge, important information worth memorizing, skillful actions, and masterly

executed tasks goes through several stages of sense making that are described by A. Giddens [3].

I. Hermeneutic Elucidation of Frames of Meaning

II. Investigation of Context and Form of Practical Consciousness (The Uncounscious)

III. Identification of Bounds of Knowledgeability

IV. Specification of Institutional Orders

These are cognitive and conceptual levels of building new knowledge. They are cognitive because various cognitive stimuli are involved in perception of diverse human activities, social phenomena and artificial and natural environment. They are also conceptual because the process of assessment of these activities and environments is necessary in order to include consciously ascribed values and profitability, which are indispensable for human and social adaptation to changing outside environments.

From this perspective the defined by A. Giddens levels of theoretical frame-working of social research superimpose one on top of the other in a vertical way - at the bottom lies the hermeneutical problematic. But the function of these levels is not mutually exclusive and they work both ways: from bottom to top and vice versa. Their importance for my work is that the bottom level starts the entire framework of study as it requires hermeneutical recognition of the ground level of a tall building (skyscraper) in an intensely populated urban environment. It looks like a heuristic task of getting to know the particularities that characterize a given environment. For example, the question is how a person can recognize whether or not a given shoe-making and repairing workshop offers high-quality services. The simplest answer is that customers get to know the services they receive by experience - after several trials. But this approach and understanding is far from enough. There are a number of cues in language, managing space at the front of the workshop, exchange of information with other customers and finally comes personal experience. Besides, there is always a strong competition between different services and retail centers as they tend to concentrate on the ground levels of tall buildings and in their immediate vicinities. So the ground hermeneutical levels of skyscrapers offer the primary characterization of an urban environment - intense interaction between town dwellers and retailers and services.

The next, higher level of tall buildings offers higher mode of investigation. It involves the context and form of practical consciousness. Normally, it is populated by companies that operate at higher levels of human interaction such as lawyers, notaries, dental and medical services. These services formalize personal and social interaction and provide logical frameworks of what may be called 'good' and responsible human action. For example, it is commonly believed that lawyers can give good advice how a person can behave in a perfect manner in a formal environment of interaction with banks, state agencies, and insurance companies in order to achieve maximum profit without violating any legally and socially sanctioned rule. Spatially, these services are located higher than the hermeneutical level but still can be found on the ground floors of the buildings surrounding a skyscraper. These two levels of investigation are vulnerable to the horizontal regionalization of human activities and situate themselves at the comfortable levels for easy access of the public at large.

The other two levels of investigation are objectified by institutions situated almost exclusively at the higher levels of tall buildings. These are agencies and companies for urban planning and architects, software and transport. They define and control how far a given human activity can develop and provide legal, technical, and spatial control over their development. Their main purpose is to provide boundaries for the knowledge required for a given economic, artistic or craft activity and define the best place where it can be established. This is also a place where a separation between the different knowledge domains happens that is necessary for developing one or another activity. This is also done with the purpose to make these activities identifiable and immediately recognizable within the general discourses of urban life. These discourses concern issues such as where to find the best place to live, easy access to education, medical care, transportation and other facilities. As it has been mentioned at the beginning of this book the easy access to cultural facilities is never taken into account. But this is due not to the nature of cultural activities. Contrary to this, culture is omnipresent in all human activities and as becoming banal it remains in a latent form in all decisions a person would make in situating his/her presence in an urban space.

The highest level of investigation is presented by agencies of specification of institutional order. These may be various ministries that can take an entire tall building from bottom to top, governmental offices of various kinds, trading companies, or agencies that control entire economic sectors. Their main purpose is to project spacious human activities onto special places or directions that maintain development of entire industries. Their approach to these spheres of human activity is the most formalized one. Normally, they use extensive formal methods to analyze big data that are necessary for proper establishment, measurement and definition of ranges of human activities, starting from individual, small group to large collectives' ones.

In association with these activities, which require human effort and devotion to formalized, paper demanding work, there are always restaurants and cafes. Normally, they are situated on the ground floors and on top of the buildings. While it is understandable by their hermeneutic nature of sensual experience of food that relates people with their wider populated environment, the ground floor restaurants fulfill exactly this way of interaction with the formalized urban world. But the question is why restaurants are almost always present at the top of the skyscrapers. The excellent view is not a sufficient answer. On the one hand this situation may be compared with the prehistoric tell-sites which start their life with foundation pits containing refuse of mass consumption and end with pits in their periphery also full with remains of mass consumption. The tell-sites may have controlled the population living far away by requirement of specific economic practices and exploitation of natural resources: growing particular type of wheat, for example. The same is with the highest level of institutional control in tall buildings that project and control spatially and in details the workflows of entire industries. Control and consumption are unconscious psychological states that emerge in a bodily situated symbolic action of consuming food at the high-ground from which people can have the maximal view over the surrounding environment.

Archaeology of Skyscrapers

Humanity used to appreciate high grounds as early as Middle Palaeolithic. Hills and canyons have been used as instrument through which they were able to observe the large herds of migrating animals or specific habitats of difficult to catch animals such as ibex, deer, wild pigs, etc. Generally, these sites are situated on high grounds like the small Okiennik cave, Poland, sideways to canyons - Temnata cave, Bulgaria or at the bottom of a river valley - Ciemna cave, Poland. These sites have been used as observation points; other - as basecamps, next to suitable observation points. These belong to the class of the human settled areas that are inhabited seasonally and established for the reasons of utility. The Palaeolithic campsites, however, differ from the ones left by the more intense settlement during the Mesolithic in the Dikilitash (Raised Stones) area in northeastern Bulgaria. In this case, the human - environment relationship is not based on observation but on perception. The stone forests in the Dikilitash area do not offer good hunting grounds or water sources. People were attracted by the aesthetic appeal of these towering stone columns that often made sound by the passing winds or served as drums for making rhythmic sounds. This situated human presence is similar to the mosaic pattern of the Open dump area in Mentese, Turkey where working places alternate with places of social performance and entertaining. In the same way the hunting-gathering groups had their occupation and hunting sites in the vicinities of the stone forests and visited them in order to perform their rituals and negotiate their rights for exploitation of particular natural resources. Thus the aesthetic of the natural place was transformed into the aesthetic of public performances and acts of identity through negotiation.

Perhaps this is the reason why Palaeolithic people used to settle the Devetashca cave, north-central Bulgaria. The cave is situated at the foothill of the karst area that is part of the Pre-Balkan range, where it meets the vast plain of the Danube River. The top of the hill above the cave is a good observation point, while the big chambers of the cave offer excellent acoustic qualities. There is some archaeological evidence that the big chambers of the cave were used for personal and social performance. Despite the poor quality of research and the subsequent destruction of all Pleistocene sediments, there is one technical particularity of the lithic industries that cannot be encountered in the other cave sites of that region. All the Levallois pieces were made of high-quality flint varieties imported from north and northeast, while Charentian and Mousterian artifacts - from local poor to medium quality flints Ivanova, Taneva [69]. Levallois technique was applied also on few more artifacts made of local materials. This fact underlines the existing preferences of the Palaeolithic inhabitants of the cave that performed on the social relationship between the choice of technique and the choice of materials. This is also supported by the fact of the existence of a variety of techniques: atypical Charentian, Eastern Balkan Mousterian with leaf points, Typical Mousterian and micro-Mousterian. The complex behavior of this kind corresponds to the hermeneutic level of characterizing the immediate environment, while showing the ability to frame and conceptualize technical particularities and shaping long-distance relations of exchange or direct import of high-quality materials. Thus the perceptual qualities of the cave - its monumentality - made possible the existence of long-distance contacts and control over the known techniques of making tools that has the ability to spread over much larger territory than the immediate territory outlined by the best positions of observation situated above the cave.

Another example shows in a better way these human qualities associated with the neutral space of tall buildings. In traditional archaeological narrative the beginning of sedentary life and transition to farming starts with the picture of Jericho with its walls and the tower inside the settlement. Such a picture is present in almost all textbooks of archaeology. The problem is that in traditional explanations this image is in stark contrast with the 'horizontal' explanation of emergence of sedentary life and farming. The best illustration of this kind of thinking is represented by the difference in thinking between lay people and archaeologists. Once I was present at a party that happened on the picturesque top of the Karanovo tell, Bulgaria in the middle of its excavations. One of the guests asked my colleagues from the working team sitting next to him: why did people settle in such a small, crowded space - on the mound, when there is a plenty of space around suitable for living? In

fact such a question has never been asked in the Prehistoric Department of the National Institute of Archaeology and Museum, neither during the conferences organized by European Association of Archaeologists or World Archaeological Congress. The answers of my colleagues to this simple question posed by a person that had little do with archaeology were as may be expected: causes for this type of settlement may be sought in climatic changes, cultural traditions of the migrant farming communities, better defense. Such an explanation of this otherwise complex phenomenon leaves unexplained the image in the archeological textbooks of the existence of a tower in Jericho. The above explanations do not fit at all with this early presence of a single tall building at the initial phase of the Pre-Pottery Neolithic in the Levant. At the very end of the Pleistocene climatic conditions were wetter and offered better conditions for grazing animals and humans that started to intensively use and experiment with domestication of plants and animals. The better climate, however, offered plenty of resources that would have reduced the conflicts between different groups and lineages, and their competition for resources would have been not that strong to require building a defense wall, what about a combination of defense wall and a tower for observation. Economic explanation of the existence of a wall may be sought in the practice of imposing control on semi-wild herds of animals that have to be channeled in their movement and protect houses from allowing animals to enter the settlement. But this is not sufficient to explain the existence of a tower. Archaeologists wondered about this extraordinary phenomenon and just as in the case of Cayonu and Knossos left it without any comment or attempt to explain it. The picture of Jericho remains in the textbooks as something strange that marked the beginning of the "civilized" world, which is shrouded in mystery, and they ascribed its existence to the whimsy nature of these still "primitive", not quite yet "civilized" communities. In the same way like Cayonu, Jericho remains forgotten in the mainstream explanatory schemes of the appearance of settled life and farming.

Any explanation scheme has to start with marking what is important for clarification of the early appearance of the architectural forms in Jericho and their subsequent abandonment and "total disappearance" in the region. At the beginning, a parallel can be drawn with the similar problem of the presence of Levallois technique executed only on imported high-quality flints in the Devetashkata cave and the presence of Palaeolithic, Mesolithic and Neolithic people in the Dikilitash area, Bulgaria. These examples show that the problem of traditional interpretation of such phenomena is the confusion and misunderstanding of the concepts of 'observation' and 'perception'. As pointed out above the horizontal perception within a human settlement is the hermeneutical characterization of all human activities in a given area that includes identification of the separate practices, their quality assessment, and the framework of knowledge required for their execution. The third level of this personal and collective investigation of human practices relates to setting the boundaries of knowledgeability. This is a necessary condition of human conscious perception based on the feelings of peri-personal space and the mosaic of these smaller spaces in a given productive environment. People start to explore it sequentially, similar to the way of excavating and describing the small series of artifacts in Mentese (previous section), which makes easier to characterize the alternating spaces of production activities, personal and social performance of identity practices and entertainment. Through this initial enquiry it is possible to outline the boundaries between the different human activities in a given productive area and carve up the outside boundary of the entire area. This requires clear distinction from the outside, wild environment that cannot be understood by application of the same cognitive and conceptual mechanisms that humans use in characterizing their inside, humanly created, productive space. Prehistoric settlements, as long as the archaeological record allows observing, always have some traces of demarcation of their settled areas: walls and wooden palisades (rarely) - mostly they have ditches or series of "refusal" pits. In this light the wall in Jericho may be considered as a perceptual procedure that sets up the perceptual framework area of the permanent settlement. It both represents and outlines the 'permanency' of human activities executed at this place that is separated from the outside, wild environment. This individual and collective notion of 'permanency' is also underlined by the building of lime plastered floors that are often made in red color. This is the case in settlements like Cayonu, Asikli and Musular but this is not the case with Gobeklitepe and Halan Cemi, Turkey or Dikilitash, Bulgaria. The latter do not represent permanent or even temporary settlements. These are special sites with open-air artificial and natural monuments that serve as central meeting places for human performance and memory archives that unite the different communities living in wider geographic regions. At the same time settled areas started to acquire some of the qualities of the Epi-Palaeolithic and Mesolithic 'central' places and as they developed into centers controlling the wider settlement system in a given region (enlarged the productive area outside the settlement) reduced significantly the social necessity of building permanent walls. Perhaps this is the reason why after Jericho stone walls surrounding the settlements do not appear until the late Eneolithic contexts.

Similar explanation is valid for the "unusual" appearance of the tower in Jericho. Human perception of a productive environment does not only require sequential characterization of individual activities, but also a total view of the spread of these activities and their different ways of patterning within the studied area. This means not only to map spatially these activities but also to create means through which to regularly observe them. As artificial mobile maps were not available, the inhabitants solved the problem by building an architectural observation point inside their settlement. From there they could have make their perceptions of the productive environment and define how far it can spread

and what qualities it may have. The gradual accumulation of knowledge and craft specialization made the social necessity of creating a map of the entire settled area, so that it to be able to integrate the activities of its inhabitants with the wider social and natural milieu. This type of conceptualization of human activities, not as an individual act of settling made by a foreign group of people that started their lives in an entirely new place based on an entirely new culture that has nothing to do with the surrounding "primitive" hunter-gathering communities, reveals the importance of monumentality in transformation of human culture. It corresponds to the basic human desire to see the world from above - have a bird eye view - and create a formal and mental map of the entire human presence in a given region. From this point of view the height of the towers cannot be measured only in absolute terms - meters. Just as the central point(s) of populated areas cannot be measured in terms of their geometric center but according to the points that offer the best position for integration with the neighboring areas, the height of a tower represents its potential to integrate the surrounding productive environment and impose a conceptual and institutional framework on it. Gradually, the qualities of this first pattern of settled environment became replaced by the monumentality of the tell-sites and the foundation pits associated with it. Probably this is one of the main reasons why towers and stone walls disappeared from the archaeological record till late Eneolithic and the beginning of the Bronze Age.

The dominant built environment in the form of a high mound - tell-site of the early farming populations spreads from the Near East to the mid Hungarian plain in Europe. The mainstream archaeological interpretations provide explanation of this phenomenon as mass migration of farming populations from the Near East and Anatolia - mostly through the southwestern Anatolia, the Aegean and through the central Balkans to the Carpathian basin. To this general picture of mass movement of populations as migrant communities that settled their villages on an entirely new geographic environment and among hostile population of armed hunter-gatherers, there are two basic objections stemming from the archaeological record. The migrating farmers would have brought with them obsidian from at least central Anatolian sources, just as they would have taken with them heavy loads with seeds of wheat and barley and domesticated animals of cattle, sheep and goat. Instead, the obsidian from Anatolian sources has been effectively replaced by the obsidian from the Melos Island, near the mainland Greece and from the high-quality flints from north and northeastern Bulgaria. The second inconsistence of the mass-migration hypothesis is that the archaeological record of the Pre-Pottery and Pottery Neolithic from the Near East to the Central Europe is strongly represented by clay and ceramic figurines. If the early farming populations had their origin in the southeastern Europe and Anatolia, they would have continue this tradition of making clay and ceramic figurines just as it was in their original cultural background. But such figurines have not been found yet in the Neolithic contexts in West Europe.

On this background there is no surprise to find general differences in the built environment too. The settlements from Central Europe spreading to the west are mostly open-air ones with one or few superimposing cultural layers (e.g. Linear Band Pottery culture). At the later stage of the Neolithic in Central Europe, some settlements consisted of single houses surrounded by free, open land like modern farms. This settlement pattern is typical for the late Neolithic and Eneolithic but its presence in the Balkans has not been recognized. Yet at the hearth of the Neolithisation process in the eastern Balkans - the Thracian plain and along the Struma valley, a similar pattern of human setting has been discovered Boyadzhiev [57]. An interesting phenomenon has been found: the sunken houses of the late Neolithic sites of Kalugerovo, Apriltsi, Dana Bunar I, and Topolnitsa-Promachon (situated in the Struma valley on the Bulgarian-Greek border) are big and built on top of underground structures with depth reaching up to two meters. The distance between the separate houses varies between 60 to 80 meters. This is in stark contrast with the general agglutinative buildings on the tell-sites that achieve through this kind of architecture an outward monumental appearance. Explanations of this phenomenon (dispersed sunken houses) are based on general climatic conditions or different ethno-cultural traditions. It is difficult to believe in both explanations as climatic conditions were common for the entire Thracian plain and the Struma valley and that "migrants" from Central Europe would have come to settle in the densely populated Thracian plain during the Neolithic.

This phenomenon in the Balkans and in the Central and Western Europe differs in its perceptual qualities of the built and productive environment from those of the tell-like mode in the Balkans, Anatolia and the Near East. In the Balkan variant these houses became big with large clay altars situated in them. The height of the big houses define larger, individual for each house productive area that separates it from the neighbors. The entire settlement turns into a mosaic of smaller productive environments that allowed greater competition between the different households. Thus the height of the architectural structures was shortened by the depth of the underground constructions that allowed greater possibilities for social change. Thus these two opposite, vertical architectural forms meet at the 'zero ground' that puts an end of the settlements of this type and they disappear from the archaeological record in later times. Yet the notion of 'zero ground' means more than a simple destruction of a tall building. This means not human abandonment of a given location but basic transformation of human perception of productive activities. The different qualities of perception transform the traditional way archaeologists and modern public view and interpret the changing architectural forms. These interpretative possibilities concern various archaeological contexts. The first one involves "abandoned" settlements or "hiatuses" are often surrounded by later "refusal" pits that contain remains from collective feasts or ritualized meals and

structured deposition of various symbolic artifacts that are often broken into pieces. The second one involves the so-called the 'Late Neolithic pits sanctuaries'. The explanation for the occurrence of these archaeological structures, however, may be sought in the various understanding of the moment of engagement of an observer with the objects from the past, which creates an embodied knowledge in a complex way.

The sensuality of engagement with ancient monuments and artifacts plays one of the central roles in explanation of past human behavior and also shapes the ways prehistoric past has been understood, which often appears as sudden change in interpretation of archaeological structures. Thus the monumentality of the tell-sites exerts its influence on archaeologists that excavate and interpret them. For example, the excavation reports in Bulgaria dated before the year 2000 did not mention about existence of a second floor of Neolithic and Eneolithic houses. After that two store buildings have been regularly reported at the annual archaeological public accounts at the National Institute of Archaeology and Museum, Sofia, Bulgaria. This reporting of tall buildings began to look like competition and even three store houses have been registered. The problem is that there is no other mention of such high buildings outside Bulgaria. This phenomenon is, however, exemplary. Apart from other foreign political influences on interpretation of archaeological record in Bulgaria, there is a genuine human practice of 'imagining' tall buildings. Excavators "feel" that the height of the structures they unearth plays significant role in the structuration of these past communities and, despite they do not understand it in a rational way, they project their imaginative interpretational scheme on the existing possibility of higher houses. This modern imaginative archaeology has another exemplary phenomenon that featured archaeological excavations before the rush for 'Neolithic skyscrapers'. This was known as "cult" building and "cult" objects. The joke was that what archaeologists do not understand and when they cannot find exact parallel with modern structures and artifacts they name the respective artifact or structure as "cult" object. Although naïve these deviations from common sense understanding of the remote past show the lack of sound theoretical framework and scientific analyses that can bring new and more understandable by the professional and wider public interpretations of the past. Two biases are involved in these kinds of interpretation. The first one rests in the naïve belief of "true reconstruction of objective reality" of the past cultures. Professional archaeologists and lay public consider prehistoric cultures 'primitive' hence they can have only ritualized cult practices, which turns out as convenient tool for interpretation of unknown objects. The second one is related to the lack of basic scientific methods of proper excavation practices, elaborating correct sampling strategy, sedimentological, micromorphological analyses, exact 3D recording of artifacts, laboratory analyses of various materials, building proper databases and retrieval of information from them. The absence of these practices frees archaeological imagination to fly high and with it heightens the significance of the structures and artifacts into an imaginative reconstruction of past societies.

On such a background the difference between imagining and manipulating a fictitious "objective" reality of the life of past societies becomes acceptable practice. While "building" Neolithic skyscrapers may be considered as a naïve human practice, the "construction" of walls around prehistoric settlements is pure manipulation. The most prominent one is the case of building three circles of defense stone walls around the late Neolithic and Eneolithic tell of Provadia-Solnitsata, northeastern Bulgaria. At each annual conference of the accounts of archaeological excavations at the National Institute of Archaeology and Museum, Sofia, Bulgaria, the monumentality of the stone walls are being repeatedly underlined, representing it as a strong fortress. A simple look at the archaeological site can reveal that the situation is entirely different. On top of the prehistoric tell a much later Thracian earthen mound was erected, and part of the high ground of the mound was additionally used for building stone houses during Antiquity. The earthen mound on the top would not be able to withstand slope erosion and landslide if there is no drainage, which can be achieved by building stone walls surrounding the mound. More than that, the innermost stone wall cuts the prehistoric cultural layers. Despite this evident situation, the debris of the stone walling undergo conservation program in the form of building new wall under the fresh imagination of an architect. Thus the imagined past, turned into a state politics toward cultural heritage, creates walls bigger than the genuine ones found in Bronze Age Troy and Knossos.

The sensuality of the experience of the past monumental buildings has the capacity to transform itself into the general picture of 'monumentality' of the past that is conceived by modern researchers as sacred space. This has been sensed by the 19th and 20th century researchers that developed a particular dress-code during excavations. They were present at the dusty excavation trenches dressed up in elegant suits, in which they are normally dressed during their everyday urban life. This habit represents the duality of the past which consists of imagined sacred space of high aesthetic value and projection of urban life onto mystified, unknown past, that not only has to be discovered but tamed. The naturalized experience of projection of urban life onto the past seemed to prevail, that appears to be the main cause the dress-code to be changed at later times. The elegant suit remained but the hat was replaced by a colonial helmet that became the most distinguished feature of archaeologists.

Strangely enough this dress-code with some changes reached out modern culture. I remember the reaction of the audience of professional archaeologists when I presented a beautifully made documentary about the excavations of a Thracian mound and grave where my colleague

Georgi Kitov found the bronze head of a Thracian king and a golden mask of the face of the king. There was a strong reaction to the nakedness of the members of the archaeological team and the workers that worked in a hot summer day that made them wear only bating costumes. This event happened at the annual meeting of European Association of Archaeologists in Cork, Ireland in 2005. Despite my efforts, the EAA leading members consistently directed false accusations in a totalitarian manner about the poor standards of excavation practices of Georgi Kitov. The same repeated the next year, at the Osaka Inter-Congress of the World Archaeological Congress, where I presented the same documentary to even larger audience. The discussions in the WAC Council evolved around what message G. Kitov sent to the wider audience and accusations of malpractice of excavations. Yet, neither EAA nor WAC invited G. Kitov to defend himself. Any discussion about the poor standard of excavations in Eastern Europe and the lack of general theoretical framework other than the Marxist-Leninist historical-materialism was declined. The most that moved the audience in Cork and Osaka meetings was the naked bodies of my colleagues to the extent that under their influence a Bulgarian archaeologist appeared on a TV presentation totally dressed up in a hot summer day and with a solid helmet on her head - the helmet was of the type construction workers wear during their work. The irony was that the trench in which she was working was no deeper than 20 centimeters. Obviously, the gypsy's song: 'Stones fall from the sky…' has some relevance to archaeological practice of excavations.

Thus the vertical superposition of cognitive and conceptual means of characterization of the surrounding built environment both in the past and in the present make tall buildings and towers the most vulnerable place for carrying out social disputes. Perhaps this was the reason why the twin towers in New York and the tower of apartments in London have been under fierce terrorist attacks. What terrorist networks do not know is that 'zero ground' does not mean destroyed, abandoned place as if it suddenly turns into a desert. For human presence deserts do not exist in the sense they become recognized as geographical features.

Conclusion

Built space provides special angle to human perception and conceptual understanding of both past and present. As it has been pointed out above it always starts with hermeneutical characterization of human activities in a particular area. The particularity of that area depends on the neutrality and permanency of the built structures and how well these notions are inscribed within the wider frame of human presence. The process of cognitive and conceptual characterization of this area is a heuristic practice that involves not only direct human experience but also observation of the spatial distribution of a given human activity, its language production quality, gestures and finally trial and error attempts that form a particular process of human experience of an area. Dwellers in big and small urban places know very well and practice this way of Being-in-the-World. Thus the decoding of spatial cues through hermeneutic drills turns into phenomenological experience that has strong influence of creating the necessary cognitive and conceptual skills and practical knowledge for personal and collective understanding of the surrounding environment. The next level of knowing the world is the involvement of this practical knowledge into exploring the context and form of the surrounding environment. Thus high-craft objects consist of materials and models taken from distant places and their innovative design makes customers and viewers feel and directly experience the 'exotic', 'strange' and 'somewhat mystified' presence of poorly known outside world. The third, higher ground for investigation forms a discursive knowledge that both unites and separates human activities at a larger scale and requires higher perceptual (not observational) point in order to shape entire sectors of intense productive environment. The highest point of perception of intense human presence is the institutional one that frames in a formal way all the possible aspects of productive practices.

This theoretical framework helps explaining some important but otherwise forgotten sites and high buildings and natural places that has never been included in the main explanatory schemes of prehistoric societies. It also helps explaining the behavior of modern researchers and public which are under the strong influence of the neutrality and permanency of these built spaces. It has been explained how these notions invoke sensuality of consumption of food, the dress-code of archaeologists, their fly of imagination in their genuine drive to "true reconstruction" of past material record. These practices, however, lead to manipulation of the same archaeological record that is inspired by the personal 'quest to know the past' in combination of state politics towards cultural heritage and its public use and abuse. These are the reasons for turning tall buildings in urban areas as highly contested political ground which led to the fact that some of them have been under the attack of terrorist networks. The expectation of the attackers is through these violent acts to turn the hearth of thriving human productive environment into a desert. But the social environment of the urban spaces is much more complicated where 'zero ground' does not mean 'abandonment'. The qualities of the notion of 'zero ground' will be presented in the next chapter.

Chapter 8: 'Zero Ground' and Archaeology of Landscapes

Introduction

In the beginning I would like to emphasize that the approach I use under the title: 'Archaeology of Landscapes' is quite the opposite of what is traditionally used and became popular term -'Landscape Archaeology'. In traditional understanding 'landscape archaeology' is conceived as a historical narrative of a sequence of "historic" events. The preoccupation is related more with time than space. How is it possible? First and foremost this "unexpected" result of all sorts of field work and application of novel geo-information technologies comes from the expectation for total reconstruction of past social life. The only positive side of this totalizing expectation is that it requires meticulous recording and documentation of all the possible traces of past human existence in a given area. The problem is with the way of presentation and analysis of the recorded traces of past human activities. The general approach is as follows. Archaeological fieldwork is conceived by researchers as 'going into the wild', where they act as if they have to chart unknown to the present time 'exotic' cultures that form a palimpsest of somewhat mystified ancient practices. This general approach raises several questions. The first and the most important one is why it is conceived that archaeologists go into the 'wild', even if they simply go to their routine fieldwork near the town they live and work in? The answer lies in the fact that they borrow their research methods from disciplines: natural and humanitarian that deal with uncharted territories where no human foot ever set its presence. For example, in a jungle where human life has never been reported the best way to study the natural environment and the wild life would be to use a grid system with equal squares. Through this grid system researchers have to simply count the occurrences of the different species that populate this area, which becomes a numerical pattern that acts as a scientific norm. In this way the natural resources and animated life are combined and reduced to the abstract notion of density of occurrence. According to these frequencies, this reductive model continues to develop itself by further reducing the notion of density to the notion of a presence/absence matrix or to places with insufficient occurrence. This is further reduced to the notion of central place that gradually passes into area of medium occurrences and finally into a periphery or margins that border with places of absence. This is a simple hierarchical model that describes the spatial distribution of a given species that is automatically transferred into the study of past human activities. This is also the first characteristic of the notion of 'zero ground' in archaeology - wild place where there are no traces of past human activities.

The second issue of the problematic method – 'gone into the wild' - is related to the lack of social memory in the studied past material remains. This also stems from the notion of density that reduces human life to the occurrence of natural resources like water, fertile soil, metal ores, etc. This goes even further as the occurrence of natural resources is preconditioned by some natural features that can generate an environment abundant with a valuable resource such as fish, banana, and iron ore. In archaeology human presences is always imagined to stick to some valuable natural resources but it also involves the notion of total lack of memory between traces of human presence, coming from the different time periods, which are associated with different materials: stone, clay, copper, iron. This way of conceptualizing the past has several reasons. In the first place, it is difficult for archaeologists to discover any visible relationship between the traces of occurrence of human activity from the prehistoric times and the traces of more "civilized" historical societies. This is so because when archaeologists try to interpret the past they ascribe their personal and social values to ancient societies. For example, the naked human body from Antiquity is much better appreciated than the probably dressed up body of prehistoric figurines. Yet the human body is a complex notion both in the past and in the present and often bears inverse meanings. Thus, for example, the dress-code of archaeologists in modern times coincides with the opposite notion of the naked body from Antiquity, while remains neutral to the puzzled appearance of naked or dressed prehistoric figurines. This inverted conceptualization is due to the value system of the present-day society. In it values such as rhythm, harmony and the positive value of human knowledge are easier to discern from the representations and material remains from historical times than from prehistory. Spatially, the recognized values in historical societies are dispersed by modern observers according to the known by them centers of civilized world, while the prehistoric ones do not have known centers and for this reason become conceptualized through single hierarchies of strict cosmological order and well-defined spatially ritualized practices. While in the 'past civilized' societies the language is considered as the vehicle of social memory that glue together the sequences of historical events, in the prehistoric times this role is ascribed to lithic artifacts and pottery. In both cases the role of social memory is confined to the spatial proximity between different events as the only feature that makes them similar; e.g. the co-development of Greek townscapes in Classical times and definition of 'archaeological cultures' in prehistoric periods.

The key element of the critique to this approach comes not from archaeologists and involves the conceptualization of the strategies of past human presence in different geographies Horden, Purcell [2]. The authors describe in the best possible way the essence of the 'Corrupting Sea' in the following few words: '…What was ruled was….a network of communications. But it was also the network along which staples were moved to counteract in part the accidents of glut and dearth that the combination of climate and topography made inevitable…This was, in another prominent ancient tradition, the corrupting sea of our title' (ibidem: 24). These short phrases turned upside down the notion of 'Landscape Archaeology' as a means for neutral description of motionless and 'memory-less' areas of occurrence of traces of past human existence. According

to these authors the main task is not simply to record the traces of uncharted occurrences of past societies that were artificially transformed into a sequence of historical events, but through the qualities of human nature such as consumption, productive environment, and the changing qualities of social relations to discover the common denominator that both causes occurrence and co-occurrence of past human activities at certain geographies and associates them with entangled human - thing relationship that can be discovered with a high degree of confidence.

Despite the above presented compelling argumentation against formalized approach to the past human - landscape interaction, modern archaeologists continue to produce texts that model these interactions on the base of formal methods that study systems featured by their absence of memory. In this light Kolář and colleagues set the following task: 'we aim to reconstruct population dynamics within the catchment of a medium sized lake on the basis of information on the presence of all known past human activities. We calculated a human activity model based on Monte Carlo simulations. The model showed the lowest level of human activity between 4000 and 3000 BC' Kolář et al [70].

Modeling the total record of past human activities in a certain geography through a method that studies systems that are featured by lack of memory from previous steps of their stepwise evolution and strongly dependent on the scale of division of time intervals that characterize past human activities often leads to implausible conclusions. The expected results from this type of modeling showed that small variations in occurrences of human activities through execution of a number of simulations increases this variation into big positive and negative fluctuations. It is absurd to think that during the Eneolithic period with its high technological achievements that are often labeled as 'secondary product revolution' Sherratt [71], the Eneolithic inhabitants of the fertile land suitable for highly productive farming would have almost entirely abandoned their settlements for "unknown" reason. These conclusions are borrowed from the natural sciences where the absence of a given species in its suitable environment is ascribed to an outside force such as strong presence of a predator that almost wipes out this species. In this way it becomes naturalized the notion of abandonment of certain suitable ecological niches by humans, because of the influence exerted by external to their society forces: climatic changes, epidemics, natural catastrophes, or migration and invasion of foreign peoples.

Another basic problem concerning field survey methods is the preoccupation with what is visible and leaving apart the marginal or absent archaeological evidence. This feature of the dominant research schemes also stems from the naturalists' notion of density of occurrence, abandoned places, and simplistically imagined predator - prey relations that lead to the concept of Gaussian distribution of human activities in well-defined areas. In this light what an archaeologist sees in the field occurring in large numbers and volumes is considered more important than what is marginal or absent. This kind of thinking and imagining the past comes as a result from the Marxist's evolutionary schemes of society that became dominant in the East and with G. Child's works in the Eastern and Western European countries also started to dominate archaeological thinking in the West. This kind of conceptualization of the past, however, was absent from the understanding of the old professors of prehistory in Bulgaria, before the World War II. Contrary to the modern interpretations, they considered the appearance of the fully developed early Neolithic culture in the eastern Balkans and the lack of Mesolithic material remains or cultures that fill the missing link between hunter-gathering and first farming societies as simply lack of evidence of preserved materials in archaeological record. They thought that some evidence of that kind might have been buried deep into the gravel layers along the valley of the big Maritsa River or in the upper loess layers (final phases of Pleistocene loess sedimentation) in the northern Bulgaria. Contrary to this reasonable interpretation, the present-day archaeologists in Bulgaria and the researchers working in the Balkans think that there is a cultural beak between Mesolithic indigenous population and the incoming Neolithic farmers. This type of Marxist thinking is typical not only for the archaeologists occupied with prehistoric research in the Balkans, but also is visible in one way or another in the research schemes and methods of the most of the European archaeologists. For example, the "advanced" modern methods of Agent-based Modeling were applied to model the spread of early farming in the Balkans and the spread of *Homo sapiens* across the globe. CAA conferences are exemplary in this regard, where the seemingly totalizing datasets were subjected to formal procedure of stepwise simulations that by the virtue of their reductive nature produce nice descriptive pictures that have no sustentative value or do not create new knowledge about these otherwise complex social phenomena.

The main characteristic in this approach is its cumulative way of accumulation of data that leads to increasing the effects, both positive and negative, coming from the density distributions of traces of human activities across a given studied area. The results of this scientific-like manner often proceed to absurdity. For example, one season I participated in a joint British - Czech - Bulgarian project of field survey of the Kazanlak valley - also known as the Valley of the Thracian Kings - that aims to elucidate its settlement pattern from prehistory to the early modern times. The scientific method applied in the study was of the type described above - 'gone to the wild'. It consisted of using satellite imagery, GPS recording of geo-referenced points, grid system of equal squares of approximately 100 m^2 each, dense random sampling of soil samples, geology of the region, and GIS storage and management of the data. On the background of all these data the results of the settlement pattern of the region was subsumed and presented to the team by one of the leaders of the project as part of her PhD thesis. According to the density distribution relative to the chosen grid system of all traces of settlements from prehistory to the early modern times a general histogram has been presented that meant to represent the dynamic character of the variation of human existence in the region. The frequency histogram showed

what was expected to come out from this totalizing picture of human settlement pattern. The most visible traces of human settlement were those from the Roman times, because the buildings were solid and formed spacious areas of built environment. The least visible settlements were those from prehistory where, apart from the few tell-sites, the other open-air sites were hardly visible on the surface and presented by concentrations of few artifacts. The general conclusion was that the valley was populated mostly during the Roman period. It was first the Bulgarian students that noticed the huge discrepancy between the general aim of the project and the results stated in this way. If this artificial, based on density distribution model were true, then it would have been also true that the number of modern towns in a given country is greater than the number of modern, small villages, simply because the towns are bigger in scope and have good visibility of its large constructions. This result underlines the mentioned above strong relationship between the modern urban culture and its conceptualization of past urban culture, which in this particular case coincides with the only urbanized culture at these times, such as that of the Roman Empire. Despite the ample evidence of existence of urban societies since Pre-Pottery Neolithic and the contemporary to the Romans Greek, Celtic and Thracian worlds and the other Iron Age societies the, political might of the Roman world dominates the present-day urban culture. Perhaps the reason for this state of affairs may be due to the fact that the remains of Roman urbanized centers are still visible in almost every town in southern and central Europe, which makes it a common denominator of urbanite thinking based on Roman way of structuration of urban space.

At this point it is appropriate to consider the notion of palimpsest as it has been created and used in archaeological investigations and as a way of imagining how archaeological record was created and developed with the time of its accumulation. As an instrumental for archaeological analyses concept, the notion of 'palimpsest' focuses on the properties of spatial dispersal of human activities and the time depth of their overlapping through processes of vertical and horizontal superposition and erosion Bailey [72]. The hope set on this notion is ascribed to the possibility of variation of time and spatial scales that will better the understanding of past societies by reconciling to a certain extent the variation between longer time perspectives and individual action. For example, it happens occasionally to unearth during excavation a rare scene of a complete skeleton of a cave bear and a leaf point lying among its bones - dated to about 200 000 B. P. Archaeologists can never tell whether this association of otherwise significant eco- and artifacts means an encounter between humans and a cave bear or an incident of humans' scavenging over a corpse of an already death bear, or the bear just died at the spot and at much later time the humans left a leafpoint that stayed within its bones. This short-term story has its much broader long-time narrative as it poses general questions about the beginning of production bifacially made leafpoints that appear not only in Europe but also in South Africa. It opens other questions about the cognitive capacities and technological abilities of Neanderthal population in Europe and those of the early modern humans in Africa by drawing possible parallels between the similar behaviors of both populations that have be related always to their environment.

Yet the above questions have never been asked and this is due to the problem of definition of time perspectivism as a theoretical framework of archaeological palimpsest. The key notion on which this theoretical framework is built means uncovering material traces of past human 'existence'. Thus created, a palimpsest poses problems to its proper understanding as it involves the vain expectations of any researcher by using that notion to be able to totally reconstruct past human activities. The only requirement is to vary time and spatial scales in order to focus on different aspects of local or regional human activity, so that this analytical practice to allow piecing together the various elements from the past behavior into a total picture of human existence in a given locale that fits the general evolutionary social schemes.

There are two problems associated with this approach. The first one is technical and concerns the problematic use of grid system in archaeological investigations. During excavations the grid system is necessary for precise record and documentation of the spatially situated artifacts and structures. It is necessary because it provides the initial framework for proper recording of archaeological materials, but its fault is that it can only describe the characteristics of the uncovered materials through the notion of density patterns of human activity that is assumed to be approximated by uni-modal or even in rare cases by Gaussian distribution. This leads to fragmentation of spatially defined associative links between different artifacts and structures. For example, if the bones of the cave bear and the leafpoint were recorded in two adjacent square meters of the grid system of excavations, then it would be highly probable that the above asked questions would have never been asked.

The second, theoretical objection to the thus stated notion of time perspectivism is that it is grounded on the notion of past human existence. This is not the same as looking for existential characteristics of human nature. Contrary to the problematic use of grid system in archaeological investigations, the elements of past human nature do not form an integral and inseparable whole that as a social entity defined by concepts, loosely related to particular material expressions can simply be restored. Thus stated the notion of time perspectivism allows or even prescribes manipulation of archaeological record that is naturalized by the understanding of the 'arbitrary' nature of the relationship between the past and the present. It develops into a social norm that imposes on archaeological investigation to invent the past according to the needs of the present-day society. Formally, this process goes naturally as it has a fresh start from the initial fragmentation of archaeological record where separate fragments become building blocks that lack memory between them. This quality makes them suitable for arbitrary reconstruction of the past according to the social and political needs of the present-day society.

Modern urban culture both created and maintained this conceptualization of cultural heritage that can be described as ideological flexibility between destruction and invention of past societies. It comes naturally from the notion of fragmented past that has to be re-instated into modern urban life. This general notion of urban development follows the necessity coming from the fast developing cities that need space where the competition for well-situated business environment is fierce. But the problem becomes real when this conceptualization of structuration of urban life goes beyond economic necessity and becomes deeply embedded in social attitude of an administrative culture. The center of Sofia is exemplary in this respect. It is densely populated by genuine monuments from the close and remote past, but its other face is that these monuments are shadowed by newly built monuments of an invented, formalized conceptualization of the past. The destruction of old houses and monuments is a well-embedded tradition not only in the administrative culture, but also in the minds of the wider public. For example, what criteria made possible the erection of the monumental statue symbolizing Sofia in the city center, which is situated above the ruins of the old Roman town and within the perimeter of the sacred space that stretches between medieval churches, the mosque and the synagogue? Are these criteria better than those that allowed destruction of the abstract monument associated with the Palace of Culture? This does not mean that the new monument once erected has to be destroyed. Any destruction of a monument is not a positive social practice, because in no other way can these expressions of monumentality underline the eclectic character of understanding history and its relation to structuration of the modern urban environment.

Archaeology of Landscapes

Traditional approaches of the so-called 'Landscape Archaeology' with its main practices of fragmenting and inventing past "human existence" lead to the notion of palimpsest, which by being to a greater extent equal to the notion of 'zero ground', aims to mechanically reconstruct in its totality past human activities in a certain area. This mythology of searching for the absolute origins of modern urban culture is deeply embedded in archaeological research and dominates the basic national and international research schemes as a proven, high-standard way of doing investigations. This state of affairs raises the question what is the right approach that can divert this mechanistic way of discovering the past, which in its essence is totally non-understandable by the wider public. In my view this general misunderstanding between archaeologists and their public is the starting point for analyses and elaboration of novel approaches to 'discovering' the past. The strong tendency of avoidance of archaeological museums with their exhibitions of fragmented and invented past by the general public means that there is a problem of the ways the past is being experienced and conceptualized in such an artificial environment. While the public stays away from "modern museums" such as those in Sanlaurfa or Canakkale in Turkey, the visitors go in large numbers to the genuine sites - Gobeklitepe and Troy. This behavior is a universal one and can be observed everywhere - the real archaeological sites despite the dusty and unpleasant conditions are much more appealing to the public than the air-conditioned and clean museum exhibition halls. The explanation of this paradox is simple: the archaeological sites are exiting, while museums are boring.

What does this general behavior of the public tell archaeologists? The first thing that it underlines is that the relationship between past and present, as understood by the concept of palimpsest, is not arbitrary. The remains from the past that are transported to an artificial building situated in the middle of an urban environment are not considered by the general public as genuine representation of the past. Modern urban culture also confirms this conclusion. For example, in taking a decision where is the best place for someone to live in an urban area, the proximity to an archaeological museum is never taken into account. Contrary to this, as it has already been described previously, the migrants from Bulgaria settled by Ottoman authorities preferred to establish their village in the immediate vicinity of the famous archaeological site of Troy. This fact also points to the notion of traditional archaeology of discovering past human existence, which is imbued with various meanings of discreteness and fragmentation. Thus the fragmented past viewed through the lens of the notion of 'palimpsest' is not understandable by wider public. The alternative way of conceptualizing the past is shown by the migrants that moved their settlement next to the famous ruins of Troy, probably because they made sense of the past through the notion of 'human presence'. The latter accentuates on continuity and durability of human presence represented by particular acts of human behavior in the past.

The notion of 'human existence' is not appropriate for understanding past societies because it is a complex issue that involves numerous disciplines of knowledge about humans, society and nature. The complexity comes from the mixture of rational and irrational behaviors of individual and social agents. However, human existence is related in a particular (not arbitrary) way to the past human presence, which points to the necessity of acceptance of new subject-matter of archaeology. The particularity of this relationships stems from the transformation that undergoes between the discrete and whimsy nature of human existence into the continuous, typical features of human presence in the past and in the present. For example, in Bulgaria flint blades were used as knifes by mountain shepherds until 1960-es. In this concrete example and in this continuous behavior it is not the material (flint) itself that is involved in the continuous interaction between humans and their environment. Rather, it shows the high sanitary value of flints - a cut made by a flint blade on human skin does not infect as when it is made by an iron

blade. Now flint and obsidian minerals are experimented and used in making instruments for surgery of human body. In this way flints turned from ordinary and simple tools of everyday work into high-status material that acquired the quality of an extension of human body and lived through along with the other artifacts - extensions of human body - until the present-day culture as active participants in human life.

The above example shows the two-sided effect of the human - environment interaction. On the one hand this is the constitution of human presence and its continuous interaction with material world and on the other hand the material presence mapped onto the value system of the human word. The complex entanglement between humans and things has not only continuous but also dissipative nature. This means that some features of the material culture may be invisible or present in a latent form and have the quality to appear and disappear in a rapid way. For example, the blue and green colors were known in prehistory but never used because they were not culturally recognized. From the Middle Bronze Age they suddenly appeared and became a standard coloration of the decoration of pottery and other artistic expressions. Other artifacts and structures slightly change their social meaning and by their sudden disappearance they make way to introduction of new artifacts that bear similar meaning. For example, the lime plastered red floors that are typical for the larger Pre-Pottery Neolithic houses and probably expressed the social identity of an extended family or lineage disappear only to make way to much later textile rugs and probably kilims (carpets) that from the Bronze Age onwards expressed the social identity of the owner of the house or its family. This social value has been later transformed again into a high-status social value expressed by the floor mosaics known from big houses and villas from Antiquity. It this way a key social value, while preserving its basic social significance varies in its material expressions.

The most important feature of human - landscape interaction is the intimate relationship established between humans and things. It stays in stark contrast to the human - built environment interaction which is collective in nature identity practice. For example, this collective human feature is visible in modern days when people go to retail centers in groups and form waves of customers in particular shopping days. Contrary to this, the intimate relation with things is transferred to intimate relation with the past. For example, the visit to an archaeological site, even when it is done through a group, always establishes intimate personal relationship with the past material culture. The particularity in this "strange" bond is that there is no mediator. On the one hand there is the public's general will to know the proper past (the sense of M. Foucault) and on the other the authoritative, imposed through the state politics histories that do not meet the expectations of the public. Left alone, visitors listen with one ear what the tourist guide tells them, while trying with all of their cognitive stimuli and knowledge make sense of what they see in an exhibition or in an archaeological site. The common feeling of the public is that it is not easy to visit archaeological sites and museums. After several tours people feel exhausted and tiered because of the cognitive and conceptual effort they put during their visits. Tourist companies know very well this 'fatigue from museums' and plan carefully their schedule with large intervals between visits to museums and monuments, where a single such visit should last between 20 and 40 minutes.

Apart from an educational environment, in no other sphere of human life such an intense use of the embodied distributed knowledge appears. Human perception is driven not only by its external stimuli that cause respond by human senses as a simple interaction of cause and effect. It is a complex adaptive system of human - environment interaction where the loss of some senses is immediately compensated by development of extra senses incited by other stimuli. This fact means that external mind does not mean simple projection of cognitive and conceptual cues onto an external environment. Rather, it establishes relationship between the embodied skills and knowledge and the landscape of affordances Sutton [73]. In my opinion this relationship can be used as the basic subject-matter of archaeology. Conceptualized in an intuitive or more formal way this relationship defines, for example, the dress-code of archaeologists and even that of their public. The key element that makes the dress-code a special part of this relationship is that people are always alone when they experience their encounter with the past and feel this as similar event to that of entering a sacred space.

The misunderstanding of the role this novel subject-matter of archaeology plays in proper understanding of the past makes problematic the encounter between professionals and their public and the past. They cannot engage with the past provided the encounter happens in an artificial museum environment. The major problem lies within the representation of the past in a linearized and fragmented way. There is little excitement and stimuli in the rows of masterly made forms, statues and artifacts, and although they are made with precious materials, they draw public's attention as little as when a person is offered reading a telephone book with endless rows with numbers. Current archaeological exhibitions and archaeological presentations put greater accent on formal features of the artifacts they exhibit and do not allow visitors to engage in a process of sense making. The normal process of cognition and conceptualization goes through dispersal of cognitive and conceptual cues across the immediate environment, thus creating a landscape of affordances. In this particular case a visitor tries to figure out what human values the symbols he/she sees represent by comparing them to his/her own knowledge, educational, cultural, and religious background. An observer has to train his/her attention in order to immediately recognize the cues that are dispersed within the surrounding environment. The problem with archaeological presentations is that valuable cues cannot be established and attached to any form or artifact so that they to be evaluated and appreciated smoothly without the fatigue required for apprehending entirely new information.

To a certain extent current archaeological research practices, although carried out in the 'gone to the wild' methods try to respond to the problems of their public and overcome them. Since long time archaeologists have recognized that the grid system, while necessary for doing excavations - 3D recording and documenting the individual finds and structures, is harmful for proper study of the uncovered materials. In order to correct the mechanical fragmentation of the materials, after excavations or during their study they pool together the materials from the different mechanical levels into materials that belong to a single cultural layer, building horizon or structure. In order to have better study of such materials - dispersed by natural causes and taphonomic changes, it is necessary to use refitting technique. The latter requires space - large well lighted by natural and artificial light room with large tables on which materials from several adjacent cultural layers to be spread out and in this way to be able to examine which parts fit together. Most of the archaeological institutions and museums have at their disposal such rooms, but not all of them. There are examples of quite opposite politics. For example, before about 15 years the research in the only appropriate room for this purpose in the National Archaeological Institute and Museum in Sofia, Bulgaria has been banned with an official order of the director. In the following renovation program at the same institute, other suitable rooms have been turned into meeting rooms for the members of the departments. There is no other room prepared for proper study of large amount of archaeological materials. Finally, the largest room of the museum was additionally restored for the exclusive purpose of a conference hall and now it looks more like a foyer of a hotel. However, this fact has an additional meaning. This last renovation of the 'conference hall' has more than simple misunderstanding of archaeological research practice and bad taste. It is a desperate attempt to inspire a kind of communication with specialists from the other disciplines and the wider public and archaeologists from the country. The problem with this greater accent put on the comfort of a meeting place is that in communication, there are always two and more sides, but in this case the opposite side is absent, because a single hall cannot fill the gap of absence of communication.

While the role of the grid system has been understood in the process of excavation and study of archaeological materials, its use as a genuine field survey method remains highly problematic. As it was mentioned above it is firmly based on the notion of density and the size of materials and structures. The absurdity of this state of affairs can best be described by the following one-sided causal relationship: 'the presence of traces of human activities from Antiquity almost always co-occurs with traces from prehistory'. The opposite relationship is not true. This means that human presence (not human existence) is continuous in nature but has its own particularities in each locality it has been found. On the terrain surface it may cause some traces of human presence to correlate spatially (positive correlation), while in other - cause their separation or absence (negative correlation).

The question that is raised by these considerations is how to better approach this complex relationship. It is obvious that the notion of density of artifact occurrences has limited application and, only in rare cases, it can suggest the existence of temporary patterns of traces of past human activities. It is better to work with probability of occurrences in areas that are not defined by a grid system in its traditional sense. In principle, walking through the field with a grid system for a survey of surface artifacts and features is a practical solution for coordinating the difficult task of team working and simultaneous recording of the found artifacts. On the other hand, in the present-day field survey it is better to replace the grid system with precise GPS and work with real coordinates of the artifacts and the artifacts' concentrations. In fact GPS is a grid system itself that relates in absolute terms the position of artifact occurrences that can be mapped semi-automatically in a database, so that there is no need to replace it with the well-known traditional one.

Once having mapped the artifact occurrences in real coordinates it is necessary to mark visually the highest concentrations and areas of practical absence of artifacts and exclude these areas from further analysis. This is so because in order to calculate and work with conditional probabilities it is necessary to assure that each of the divisions of the populated area has to contain a number of occurrences that is approximately equal to the number of occurrences in all the other areas. This means to divide the entire populated area in smaller areas that are not equal in size and form but that contain approximately (the same order of magnitude) equal number of artifacts in them. Thus if it is ascribed the probability of occurrence 1 to the areas with greatest concentrations and 0 to areas with no occurrences, all the other probabilities of occurrences in the separate areas can be calculated easily. This approach avoids the scaling problem when working with a fixed grid system and gives more precise way for calculating the chance of occurrence of any archaeological site in a given area that is worth to be recorded, excavated and conduct conservation of its remains Tsonev, Nekhrizov [74].

Another approach that is more intuitive involves orientation in terms of outlining the general axes of human presence of the area that has to be studied. This includes definition of the land-use, possibilities for erosion, flooding and human and natural corrections of the terrain. It has to include some knowledge about the underlying geology - the rocks that are expected to be found on the surface and assess the movement of sediments on the surface and beneath it. All this knowledge can help defining different conditions that can be involved in calculation of the conditional probabilities of occurrence of artifacts. More importantly they can help define the general axes of human presence in the region

that can help better understanding of its evolution through time. These axes can be the general inter-visibility between the major human and natural features on the terrain and the major activity areas relative to the possibilities for diverse agricultural practices.

In this light I have studied the evolution of past human presence that shaped in a particular way the northern part of the Kazanlak valley. The first impression of the field walk was the ubiquitous presence of calcareous rubble with somewhat rounded edges in the fields around the railroad. The railroad was built on a solid ground on the junction between the valley bottom and the steeper slope (5 to 10 degrees) going upwards the Balkan Range mountain foothills, where calcareous massifs are buried deeper into a variety of metamorphic rocks. Further to the north Quaternary sediments are buried by Holocene ones, which show that there was constant erosion of the steep mountain slopes that causes mini landslides that cover the northern part of the plain. This fresh sediment cover thins away further down to the south and covers the prehistoric settlements situated in the northern part of the valley, except the high prehistoric mounds.

This dynamic environment was masterly settled and exploited by past communities in an artistic manner to the extent that seems better than some installations of modern landscape architects. The high erosion and landslide dynamics defines the conditions of the land-use patterns. Crop cultivation is appropriate on the valley bottom and reaches little further to the north of the railroad. Further to the north, there are some areas of growing fields with roses and lavender but these are modern development of industrial growth of these plants. The more prone to sediment dynamic northern part of the valley and the high grounds offered by the towering Balkan Range forms a proper area for animal husbandry with summer green pastures situated close to the high altitudes of the mountain slopes. In a way this pattern of land-use is similar in its structure to a present-day business 'verticals' that hermeneutically characterizes human activities in a given productive area. At the lowest level crop cultivation is situated, and above it develops animal husbandry and industrial production of roses and lavender. This pattern of land-use has been confirmed by five soil samples taken by me and analyzed with a spectrometer EDX-720 at the Laboratory of the National Archaeological Museum, Bulgarian Academy of Sciences by the chemist P. Petkov (Figure 8.1).

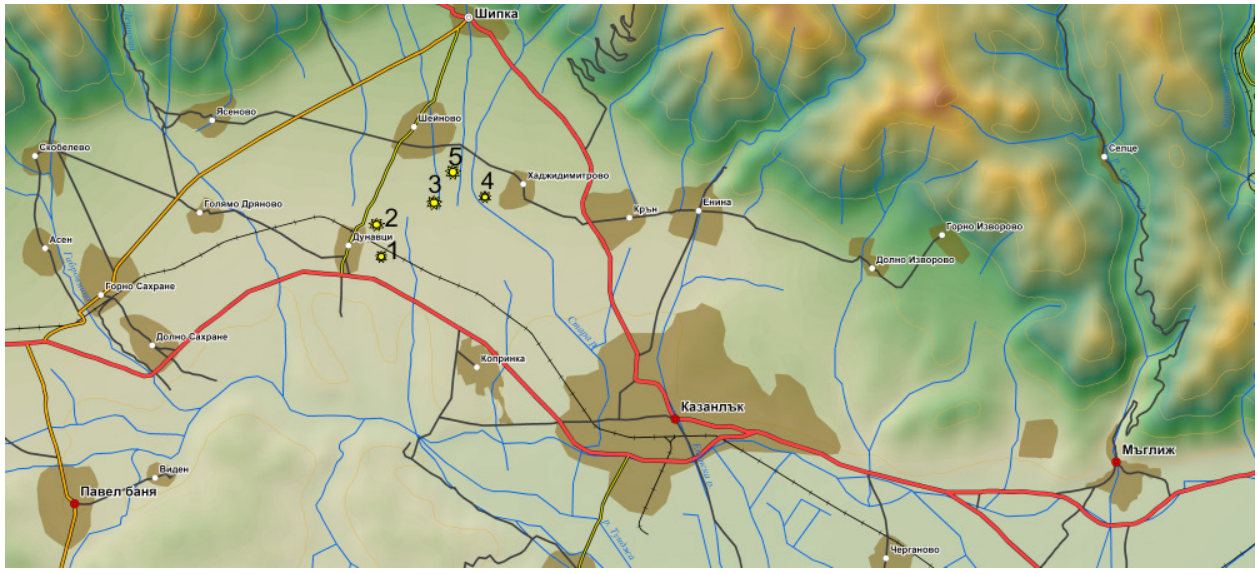

Figure 8.1: Map of the northern part of the valley with the five points from where the soil samples have been taken. They mark the changing soil qualities: crop cultivation to the south of the railroad; animal husbandry – to the north.

Modern land use preserves to a certain extent the ancient one. The areas that were heavily ploughed in pre-modern times continue to be ploughed today. These soils show deterioration of their quality and heavy erosion because of the presence of salts, sand, and clay Holliday and Gartner [75]. The constant decomposition of the organic components necessitates the constant addition of animal dung as fertilizer. The traces of these processes are visible in spectral analyses of soils and in samples taken from field survey in 2011. Areas of better soils were identified in between these heavily ploughed areas during a total survey with field-walking teams and might have served as small pastures dotted with trees. These types of "fresh" soils are typical of those surrounding of the well-known Thracian burial mounds in the Valley of the Thracian Kings.

The archaeological evidence for this continuous land-use pattern from prehistoric to modern day's times is even more compelling. During field walks, it was noticed the constant and ubiquitous presence on the ploughed, crop cultivating areas to the south of early modern pottery shards, flints for making fire ('chakmak' - Bulgarian term of these tools), few gunflints, but also regular appearance of prehistoric flint artifacts:

sickle blades, fragment of end-scrapers, backed flakes and characteristic flakes of core reduction - tablets. The reason these artifacts to appear regularly in the ploughed area is the necessity of manure that has to be dispersed on the soil in order to overcome the negative effect of soil decomposition and subsequent erosion. This has been done since prehistoric times. People used to pile animal dung heaps where they also throw other "waste" such as damaged or out of use flint artifacts and in later times pottery shards. Each year the dung is transported to the crop fields and spread regularly across the fields. Such artifacts have not been found in the freshly worked soils for production of roses and lavender to the north - near the big Thracian burial mounds.

The third observation I have made is the "strange" disappearance of prehistoric settlements during the early Bronze Age. This is partly due to the likely increase of erosion levels and landslides coming from the mountain slopes to the north that covered the open-air settlements. The other reason, which is more important, is that Early Bronze Age population started to live off the prehistoric tell-sites in more ephemeral settlements but they transformed the monumentality of the tell-sites into monumentality of the burial mounds that they started to build, and become, with the passing of time, typical artificially made features of the landscape, situated to the north of the railroad. In principle, sacred space is typically related to pasture grounds and to the figure of the shepherd as leader of the herd of animals (metaphor the social leader). These sacred spaces are situated between the fully cultivated areas (crop cultivation) and the wild spaces - the mountains to the north and to the south. By leaving large herds of animals to graze and clear the vegetation, these communities freed the general axes of view from south to north and made visible the big Thracian mounds on the towering background of the mountains behind. This typical land-view on a productive environment is similar to the view of a modern city with islands of towering skyscrapers that provide cues for immediate characterization of the productive environment, situated both horizontally and vertically around them. It is exactly the qualities of these unique landscapes of the past human presence that can be immediately recognized by lay visitors as the familiar to them present-day living environment does, and thus made the place attractive for tourism. The few Thracian tombs, made as 'in-situ' museums with good road access that offer excellent opportunities to visitors to go to the sites in groups and individuals changed completely the town of Kazanlak as one of the major cultural heritage touristic destinations.

Opposite to this interpretation is the one made by another participant in the project Bishop-Taylor [76]. The author uses high-technological but traditional interpretative schemes in order to describe the evolution of human settlement patterns from Neolithic up to the Roman times. He fragments the past human existence into several mutually exclusive elements through which he tries to reconstruct the settlement patterns. These elements are economic: crop cultivation and pastoralism; settlement type: open-air, tell-sites and defensive; communicative: road system; climatic change. Through them he describes six separate stages of human settlement: Prehistoric that includes Neolithic and Eneolithic periods; Early Bronze Age, Late Bronze Age, Early Iron Age, Late Iron Age, Roman period. Through the interpretative fragmentary elements mentioned above he describes these consecutive stages of settlements as absolutely separate and radically different phenomena without any continuity between them. It starts with the Prehistoric period where he rightfully represents the settlements mostly concentrated on the valley bottom but at somewhat higher ground. This is the general picture of prehistoric settlements in the Balkans - there the soil developing processes evolved in a better way and formed thicker layers at that time. The Early Bronze Age is represented by movement of settlements into "marginal arable lands" and diversification of economy with pastoralism. The explanation is the cold phase - Pre-Boreal. This raises the question: if the climate were so cold, why farmers would have used poor quality soils when they could continue using the good quality soils at the valley bottom. In the next segment of Late Bronze Age, the area is presented as totally deserted by permanent settlements with an economy entirely based on pastoralism. The problem with this entirely imaginative economy is that something like pure pastoralist economy cannot exist. Animals cannot survive only on eating hey during the long, cold months of the year. Normally, the so-called pastoralist societies grow cereals or exchange them from other crop cultivating communities. The opposite of this situation is also true: crop-cultivation alone cannot exist - it requires animal husbandry. The next stage of Early Iron Age returns to the settlement pattern similar to that of prehistory. The only change is the route system which traverses the valley from south to north and links it both ways along the flow of the Tundzha River. The question is how these small villages with limited arable land can sustain society that in few centuries later will create the large town of Seuthopolis and even further develop an extensive settlement pattern during the Roman period?

It is these fragmented and contradictory to the normal human perception and understanding of present-day living and productive environment representations of the past, that have pretentions to totally reconstruct past human existence sever the relationship between archaeologists and their public.

Conclusion

In this chapter it has been shown a critical assessment of the traditionally established discipline of field survey known as 'Landscape Archaeology'. The concerns are expressed not towards the field practices of registration and documentation. With the development of geo-infor-

mation technologies they become more and more precise. The problems arise from the key notions used in practicing 'Landscape Archaeology'. The first one is the concept of 'density' of occurrence of artifacts and structures and the general expectation that the traces of past human activities will form both spatially and temporally - uni-modal or Gaussian distributions. This concept has connotations of densely populated central areas and periphery with rare or total absence of artifacts and structures. Further these notions suggest that there is a possibility of existence of places that are totally abandoned by human activities or that they form a kind of a 'zero ground'. At this point it has been considered the concept of 'palimpsest' that is instrumental for archaeological analysis and interpretation. The major problem of use of this concept, however, was found in the definition of time perspectivism, which is based on arbitrary relationship between past and present. This concept is grounded on false expectations of total reconstruction of past human existence.

Instead of this problematic theoretical background of 'Landscape Archaeology' I propose introduction of 'Archaeology of Landscapes'. Its radical change relative to 'Landscape Archaeology' is the replacement of the notion of past human existence with the notion of past human presence. The latter is a concept that revolves around the strategy of human presence through the ways of human perception of its immediate environment. Thus the dynamic relationship between human cognition and the landscape of affordances becomes central to archeological studies. It establishes bridges between past and present through its potential to provide observer's ability to immediately recognize the cognitive cues that represent the traces of the past as strategic human presence in a given area. In this way the presences and absences of some artifacts and structures that are defined spatially and temporally by field survey methods turn into relative not absolute social entities (e.g. pastoralist societies do not differ significantly from farming communities). On this base it is possible to avoid fragmentation of past material record and show the continuity of strategic human presence through time and across its natural and artificial environment.

Chapter 9: Archaeologist - the Lonely Researcher

Introduction

If taken into consideration the social milieu within which archaeologist carry out their work, the title of this chapter will be anything else but not an exaggeration. The question is what that else might be? In the first place that is the administrative environment that establishes and re-establishes the culture of invention and manipulation of the past. According to it, with the same ease with which a particular monument from the previous regimes can be destroyed, the treatment of sites and monuments from the recent and remote past can also be destroyed or rather left to decay. This is an imperative, political mechanic established long ago by the first monarchs in Egypt and Mesopotamia and by no means can be called 'modern'.

On second place come the ideological and economic reasons of the supposed "market" economy. My own experience with the World Bank policy toward cultural heritage was direct and indirect through the World Archaeological Congress interaction with this institution. In these interactions, there were complex issues such as the big dam projects round the world, which concern not only archaeological and cultural heritage, but also issues of migration, re-settlement, destruction of genuine plant and animal habitats, and which create complex questions what decision to be taken - that of national or local priority, short-term economic benefit or long-term benefits, coming from local agriculture, small industry and tourism, and the general inability those to be easily solved, because they depend on different circumstances and economic goals of each project. Another issue is the World Bank's policy toward archaeological and cultural heritage management of small villages and small scale communities. It sees cultural heritage exclusively as an instrument to boost local tourist industry. According to it, a money loan has to be transferred to the respective Ministry of Culture and then provided to the local administration to create a museum 'in-situ' and train museum staff (tourist guides) with duration of the project on average about three years. To my question: who are going to pay for archaeological and the associated with it scientific research the answer was that the World Bank does not provide funding for such activities. Another immediate problem comes from the question: what will happen with the already established local museum and its staff after the project is terminated. Normally, small villages and small scale communities do not generate enough income even with supposed economic benefits from tourist visits to an interesting archaeological site that lies away from the main regional centers. The money loan will weigh on local budgets that are not capable to return it and the most positive outcome for them would be if it is consolidated within the general national debt of the respective country. Another serious problem is that this money loan would operate in countries with corrupted legal environment and there are serious doubts that the transfer from the respective Ministry of Culture to the local administration is secure. If not the entire sum than only a small fraction of it will reach the local communities and thus directly funding illegal networks round the world that have different policies from the officially stated national ones. The direct result of this kind of economic policy would be that the created with greater efforts and reduced funding local museum will close down after the termination of the program and the entire money loan will weigh either on local or national budget as serious debt, while, in reality, the money will fund illegal networks, and thus will increase the corruption rate of the respective country. The overall economic, political and cultural results will be not zero but will have far reaching negative social effects.

There are several objections to these kinds of policies toward archaeological and cultural heritage. The first one is economic and concerns the development of a small productive area of a small village through low interest loan from a bank or governmental institution. The aim is not only to attract as many and as diverse public to visit the area, but also to stimulate and popularize local products. Generally, there is a rule that states that science goes first, then - business. This is equally valid for archaeology. Proper archaeological research includes not only excavations but also detailed studies of the environment. For example, associated with archaeological excavations studies may detect sources of underground water in a generally dry region. Other studies may reveal the unique combination of soils and rocks that gives the flavor of the local products. Finally, archaeological studies through the practice of giving names to otherwise imaginative cultural entities can relate distanced, less economically developed areas with more advanced ones. For example, when it is said 'Gravettian' culture in Bulgaria it is always associated with 'Gravettian' culture in Central Europe. This 'culture' is related to the appearance of the first mass production of mobiliary art and, in addition, the Gravettian sites in Central Europe are associated with production of high-quality fruits, grape, wine, cheese, and meat products. In this way it may help branding local products from other sites and small villages in archaeologically related, less developed regions in Europe.

Another important issue is that the money destined to cover archaeological research should be controlled not by the local authorities but by archaeologists themselves. On the one hand archaeological excavations and field and laboratory studies are highly standardized and offer little option for corruption practices. Apart from that archaeologists are the only competent professionals that can discover the multiple authenticities of a given archaeological monument and a site. Modern urban culture and the administrative practices at a central and local level tend to consider a given monument or site as having one authentic value through which the site becomes known and popular. In fact

any archaeological site or even single monuments have different in time and space layers of authentic material expressions of the presence of different people with their different values and meanings. For example, the Tabaczka site near the town of Russe, north Bulgaria is a small cave that was a Roman sanctuary, before - a Thracian one and the earliest occupation was an Eneolithic sanctuary, where an Alpine 'jade' axehead has been found Pétrequin et al. [39]. The dense network of authenticities of various artifacts and monuments has the potential to attract diverse public that would visit different sites often situated far away from one another. On the other hand, these parallels, when associated with different values understandable by modern public like the role of appearance of mobiliary art in humanity, can open the door for developing strong local brands that popularize high-quality local products and tourist destinations.

The international policies of the World Bank toward archaeological and cultural heritage have their local variants that thrived in human society since the appearance of the early civilizations. Of special importance is the widespread practice of fake restoration of archaeological sites, monuments, and cult and religious buildings. This practice, however, should not be considered as cheap cheating, because it is deeply imbedded in human understanding of the past and the role the control over it plays as well-established social practices of wider administrative misrepresentation and misunderstanding of past glorious times. On the one hand this practice works as a compensatory mechanism that aims to boast national pride and develop feelings of belonging and sharing national values and common history. Such practices were widely accepted in the communist countries but they continued to be used and even further developed in the "post-communist" societies. This type of policy is mostly popular with local authorities that use all sorts of funds, including European ones to "restore" mostly stone walls of castles, churches and the frescoes inside them, and other large buildings. This is done with the vain hope that the single act of restoration of some visible building of historic values will boast touristic visits into the region just as the great Thracian tombs do. The problem is the apparent lack of authenticity that literary repels the visitors that 'feel' the difference and are able to immediately recognize the fake stories that are trying to falsify their expectations to meet with authentic remains from the past. In a way this type of building "history" is a perverse simulation of an imagined market economy where everything goes as long as the price is cheap and the supply is high. It is the old practice of production of cheap copies of world-known trademarks of clothing, foods, drinks, etc. An illustrative example of this "production" is that it had to take decades in order to be changed the label of "Champaign" on Bulgarian bottles of bubbled wine. In fact the two problems - the fake archaeology and the fake economy - are interconnected as it is not understood the role of economic and social demands for developing local or regional unique products that are immediately recognizable within the national and global markets.

While the fake archaeology and cheap fake Champaign may be considered as naïve, imagined way of doing market economy with the noble aim to boost local economy, there is another, conscious and based on firm theoretical ground practice of fake restoration of particular monuments. A very good example of this kind of "restoration" is the fortress of the Tsarevets hill - the medieval capital of the Second Bulgarian State and the repainting the Patriarch Church on top of it. While the aim of the restoration of the fortress is clear, the repainting of the Patriarch Church on the top of the hill in the style of the paintings in the monument of the Communist Party on the Buzludza peak has a completely different meaning. Also the difference in treatment of the Communist Party monument and the Patriarch Church lies within the attitude of the major social actors that "restored" in this way this central to Bulgarian history monument. While most of the monuments from the Soviet times have been attacked, painted, dismantled, the Patriarch Church remains untouched and no one even raised voice to restore the original paintings. The church itself survived till 1913 and became damaged by an earth quake. The original paintings are known and documented and can easily be restored with sufficient level of authenticity. Yet the reason for this false restoration is that the Patriarch Church is the symbol of the changes that happened in Bulgaria in the recent decades. This means change not only of the political system, but also the one that goes deeply in the other domains of social life. The problem of these changes, however, is that they are based on symbols derived from false history, fake archaeology and simulation of market economy.

The conceptualization of this kind of social change is deeply rooted in European and Russian 19-th century revolutionary past. According to Lew Szestow it is the German philosophy, French socialist movement, and 'humanitarism' of Russian intellectuals around Belinski that coined the still actual but simplified understanding of 'human rights' and the ways they are imagined and manipulated for political ends in social life Szestow [77]. In fact the combination of thus imagined human rights with the unlimited actions of the wild social and natural forces creates the most dangerous force against humanity. Set as popular attractors in different social domains, human rights become prey of strategic political and social manipulation that is disguised by the "scientific" explanation of the "free" acts of social and natural forces that are considered (meant for public use) as the only agents that can bring social change and preserve nature. By understanding this dangerous combination for social and personal manipulation Dostojewski in his mature years as writer and public figure always used to express in ironic way his attitude towards the positivist visions of 'humanitarism'.

As a good illustration of the above considerations the following example may be used. The genuine human right such as the 'public's will to know it proper past' has been constantly violated by the central authorities in post-communist Bulgaria. Just as the bad condition of the national road system that prevents people from easy access to health care and educational facilities, the 'left to decay' policy of national archaeological and cultural heritage prevents public from their access and better understanding of the past. This policy reached that far that the Bulgarian Ministry of Culture semi-officially admitted that they do not fund archaeological excavations because afterwards they have to spend more money for conservation and restoration of the newly discovered sites and monuments. Who to blame for this short-sighted policy but the blind market forces that justify the very limited spending of money dedicated to studies of the past and its presentation to the public. And all this happens when a mass destruction of archaeological and cultural heritage goes on under the shadow of the Caribbean cigars of the illicit traders of antiques - again the justification comes from the play of the market forces of demand, supply and large profit margins.

From this point of view human rights lose their absolute Kantian-like value of categorical imperative that is omnipresent in every aspect of human life. Their value is valid only in the concrete situation and is always related with personal and collective responsibility. For example, it is not true that all archaeological sites and monuments require conservation and restoration. The value of each monument is measured by a process of total registration of archaeological heritage that allows correct assessment of each individual case according to the existing merits and risks. The difficulty in this process is to achieve balance between the individual and collective memory that makes worth efforts for preservation of a given monument. The problem occurs because individual interpretations and values for observation (distance and angle of taking photos) and memorization can differ significantly when visitors observe a megalithic monument. These views may be more united when visitors observe a church or a palace because they may be part of their national history. In the current practice of conservation and preservation of cultural heritage there is clear preference to churches and palaces than to megaliths or other prehistoric sites and monuments with "unknown" merits. The problem with these "non-understandable" sites and monuments is that when they are put in proper context and given right explanation they have the ability to train public's attention to immediately recognize their symbolic meaning that has its relevance to modern life. This way of conceptualization of preservation of archaeological and cultural heritage has not been accepted by the Cultural Heritage policies in most European countries. Due to it many valuable sites and monuments are left to decay or remain unnoticed by the general public. For example, the Mesolithic sites of the Dikilitash area, northeastern Bulgaria have similar value to the world known sites of Gobeklitepe, Turkey or Lepenski Vir, Serbia, provided they are put in right context for interpretation and explanation to the public.

From this point of view the preservation of cultural heritage is not a uniform process of ever-increasing positive practices of preservation and public display Waterton et al. [78]. Thus the preferential preservation practices of one part of the cultural heritage over another may lead to short-term positive practices but may have negative consequences in not that distant future. This is so because of the complex interplay between local and global historical narratives, which are always viewed through the prism of the national ideals. Yet in order to better understand the particularities of the national history it is necessary to understand how basic social institutions came to life and developed through time. These include kinship, mythology, foraging, nomadism, migration, sedentism, early urban life, farming and craft specialization, etc. The central problem that divides good practices from bad ones in the management of cultural heritage is the notion of authenticity and how it relates to the dominant political, ideological, religious and cultural background in a given society Tsonev [79]. In this light a good practice of management would be to respect the authenticity (or better authenticities) of socially significant sites, while enabling all parts of society to ask all the possible questions about their historical and cultural significance.

Although most of these questions are difficult to answer, their discussion should continue with the aid of critically humanistic and scientifically informed clarifications that would lead to their solution. Also the notion of multiple authenticities of a given site avoids the essentialist notion of the primacy of place which is mostly associated with claims of primacy over cultural, religious, artistic, etc. traditions. The latter recognizes heritage sites as primary places that unite tangible (now visible) and intangible (now existing) cultural traditions that form unique cultural trajectories of evolution that set communities and nations apart from other regional and supraregional traditions of cultural heritage (Winter 2012). The notion of primacy of place is an instrument that aims to divide societies into distinct groups based on epiphenomenal culture heritage traits. In fact each heritage site is unique in its combination (succession) of a series of authentic presences of different communities living at this place that cover the time span from prehistory to modern days. It is these different histories that are able to unite, based on contradictive authenticities. Only the different authenticities of a given site can create social necessity, which allows the presence of different peoples to be fully recognized, popularized and challenged from different national, cultural, religious, aesthetic viewpoints Tsonev [16]. All this diversity of worldviews and different approaches to preservation of cultural and archaeological heritage has grown to individual level that grants the right to any person to create his/her own knowledge of the past, which, however, is not arbitrary one but remains always related to the personal and collective responsibilities that one has to bear for the social outcomes of the thus understood by him/her heritage.

The Inverted Relationship with the Past

The existing differences between the state policy towards archaeological heritage and the necessities of archaeological research turn the relationship established between archaeologists and their studies of the past upside down, which generates the potential to permanently invert the communication between archaeologists and their public. While working in the task group of the World Archaeological Congress 'Conflict Situations and Destruction of Cultural Heritage' between 1999 and 2003, I found the deep mistrust of archaeologists into the state policies, which are exemplary in the case of Bulgaria. In May 2000 I have distributed through the Ministry of Culture a questionnaire to Bulgarian archaeologists throughout the country and now re-reading the summary of the questions and answers I can see how little if anything changed since then Tsonev [80]. On the one hand, the questions aimed to reveal how much archaeologists valued their work in terms of presentations of the past societies that target local, regional and international public, the development of local business, and to education of local school children and university students. Often archaeologists provide funding for university students during their stay and work at excavations, free preparation of didactic materials, and providing materials that students need for writing their course and master papers. This is done despite the fact that archaeologists from regional and national museums and from the National Institute of Archaeology and Museum, Bulgarian Academy of Sciences do not have any official contract with the respective universities. All this work is done for free, with no legal, official, or any other obligation to local communities or universities. It should be noted that most of archaeologists of the regional and local museums are official employees of the Ministry of Culture but are managed by the local municipal authorities. This is an inherent conflict situation because the priorities of the Ministry of Culture and the local municipalities diverge. The aim of the Ministry is to spend as little money as possible, while municipalities want to develop local tourist businesses at the expense of outside, state funding.

The basic line of divergence and misunderstanding goes along the line of the possible financial income for archaeologists, municipalities and the Ministry of Culture. The most profitable business for archaeologists is the organization of archaeological exhibitions in world's urban centers in Europe, USA and Japan. To the question 'do you think that part of the archaeological finds uncovered by you can be included in international exhibitions?' there were 3 negative answers, 65 - positive out of total respondents of 69. In this situation, the irony with the "free market economy" in Bulgaria is that only the Ministry of Culture has the right to make contracts with international authorities for organizing archaeological exhibitions, and it is the only institution that collects money out of this activity. It is also interesting to note that the Ministry of Culture mostly deals with foreign private companies that organize the transport, security, often even provide money for insurance of the artifacts, and organize the exhibition in the respective beneficiary museums. It is obvious that these private companies realize great profit from such activity, the Ministry takes crumbs, while local museums - very little or nothing. This kind of the old totalitarian policy: 'Everything for the institutions in the capital and under their control' - continues and increases its domination with an unacceptable rate up to the present-day.

This policy has many negative effects, among which two appear to be the most important ones. The first problem is economic. How can a small region in Bulgaria represent convincingly its historical and modern culture to a large foreign public, if its own municipal authorities have no right to organize international archaeological exhibitions that present its own archaeological and cultural heritage? Such an exhibition would be a great chance for putting on the map not only the glorious past but also all the associated with it advertisements of local products and diverse touristic attractions. Perhaps this is the reason why the interaction between the local business, administration and archaeologists is so loose. To the question: 'have you ever been invited to attend (officially or unofficially) the community council on tourism of the respective municipality?' - The positive answers number 16 against 52 negative ones. Local archaeology and archaeologists are not seen as agents of a positive social practice that has the potential to increase the popularity of a given region with its unique products and characteristics. They are left at the far end of the queue of services and activities that municipalities take responsibility.

The other negative effect of this policy is that it takes away any initiative from archaeologists working at a particular region to arrange their finds into meaningful exhibitions. This stimulates the "anonymity" of archaeological studies relative to the wider public. The archaeology of a given region remains strictly confined to the scientific domain with all the negatives of the fragmented past of traditional archaeology and its inability to present a meaningful and understandable past to the public and professionals alike. If archaeological practice goes out of its anonymity, then it generates a completely different challenge that consists of novel questions - how to present the past to a wider public in a more understandable way through a set of symbolically charged artifacts. This poses a very difficult task: how within the small space of an exhibition they have to present and describe with little words the main purpose of a given assemblage of artifacts and how they relate with each other and with its immediate social and natural environment. These questions form a serious challenge but the archaeologists that responded to my questionnaire seem to meet with confidence. To the question: 'was there (is there) a permanent exhibition in the local museum with materials from your archaeological site?' - The answers are 51 positive and 16 negative. To the question: 'was there (is there) a temporary exhibition in

the local museum with materials from your archaeological site?' - The answers are 59 positive and 8 negative. These answers show that archaeologists select interesting and symbolically meaningful artifacts and exhibit them in museum exhibitions, but the basic question remains - how well do these selected materials meet the needs of the public? Apart from special occasions when larger groups of people visit local exhibition, the general public in museums is rare or even almost absent. There are no regular contacts between museums and large touristic agencies, nor are there any announcements in the local hotels, schools, and other public events. Online exhibitions are also rare and are not popular in advertising the archaeological and cultural heritage of a given region. The educational merits of such exhibitions are also weak. They are created on the base of uni-linear arrangement of artifacts from prehistory to the early modern times. It is not surprising the scene of frequently observed behavior of some visitors. At the entrance of the museum he/she shows signs of interest and curiosity which few minutes later disappear and the visitor soon after his/her entrance goes out disappointed. These inverted relations between archaeologists and their public and administration has devastating effects on education of students. The true nature of the current practice of students in archaeology appears when they have to write their course or master papers. In order to do this, the popular practice is to find new archaeological materials trough which they simply confirm the old concepts of uni-linear evolution, where their contribution would be to put new evidence (missing links) to the general archaeological chronology of the respective region. Thus this practice turns out to be a rush for new materials, rather than competition of ideas and novel interpretations. The solemn atmosphere of archaeological exhibitions contributes significantly to this educational practice by underlining the unshakable and stable structure of social evolution where individual contributions are negligible, which fuels the "freedom" to manipulate it so that to adjust authors' interpretative schemes to the generally established ones. In this practice of "studies" of the past, the most disappointing thing is to see otherwise respectful colleagues who deliberately miss out artifacts or structures from their analyses and publications, just because they do not fit their general interpretative schemes.

Further, these inverted relations between museum curators, archaeologists on the one hand and the administration and business on the other leads to lack of any possibility for technical and professional development of the museum staff and the increase of the competences of museum staff. In the CIDOC ontology of established relations between museum collections and their curators, there always appears the figure of the external expert. It is assumed that only external experts and their expertise can authenticate the provenance of a given artifact. It is true that small and even large museums cannot develop a laboratory with sufficient laboratory equipment and trained staff that is able to analyze different kinds of materials, but as what concerns the most precious metal and marble ones, they can afford most of this equipment that is also mobile and can serve a range of museums when needed. Technologies develop and become increasingly precise and available at low price that is even affordable for the budget of a small municipality. They range from precise field recording and documentation to unique identification of artifacts, such as their chemical composition or unique scanned images of the damages on their surfaces. In this way most of the museums will be able to establish unique identification features not only of their precious artifacts, but also to characterize some materials from their ordinary artifact collections. In CIDOC documentation and in national requirements for object identification of museum collections nothing is said about the necessity for measuring (or scanning) unique identification features of precious and other artifacts. Nothing is said about the necessity of creation of regional databases of precious artifacts that contain information about artifacts' unique identification features and that they have to be doubled by a unified national database. Such a practice, apart from the greater security it provides, will have a positive social effect on communication between archaeologists, museum staff, local administration, and specialists from different disciplines that can help identification of various materials. It will increase the competence and confidence of archaeologists when working with novel technologies and will improve their field and laboratory studies.

This way of precise characterization of archaeological artifacts is necessary because the traditional way of description of artifacts in museum inventories is insufficient and vague that allows a broad range of similar artifacts to fall within their definitions. Thus artifacts that are in bad condition of preservation can replace the well preserved ones (for example, coins or statuettes) and the good and expensive ones to go out into the market of illegal trade of antiques. Even small museums through this practice of registration and documentation of its collections can generate large illegal income.

While keeping the low profile of museums and archaeological excavations and studies in the eyes of the wider public, bigger manipulations of public opinion have been tried through mass media. An internationally held manipulation is related with the existence of the so-called pyramids in Bosnia (the former Yugoslav Republic of Bosnia and Herzegovina). This issue was raised and maintained by the European Association of Archaeologists that even supported an independent scientific investigation to make the discovery that this news is a fake one. The question is: was all this public noise worth anything? If considered as negative propaganda that aims positive effect on popularization of this fake site, then it was not a successful action. The false expectations of the creators of this mythology were met by the particularities of 'archaeological cognition'. The 'public's quest to know its proper past' relies on trust that can be generated only through the feelings of authenticity of the artifact, monument or site that becomes an object of interest. Once the term 'alien' appears in news this word immediately sends a signal to the public that there is something wrong with this message and it is not worth any consideration. For the professional archaeologists even the

photos provided by the European Association of Archaeologists or other web-sites can convincingly show the untouched natural sediments and minor interference of human hands that reveal the falsity in the claims for existence of Bosnian pyramids.

There are other more subtle manipulations that are intertwined into a genuine archaeological discourse and are difficult to be detected. For example, the "prehistoric paintings" on the walls of Catalhoyuk continue to appear in interpretations of archaeologists throughout the world and seem to be widely accepted. Once they were exploited for touristic advertising - I read about them in a beautifully illustrated article in a tourist magazine - which in itself may go as "innocent" advertisement for the sake of stimulating tourism. Their scientific use, however, is not that naive. Some archaeologists including myself didn't know the story about J. Mellart, his paintings, and his relationship with the British Academy of Sciences, but others that work in prehistoric research in Turkey should know it very well. Instead of clearly putting an end to any speculations about these paintings, they regularly appear in interpretation of prehistoric art and symbolism of early sedentary and farming communities. Even, they appear in a recently made video on appearance of agriculture in Western Asia made by a leader of large-scale Neolithic excavations in central Turkey. These practices do not comply with ethical standards of any archaeological research and its public outreach and dissemination.

Another serious problem is that while the mass media are full of "sensational" discoveries, the materials after excavations that are stored in temporary buildings are left to decay. Part of the problem is that there is a lack of in situ museums that can anchor public attention and serve the nearby communities with diverse presentations of their recent or remote past. Once archaeological excavations end up in a given community, they often become deliberately forgotten. This is due mostly for financial reasons. The small budgets of the respective municipalities have to maintain the depots of archaeological materials that otherwise serve archaeologists and students. They are not visible and attractive for wider public and as such they weigh on the tiny budget of the local community.

Yet it is not only the local authorities and management of regional museums that are responsible for this state of affairs. Often archaeologists themselves come with decisions for preservation of archaeological sites that make visitors smile. For example, after finishing part of their excavations in the big Neolithic tell Karanovo, the Austrian team built a concrete wall on which marked in real scale the different cultural layers and building horizons, defined on the mound. The authors of this prehistoric "preservation" technique aimed to leave for posterity their own results. The question is what if their observations were wrong? Recent studies showed explicitly that prehistoric mounds develop not by raising synchronously all structures. Rather separate houses and structures are built one on top of the other at different times, which makes impossible to distinguish individual layers or building horizons across the entire surface of a given prehistoric mound. The latter understanding is close to the sound common sense of archaeological public and lay people alike - in modern villages and towns not all buildings are raised at the same time and this rule seems to be valid for prehistoric times too. In my view, it is highly likely that the radical divergence between the artificially fragmented and built in concrete monuments past of archaeologists and the sound common sense of their public is the real cause that stays behind the policy of 'left to decay' depots (temporary buildings) containing materials from old archaeological excavations.

Since 2001 nothing has changed in the continuing lack of opportunities for professional and career development of archaeologists employed both in central archaeological institutions, such as the National Institute of Archaeology and Museum, Bulgarian Academy of Sciences, part of the Ministry of Education and Science (NIAM-BAS), and the National History Museum, part of the Ministry of Culture and the staff of regional museums that belong to the system of the Ministry of Culture. The policy of lack of programs for training in more advanced software packages with wide application in archaeology, the availability of such software programs, the lack of information about possibilities of new laboratory methods for identification of various materials, absolute dating, and etc. continues. There is a constant lack of money for subscription to journals and purchase of books.

While the above statements became well-established professional tradition, there is one substantial change that happened in the way of funding archaeological excavations. Since the beginning of the new century there was a boom in 'commercial archaeology', which, however, has nothing to do with market economy because it is carried out exclusively by academic institutions: NIAM-BAS, National History Museum, Universities, and regional museums. There are no private archaeological companies that can do the extensive fieldwork, which is not a proper economic activity for academic institutions like the ones mentioned above. In my article in 2001 I made a prophecy for the necessity to transfer the archaeological planning and excavation to the Ministry of Regional Development and the planning commissions of local governments Tsonev [80]. The present day reality is that the above mentioned archaeological institutions have entirely synchronized their work with the Agency of Road Infrastructure, Ministry of Regional Development, Bulgarian State Railroad Agency, and other large construction companies. The problem with this "economic" practice is that these activities, carried out by otherwise academic institutions, are based on separate contracts without coordination and without taking into account the numerous problems raised by the necessity of scientifically related studies and administrative needs for preservation, managing and publishing the archaeological materials, piled up by these excavations. The real problem lies in the administrative rule according to which after each excavation season the respective field director of a given excavation campaign has

to hand over all the unearthed materials to the regional (local) museum, otherwise he/she would not receive permission for doing excavations next year. The large scale commercial excavations, however, produce great amount of various archaeological materials and regional museums do not have capacity to house them. The construction companies have little or no interest in investing in temporary buildings and where they construct some, these are away from standards for proper preservation of such materials. In the contracts between academic institutions and constructing companies there is a lack of a clause that previews supplementary funding for hiring additional staff of archaeologists to regional museums. These professionals are necessary for housing these numerous materials. They have to receive the incoming materials, enumerate and make catalogues according to museum standards so that they to become manageable massifs of data that can be further used for studies and public presentations. In the present day realities, regional museums in combination with local authorities do not have any interest in maintaining or engaging in any long-term commitment to preserve or take care of the depots with archaeological materials, coming from archaeological excavations done outside their authority. This policy is even valid for depots with archaeological materials coming from a large International Program of excavation of a well-known prehistoric site in southwestern Bulgaria. His director - also a well-known and respected archaeologist - complained to me not far ago that after finishing excavations his precisely built information system and management of archaeological materials in the depot are left to decay and the regional museum does not care about it. It is an unfortunate situation because archaeological science develops and these precisely excavated materials can further serve high-standard studies that provide valuable information about the prehistoric societies of that region.

Archaeology in Bulgaria and Europe as a whole has not only been suppressed by the political propaganda and physically fragmented by economic crises and administrative bias, but also lacks fresh ideas and interpretative models that can free it from the domination of the culture - historical approach. In the recent decades the latter seems to be reinforced by novel scientific approaches that, however, are used in a wrong and manipulative way. Among these inventions stands out the Bayesian approach to absolute dating techniques. I have provided some critic to it when considering the dating of the Neolithic Knossos, Crete, Greece. It is used in most of the modern interpretations of series of dates coming from particular sites. When used properly, these results help summarizing the evolution of the respective sites or structures by better revealing the real variation of human presence through the distribution of outliers. The greater problem lies in that the latter approach is rarely used - mostly it is applied for underlining the uni-linear evolution of the respective site or structure. This stems from the preoccupation of archaeologists with time. This does not mean that archaeological research has to turn to entirely ahistorical conceptualization of past societies through analyses of language and psychological particularities in personal and collective behavior. Contrary to this, archaeology sways to the other extreme. It is strongly dominated by radical behaviorism that sees social agency exclusively as force that causes social change through the determinant influence of the environment. Although not clearly stated as it was before, the communities from the past are still considered as mutually exclusive mechanical social entities that interact with one another in space (not geography) and tend to replace each other in a diachronic way.

There are some more problematic issues concerning interpretative potential of European archaeologists. Among them the key issue is the superficial conceptualization of the notion of emergence of personal individuality. Despite the compelling evidence of anthropological studies of the 'dividual' persons in gift-giving societies Strathern [19], the constitution of a person is still seen as being based on the social contradiction between the process of accumulation of personal wealth, prestige and power and the dominating egalitarian way of social order. Social contradiction becomes an ahistorical category that always appears in solving the question how social change happens. And if it cannot be clearly found in the form of a class struggle in prehistory, then it is looked for something else to substitute it. In prehistory this role is played by gender tensions that are not seen as natural state of affairs stemming from individual households, extended families, kin groups and in their individuality as material and artistic expressions, but the tendency is to be viewed as all-encompassing social phenomena that spread not only on entire settlements but also within the frame of archaeological cultures. An illustrative example of this way of thinking is the studies of Bronze Age male and warrior symbolic that is considered as spreading with equal intensity throughout the entire European continent Frieman et al. [81].

Conclusion

The 'public's quest to know its proper past' is a genuine human right that along with the other human rights became personal and more intimate as a discourse that interprets the life of the past societies. It also developed to the state that requires greater personal and collective responsibility of all stakeholders occupied with archaeological and cultural heritage, such as archaeologists and their public, central and local authorities, business, educational authorities, and mass media. Despite these compelling social demands, it has been shown that the state politics and large international archaeological organizations, instead of integrating, sever archaeologists from their public, and thus redirect

them from proper study of the past. Once separated from their public, archaeologists lose the human dimension of their attitude toward the past and become an easy prey for the manipulative power of social agencies with vague political interests. This state of affairs is visible both with government politics and at the level of local authorities. In almost all European countries and elsewhere archaeologists are the last to be funded with crumbs from what is spent to other, lavishly funded economic activities and economic developmental programs.

One of the problems that reinforces this misunderstanding of the positive role archaeology can play in modern society is political. The particularity of archaeology is that it is a domain of human knowledge that produces in great amount symbols that form a cognitive space that is immediately recognizable by the wider public, without interference of mediators. This large symbolic cognitive space, however, often contradicts the written narratives of the official propaganda and control over the knowledge of the past. This is also supported by the illegal trade of antiques which denigrates the archaeology of local communities to mere suppliers with expensive goods - the value of archaeological artifacts is reduced to equivalent of money, which as economic practice does not promote other profitable economic and positive social activities.

The other reason for this state of affairs is the misunderstanding of the potential of local archaeology for branding unique local products, touristic practices and educational activities. As a mass production of symbols domain of human knowledge, it discovers not only great amount of symbols, but also unique symbols that cannot be found anywhere except when combined in large taxonomic categories. These categories involve the unique combination of local rocks, soils, micro-climate that gives the unique flavor of local products. By accentuation of diversity and uniqueness of archaeological symbols, archaeology can help not only branding of new local products but will be able to improve human learning. Instead of accentuating on similarities based on formal traits that are difficult to be memorized and appeal to human attention as the numbers of a telephone book, archaeology can focus on unique and diverse local features, which are better understandable by the wider public and their appreciation of modern culture. People want to see in museum exhibitions and other archaeological presentations not artificially reconstructed past human existence, but traces of the strategic presence of past communities that are objectified through complex symbolic systems with aesthetics based not on modern utility and simplicity criteria, but on ‘mythopoeic’ understanding of creation of the world and human civilizations in it.

Chapter 10: Consuming the Past, Consuming the Present, and Cannibalism of the Self

Introduction

Taste and visual experience seem to be radically different phenomena as stimuli and cognitive devices in the workings of human brain. It is easy the reject this statement, but the real question is which one of them is more sensual? In some real and imaginative social contexts it can be said that taste is much more sensual than vision, but in other situations it is the opposite. Looked from the point of view of the pleasure principle they both internalize external objects. This internalization, however, differs significantly in terms of sensual experiences that form mixed or rather 'nested' experiences of pleasure and disgust. These are largely unconscious experiences that cannot be classified in taxonomic or any other general hierarchies. This means that they are personalized psychological states that are individual in nature. It is true that taste largely varies from a person to person and tends to change during lifetime. From the point of view of the modern urban culture this variation in human taste is labeled as wild, untamed feeling. This is so because taste cannot be classified in rigid categories and cannot be framed in an urban space and time. But is this general understanding of modern urban culture true? It is rather not true, because taste has its own rules of initial spread in a certain urban or settled area, its own timing of evolution, and locales of long-term establishment. For example, the distribution of McDonald's fast food restaurants in Sofia, Bulgaria seems to be similar to that of the already described spatial distribution of churches. In both cases the distribution forms a random network that encompasses the maximum population of the citizens of Sofia. The reason for their common distribution patterns is similar. Christianity was foreign religion during Ottoman times and before and after the liberation of Bulgaria from Ottoman rule, Orthodox Christianity had to regain its influence and spread over the entire population of the growing city. This is in stark contrast to the groupings of cathedrals and churches in other urban centers, where the authority of a king or archbishop puts them together in order to compete with the architectural forms of other political and social agencies for greater influence on populations living in a given dense urban environment.

McDonald's restaurants spread in an unknown environment as it was the "post-communist" Sofia and their distribution acted in a similar to the spread of churches way in order to cover as much as possible of the population of the city. This was a novel culture in the old tradition of fast food in Bulgaria, which probably started with the Arab influence through the Ottoman Empire. Yet, this otherwise diverse culinary culture was denigrated by the Communist authorities to shabby and dirty restaurants that in fact served only fast food. The change of political power and the other social and economic changes of society were that shallow that they did not influence the dirty environment of Bulgarian fast food and the other restaurants. Yet the appearance of high-standard service and clean restaurants of McDonald's (Figure 10.1) changed radically the Bulgarian restaurants that had to follow the good example and also became clean and with good services.

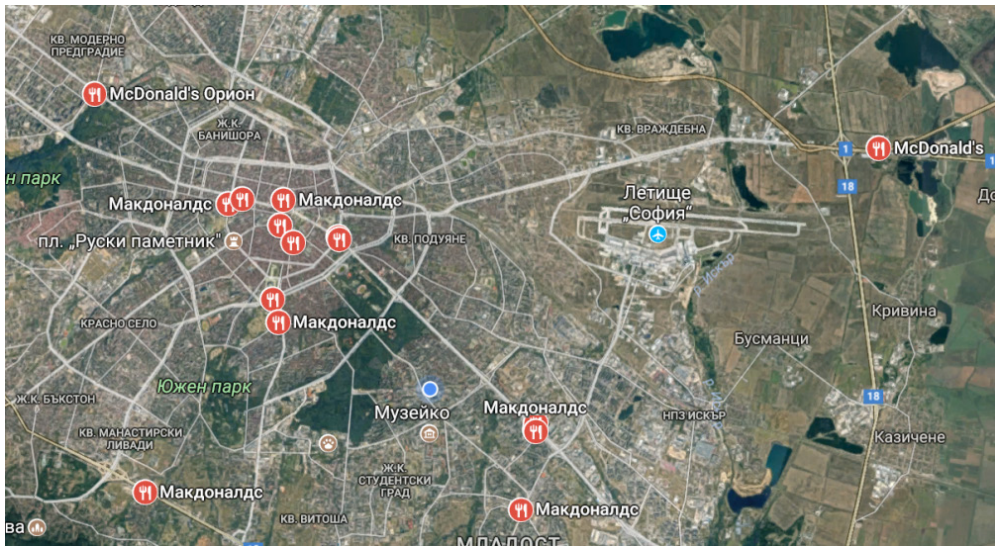

Figure 10.1: Distribution of McDonald's restaurants in Sofia.

Taking into account the presented above considerations, it is not a surprise that visual experiences have similar effect on human cognition. An illustrative example of how novel technologies can stimulate the way of cognition of visual and other non-verbal presentations of the past is the use of Geographic Information Systems (GIS). GIS as a system of organization, management, and analyses of large amount of spatially distributed data has a number of advantages. However, there is one systemic feature that slipped away the attention of the mainstream GIS

specialists. The ways people communicate through GIS and the ways they create new knowledge seem to receive little attention by the research community, GIS developers, and specialists in communication. To a certain extent this lack of research has been increasingly compensated by modern discourse analyses based on social semiotic theory Halliday [82]. The conceptual framework of this theory defines different semiotic resources other than language and analyzes their relations with each other, specified as inter-related semantic systems. These semantic systems are expected to fulfill four functions: to construe our experience of the world (experiential meaning); to create logical relations between experiential meanings (logical meaning), to enact social relations (interpersonal meaning) and to organize meanings into coherent messages in text (textual meaning). In this way, this social semiotic framework accounts for multiple strands of meaning with semiotic resources and their underlying systems as tools for meaning-creation. On this basis discourse analyses of these multimodal phenomena can be organized in several ways. A relatively straightforward approach to such data may be the one that quantifies data coming from different semiotic resources such as linguistic choices, camera angle, gaze and framing O`Halloran [83]. Through application of a linear transformation of this data it is possible to find the best combination of semiotic resources that maximizes the impact of speakers to their audience. In order to perform this type of analyses, however, it is necessary to fulfill one important condition. The news that the speakers (in the present example) try to communicate at best to their audience have to be very important and interesting. This condition cannot be met by the most of the news and data that reach audiences via TV, Internet, Radio, scientific data. For example, archaeological spatial data lack such a direct relation to public and do not share immediate understanding of the public and even of professionals. But when the public acquires archaeological spatial data by means of GIS as an integrated historical-geographic presentation the otherwise featureless data become important and understandable. This behavior of the public and of professionals can be described and explained by introduction of the concept of a complex semantic state-space Koleva [84]. Through this formal procedure, it is possible to describe a real situation when humans are under the stress of great amount of incoming information. In order to facilitate its processing, relatively stable cognitive explanatory schemes were established by biological evolution. Their work is supported by a specific way of processing the incoming information flow. Recent studies established that human brain reacts best to a distributed information processing Wu et al. [85]. Updating a cortical representation is likely to require a regulation system that broadly affects the population of related neurons Hirayama et al. [86]. Starting from the understanding that particular stimulation of brain activities leads to predominant influence of external stimuli which induces better learning of new representations, while alternate stimulation of brain leads to better recalling of previous learned information makes possible understanding of the importance of the increased connectivity between an external dynamical environment and the internal dynamic of information processing of the brain. Thus the already established cognitive explanatory schemata undergo a continuous process of updating and re-assessing. This is a complex process that acts in two opposing ways. Experimental data show that the museum public that acquires new information from a GIS-aided historical-geographic presentation experiences a continuous process of alternating explanatory concepts. Each participant undergoes a process of maximizing the capacity of his/her cortical representations that allows better conceptualization of cases when the up-coming new information converges within or diverges from the existing explanatory schemata. If the new information converges within their explanatory limits, these schemata remain stable. In case of divergence, a new explanatory scheme emerges in a gradual or in a more rapid way. It is set aside from the old one or completely opposes and replaces it. It is this conceptual network of creating meaning through the ways of improving the process of acquiring new information and recalling the old one that makes possible constitution of the concept of a complex semantic state-space Koleva [84] in brain processing of new information. The concept of a complex semantic state-space allows simulating the process of creating meaning out of spatial data and typifying human behavior in new learning situations. For example, in order to initiate a process of concept transformation within the existing set of explanatory schemata, it is necessary to submit a group of people to:

(i) a dynamic external presentational environment, and to

(ii) set up for them explanatory tasks (game-controlled environment) in order to understand how far the process of concept transformation proceeds successfully.

The question is how humans conceptualize new information within the framework of popular understanding of history. Some particularities within the general framework of a semantic state-space are being observed. In particular subjects acquire new information by manipulating counterfactual information and by creating their own hierarchies of newly created situated knowledge that have differentiated contribution to building one or more explanatory hypotheses. Thus the learning behavior of the public in cases when it acquires new information from an integrated historical-geographic presentation involves phenomena that are a combination between 'split attention' (attention divided between historical facts and geographic details) and 'split understanding' (hesitant behavior when neither of a range of rational arguments dominates). Thus, at the explanatory level of a semantic state-space, when we deal with geographic presentation of historical data our attention becomes split between an automatically generated historical explanation (mostly time-related) and individual examples presented by geographically different areas (working memory performs better with visualized spatial information). It is exactly this phenomenon of "hesitant" behavior of

people that defines the two major ingredients of a semantic state-space: 'information band' (information that is understood and processed) and 'noise' (information that is not understood and rejected). According to the existing data, people are not uniform in providing historical explanations and often change their state between the group of "confident" and the group of "hesitant" people. There is an explanation of this complex reaction of public at a biochemical level of the functioning of human brain. In response to dynamic external stimuli the brain initiates specific biochemical reactions that result in chain-like structures and allow complex hierarchies of semantic structures to emerge in a relatively stable form. It is worth noting, however, that this type of analyses is further complicated by important background conditions - the nature of the popular historical knowledge has also to be taken into account. Normally, people have evolutionist understanding of history and associate historical themes as stages of social evolution. In such a situation the most frequent question is 'when did this historical event happen?' This is the trivial question that does not provoke interest or deeper understanding. In general, factual questions about the time a given historical event happened are among the commonest ones because people do not have any other choice. GIS, however, through computer generated cartography is able to provide people with the new option to explore counterfactual information presented as geographically distributed historical examples that support one or more explanatory hypotheses. This possibility corresponds to the inherent human quality to seek for deeper knowledge of the past. As deeply rooted human behavior this 'desire' is based on the fact that historical knowledge has been strictly controlled by state, religious, group's authorities. The public's understanding is that official histories hide the truth, and deprive people from their true knowledge of the past. In these circumstances the geographic scope (as bearing more easily memorable anchor points associated with counterfactual information) of historical knowledge has the potential to induce change in public understandings. For example, geographically distributed historical examples can break the evolutionary trend in understanding history and may provide different views on why certain historical event happened or not happened to the same degree in different regions. The basic drive of this 'la volonté de savoire' (popular will to know) is the node of questions: who are we as humans, peoples and society? As with M. Foucault suppressed sexuality Foucault [87] these are the questions that emerge from suppressed knowledge of the past and seek explanatory schemes that involve additional information that is not included in official statements and explanations Tsonev [88].

These examples show that human cognition through taste, visual and the other sensual experiences is a complex process that, however, can be positively stimulated by conscious and unconscious stimuli. The examples of better services and high standards of hygiene and the geographic distribution of historical facts stimulate people for better experiences that simulate true phenomena and try to avoid their substitution with fake data and bad services. Yet human nature does not evolve only on the positive side of personal development and social practices. The teleology of subject development in the coupling between cognition and emotional responses to the external world offers a wide field of creation of unique personal and collective attitudes. Of greater importance to the cognition and emotional coloring of the relationship with the outside objects is the process of objectification that refers to the process of externalization and sublation Miller [1]. The particularity of this process is the arbitrary position the outside objects take under subject's intense attention and internalization relative to their representative categorical internalization and emotional charge. The traditional understanding of these complex processes explains them with an accent put entirely on the side of unconscious. It is based on two intertwined unconscious actions: representational imitation and the 'ludic' mode of their internalization. But these experiences have the potential to distort the reality by allowing object's abstraction to reach a level where subjects have the potency to exercise imaginative play with these objects as they desire (ibidem: 89). In this case the rule-based games through their mostly unconscious skillful actions that involve imaginative players are the only source of learning and practicing morality. There is no doubt that rule-based and the other games are positive for the child's development that empower him/her with the ability to make abstractions of objects that stay outside space and time, but which have negative site as these objects may be arbitrarily attached with different emotions and values.

This interpretation, however, seems to be problematic as long as it denies the role of language in the process of objectification and especially in formation of abstract part-objects. It is true that an external cognitive space with its spread of important cues across its multidimensional surfaces can be immediately recognized and internalized by a person with trained attention. In this line of consideration, objects cannot be considered as relatively passive signs whose role in human cognition is merely reduced to external stimuli. Material objects with some of their properties play more active role in cognition processes and even shape them through their potency to signify, symbolize, connote, denote, realize, constitute, reflect, embody and even objectify the outside world. The importance of this process is not the objects themselves as external entities with their features, but the relations they build as internal representations of the world. And this process is considered to be largely unconscious without the interference of language (ibidem: 95-98). Is it possible language to be excluded from human cognition and learning, provided taking into consideration the fact that past and present society is based on communication and exchange of information?

To a certain extent ordinary language can be considered as semi-unconscious way of expression in everyday communication. It consists of about 300 to maximum 500 words and phrases that are automatically used in many mundane situations just as addition to the other non-ver-

bal semiotic resources that in some cases may be used as vehicles of the mainstream transfer of information. Conscious, conceptual control has little to do with this type of communication. It forms a loose hierarchical order with control at the unconscious bottom of conversational capabilities of the respective subjects, while the conceptual superstructure defines vague discourse, organized on general themes that describe particular human activity like cooking, bating, etc. Perhaps this represents an adaptation of language to the other non-verbal cognitive resources that assures the smooth functioning of mundane activities without bearing a heavy load of cognitive control. To a certain extent professional languages remain similar to the everyday, colloquial speech but with different functioning as, for example, the ones developed by medical profession or engineering. Their similarity with the ordinary language is that they interact at close range with reality - symptoms of sick people or qualities of the materials used in the construction of a particular building. The difference is the development of complex and abstract professional language, which is not understandable by the lay people. Yet despite the high level of abstraction, the abstract entities have relatively easy and adequate language terms that match the existing real objects in the real world. So there is a tight relationship between the abstract language and the reality it describes - a patient can be cured or not; a building - stand or not.

It is a different relationship established between the abstract languages and a completely abstract or imagined reality. This concerns the formal languages of literature and mathematics. In Lacanien sense, there is an enormous pressure exerted by the conscious, conceptual control of a formal language on the unconscious. It is the heavy cognitive load of the conscious logic or literary plot and characters of the heroes in a story that shape the behavior of their authors Lombardi [89]. At first glance, such a formal language will be dominated by symmetrical relations that are easily detectable within the syntax structures. At a deeper level of understanding of this phenomenon, it becomes clear that even formal languages have asymmetrical and contradictory structure. Despite all the efforts of imposing a stepwise logical control in a highly formalized language, the irrationality always starts to dominate and forms at sufficiently higher level contradictions within the otherwise logically defined entities. It may be expressed by the abnormality in drawing parallels between part-objects as an abstraction of the part that stands for the whole object and the whole objects themselves. If in scientific discourse this is an appropriate method for analyzing and modeling various phenomena through logical descriptions - formal language - in social sciences it may lead to abstractions where parts replace whole objects such as human beings. In this respect the conceptualization of symmetry in art and design is a final category that is engulfed by the asymmetry, which as a category of human expression represents infinity and thus better characterizes human behavior. For these reasons the art of small scale societies are considered as symmetrical, which is opposed to the modern art and design, which are basically subjected to the principles of asymmetry, simplicity and uniqueness of style.

From this perspective consumption appears as a basic human quality of complex perception of the world, including all the possible sensual stimuli. It involves direct consumption of the past at the moment of observer's engagement with the artifacts from the past that defines particular angle of perception of the present as already lived past, and development of a negative technology of the self - the cannibalism of the self - that is expressed by erasure of collective memories of archaeological practice, erasure of individual and collective memories of archaeological sites and their excavators, and in this way leaves free space, where ghosts excluded from the knowledge of the past will roam the existential space of modern society.

The Archaeology of Vampires

As it has been shown consumption is a complex personal and social process that is more related to cognition than to subsistence. Human culture is not a culture of a series of successful adaptations that improve the options for survival of humanity - it is a symbolic complex of an enlarging field of affordances, both internal and external, that increase possibilities for acquiring new knowledge and improving communication. In this general framework of human cognition and knowledge, archaeology takes a specific place between the knowledge of the past and knowledge of the present. It cannot be wrong to say that present is always situated in the past, which poses the difficult semiotic task of finding the right place of the present into past human cultures. For example, it is the modern urban culture that exerts greater influence on professional and public understanding of the past. This practice may be qualified as a simple and dualistic way of knowing the world that always puts "modernist" views at a superior position than the ones' featuring the past, which are thus often labeled as "primitive" habits and understandings.

One of the domains of the past that is strongly influenced by the "modern" urban culture is the theme about cannibalism of small scale societies. It has little popularity in anthropology and remains totally forbidden in archaeology - such things never happened with our "noble" savage predecessors. I do not remember or I do not know if anywhere in the world, an archaeological or anthropological exhibition dedicated to this topic to be organized. Apart from single forensic studies, archaeological literature is silent as it concerns the otherwise rich literature of mortuary practices. 'It meant to be exotic not true' - answers the popular character - Professor Tutka - from the humoristic Polish literature of the known author Jerzy Szaniawski. The story is simple and it happens when Professor Tutka as a student with a talent for improvisation worked as a journalist for a newspaper. Once he had to interview a sailor who claimed that he had been captured by cannibals in a small archi-

pelago of islands. Their conversation was interrupted by an anthropologists and one missionary. The first claimed that cannibalism on these islands is impossible because he studied the islands and their inhabitants are vegetarians. The second person argued that the inhabitants of the island have a religion that does not allow them eating humans and animals alike. Thus this story shows in an elegant way how modern science and religion deny existence of cannibalism and may turn a true story into an exotic one. As for the true comparison between the cannibalism of small scale societies and the destructive means of the "modern" society, I would recommend reading the last few chapters of 'Tristes Tropiques' of Claude Lévy-Strauss [90].

If the practices of consumption of human flesh by Amazonian Indians, considered in the light of the understandings of Lévy-Strauss and even from modern moral standards are positive social rituals of union of a group, passing down human virtues and providing possibilities for rebirth, then there are other destructive technologies of the self that are related to the modern knowledge of the past. It is known that archaeologists are not neutral in their feelings towards the excavations of a given site, just as natural scientists do when they carry out an experiment. The personal lives of archaeologists and the hidden stories behind them often form an intricate part of the true discovery of the past. While their life stories belong to the history of modern days, their discoveries form part of the present knowledge of the past. In this way past intertwines with present in a complex way that cannot be easily deconstructed to its constituent parts. It is these personal histories that the modern urban culture tries to permanently erase from present-day public knowledge of the past and thus gives rise to the archaeology of vampires. The latter is not of concern with the TV presentations of a particular ritual funerary practice from medieval times from Bulgaria or Czech Republic. This is not also the literary recreation of the legend of count Drakula or horror stories. It concerns the personal histories of some archaeologists that are intimately intertwined with their excavations that later become popular tourist attractions. The question is why these complex, entangled stories have been erased from the public memory? Even some sites with significance for understanding key evolutionary elements of humanity become also sealed and the collective memory about them erased. This practice I call 'archaeology of vampires' that creates ghosts that haunt the present-day knowledge of the past.

Examples of this cannibalistic to the one's own personality practice are numerous. One of them stands out because of its international scope and significance of the negatively charged 'hesitant' ways modern urban culture gets to know the basic features of humanity, while it denigrates human values, that the personal stories of archaeologists bring to the sites they excavate. For example, it was a practice of the Prehistoric Department of Archaeological Museum and the then Bulgarian Archaeological Institute to celebrate some occasions with invitation of a small band of Gipsy musicians that played their music at the staircase of the museum hall. From the point of view of modern urban culture such a practice is improbable, and the present-day institute authorities would never do anything similar like this. The "high aesthetic" criteria of modernism, however, do not meet those of the noble presence among the audience of one of these occasional celebrations of Dorothy Garrod, the first women member of Cambridge University, UK. It is very little known about the D. Garrod's research in Bulgaria, and nothing is done this unfortunate state of affairs to be corrected. Once I used to work in an archaeological trench in the Temnata cave, Bulgaria and part of our trench touched an old one from 1928 left by the joint work of D. Garrod and Rafail Popov (Bulgarian archaeologist). Later I got to know some of the histories of her stay in Bulgaria, the most important of which was the excavations in the Bacho Kiro cave. The significance of excavations in Bacho Kiro was equal to these done in Mount Carmel and put on the map this site as bearing crucial information about the appearance of modern humans. The interest was great and in the second half of the 1970es a Polish-Bulgarian team carried out new excavations. Of greater interest for me now is the fate of the archaeological site itself. To my surprise, guides of the visitors' tours to the cave do not mention that there were Palaeolithic excavations in the cave that yielded significant results. All they mention with pride is that an English team found a skeleton of a cave bear that is now exhibited (?) in the British Museum. After the excavations of the Polish-Bulgarian team, the communist authorities of Bulgaria had intention to build a small museum 'in situ' that would have presented some of the results of these excavations. This good intention never came true and instead all the surfaces of the sediments at the entrance of the cave were covered with concrete. In this way the excavation area was sealed up and no traces that remind for this important site are left visible for the visitors. Now there is a renewed scientific interest of this site, but apart from a small portion of sediments and a profile, they cannot open greater access to the site. Otherwise, the stories around D. Garrod and her research interests that traced future research, her disappointment with the tense academic life in the Cambridge University that forced her to leave her important position, and her return to the real life of scientific excavations and research could have framed a good narrative that could have matched the expectations of the visitors to the Bacho Kiro and Temnata caves in Bulgaria. Instead, all the information related to her activities in Bulgaria remained not well sealed up that fuels the existence of ghosts in the ways the present-day knowledge of the remote past came into being.

The ghost of the G. Garrod is accompanied by the ghost of James Gold. Due to his research, modern Bulgarian archaeologists have defined the basic pottery styles and prehistoric cultures. Yet they never mention his name in their works. The most done so far is the creation of a

suspicious NGO named after him, just after the fall of the communist regime, but afterwards no activities related to popularization of his ideas have been carried out. It seems that the memory of J. Gold had been sacrificed by the members of the underground of illegal trade of antiques. More than that a major substitution of his ideas goes on as what concerns the spread of Neolithic cultures in the Balkans. This concerns the strong maintenance of "empiric" studies of spread of earliest farming communities from Aegean through the Central Balkans and to the north, where they turn eastwards thus populating north Bulgaria. Thrace and south Bulgaria are totally avoided by the mass migration of early farmers. This "fact" was once explained from a cultural-historical perspective Todorova, Vajsov [56]. Nowadays, the same process is explained by more refined methods including Bayesian modeling of the absolute chronology of the region (especially cutting off the very early date from Dhjuljunitsa-Smardes, north-central Bulgaria, the lack of AMS re-dating of the earliest Neolithic sequences in Thrace), and climatic changes that directed mass migration throughout the Central Balkans up to the Carpathian basin, where they turn eastwards to populate north Bulgaria Krauß et al. [91].

This practice of erasure of memories and creation of ghosts is typical feature of modern urban culture and encompasses all domains of human knowledge and activities. This concerns world known writers and public figures like Dostojewski and Kazandzakis. While in the overt communist regime both authors were marginalized and not talked much about, in the so-called post-communist era both are completely forgotten. In the worldviews of both authors, there is something disturbing for the mainstream or the most voiced views on human rights. For example, Bulgarians should hate Dostojewski because of his hesitant position about the Russian-Turkish war that liberated Bulgaria from Ottoman rule, and what concerns his views that denigrate the positive feelings of empathy on the acts of saving the "hugely" exploited brothers - Slavs - enslaved by the "cruel" oppression of a different religious and political regime. For the same reason Greeks should hate N. Kazandzakis because he revealed the negative face of the process of liberation, which is marked by the cruelty against Turkish population in Greece and Crete, and the cruelty between Greeks in Anatolia. He was one of the saviors of the fleeting Greeks from Anatolia from Turkish nationalistic ethnic cleansing, but still his views on the two sides of such an act as liberation of a country or enslaved population is largely unpopular and never shown on tourist fliers.

It is of crucial importance when one tries to assess a given social event to be aware of its double-sided nature, which is always asymmetrical. The asymmetry stems from the fact that the arguments in one or the other end of the line of reasoning tend to be context dependent. In one context some arguments will prevail, in other - other, while their social significance will vary too in time and with the evolution of human culture. But when argumentation takes into account only one side then it automatically establishes symmetry of human relations. In such cases symmetry means ahistorical, context-free nature of the expressed views that often are related to extreme political actions. From this point of view the notions of symmetry and asymmetry play significant role in the modern urban culture. For example, symmetrical views on the social significance of a given monument are considered to have two opposing sides: the subject (observer) and the material object (the monuments) that have equal cognitive values. Through the process of objectification of this object, its internalization goes through creation of a part-object that does not stand for the whole one (one-sided argumentation) that leads to what is similar to a child's behavior - capricious or rather arbitrary destruction of part or the entire object, which often happens in adult culture for reaching certain political ends.

Modern urban culture is also responsible for establishment of the so-called symmetrical archaeology. It grounds its argumentation on views about the existing symmetry of the relationship between subject - object. It is true that artifacts, signs and symbols from the past are not passive signs on which background archaeologists shape the true appearances of the past societies. But the opposite view is also unacceptable. Only to a certain degree cognitive artifacts, signs and symbols from the past, and the artificial intelligence in the present shape actively human culture and the knowledge about the past and present human beings, society, and nature. In fact, their active role in the culture defined by humans is that these artificial cognitive devices require the acts of an external mind, which is situated outside the human one. This line of argumentation repeats the old idealistic argumentation for existence of an embodied supernatural mind, which in the present-day contexts appears as argumentation for the alien's interference into human culture. The basic fault of these kinds of argumentation is the hidden assumption of an existing duality in subject - object relationship. The true nature of this relation is not subject - object but subject - subject relationship that is always established relative to an object or a group of objects. It establishes a communicative relationship between two or more persons, each of them spreading their set of cognitive cues on the object of common interest. The communication between them goes through the process of matching the different angles from which each person receives information and creates and exchanges new knowledge with his/her partners. If a person becomes isolated from the outside world, his/her process of objectification is in a passive state, which means that the outside objects take an arbitrary position relative to their internalization and embodiment. When a person is in close relationship with the environment and other people he/she is able to find the proper cognitive place of the incoming information that can be used at the maximum of his/her cognitive and conceptual capacities.

A good illustration of the above theoretical considerations and their practical application is the use of the notion of symmetry by the modern urban culture. Symmetry dominates most of the construction works and especially public architecture. But there is a good argumentation for this dominant position. There are numerous construction rules for stability of any building and their execution requires symmetry of the design, which is often the cheapest one. Thus from the point of view of utility, symmetry plays a positive social role in public and private architecture and the other construction works. But what happens with the representation of human body in an urban environment. Symmetrical statues dominate. For example, with few exceptions all human statues in Sofia are symmetrical. The only true-and-true asymmetrical monument representing in an abstract way the historical past of Bulgarians was the one next to the Palace of Culture. One of the true reasons for its destruction was its asymmetry and unusual, abstract form that looked so ugly in the eyes of the City authorities. Thus the too modern, one-sided, symmetrical views of the central and city authorities of Bulgaria led to the extreme political action of destruction of otherwise socially valuable monument, which used to show both the positive and negative sides of the visions of history by the previous regime.

Asymmetry played and continues to play a significant role in shaping collective emotions through artistic and high craft material objectification of moral assessment of human action. It may be observed in the first ever found artistic expression of humanity - the pane known as 'Pendant du sorcier' with an image composed by parts of the bodies of a woman and bison in the Chauvet cave in France. It has been interpreted as if human art appeared through the discovery of motion in the representational capabilities of giving visual expression of an abstract notion about the world and the place of the humans in it, Weller [92] (Figure 6). In fact, it is a strongly asymmetrical representation and it pictures out a combination of human - animal features that underline in a dynamic way the relations between the different body parts. From an empiricist interpretational point of view, and because the head of the image is the one of a bison, this is a representation of a woman - shaman with her mask put on her head. It is known fact that the images of women are often associated with images of bison in Palaeolithic parietal art. In my view this fact only underlines that close relationship of the conceptualization of human existence with the animal world. Humans do eat animals whose souls or spirits continue to live in other animals and plants in the natural and supernatural worlds. The intimate relationship between animals and humans is expressed by the highly emotional cycle where internalization of animals through their consumption gives them chance of rebirth in the natural and supernatural worlds. Perhaps in the same way the consumption of human flesh played significant role in the emotional unification of a small group of people, not to survive, but to be able to find its proper place (build strong collective identity) in a given territory and outline territorial boundaries of their identity that separates them from the neighboring communities. This strong emotional charge becomes visible in this image from Chauvet cave - it is set in motion with features in the animal's head that successfully represent human features that point to one direction, while the body sways into the other [93,94].

As it is visible from this very early image, human emotions shape human society since its initial establishment. There have always been fears that come from the moral dilemma of eating fellow creatures that brings benefits on the one hand, but, on the other, the spirits of the eaten animals may seek retribution. The conceptualization of these notions and emotions mature in a more complex conceptualization of human society and its relationship with nature and the neighboring communities. The representations of headless bodies and vultures taking away human heads on the stele of Gobeklitepe represent these complex understandings of human society. Here the benefits come not from mere consumption of animal or human flesh, but from the established social order through collective performances of rituals and communal feasts that are staged as theatrical presentations within a monumental combination between particular elements of the natural and artificial environment. What is feared is the social chaos (in the sense of Greek mythology, not the one understood by the complexity science) that implies explicitly social demands for retribution to those that would bring about it to society [95,96].

From this point of view the notion of sacred space in the much later, advanced religious systems is transformed into and represented by the conception of 'landscape of pain'. In traditional understandings, the concept of 'landscape of pain' is related to establishment of social control, which prevents the appearance of 'social chaos' in the form of rupture and social change (always associated with painful social transformations). However, it is more related with personal negative technologies of the self. The abnormal destructive human practices in everyday life have to be internalized, and their part-object, part-human body conceptualization is painful for the perpetrators of these violent acts. The reduction of living creatures to part-humans, part-animals and -plants alike to mere objects that serve particular, often capricious ends is a way of coping with this painful process. They objectify the perpetrators of these acts through the practice of 'cannibalism of the self'. Thus these complex emotional states and the landscapes of pride and pain have been acknowledged as early as the prehistoric times, when they have been artistically represented by exemplary models of human heads (sculpted portraits), made by the inhabitants of the Balbunar tell and tell Smyadovo, northeastern Bulgaria Tsonev [5].

Conclusion

It has been shown that consumption is a complex process of sensual experiences that involve all the possible external and internal stimuli. It is directed not that much towards adaptation to survival mechanisms but is more related to reducing the cognitive load in everyday human activities. In its mundane role of reducing the cognitive load the sensual experiences of taste showed the high preferences of restaurants that have higher hygiene standards and better services. But when they are combined with visual and other stimuli they show their ability to shape extraordinary human activities such as the moment of engagement with the past. In this case, the role of spatial data and the possibilities of personal interaction with space and time with the aid of the new technologies such as GIS and presentations on a TV or computer screen reveal the increased potential of the process of distributed cognition to cope with the huge amount of incoming information. Verbal and non-verbal semiotic resources play the role of vehicles that lead to multimodal interaction with an information environment.

When considering their role in various human activities it has always to be taken into account the particularities of personal ontogenesis. In particular, these are the negative sides of the process of objectification where internalization of part-objects or part-humans takes abnormal dimensions. The possibility of transformation of imaginative onto real objects and persons underlines the motivation for extreme political actions. In this light the social role of the notions of symmetry and asymmetry has been shown, where examples of how both notions underpin social actions have been shown.

On this background I draw the theoretical framework of what I name as 'archaeology of vampires'. It is not based on the literary representation of creatures sucking human blood, but on the selective erasure of information and memories about archaeologists and their excavations and research. I found that there is an intimate relationship between archaeologists and their research that as a complex reality provides significant contribution to modern history on the one hand, and to the knowledge of the remote past on the other. It is this relationship that has been severed and its separate parts give rise to the existence of ghosts that constantly haunt the genuine human right of knowing his/her proper past.

Out of this severed relation between the knowledge of the present and the past appears the negative technology of the self that I name as 'cannibalism of the self'. It is that ghosts pop-up from the erased facts and misunderstandings of the existence of 'cannibalism of the other'. At first glance this radical erasure of seemingly disgusting acts of consumption of human flesh is another diamond in the crown of modern urban culture that is often named as 'post-truth'. The latter is an imaginative, fictitious construct that aims to replace the reality. By the very act of replacing reality with an artificial, imaginative world, humans give rise to the strongly negative practices of consumption of the self. There are three main consequences of this practice. The first one is the gradual transformation of cannibalism of the other into cannibalism of the self. While the first notion has positive social outcomes as it is based on the idea of 'alterity' of the self as identification with the virtues of the deceased enemy or friend, thus giving them chance for rebirth, the second one points to destruction of the self, based on the idea of retribution. The second consequence relates the dynamic relations of symmetry and asymmetry in moral assessment of human activities and social events that become visualized and represented as context and time dependent combinations of human - animal creatures in real and abstract forms. Their strong asymmetrical nature of representation suggests that all human acts are based on biological instincts that are cultivated by human culture. The essence of the cultural cultivation of human acts consists of their correlation with the fear from retribution. Out of this correlate stems the third consequence. It gradually transforms the imagery of "primitive" human - animal creatures into the complex imagery of human fear and pain that is understood as expectation of immediate action of retribution, just like it evolves in a Shakespearean drama. This transformation has its first non-banal visual representations known from Gobeklitepe, Turkey and Smyadovo, Bulgaria that remain valid and are further developed with time, up to the modern urban culture.

Conclusion

This book is built as a kind of a dialogue between "modern" urban and "primitive" small scale prehistoric cultures. The basic idea is to challenge the influence of modern political, ideological and moral understandings on professionals and public alike and their knowledge of the past. So the dialogue between the two different approaches to the past: one from the point of view of "modern" 'perspectivism' and the other - the teleology and ontology of professional archaeologists and their public that find their match in teleology and ontology of past human actions, runs as a critique to the deeply embedded notion of "modern" supremacy in interpretation of the past, that belongs exclusively to a small circle of knowledgeable persons. This notion of supremacy has its deep roots into the ideology of white supremacists and racism that is coupled with ideas of cheap labor and a kind of "market" economy that always works in favor of this small, "knowledgeable" circle of people.

As an ideology of this narrow circle of people it has flexibility and presents itself as a critique to its own core ideas through leaving at large the workings of "uncontrolled" forces of nature and society. Thus it is not them but the mere forces of the market that justify practices of mass financial frauds or external factors like "religious" wars, natural disasters and epidemics that cause mass migrations.

The above presented ideas are detectable in the mainstream interpretational models about past societies. It all comes down to "reconstruction" of human existence where external factors are always present in any situation as convenient tools for explanation of everything. From this point of view the entire book revolves around the main question: how the avoid the dangers of extreme objectivism (measurement of the effects of external factors) and relativism, which are tightly related to one another concepts that appear as a real threat to any kind of interpretation of present and past human activities and social phenomena. This danger has been shown in the first chapter by providing example of the volatility of Municipality of Sofia in taking decision where the fast transportation lines of the constructing underground (Metro) should pass first. Similar example has been given with the semiotic tricks of presentation of TV news with the aim to cause chaos in wide TV, Internet and other audiences. While subjectivity and volatility in taking decisions is easily detectable in modern social events, it is not that easy with the human and social actions in the past and the material traces they left behind them.

In order to improve this unfortunate situation it had to be found a simple and effective analytical tool that is able to easily detect the otherwise capricious nature of some social events. I propose this to be the notion of 'human dimension' that may act as a prism that focuses researcher's attention on the important elements in each social context and the associated with it actions of various social agents. The concept of 'human dimension' involves two elements. The first one is the human body as a compound entity that encompasses all human learning practices and embodied skillful actions. The second element is the 'human consciousness', with its cognitive and mental projections on abstract, physical and natural landscapes. Their complex interaction forms a sound criterion for distinguishing and identifying the real social agents that are responsible for occurrence of past social events.

The analytical value of 'human dimension' is best visible by adding space to social or archaeological data. This is based on the notion of regionalization of social activities defined by A. Giddens [3]. As a scientific approach it corrects subjective convictions by providing sound objective criteria for the kinds of activities of social agents. It is easy for subjective convictions to suppose that there are front-line and back-line social agents in the modern examples of taking decisions, such as where the fast transportation underground line to pass in Sofia and in TV news presentations, but this is not sufficient enough to outline their different roles as social agents at play. It is with the help of geostatistical tools that it becomes possible to analyze with precision the scope and measure the influence of autonomous and dependable social variables. Illustrative modern and archaeological examples of this approach have been provided that become characterized by different kinds of spatial distributions.

The results of this approach show the importance of deviations from the mean value as a measure of systems' interaction. 'Social causes' form spatially limited networks with relatively autonomous local centers. They, however, have the potential to generate social effects in the form of propagation of spatially grouped and autocorrelated interactions. It is this relational approach to the two different categories of social events in terms of the variation of the spatial patterns they form that opens up new possibilities for their research not only as formal entities but also as active social agents that shape the complex behavior of multi-level adaptations of societies in the past and in the present.

Yet statistical techniques have limited application in studies of present and past societies. An additional analytical tool is necessary to be added so that to create possibility for deeper understanding of the human behavior and associated with it social phenomena. This tool is the critical reflectivity of the observer that forms a triad of human - thing entanglement. Taken as a dualistic relationship between subject and object this conceptualization has a profound effect on modern society and the understanding of the past. It views social change exclusively through the lens of social contradiction and class struggle. These deeply embedded concepts lead to modern politics of industrialization, de-industrialization, mass migration and ghettoization. Their modern re-interpretation adds the role of the industries that aim to save from misery and quench the needs of large populations through satisfaction, based on pleasure principle that can be achieved only through mass consumption of various products and services. This understanding leads to reducing the diversity of human culture to two abstract entities: money and location where people live. Thus money or location becomes the primary signs that define the social status of inhabitants of urban and rural areas.

On the other hand these all-encompassing theories miss something important that avoids the otherwise rigid social control imposed on all human activities. These are intentionality of social agency and identities, which are not completely different social and human features as they are traditionally thought of and complement one another in their common social action. In this light the social practices of production and consumption are viewed in a novel way. It is the mastery of the craftsmen or even mass production that develop positive human and social values

of social demands for acquiring greater knowledge and skills, inventing innovative products and design, learning rules of behavior and discipline. These products and services become ambassadors of the local communities where they were made to the wider world. Some of these particular products, techniques and skills become part of the local cultural heritage and develop strong sense of place of the local residents.

It is these notions that are developed in analyses of Palaeolithic art. In traditional archaeological interpretations it has been classified in large taxonomic groups according to formal criteria in time and space. In these large groups of similar images and artifacts there is no place for intentionality of individual identity practices and social agency. Traditional archaeology terms the mass appearance of artistic expressions in the Upper Palaeolithic as "symbolic revolution". It is based on the social contradiction between shamans and lay people that needed mediators for contacts with supernatural. Instead, I propose the idea of gradual 'quantification' of the world through developing of rational and relational knowledge. The example of matrix-like notations suggests the objectification of the human - natural and human - social relations through creation of a relational ontology. It is based on structural similarity of mental images and perceptual variability that are viewed as the main cause for the existing representational asymmetry of different kinds of animals in Palaeolithic parietal art. These individual perceptual qualities of the Palaeolithic artists left their mark on two different representations of horse heads and in their masterly conveyed motion and emotions. It has also been shown the personal intentionality in building social relations through high-craft production of long blades that is characterized by repetitive production cycles each starting with specific initiation technique. The origin of this complex behavior is related not as viewed in traditional understanding as "exceptionality" of artistic behavior, related to transcendental values and religion, but as an expression of personal individuality that enhances personal and social communication and learning practices - the notion of gradual quantification of the world (development of rational knowledge) that replaces the old concept of 'symbolic revolution' during the Upper Palaeolithic period.

Human dimension in combination with statistical tools seem to be not that effective when it comes to analysis and understanding of the relationship between back-stage and front-stage social agents. Back-stage agents carve up modern urban society into artificially divided large human groups that are formally labeled with names that demonstrate extreme political actions. The aim is to be able to constantly reproduce social contradictions that mark all political and economic policies. The problem is that these policies are featured by 'unexpected consequences' that as an end-result largely deviate from the "expected" consequences. At first glance, the reason for this state of affairs may be looked at the process of transition from the level of analysis of macro-economics to the level of microeconomics. In such a case a significant problem occurs because such transition is possible under the condition that all transformations of anthropological, social, economic, etc. variables have to be made within the frame of an already established market. Yet the society as a complex structure is complicated enough, so that it is impossible to reduce it to a single conceptual framework. It consists of loosely defined hierarchies of values and rules that act only within particular contexts that tend to change dynamically from one to another. The problem is how to find a common denominator that can anchor the elusive dynamics of social agency. The solution to this problem is not simple and it requires social examples that can illustrate how to better understand the social dynamic in human relations. It has been shown two examples of how two 'marginal' notions in modern urban culture can shape the present-day dominant concept of social division, which is accepted by traditional archaeology and announced by them as valid for studies of the origin and evolution of social inequality of past societies. These two marginal notions are the 'noble beggar' and the 'social elite'. Despite that they look as permanent social division of two extremely opposed groups through the human performance with high-status objects it has been shown the permeability of these social divisions. On this base it has been demonstrated that sometimes uneducated local villagers have fresher ideas about the social significance of the archaeological sites near their villages than the educated in large urban areas archaeologists. In a similar way, the concept of center - periphery relations of modern urban culture transforms cultural diversity into uniformity of local citizens.

The solution to the problem of finding an adequate analytical tool is the notion of 'human presence' that allows to discover the intentionality of individual human act that is measured through his/her value system. Thus the story of the 'beggar and the prince' turns into a meticulous study of how a unique social context is shaped by human decisions, that transform a beggar into a prince and vice versa. This approach requires not the analysis of totality of the all different kinds of variables, but focuses on singularity of few high-status objects (social or personal variables) that reveal the specific human performances in particular contexts. In addition, while traditional approaches study the mainstream data, this approach seeks out the gaps between these large series of data that may serve as 'singular' points of transition in a complex system. From this point of view the linearity of the Bayesian modeling of dates is not acceptable, if the outliers and standard deviations do not go under careful analysis.

On this theoretical background few archaeological cases that are not included in the mainstream explanations of transition to early farming and the origins of social inequality have been presented. They all reveal the social importance of human presence in particular archaeological contexts that is objectified through high-status artifacts such as bread wheat and jade axeheads. Traditionally, the early presence of bread

wheat has been considered as subsistence category and explained with its utility for easier and tastier consumption of bread or pasta, despite the higher gluten intolerance of most prehistoric people. I have shown that it is the higher social control required for its long-term selection from wild species to stable new species, and its gluten intolerance that turn this species into a high-status artifact that is locally made and not imported from great distances. I have shown three different social roles of particular human presence realized through occurrence of bread wheat in three different Pre-Pottery Neolithic contexts: Asikli, Musular, Central Anatolia, and Knossos in Crete.

Another interesting example of human presence in strategic places that guarantee long-distance communication and exchange networks is the co-occurrence of Alpine and Syros jade axeheads in the Aegean region and Central Anatolia. In this case multiple human values have been associated with different qualities of this material. These include hardness of materials, the type of materials (exclusion of eclogites, despite their presence in Alpine and Aegean regions), the capability of the Alpine jades to be shaped easily than those from Syros Island, the size of the axeheads, and color. There is no general supra-regional rule(s) of spread of these artifacts, coming from two different sources. Their spatial distribution can be approximated with a formal rule similar to those of studies of cellular automata but such a rule breaks at its third step, and thus makes co-occurrences of these artifacts to depend entirely on local contexts. These modern and prehistoric examples of human presence and its performance with high-status artifacts reveals the ability of this way of acting of social agency to transcend the artificially set divisions between large human groups and overcome the effects of social contradictions, through which back-stage agency tries to shape modern social relations and transfer them onto interpretations of the past.

The above argumentation provides some reasons why modern urban culture continues to be divided between two major social features. The first one is linear in nature because it assumes simple cause - effect relations within the wider social web and is able to generate social events that are continuous in time and space. The second one is discrete and generates a probabilistic distribution that, despite its complexity, propagates across social space in a uniform manner. The first mechanism has been presented through the social rule: 'Sex, Violence and Rock-and-Roll', which constitutes one of the dominant social features of modern urban culture. Yet its major characteristics are its linearity of spread across urban environment that is valid only locally. The geometry of this type of human presence consists of small, limited continuous space with pronounced center. In order to spread across wider social field it is necessary to be created an artificial environment of social contradiction. The latter is an enormous task that is almost impossible to be fulfilled and because of that it is encountered extremely rarely.

The second social mechanism has been shown through the example of the art installation in the Iseo Lake, Italy. Its main characteristic is the arbitrariness of the directionality of the crowd movement. Its probabilistic nature allows when few variables are available to make fairly good predictions of the occurrence, the type of distribution and directionality of a given social event. Because of these characteristics this social mechanism can spread across social space in a systematic way that is relatively easy to be predicted.

I have denoted the conceptualization by modern urban culture of the first social mechanism by the term 'agglutinative thinking', which as a categorization of particular geometry of human presence, I have borrowed from the notion of agglutinative housing in prehistory. Because of its linear structure of cause - effect relationship, this type of conceptualization of continuous events (real or imaginative) often leads to absurdity. In fact the agglutinative housing in prehistory showed its own limited and local nature. Once it had been considered as the main type of construction and organization of the living space on the tell-sites (mounds) in the Near East, Anatolia and the Balkans. Yet, archaeological examples have been provided that reveal that such structures form small subspaces divided by smaller and bigger open spaces between them. It has been critically assessed the imagined construction of the houses with flat roofs, entrances from the roof, and the narrow alleys that separate the houses. The common sense reasoning suggests that such structures would have collapsed under the heavy load of snow during the long and snowy winters in Anatolia and the Balkans.

The other social mechanism I have denoted as 'agglomerative thinking', which draws some insights from the notion of agglomerative housing. It is a flexible enough concept that allows analysis and comparison of otherwise considered distanced in their nature, and in time and space social phenomena. In order to do this I have introduced a novel conceptualization of the traditional notions in archaeology such as 'culture gradient' and 'central place'. It has been presented the fractal geometry of modern urban and prehistoric human presence. Its particularity is that it has local characteristics but also inscribes itself within the directionality of a wider regional network. Their centers, however, are not the geometric ones. They are characterized by a single - the most central feature and with several other local centers that are situated in such a way that offer the best possibilities for integration of adjacent regions according to the variables these regions have been defined (traffic, potential clients, communication possibilities, etc.).

The notions of human presence and its specific and context-dependent geometry change the way of understanding the constitution of modern urban environment as a space involving chronologically and spatially situated symbols. This complex symbolic, however, becomes

ill-understood by modern urban culture. It conceptualizes its presence in open urban spaces (large squares, meeting grounds) only through the fierce political contestation of different symbols that otherwise are empty of social content. It this way social change is exclusively viewed as mass rallies of confronting groups of people that fight for changing and replacing "old" symbols with "modern" ones. This is an imaginative and artificial change that aims to substitute the genuine social change and that does not lead to any transformation (positive or negative) of the qualities of human life in modern urban culture. Contrary to this, I have provided modern examples of positive and negative urban practices of maintenance and destruction of co-presences of old and new public monuments. These destructive practices seem to be augmented by their co-occurrence with larger or more powerful urban spaces, which, however, leave space for diverse symbolic presence. The same is valid for early humans. Archaeological examples show that the rule: 'the larger the living areas the more diverse are the technologies used for tool manufacturing' is valid. Accordingly, diverse bifacial techniques of working stone are known from the entire Eurasia (especially, North-Central Europe) during the Middle Palaeolitic and in later periods they spread on the Pacific coast of North and South Americas: California to the north and Chile to the south.

Another negative result of this way of conceptualization of social change is that the large urban open places are viewed as 'dumping' ground for opposing social symbols. Thus the notion of garbage has been changed from its meaning as garbage stored in marginal, sub-urban environment to designation of the heart of urban life. This theoretical and practical reversal of this notion strongly influenced the conceptualization of open areas in prehistoric settlements. Even in the text books of archaeology, open spaces in settlements and foundation and other pits are labeled by names, such as 'refusal area' and 'garbage pit'. On this background I explore the role foundation myths, foundation pits and refusal areas played in the social change in prehistoric times. It has been shown that each site has its own individuality in constructing its own built environment and its evolution though time. In prehistory, however, these evolutionary cycles bring application of new technologies that lead to radical changes in the quality of human life that in traditional archaeology are often termed as "revolutionary" diachronic change from one archaeological culture to another one. These profound changes happened on the base of a dynamic social environment that is reflected by the dynamic of application of diverse building techniques and architectural forms that provided confortable living and working conditions for their inhabitants, as well as built spaces where they were able to perform their community rituals and display their complex symbolic systems.

Geometry of human presence cannot explain the complexity of the interaction between consumers in a mass consumption society and the mass satisfaction of their constantly diversifying human desires. The roots of this problematic are anchored in the personal ontogenesis and the process of conscious conceptualization of perceptual stimuli. Marxist and Marxist-like views understand it as an infinite evolution of production - consumer's relationship that acts similar to irrational numbers, limited between the different stages (intervals) of "progressive" means of production. The truth is that consumer's satisfaction of "rational" production - the cheaper the better - is somewhat wired up in human neurological system of acquiring large amount of incoming information. But this neurological system has its exact counterparts in, for example, the neurological system of macaques. In my view human society is a bit more complicated than that of macaques and the question is how humans achieve better satisfaction for their immediate desires.

In order to answer this question it is necessary to start from the basic premises that humans produce not only images, but by using them they produce high-craft objects and technologies. These new "objects" do not only serve as fruits coming from nature that have to satisfy the desire of humans and animals alike, but they have the basic function to augment the reality of establishing social ties and communication. Humans are able to create a productive environment not through rationalization of production - consumers' relations but through their dramatization. Dramatization of human relations is only possible under one condition - it has to happen in a high-fidelity social group. It is projected on receivers' trust on incoming information, which makes possible the accumulative establishment and evolution of human society. This human and social trait accompanied humanity as early on as early hominins in the form of off-site platforms where the members of a group regularly re-visited in order to pass down from generation to generation their knowledge of making tools. It is this cultural feature that allowed hominins to survive the competition with the physically adaptive australopithecines and baboons.

Dramatization through play and performance of the most important events in human life - the mythologies of creation of humans, the world, and the general purpose of conscious human acts have always accompanied human society. But society has not always been associated with cultural re-creation of mythologies. Settlement structures reveal that living, working, and entertainment activities have been organized in a mosaic like manner. This opposition between mythology and entertainment has been presented by the amphitheaters from the Classical Greek states that re-created the human cosmology through which humans tame the wild, and by the mosaic like pattern of working and entertainment areas of the prehistoric inhabitants of Mentese. Yet, it is the Shakespearean drama that liberated society from literary re-creation of mythology and replaced it with personal fate entwined in political drama. On this alternating conceptual background of possibilities for

reaching the "absolute" consumer satisfaction, the representations of prehistoric Venus statuettes possess some universal characteristics. One of their most important features is that human satisfaction of a desire is never immediate and may be conceived as a strategic move for better representation of the self to the widest possible audience. Thus these statuettes shape social space in such a way that they allow the inhabitants of these early settlements to stage their performances through which they were able to better express their individuality that stands for the whole society. These presentations do not represent human portraits but the singularity of their individual parts and the individuality of every statuette send clear messages of human individuality from the remote past.

The individuality of human performances of prehistoric past evolves into individuality of urban spaces in the present. The domestication of animals developed special buildings such as hen-pens and other enclosures or buildings for keeping pigs, rabbits, etc. Together with toilets (WC facilities), situated outside houses and especially in an urban environment, these places take the common designation as dirty places of 'uncivilized' human behavior. This is the cost of civilization, while noble hunter-gatherers were conceptualized as going to the shrubs seeking relief. In an archaeological conference in the session I was participating, it was discussed that even the civilized archaeologists go to shrubs during their fieldwork. From the perspective of the modern social theory these dirty places may be termed democratic social environment because they have the capacity to provide immediate satisfaction of consumer's and other desires.

The conceptualization of production - consumption relations in an urbanized environment offers much more complex interactions between various social actors. In the above examples, constructions like the ones in dirty urban places are never built as tall buildings. Their characterization is strictly horizontal and even animal behaviorists study the spatiality of particular animal behavior. It has been shown that human built environment differs radically from the above presented one. It is vertically organized and induces discourses of practical performance of the different social actors that underlines their permanent character. So far social theory defines four levels of perception of a productive environment. The first one, situated at the lowest level is the hermeneutic characterization of human practices of production and consumption. The second, higher level reveals the professional occupations with formalized language and ethical discourses. The third level defines the limits of 'knowledgebility' that separates and defines different human productive and consumption practices. The final level is the specific knowledge through which general discourses and production strategies are created and defined in a detailed manner.

These theoretical considerations have practical application in interpretation of archaeological record. It has been shown that Palaeolitic campsites are built with utility purposes for access to various resources. They differ significantly from sites such as the Devetashkata cave in north-central and the Dikilitash area, northeastern Bulgaria. Their distinctive feature is that they were visited not from the perspective of utility for observation but from utility of perception. The reason for this particular behavior is that tall buildings and monumental natural places provide various possibilities for satisfaction of consumers' desires, such as taste, particular knowledge of the productive activities in an area, dress-code of the observers and participants, tactile and visual experiences of beautifully made artifacts. It has been shown that all these experiences need a neutral space that can be provided by a towering building near the main activity areas. From this perspective it has been explained in a novel way the reason why the inhabitants of Jericho built a tower and a stone wall around their settlement. A critical examination has been further provided how these monumental features influenced the dress-code of archaeologists and their manipulation of archaeological record in terms of the real and imaginative conceptualization of the notion of monumentality in prehistory. Finally, it has been presented the link between this imaginative conceptualization of the past monumental buildings and the modern social environment of establishing highly contested political ground of tall skyscrapers and tall buildings that became theater of violent terrorist attacks.

The problematic issues of some important characteristics of productive environment that become clarified by presentation of the role the neutral space of skyscrapers implies for the novel understanding of the notion 'zero ground'. In its intuitive meaning this means absolute abandonment of a productive area that would remain empty of human existence for a very long period of time. This idea comes from the archaeological notion of 'hiatus' - long caesura in a sequence of archaeological layers. This notion appears in various disguises in modern urban culture as, for example, the presentation of a large urban area that becomes flooded, following a strong rainfall and release of water from dam-lakes, and where the last traces of human existence are threatened by the incoming alligators. In either cases, as 'zero ground' or 'flooded ground', if the notion of human existence is replaced by that of 'human presence', it makes radical difference of interpretation. 'Presence' is much more flexible notion than 'existence' as humans are always present in and near their settled places. Even the presence of alligators symbolizes it as some of them may come from private ownership and released after the flood. In this way the drama of existence turns into mundane presence of mitigating consequences of mostly human inflicted natural disasters.

In this sense the strategic human presence shapes most of the natural forces that have major knock-on effects on the life in large urban spaces. The arbitrary use of these forces stems from the idea of the arbitrary relationship between past and present. It means lack of memory

in natural and social systems where what happed before is forgotten and can be repeated again. It is based on the idea of continuous processes of human activities that aim to satisfy immediately human desires. This short-sighted view isolates separate regions of dominant human activities that spread in space in the form of a normal distribution. This creates the illusion that with an act of destruction this area will be abandoned. Yet human presence is a strategic tool for maintaining long-term interaction with the surrounding environment. It is rarely dominated by a single activity and forms nested multiple hierarchies of social rules that establish a network of individual and collective strategies of production and consumption cycles. This network and the cycles cannot be destroyed easily because of the complexity of human perception of the world. Traditional archaeology considers human - thing entanglement as direct interaction between primary perceptual stimuli and the cognitive cues dispersed in the environment. In my view, it is not the direct cognitive interaction, but the relationship between the primary knowledge and the landscape of affordances that constitutes the subject-matter of archaeology. I provided archaeological examples that illustrate both ways of interpretation of archaeological record.

Although marginal to the mainstream features of modern urban culture, a new genuine social controversy seems to be in the process of establishing. It involves the dichotomy between the mythopoeic understanding of the past vs. the induced by humans mass natural and social disasters. While the first part of this controversy constitutes sensual consumption (aesthetic appreciation) of culture, the second one creates a process of direct eating up of culture. This dichotomy divides the world between the genuine human right to know his/her proper past on the one hand and the violation of all human rights on the other. It also divides the world between authenticity of material remains from the past and their 'non-authenticity' or as it is popularly termed by modern urban culture – 'post truth'. The latter designates the deeply embedded in administrative culture understanding of the existence of the solid evolutionary edifice of social development. This understanding has devastating effects that are spread across the technological and open market development of the studies of the past. But the strongest negative effect modern urban culture poses to archaeologists is the severing of their relations with their public. The real problem lies in the formal presentation of the local particularities of archaeological record that are dissolved in the general interpretation scheme of social evolution. Local discoveries are seen as small contributions to the grand narrative, which always remains one and the same and is not able to trigger greater interest in the general public. The public is easily tired when encounters endless rows of forms and materials, the symbolic of which, however, visitors cannot properly understand.

The withdrawal of public from studies of the past is also due to the manipulative power of central and other social agencies. The latter do not constitute naïve and simplified inventions of the past but aim directly or indirectly to substitute the authenticity of the past remains. This is a strategic move of altering and substituting the present-day process of social change with the simulative change of social symbols. This social feature characterizes all administrative procedures and attitudes that constitute the firmly embedded policy of 'left to decay' or 'active destruction' of archaeological and cultural heritage. In this theoretical framework and praxis of various policies archaeologists and their public are not present. They are isolated in a marginalized region where they occupy opposing corners. Even career opportunities and possibilities for development of their knowledge and technical capabilities are being taken away from archaeologists. This turns them into technically 'illiterate' professionals with occupation that is denied free development of novel theoretical grounds that imply better use of the new technologies for improving identification, registration, documentation, analyses and interpretation of the materials from the past. As a result of these negative policies in the domain of archaeological and cultural heritage the entire society is denied its genuine human right to know its proper past.

These negative practices further transform into practices of consumption of the past, present and the negative technology of cannibalism of the self. As an embodied human practice consumption involves all the sensual experiences of the external stimuli that engage human mind in the process of internalization of external objects through objectification. It creates semantic state-space that acts as a mediator between the already established primary knowledge and the landscape of affordances. This space becomes populated by temporary and dynamic cognitive (conscious and unconscious) hierarchies that form representational characterization of the outside world. Experimental research shows that some external stimuli improve the recall of past events, while some other in combination of activating internal relations between different representational states makes better the process of learning new knowledge. In this way human processes of cognitions sway between two opposing poles: people that are confident in the truth of certain information and the other is people that are hesitant of the quality of particular knowledge they have. The interaction between the confident and hesitant states of knowledge develops conscious and unconscious understanding of the environment. Single stimulus cannot trigger alone that kind of evolution of human knowledge. In this respect I have provided an example of taste where the quality of food is not definitive in choosing a restaurant. The higher hygiene and the better services in McDonalds' attracted more clients than the mere taste of their food, and their way of management of these facilities improved the general standards of hygiene and services in the other restaurants in Sofia.

Visual stimuli also need additional help from other sensual experiences that are spatially distributed. They outline the general features of the process of experiencing the world, known as distributed mind. Yet the spatial stimuli are not enough and they need interaction with conceptual cues that exerts several effects on processing incoming information. These involve sharpening the attention, improvement of the eye-tracking of external cues, activation of proper primary representational states and their links with other representations, and synchronization of conceptual and mental imagery. Any lack of proper external and internal stimuli makes this process more difficult and in some cases - impossible to realize, because of the extra-cognitive load that cannot activate the appropriate set of neurons. It is this trick that authoritative knowledge of the past uses in order to erase some collective memories and personal biographies of archaeologists that otherwise can better stimulate public's understanding of the past. This process of both consuming the past and the present creates ghosts that haunt the knowledge of the past. I have provided few examples of this practice.

These destructive public habits of mass consumption of both the present and the past are further aggravated by a destructive to personality practice - cannibalism of the self. It is based on the interplay between symmetry and asymmetry of ethical and aesthetic appreciation of past events. It has been shown that its basic feature is the evolution from cannibalism of the other with its naïve expectations for offering rebirth to the victims to the later developed religious systems that revolve around the notion of fear from retribution, which in its political form takes the mode of action of a Shakespearean drama. The latter takes artistic forms of landscapes of pride and pain that have their first non-banal representations in human culture - the ones from Gobeklitepe, Turkey and the Smyadovo style imagery (Eneolithic tell of Smyadovo), north-eastern Bulgaria.

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