The neolithization of Ukraine

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Abstract: In this paper I trace the neolithization in the Mesolithic and the Neolithic of Ukraine. I make an attempt to rethink the concept of the neolithization. I do it with the help of the example of the Mesolithic and Neolithic cultures in the north-central part of Ukraine. The paper is dedicated to the search for the definition of neolithization.

Front page image is showing the present borders of Ukraine and the square is representing my research area.
1. Introduction

The neolithization in Ukraine is a wide subject. I had to distinguish an area of interest in order to fit within the limits of a bachelor essay. First I want to explain my interest in the subject. The reason why I chose to work with Ukraine is for the first that Ukraine itself is an attractive country from the archaeological point of view. The second reason that provided me with my area of interest is the similarity of the Ukrainian north-central Neolithic cultures with some of the Scandinavian Neolithic cultures. There are several difficulties that I face while searching for the traces of neolithization. From the material that I used in my research I realized that the Post-Soviet archaeology is on such a level of archaeological discussion that it can by no means be compared with the West-European discussion. For example, the questions that are leading the archeological debate in Post-Soviet archaeology are usually concentrated around the subject of cultural evolutionism, cultural differentiation and migration (as the progressive force of neolithization). It is a conservative view on the tracing of a social-economical progress. Even the data from excavations is not easily found and I get trapped within uncertainties, such as: dating, distinguishing a common name for the culture and finding similar naming of the culture in European literature. These are basic data that must be available for the type of research that I am intending to prosecute. It is also hard for the Ukrainian archaeologists to rearrange this knowledge so they can present it as a fact. So: how do I write an essay with such shaky background? What should be my motivation?

1.2. The aim of this paper is to get a fuller understanding of the process of neolithization in Ukraine. I want to look into the substance of neolithization in Ukraine.

1.3. My interest is to look into this problem and to answer the following questions:

How do archaeologists explain the term “neolithization”?

How is the neolithization reflected in the Mesolithic and Neolithic cultures of Ukraine?

When and how does the neolithization begin in the north-central part of Ukraine?

Fig. 1 shows the placing of Ukraine among its surrounding countries. The stone age of Ukraine is representative for how many influences from different directions the internal culture network had been exposed to. The period of neolithization is a fine example of such a large number of external relations.
I want to compare Fig. 1. with the image (Fig.2.) of the spreading of Neolithic cultures in Europe from the book of Burenhult. This figure shows the spreading of the cultures with farming economy in the Neolithic. The square is representing my research area on the territory of Ukraine (not to scale).

Fig. 2. Spreading of the farming economy in Neolithic Europe and my research area (Burenhult 2005:258)
2. Neolithization

The background of the subject of “neolithization” is wide and often argued for. The neolithization as a term was invented and used by Sir John Lubbock in 1865. The term “Neolithic revolution” (and later “neolithization”) was first used by Gordon Childe in 1951 and it still represents the transformation from the Mesolithic to Neolithic. The meaning of the slogan “Neolithic revolution” has some Marxist taste to it. The formal meaning of the word neolithization is approximately as follows: a set of processes that were representative for the economic and social change during the Mesolithic - Neolithic transformation (Douglas Price 2000: 22). There is no fixed date for the Neolithic revolution; it consisted of several events and all of them took some amount of time and appeared in its different periods.

The East European (Post-Soviet) view on neolithization is explaining that process with the changes in the economic and ecological background of a given culture. To give an example I’ll give a quote from Kotova on what neolithization is: “appearance of early agriculture, animal husbandry and the first ceramics are connected with this period” (Kotova 2003, Ch. 7). From the climatological point of view the period is described as a period of warm climate that was perfect for the progression of agriculture (Zaliznyak 1997:121). In this way the Post-Soviet views on what is the contents of neolithization are similar to the West European. The explanation of it is slightly tilting to explaining neolithization as an economic necessity. The “Mesolithic crisis” is a definition that sets of the neolithization in Zaliznyak’s book. Crisis is of an economic sort: when the population increased to a certain point people could not survive as hunter-gatherers anymore; there was no prey left in the woodland. To provide a stable economy population had to grow crops and cattle. I find in studies of Ukrainian and Russian archaeologists a simplified picture: the hunter-gatherer crisis and the influences of the nearby Neolithic cultures made the neolithization in Ukraine possible. Among others Kotova argues that the Ukrainian Neolithic culture was in general “borrowed” from the surrounding cultures. The facts that these theories are based on are lacking, yet the “common sense” provides the idea that productive economy is better than the unstable hunter-gatherer one. Neolithic revolution, a slow process of redirecting the economy of the hunter-gatherer cultures into a mass-producing economy, the step into an industrialized world. This fits into a Marxist evolutionary framework (Jordan/Zvelebil 2009:35).

Alasdair Whittle has an interesting interpretation of the traditional approaches to the phenomena of neolithization. Here are the examples of explaining the neolithization: it’s a chronology, a technology, a culture, an economy, a population, a social system, a conceptual system (Whittle 1996:4-6). As a chronological period it defines the occupation of the people of a certain culture. It does not mean that it’s a proper generalization of such a wide aspect. Technologically neolithic populations developed the ploughing technics, but hunter-gatherers also had the ability to develop agricultural techniques if they would choose to do so. The appearing ceramics of the neolithic is also considered a technological innovation. Agriculture and settled way of life are associated with ceramics. Of course the ceramics is the favorite type of artifact for Post-Soviet archaeologist to work with. It provides researchers with much needed dating, plant-imprints and
the possibility of differentiating the cultures by the decoration-style of the ceramics. It is
considered to stand for the settled way of life and productive economy. Culture-historical
archaeology provided us with the alternative of organizing the sites by its cultural attachment.
The social structure of today is almost indefinable: there is such a rich variety of relationships
between groups and individuals.

Why should neolithization represent a new social organization? I argue that one distinguished
social organization can never exist, regarding the subjective individual agency. I come to the
following concept of neolithization: the *Domus* and *Agrios* concepts by Hodder. These two are
opposite to each other. *Domus* stands as a metaphor of domestication, while *Agrios* stands for the
wild (Hodder 1991:53/83). Both of these concepts are relevant for the conceptualization of the
neolithic revolution. The different schools of archaeology have different explanation of the
neolithization. To shorten it down processual archeologists argue for the ecological and for the
economical basis of the neolithization. Economic factors are dictated by cultural evolutionism,
and it puts focus on the environmental adaptation. The stable data provided by the material from
the excavations is a good base for it. Surely this ecological factor played a significant role in the
evolvement of economy. Yet I do find that the “human” is torn from the concept of
neolithization. The agency is not treated with the amount of attention that it deserves. Post-
processual archeology is providing us with a more agency-focused reason for the neolithization.
The weight here is on the domestication of “people” along with the domestication of nature
(Whittle 1996:8). By Hodder, man tamed man with the social structure. The importance of the
“house” (*Domus*, Hodder) is the concept of domestication, the domestication of “men”. People
are now social-bound beings, bound to the structure of the society. Monuments grew bigger as
man changed the landscape around them and the more man power it took to do it the bigger the
differences between the classes in the society has been. As an example the mesolithic burials
have a weak representation of who the buried person has been and a few artifacts are found in the
graves, and in the comparison to Mesolithic time the neolithic burials do have objects that put an
individual character to the remains (Hodder 1991:53-83). With the Neolithic revolution came the
bigger “dwellings” that could not have been built by less than a relatively considerable man-
power. These are all the symbols of the extracting “man” from nature. These different labelings
of the forces of neolithization is an interesting disagreement. Even though nomadic and settled
lifestyles for the mesolithic “hunter-gatherer” and “farming” groups respectively is a
generalization; it does help on the way of giving a structure to the Mesolithic and the Neolithic
along with economy and other concepts of neolithization.
3. The Mesolithic in Ukraine

The Mesolithic age is described vividly by Post-Soviet archaeologists. Mesolithic sites are unified into cultures from the type of flint and bone tools found on the sites. Archaeologists biggest interest area lies within the ethno-social comparison studies. Such research is based on comparisons with modern Inuit social structures of habitants of northern parts of Russia and the US. The society of the Mesolithic age is compared to the full with modern hunter-gathers; it is described with a big amount of details in Zaliznyaks’s book on the study of Mesolithic cultures. The modern territory of Ukraine was the home of a wide variety of cultures (Fig.3). The cultures had to be divided into two culture provinces, based on the area of the cultures and abroad influences. The southern group contains these cultures: The Cucrec (IV), Grebenikivska (III), Donec-culture (VII), Shpanisika and Murzak-Cobinsika (VIII) cultures. These cultures took the area around the Black sea, central Ukraine and western and eastern parts. This group had neighbors in Western Europe, the Balkans, West Asia and the Caucasus. The cultures represented on the map are the most illustrious for the Mesolithic time.

![Fig.3. The distribution of cultures in the Mesolithic of Ukraine (Kotova 2003: catalogue)](image)

The northern group (also called the Baltic group by Zaliznyak due to the migration theories) is presented by: Kudlaevka (I), Pisochnorivsika (V), and Zymivnykivska (VI) and Yanislavickaya
(II) cultures. This northern group shows resemblance with the classical Scandinavian Mesolithic cultures. This is an interesting area to investigate. I marked it out with a square (Fig.3.) I want to provide a short description of the cultures that are found in the north-central area. Even though Zymivnykivska is considered to be a culture within the northern (Baltic) group I will not write about this culture because its settlements are spread in the eastern part of Ukraine, not within my research area.

The Kudlaevka culture (I) is dated to 8000-6000 years BC. The cultural identity of this culture is based on the systematization of microliths. It is the easiest (if not the only way) of distinguishing between the Mesolithic cultures of this north-western type. The connection with the north-western neighbors is traced in the micro flint-technics. The earliest sites of Kudlaevka culture are the camps in Krinitsa and Polyany. This includes lancet-like microliths which later will become the classic Kudlaevka straight-back blades (Fig.4). The Kudlaevka camp is representative for a later stage of development of the culture. The microliths are usually of local flint and have been united into a wooden tool to make up a long blade of microliths. The oldest period of the culture is characterized with a mixture of the artifacts from Kudlaevka and Yanislavitsa culture. Zaliznyak finds it quite possible that Rudoy Ostrov (a variant of Yanislavitsa culture) is probably a left over from the Kudlaevka influences (Zaliznyak 1997: 29-30).

Yanislavitsa culture (II) brought progressive microlith blades technique (specifically triangular and lancet-shaped), the comfort of which made it possible for them to replace Kudlaevka microliths. It is dated to 6000-5000 years BC. It is a culture of the late mesolithic. The western area that was taken up by Yanislavitsa is considered to be the area of the classical culture. The Perevoloka camp is a rich site with a variety of microliths (Fig.5). The eastern area of the Yanislavitsa culture is the culture segment of Rudoy Ostrov. It is a variety of the Yanislavitsa culture; it differs by a simpler microlith-technics (post-Kudlaevka), bigger number of scrapers, illustrious camps (Zaliznyak 1997:32).
Fig. 4. Flint implements from the sites of Valy (1-50), Rechische (51-58) and Veliky Midsk (59-99). Representing the Kudlaevka(1) culture (Zaliznyak 1997)
Fig. 5. Flint implements of the Perevoloka site of the Yanislavitsa culture (II) (Zaliznyak 1997)
The Yanislavista culture had high resemblance with the Kudlaevka culture. On the late stage of the development of this culture Neolithic ceramics with comb-pattern could be found at the Rudoy Ostrov subculture sites (Zaliznyak 1997: 44-45). It is the first ceramics in the area of the north-eastern part of Ukraine, the area of my interest.

Pisochnorivsika culture (V) also called Pesochny Rov culture. The earliest stage of this culture is dated to the beginning of the Mesolithic era in Ukraine, 8000 years BC. The later date is about 6000 years BC. Characteristic microliths are of a trapezoid shape (Fig.7). Almost fifty percent of all the tools though are scrapers (Zaliznyak 1997: 48). This hunter-gatherer society had two general types of camps that are presented by one important site. Pisochnorivsika culture type is presented by the site of Pesochny Rov. A variety of the Pisochnorivsika culture is the Studenok type of camps that is presented by the Popovo Ozero site. Its tools are generally smaller than the typical Pisochnorivsika artifacts. It is supposed that the late Mesolithic society of this culture had a significant part of the economy based on fishing. This conclusion is drawn from the tools that are indicating boat building and fishing occupation (Zaliznyak 1997: 56-57). This might have been the first stage of “settling” for this culture. The stable fishing economy could require food-storage and housing besides the fishing-areas. Here is a map of sites of my interest within the square (Fig.6.)

![Map of late Mesolithic in Ukraine (middle of the 8000-7000 years BC). The square-signs are sites of the Pisochnorivsika (V) culture, the star stands for the Kudlaevka (I) culture sites and the oval for the Rudoy Ostrov subculture sites (Wikipedia-Доісторична Україна)](image-url)
Fig. 7. Pisochnorivska (V) culture flint implements from the Pesochny Rov site (Zaliznyak 1997)
4. The Neolithic in Ukraine

The neolithic age is presented by the following cultures (Fig.8): Nieman (1), Dnepr-Don (2), Surskaya (3), Pitted-Comb Ware (4), Linear-Band Ceramic culture (5), Bug-Dniester (6), Cucuteni-Tripolje (7, 8).

Fig. 8. The distribution of cultures in the Neolithic of Ukraine (Zaliznyak 1997: 118)

Nieman, Surskaya, Linear-Band ceramic culture, Bug-Dniester, Cucuteni-Tripolje are the cultures that developed from the southern group. These were influenced by Linear-Band ceramic culture and developed into classic neolithic societies with repetitive flow production. My area of interest is represented by Dnepr-Don and Pitted-Comb Ware culture.

Dnepr-Don (Dnieper-Don, Dnieper-Donets, Dnepro-Donetskaya) culture took up a significant area in the northern part of Ukraine and it is dated to 4500-2000 years BC. Dnepr-Don culture group is composed of several local cultures: Volynskaya, Kievo-Cherkasskaya, Lisogubovskaya, and sometimes Donetskaya cultures. This group of sub-cultures was “replaced” by the Pitted-Comb Ware culture in the final period of the Neolithic. Dnepr-Don culture group is considered a hunter-gatherer society with a dedication to fishing. It’s represented by burial-sites that include settled structure and a variety of artifacts. Pottery first has an admixture of vegetation (plant remains) (Kotova: 2003: 2.4), as it is shown in the first layer of the Lisogubovskaya (Fig.9.) sites (4850-4050 BC).
Fig. 9. The periodization of the Lisogubovskaya sub-culture by layering, the first period being the oldest. Lisogubovskaya is a subculture to the Dniepr-Don culture (Kotova 2003: catalogue)
The upper layers have similar shape and decor of the pottery but an admixture of sand instead of plant remains - and are counted as the Pitted-Comb Ware culture-remains. Even Kievo-Cherkasskaya (Fig.11.) sub-culture site setting has similar artifacts. Its ceramics is dated to 5800-5500 years BC (Kotova 2003: Ch. 3.5.1) in Grini and Vishenki sites (Fig.10.)

Fig. 10. Ceramics from Grini and Vishenki sites, Kievo-Cherkasskaya culture (Kotova 2003: catalogue)

Fig. 11 shows the Kievo-Cherkasskaya sub-culture. 1-4 being the second (younger) layer of Buzki, 6-20- lower (older) layer of Buzki. 21-34 Malopereshepino and 5 Dubinka sites.
Fig. 11. Kievo-Cherkasskaya sub-culture of the Dnepr-Don culture group (Kotova 2003: catalogue)
Pitted-Comb Ware culture is the one culture common in time with Dnepr-Don culture. Pitted-Comb ware culture is a Neolithic culture that uses pottery and even agriculture, yet the hunter-gatherer lifestyle made up more than fifty percent of the economy. It is dated to late neolithic, 4200 BC to around 2000 BC, when it got “replaced” by the eneolithic (Copper Age) cultures. The sites of this culture are found on former river and marsh banks. During the late neolithic agriculture had been present in the Pitted-Comb Ware culture (Fig.12). The ceramics is present during the whole Neolithic period; pitted-comb ceramics are with a mixture of sand in it. Grishevka and Pogorelovka-Vyrchische are important sites with a lot of layers. The two cultures that are placed in the area of my interest are held apart by the different ornamentation of the ceramic vessels and the quantity of plant-impurities in the clay. The agriculture is present: grains and plant remain prints have been discovered on the ceramics. Pashkevich and Kotova have studied the sites and found the following: these two northern cultures were practicing slash-and-burn agriculture (Kotova 2003, Ch 4.4.3.) Dnepr-Don group has a range of crops. Volynskaya culture had *Triticum monococcum* (domesticated form of einkorn wheat), *Triticum dicoccon*, (hulled wheat) *Panicum miliaceum* (common millet) and later on *Pisum sativum* (peas) and *Vicia ervilia* (bitter vetch) (Kotova 2003, Ch 4.2.5.) Kievo-Cherkasskaya culture presented samples of *Hordeum vulgare* (barley) and later on *Triticum aestivum* (common cultivated wheat). Lisogubovskaya culture had *Hordeum vulgare* and *Triticum monococcum* grains imprints on the ceramics. Agriculture in Pitted-Comb Ware culture is presented by *Triticum monococcum* and *Triticum dicoccon*. Agriculture couldn’t have been of a big importance for the economy, therefore the samples are limited. Animal husbandry is also presented in these northern Neolithic cultures. Dog bones are found and dogs probably already had been tamed. For the late Pitted-Comb Ware culture cattle bones and bones of unidentified horse-species are common. Dnepr-Donets culture sites provide material of cattle bones, bones of ovicaprids and pig. Horse bones are of the same bad condition as the ones from the sites of the Pitted-Comb Ware culture; therefore it’s not possible to define if the horse was domesticated yet. Hunting took up more than 50 % of the economy (Kotova 2003, Ch 6.1.1.) Pitted-Comb Ware hunted elk and wild boar. All the other game is also presented, yet the biggest percentage is given by those two species. Dnepr-Don game: wild boar, red deer, roe, elk, aurochs and fur-bearing carnivous.

Fig. 12 on the next page is showing the layers of the Pitted-Comb Ware culture site of 1-11, 16-26 Grishevka and 12-15 Dereivka. First group being the oldest.
Fig. 12. Pitted-Comb Ware culture artifacts (Kotova 2003: catalogue)
Fig. 13. The distribution of the late Neolithic cultures in Ukraine with marked northern-central territory (Wikipedia-Доісторична Україна)

Fig. 13. shows the cultures in the north-central Ukraine in the Eneolithic (Copper age). The square shows the two cultures, Dnepr-Don (the cloud in the western part of the square) and Pitted-Comb Ware (which sites are marked with triangles). These cultures had a hunter-gatherer economy and has a wide distribution area even in the Copper age.

5. The Domestication of Ukraine

Almost all the sites in the north-central part of Ukraine have a wide range of layering – from the Mesolithic to Eneolithic (Copper Age). In this case it is already problematic to distinguish what is Mesolithic and what is Neolithic in all the layers of a settlement. I will look into this in the upcoming discussion. As we now know it is possible to unify the settlements of the sub-cultures into one type of culture with a common prehistory. I try to show the connection between the cultures in the Fig. 14.
The development of the cultures in the Mesolithic looks approximately like this: Pitted-Comb Ware culture is a successor of Kudlaevka (and later Yanislavitsa) and Pisochnorivska cultures. Dnepr-Donets culture group is descending from the Pisochnorivska and some of the Linear-Band Ceramic inspired cultures from the western part of Ukraine. During the Neolithic Dnepr-Don and Pitted-Comb Ware had influenced each other; still the most “stubborn” culture is the Pitted-Comb Ware culture. It is the latest one that had gone over to the Eneolithic age.

After the description of the cultures from the north-central area the comparisons of the Mesolithic and the Neolithic can be done. The Mesolithic economy is based on hunting and gathering. This conclusion is drawn from the tools that are indicating boat building and fishing occupation (Zaliznyak 1997: 56-57). This might have been the first stage of “settling” for the Mesolithic cultures. The stable fishing economy could require food-storage and housing besides the fishing-areas; thus the first step of neolithization looks different in every culture. From the Kotova site descriptions we know that at the Mesolithic sites ceramics with an admixture of plant remains has been found. Also domesticated animal bones indicate on the taming of several species of animals. The Neolithic brought ceramics with the addition of sand to the set and several types of cereals as well as more tamed animal-species. In the Neolithic we can trace the design change in the ornamentation and the shape of the ceramic vessels.
I would like to name the culture groups of Ukraine in the following way: the southern-western group will be answering to the concept of *Domus*, the north-central group is conceptualizing *Agrios*. I brought up the *Domus-Agrios* discussion in the second chapter. I find that the southern group (Linear-Band Pottery group), settled as they were, could be representative for the *Domus*-theory. The northern (Baltic) culture group may stand representative for *Agrios*: hunter-gatherer lifestyle stayed the longest in the Ukrainian territory. These groups of *Agrios* and *Domus* had close encounters from the beginning of their existence and did not mix. These groups stayed true to the chosen social and economic structures until the definite transformation to the Eneolithic (Copper Age).

5.2. The dating

Because of the layering of the sites, it is difficult to tell apart the cultures and be sure about the dating. Kotova means that ceramics is an artifact only for Neolithic cultures; she does consider the dating that might be fluent within the limits of the Mesolithic and the Neolithic. So the cultures are pulled apart by the “layers” of the settlement without the consideration of the dates. There are early, middle and late layers (fig. 9, 11, 12). That is the reason why Kotova has sometimes rather rough dating of the Neolithic settlements. This example of using the ceramic artifacts for differentiating between the Mesolithic and the Neolithic is common for the Post-Soviet archaeology. There is a determination that ceramics can only be Neolithic. The conclusion that I mean can be drawn from this is that ceramics has been a part of the Mesolithic cultures (sorted by their dating).

5.3. The Scandinavian connections

The ceramics came to the north-central part in Mesolithic times (by Zaliznyak). Ceramic vessels developed in style (fig. 9, 11, 12) as we see from the layers of the settlements. The style of the ceramics of the two biggest Neolithic cultures from the north-central part of the Ukraine is similar. And it has a similarity with Pitted-Comb Ware ceramics in Northern Europe. Maybe it does indicate on the connection with North-East European neighbors. Zaliznyak is persistent about the theory of cultural development with the help of migration, and he argues for North-East European connections with the north-central cultures of Ukraine.

We can see that in the Neolithic Pitted-Comb Ware culture and Dnepr-Don culture are subneolithic cultures. Subneolithic culture is a type of culture that had been in contact with agricultural Neolithic societies yet still had a hunter-gatherer economy (Randsborg 2010: 29-30). Such cultures sometimes had several Neolithic attributes, for example pottery and a low
percentage of agriculture. A classical subneolithic culture is the Ertebölle culture (5300- 3900 BC) (Burenhult 2005: 277). A comparison could be done considering the analogy of archaeological material. If we were to take a look at the different types if the Pitted-Comb Ware ceramics (Fig.15) of the north-east part of Europe, having the sub-neolithic concept considered, we would probably see an interesting similarity. Pitted-Comb Ware ceramics was present in several countries and had many varieties - locally the ceramics present the following cultures and areas (Fig. 15). These vessels are both alike and unlike, by the shape and the ornamentation.

Fig.15. Types of ceramics coexisting in the north-eastern Europe(not to scale), 1- Dnepr-Don (Ukraine), 2- Pitted-Ware ceramics(gropkeramik)(Sweden), 3 –Comb ceramics (Finland) (2,3-Stenbäck 2003: 68,74; 1- Kotova 2003: catalogue)

5.4. The Neolithization of Ukraine

The problem of the neolithization of Ukraine is the following: “Neolithic age” begins exactly when and where we put it. Since the Post-Soviet archaeologists take ceramics as a certain sign of neolithization along with agriculture and domestication of animals it extends the Neolithic and neolithization into the Mesolithic and I argue that the Neolithic period ends only with the
Eneolithic age (at least for the stubborn Pitted-Comb Ware culture). I can see now that there is a reason for the concept of a Neolithic revolution in Ukraine. It does separate the Mesolithic from the Neolithic along with the cultures. The theory of the culture integration is helping the archaeologists on the way and fills up the hollow space of a culture replacement. There are a few theories of how one culture takes over another. The contact between the cultural societies is presented by different forms of contact between foragers and farmers (Zvelebil/ Lukes: 2004:184.)

Fig. 16 is showing the connection types between the societies.

**Forms of Contact Between Foragers and Farmers**

- **Fork Migration** – directional movement of a population to a previously defined region.
- **Demic Diffusion** – sequential colonization of a region by small groups or households, non-directional.
- **Élite Dominance** – penetration of an area by social élite and subsequent imposition of control over the native population.
- **Infiltration** – gradual penetration by small, usually specialist groups of a region, who fill a specific economic or social niche (i.e. itinerant smiths, tinkers, leather workers, livestock herders).
- **Leapfrog colonization** – selective colonization of an area by small groups, who target optimal areas for settlement, thus forming an enclave, or colony, among native inhabitants.
- **Frontier Mobility** – small-scale movement of a population within contact zones between foragers and farmers, occurring along the established social networks, such as trading partnerships, kinship lines, marriage alliances.
- **Contact** – through trade, exchange, within the framework of regional or extra-regional trading networks which served as channels of communication through which innovation spread.

*Fig.16. Forms of contact between hunter/gatherers and farmers (Zvelebil/Lukes 2004: 184)*

There might have been all these type of contacts between the two big culture groups of Domus and Agrios. Fig. 16. gives a range on how we should look at the connection between Domus and Agrios. The idea of Neolithic revolution is an undersized word for the process of neolithization. From this essay we can tell that the change of the structure of the economy is probably more dependent of the social and some other type of changes than pure economical necessity. All the type of contacts (Fig.16.) must have been present between Neolithic Pitted-Comb Ware culture and their Eneolithic neighbors. But they did not mix or blend into each other. The word "replaced" seems to be correctly used by the Post-Soviet archaeologists.
6. Summary

In this essay I meant to get a fuller understanding of the process of neolithization in Ukraine. I agree on the traditional way to describe it, which is as follows: neolithization is a set of processes that were representative for the economic and social change during the Mesolithic - Neolithic transformation. The European and the Post-Soviet views on the explanation of the neolithization are different. For example Hodder gives neolithization two concepts: Domus (the settled life-style, domestication) and Agrios (the wild, a hunter-gatherer life-style). He means that the social concept of neolithization is what triggered the transformation. Zaliznyak on the other hand means that neolithization mostly depended on the economic structure and the necessity to change it. Neolithization is being considered a time of new technology -developed ploughing techniques and ceramics - these are associated with the settled way of life.

Neolithization is traced within the cultures. The cultures of Ukraine can be divided into two culture provinces, based on the area of the culture and abroad influences: the southern group (Linear-Band Pottery, Domus) and the northern group (Baltic, Agrios). These groups can be traced through the Mesolithic and the Neolithic into the Eneolithic (copper age) of Ukraine. The northern group had been the most stubborn one and changed the hunter-gatherer lifestyle much later than the other. The northern group is presented by subneolithic cultures which type of ceramics may be found in different varieties in Northern-Eastern Europe of the same period.

The neolithization is a wide subject and the information that has to be presented to describe a glimpse of it is hard to place within any essay. I stand by my words from the beginning: Neolithization of Ukraine is what we say it is and it begins exactly when and where we put it. This is the modern issue of describing the neolithization in general and particularly the neolithization in Ukraine.
7. References


Lubook, J. 1900. *Pre-historic times: as illustrated by ancient remains and the manners and customs of modern savages*. Harvard


The following works were also used in this essay:


