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Exploitation of flint raw material in the area of Pojezierze Międzychodzkie on the example of site 4, Chrzypsko Wielkie, loco district

Summary

The article presents the results of research into exploitation of flint raw materials by prehistoric communities in Pojezierze Międzychodzkie. This is a young glacial territory, the marginal zone of the Poznań phase of the last glacial period, rich in mineral resources, particularly in Quaternary – Pleistocene sand and gravel of glacial and fluvioglacial accumulation, flints included.

Over two research seasons (1999-2000) in Chrzypsko Wielkie more than 1800 flint artefacts made of erratic Baltic flint were found. Technological and typological features of the inventory from the site revealed distinctly the workshop nature of the place.

Among core forms there were three pre-cores and several initially structured cores. The most frequent were large and median single platform cores for blades with carefully prepared platform edges. Multiplatform cores for blades and flakes were less numerous. There were also registered single specimens of opposed platform cores for blades and flakes. Core preparation was limited to platforms, occasionally flaking surfaces and sides as well.

Among defined forms in the debitage flakes predominated, with considerable admixture of cortex and preparatory specimens. One could also observe an overproduction of flake raw material which had probably been carried away beyond the workshop site. Several technical specimens were distinguished, including lames à crête and core trimming flakes linked with preliminary preparation and repair of cores. Both the inventory from the surface and that from more detailed research were predominated by small specimens – debris of knapping, heat chunks and other unidentifiable forms.

The hard hammerstone technique was overwhelmingly used for the preliminary preparation of cores. Exploitation of the flint material based on either the hammerstone technique or the pressure technique.

Only single specimens of end-scrapers, truncations and backed blades, and infrequent burins, borers and perforators were found among the tools on the surface. Notched and denticulated tools as well as banal retouched forms were the most frequently registered objects.

Defining the chronology of sites of that type poses considerable difficulties, due to the absence of the so-called leading types that would permit an unambiguous correlation with some specific temporal horizon and the not infrequent co-existence in one place of several settlement stages with the ensuing jumble of flint inventories. The activity of the work site can be with some likelihood related to the communities of the young Mesolithic or possibly Neolithic cultures. The presence of Paleolithic forms, on the other hand, should be linked with a short-term settlement episode at the site. A decided majority can be generally dated to broadly defined Stone Age.

The region of Pojezierze Międzychodzkie in the central-western part of the Polish Lowland, where the site under discussion is located, is home to a number of workshop-like sites, eg the Late Paleolithic workshop in Radgoszcz (site 15). Other similar areas with distinct flint concentrations in this part of the Lowland include the vicinity of Gorzów Wielkopolski (site Gorzów Wielkopolski-Chwałęcice), the Toruń-Eberswalder marginal valley and the gorge section of the Warta near Poznań (Poznań-Starołęka site).

Exploitation of flint deposits in the region could be done by extracting the material from screes in the ridges of river and lake valleys built both of glacial moraine till and fluvioglacial deposits or by turning up the rock taluses formed at their foot. The erosive activity of rivers must have significantly contributed to the exposure of such flint concentrations in alluvial deposits to late Paleolithic communities.

Technological trails in the Mesolithic kshemenitsa at site 34 in Kraków-Biezanów

The material analysed in this article includes flint objects associated with the younger phase of the Komornice culture. They were acquired during rescue excavations carried out by Kraków Team for Archaeological Supervision of Motorway Construction at site 34 in Kraków-Biezanów.

A technological-typological analysis of the studied inventory has revealed several flint-working technologies. The explanation of their presence may be twofold: on the one hand, it may be the result of high specialization of the Mesolithic flint-working, which is reflected in the consistency of the planigraphy of the assemblage; on the other hand, it may result from the accumulation of several settlement episodes, which is suggested by the presence of single finds of different chronology pointing towards the links with both older flint-working traditions (the Swiderian culture) and other Mesolithic units.

The problem is further complicated by the fact the majority of the examined objects are heavily burned and cracked, and they include a small number of cores playing a key role in technological and typological analyses. It should also be noted that the forms of cores, suggesting a blade character of flint exploitation, do not correspond to the structure of refuse material and half-worked raw material (mostly flakes).

In the light of the above findings, the authors of the article hypothesize about incidental occurrence of the Late Paleolithic material at the site and the existence of separate manufacturing modes within one Mesolithic cultural unit. Open is the question whether there were different procedures of preparation and exploitation of cores for each of the mentioned manufacturing modes, or the different half-worked objects derived from the same cores passing the next phases of reduction and transformation.

Marcin Chłoń

Results of the analysis of function of Mesolithic flake axes from the Odra drainage basin

Summary

The article focuses on the issue of the function of Mesolithic flake axes ascribed to the group of macrolithic tools, often found at sites of the forest zone of the European Lowland. During the Boreal and Atlantic periods the regions were characterized by heavily segmented and long shoreline of the sea, numerous lake basins and watercourses. Exploitation of

natural resources forced the human groups inhabiting the area to employ tools which would enable the penetration of the tree-covered territory with a complex hydrographic network. The function of flake axes was connected predominantly with wood working, particularly with the production of dug-out boats.

The article presents results of the analysis of the function of flake axes from a series containing 37 specimens. The majority of artefacts come from research by Prof. Z. Bagniewski of the Institute of Archaeology, Uniwersytet Wrocławski, at sites in Pojezierze Południowobałtyckie (Chrapów 17; Bierzwnik 19; Gudowo 3; Łęczyn 22, 23, 25; Jaglisko 1; Pławienko 31; Radęcin 15; Wierzchowo 2 and 6), in Niziny Środkowopolskie (Trzebiecz Młyn 1, 2) and Nizina Sasko-Lużycka (Krępnica 8; Pobieli 10; Rzeszotary 17).

The three flake axes from sites Pławienko 31, Bierzwnik 19 (specimen no. 131/92/W) and Radęcin 15 (no. 77/W/94) had their function plainly defined: they were tools used for hewing/chopping wood. Because of the patina coating, however, it was problematic to describe the function of the next two tools from Łęczyn 23 and Wierzchowo 2 (no. 37/86/W). The preserved traces of use, despite their similarities to damage occurring on replicas used for wood working, are not unambiguous.

Traces of use on the Wierzchowo 9 artefact (no. 1/91/s. II) indicate its use for action at right angles, and similarly to the artefacts described earlier, the action was chopping or hewing. They differ in the high level of hardness of the worked material – probably bone or antlers (?). Pławienko 31 artefact (no. 229/93/W) was probably used for scraping (?) in not fully recognized soft material.

Traces indicative of the use of permanent organic haftings were discovered in the medial and proximal parts of next three tools from sites Pobieli 10 (no. 98/71/W), Krępnica 8 (no. 137) and Radęcin 15 (no. 77/W/94). On two of them there are remarkably no traces that might reveal the work for which they had been used.

It is possible that some repair work was performed on flake axes, as shown by the context in which traces of use on the flake axe from site Trzebiecz Młyn 1 (no. 130/01/WII) were found.

On the trail of Mesolithic hunters. Interpretation of the function of microliths from selected sites

Summary

Not without reason, Mesolithic microliths are generally considered to be components of throwing weapons, as proved by many premises: archaeological sources, ethnographic data and results of experimental and traceological research. However, on the basis of microscopic analyses carried out on several hundreds of microlithic geometrical forms from the western part of the Polish Lowland (sites: Jastrzębia Góra 4, *gmina* Władysławowo; Turowiec 3, *gmina* Brusy; Wojnowo 3, *gmina* Kargowa; Zuławka 13, *gmina* Wyrzysk), one can isolate an additional group of a different type of traces resulting, among others, from contact with hides or flesh. Is it possible to definitely state on this basis that some of the microliths were used for purposes other than shooting during hunts? The present article attempts to answer this question.

It was hypothesized that some of the microtraces distinguished were not effects of the use of the microliths but of artefact storage in various kinds of containers made of organic materials. To verify the hypothesis, a series of experimental studies was conducted. As the tests showed, the microscopic changes on experimental specimens were analogous with those formed on the Mesolithic microliths from the territories of Wielkopolska and Pomorze.

In view of the data obtained it is suggested that to interpret the traces different types of factors affecting their shape and connected with broadly seen social context should be taken into account. The results of the research indicate that the origin of at least some of the observed surface changes ought not to be unequivocally interpreted – more than once comparable traces are formed following the storage and use of specimens for various purposes.

Late Palaeolithic and Mesolithic settlement in the Tarnowa region

Summary

The present article discusses the preliminary results of research and analyses of a Late Paleolithic and Mesolithic settlement at the site in Tarnowa. It is considered against the background of sites from the older and middle Stone Age located in the area of Pyzdry Depression. Because of its exceptional morphological features the area was a great deal settled by prehistoric communities and later in the early Middle Ages. It lies along the banks of two big rivers – the Warta and the Proсна – with distinctive terraces and numerous dune shapes.

The Pyzdry area had been systematically studied by archaeologists and amateurs since the 20s of the 20th century, and the most intensive research was carried out in the 70s of the last century. The archaeological site in Tarnowa, *gmina* Pyzdry, *powiat* Września, holds a special place in the study of Polish prehistory. In 1923, during surface investigations, J. Kostrzewski discovered a camping site in Tarnowa that entered the literature of the subject as the eponymous site for Late Paleolithic assemblages connected with backed blade technocomplex.

Nearly all analysed sites are situated on sand dunes or forms with aeolian surface sands. This brings about a mechanic relocation of artefacts, which considerably hinders taxonomical interpretation that is mainly based on technologico-typological criteria.

Drawing on the survey of literature and archival holdings in the Poznań Archaeological Museum and the author's own research, altogether 34 sites from the older and middle Stone Age were localized. All of them carried remains of Mesolithic settlement (mainly the late Mesolithic) and in 5 the artefacts were identified with the Late Paleolithic (cf. the Catalogue).

The materials identified with the Tarnovian culture (formerly Tarnovian industry) were isolated from a collection of several thousands of Mesolithic and Neolithic microliths, including those ascribed to the Funnel Beaker Culture, after the raw material criterion (artefacts made of chocolate flint) and tool typology (short and squat "Tarnovian" end-scrapers and backed blades).

The article presents a critical analysis of typological, raw material and geological criteria that form the basis for isolating a separate taxonomic unit. The results of geomorphological research carried out in the years 2010-2011 and ¹⁴C dating of fossil soil from the region of the eponymous site demonstrate the soil's formation in the modern times as well as intensive anthropogenic activities and repeated re-modelling of the analysed form.

The studies of human settlement from the older Stone Age in the Tarnowa area conducted so far do not allow a confident exclusion of the legitimacy of combining materials from the eponymous sites with the backed blade concentrations, even though on the evidence of data presented in the article such a possibility cannot be ruled out. The final resolution of the problem, pertinent to the investigation of the oldest part of the Polish Lowland prehistory, can be only achieved by multi-targeted interdisciplinary research that would aim at an absolute dating of the settlement, leaving aside the not very objective typological divisions and years of established tradition.

ZDEŇKA NERUDOVÁ, PETR NERUDA, PETR SADOVSKÝ

Open software “HROT”. Digital 2D technology for the description of archaeological analysis

Since the analysis of two-sided artefacts with the use of software known as “HROT” has already been published (Nerudová, Neruda 2009; Nerudová, Neruda, Sadovský 2011), this article aims to characterize the software, its advantages and disadvantages. “HROT” was developed within a grant-aided project dedicated to morphometric analysis of two-sided tools from the Paleolithic period (Nerudová, Neruda, Sadovský 2011) in order to enable the processing of digital images of archaeological artefacts. In a broader scale, it was created as a tool facilitating comparative analysis of two-sided artefacts of different chronological and spatial contexts. The tests of “HROT” software have indicated that it can be used both for data collection and as an auxiliary tool in the description of incomplete artefacts for future research, the analysis of analogous finds, or the reconstruction of the possible shapes of objects. Unfortunately, currently the software is not available because it operates only within MATLAB license, which generates high costs. Further development and accessibility of the software depends on funds.

ANDREY MAZURKEVICH, EKATERINA DOLBUNOVA

The oldest pottery and Neolithisation of Eastern Europe

The site of Rakuszczy Jar located by the Don River in the southern part of Europe is one of the oldest Early Neolithic sites in the region. The latest research has revealed exceptional importance of the material discovered in this area for the discussion on both the issue of diffusion of the Middle East “Neolithic set” and the Neolithisation of Eastern Europe. The analyses carried out by the authors of the article on pottery discovered during archaeological excavations carried out by T. Belanovska (material is held in the State Hermitage Museum), have shed a new light on the earliest pottery production in Eastern Europe.

The analysed pottery material was selected from layers 23-14 at Rakuszczy Jar. The assemblage comprised fragments of 216 vessels, including 816 pieces of bodies and rims and 69 pieces of bottoms. The authors of the article distinguished 4 “chaînes opératoires”, which indicate the presence of different technological traditions. They identified and described 9 types of vessels, the majority of which came from the lowest layers of the site. The

examination of clay paste has revealed that its production traditions were maintained despite changing clay resources. The diversification of clay resources and recipes for preparing clay paste point towards the ability of pottery makers to adjust their skills to processing different kinds of clay and different admixtures. The research has revealed not only the presence of different “chaines operatoires” but also their use to form various kinds of vessels. All these observations testify to the developed skills and experience in pottery making.

Rakuszczy Jar seems to be a crucial site for the studies on the Neolithisation of Eastern Europe. In this part of the continent researchers have recorded a number of sites with pottery objects similar to those unearthed at this site. Their convergence in terms of morphology, technology and decoration testify to the precise imitation of patterns known from Rakuszczy Jar, which disseminated throughout the Desna, the interfluvium between the Volga and Oka rivers, in the lower Volga, in the southern Onega and in the Suchoma basin. Hence, it is probable that pottery traditions of Rakuszczy Jar became the basis for the first wave of pottery-making that appeared throughout all the territory of Eastern Europe and determined the character of the Neolithisation in this part of the continent.

It may be assumed that the appearance of several pottery-making traditions were triggered by various mechanisms. They may have been the result of both migrations of people who brought these skills from the outside world and their contacts with local Mesolithic communities who in this way gained the new knowledge.

In the first stage pottery was not numerous, and – probably – it was not widely spread or accepted innovation. The oldest pottery-making traditions lasted almost unchanged throughout a long period and they were cultivated in local environments. Radiocarbon measurements allow for placing this stage between 8300 BP and 7300 BP. Such conservatism may confirm the hypothesis that the earliest pottery had a special status, associated with its use for prestigious/ritual, and not utilitarian purposes. This explains a fundamental separateness of the Neolithisation process of Eastern Europe from the character of this process in other parts of the continent, where pottery played different roles.

The next wave of the Neolithisation of Eastern Europe was associated with vessels decorated with triangle punctures. Taking into account the variety of ceramics, including the differences present even within one micro-region, it should be assumed that pottery appeared in the result of inflow from different directions. The process of shaping this second pottery-making tradition had a wave-character and it consisted of several impulses, which originated from various regions inhabited by people using similarly decorated vessels. First assemblages of pottery ornamented in the abovementioned way appeared in the lower Volga river and in

the Caspian sea area, where they date from 7950±90BP (Ki-14133) to 7680±90 BP (Ki-14096) (Vybornov et al 2009, Tab. 1). The beginnings of spreading of this tradition can be dated to about 7870±100BP (Ua-37100), which is indicated by the dating of the material from the interfluvium of Dnieper and Dvina rivers.

In conclusion, in the area of Eastern Europe two separate models of Neolithication can be recognized. The first one – “standard” – consisted in the diffusion of “package of Neolithic innovations” into the north-east Black Sea region, where original centers of Neolithisation of Eastern Europe emerged. The materials from Rakuszczyński Jar document this process. The second model, which may be referred to as “northern”, consisted in migrations of people from original centers to forest-steppe and forest zones, where emerged secondary centers. From these places began the further spreading of pottery-making traditions among Mesolithic communities. This model of Neolithisation, which encompassed the majority of Eastern Europe, is based on the concept of a specific role of pottery for local Mesolithic communities as a prestigious and non-utilitarian element of culture (Mazurkevich et al 2006; Mazurkevich et al 2011).

Andrzej Smaruj

From studies of settlement and cultural conditions at the close of Antiquity in south-eastern Pałuki region

Summary

The paper is a tentative monograph of south-eastern Pałuki at the period from the younger Pre-Roman times until the Migrations. Drawing on data from available publications, surface research, excavations, paleoenvironmental studies and carbon dating a coherent picture of the settlement history was obtained. A history of research in the region is presented, and analyses of relations between the distance from water bodies and the lie of the land (topography) on the one hand, and the location and numbers of settlement sites on the other, are carried out.

At the close of Antiquity the area under discussion was characterised by a considerable dynamics of socio-cultural changes typical of a borderland zone between two settlement centres. Pałuki were inhabited by Przeworsk Culture (phases A1-A3; C2-C3) communities and Wielbarsk Culture (B2b-C1b) groups. Also there are discernible traces of Jastorf and La Tène Cultures during the younger Pre-Roman era, and Przeworsk and Scandinavian influences during the Roman period and the Migrations. The investigated areas were inhabited by rather small and mobile communities receptive to influences arriving from their neighbours in Kujawy, Wielkopolska and Pomorze.

Analyses of the location of sites have shown that the population of the Roman influences period situated their settlements mainly in a close vicinity of water bodies and in naturally defensive places.

Sabina Hryniewiecka

Places of cult in palaces of the Mycenaean culture

Summary

The paper discusses location of places of cult in Mycenaean culture palaces from Thessaly in the north down to the Peloponnese in the south. The analysis deals with religious sites that also performed state functions, such as the megaron and other buildings of religious character situated within the palaces, for example house sanctuaries or chapels.

The first part of the text outlines the issue of the complexity of the Mycenaean religion, focusing on two main genetic sources: the indigenous substratum (Middle Helladic period) and the influence from Crete (spreading of Minoan religious objects into the Mycenaean culture).

Then the paper goes on to examine the presence of cult places in Mycenaean palaces with particular emphasis on the megaron complex. The set of following features was adopted as a criterion for recognising a given location as a place of cult: existence of characteristic paraphernalia (eg. the hearth, the throne, fixtures for ritual libations, frescoes of specific subject matter, offering tables, altar benches/platforms), a particular plan of the building and the presence of movable artefacts with religious purpose. Furthermore, the phenomenon of the co-existence of two megara in one palace (Pylos, Tiryns, Iolcus and Mycenae) in the context of the Mycenaean system of diarchy is discussed.

Cult practices characteristic of the Mycenaean religion are presented as a separate issue. The analysis includes: making offerings ("literal" – mainly of animals and "symbolic" – of votive offerings), the accompanying ceremonious gift processions, ritual libations and feasts. The study of Mycenaean feasts revealed that there existed a hierarchy at those gatherings that gave emphasis to social inequalities.

Within the context of cult places the paper examines the problem of the presence of the Mycenaean ruler – the wanax, and his role in religious rituals that were also performed in the megaron.

Summing up, the article presents the significance of religious places in the palaces in the political, spiritual and social life of the Mycenaeans.

A copper axe from Azyershchina, region Ryechitsa, district Hommel, in Belarus. From research on the beginning of metallurgy on the upper Dnieper

Summary

The axe presented in the paper is an isolated find discovered in 2008. It came to the surface during drainage works on the terrace at the mouth of the Vyedrich river, a right-bank tributary of the Dnieper.

In typological terms, it is a tool of the shaft-hole group widely known in the European Bronze Age. The Azyershchina axe, however, carries a number of specific features which make it difficult to find their unequivocal analogies. Similar, though not analogous, artefacts come from vast territories covering not only the drainage basin of the Dnieper but also the swathes of land along the Baltic Sea and the drainage basin of the middle Dnieper, and even the regions on the Dniester. The finds from the Baltic zone alike the Azyershchina specimen, numbered among the so-called shaft-hole Baltic axes of Littauesdorf, Szylina Mała and Giżycko types, are particularly abundant. They are all more or less closely dated to the 5th H(B2) or 4th H(A2) H(B1) period of the Bronze Age. Another Baltic zone type showing formal similarities with the Azyershchina artefact is the Skandawa type, though the latter's dating falls mainly in the 6th Bronze Age period. Later still - Hallstatt A1 and A2 - is the chronology of shaft-hole axes known from the middle Dnieper and from the Dniester described as shaft-hole axes of the Czarnolas type.

The preserved remains of an ashwood shaft in the cone allowed to provide the Azyershchina artefact with its own carbon dating: Poz-36252, 2755 ±35 BP (68,2% - 926-840 cal BC; 95,4% - 996-987 cal BC; 980-825 cal BC). The radiocarbon date allows to state the chronology of the axe's use at maximally years 996 – 825 BC. In the relative chronology of the northern part of Central Europe it means the second half of the 4th and the first half of the 5th period of the Bronze Age.

Also, metallurgical research allowed to recognise the material of which the axe was made. It was copper with an admixture of silicon, in other words, a unique alloy with no known analogies.

All in all, the axe found at Azyershchina was probably made on the spot on the upper Dnieper, as evidenced by its morphological exclusivity and a not very high level of casting technology. Furthermore, the specificity of the material may attest to local metallurgical experiments. Its maker existed within the production environment connected most probably with the Baltic zone, though southern influences (the middle Dnieper basin and the territories along the Dniester) cannot be excluded.

Research on the rock art in the Dakhleh Oasis (Western Desert, Egypt). Site 06/09

Summary

In February 2011 another season of rock art research in the Dakhleh Oasis took place. The expedition was organized by Polish Centre of the Mediterranean Archaeology of Warsaw University with cooperation of Poznań Archaeological Museum. The research was conducted by the Petroglyph Unit, which is the part of the Dakhleh Oasis Project. Director of the the Petroglyph Unit was prof. M. Kobusiewicz and the rest of the team consisted of E. Kuciewicz, E. Jaroni and P. Polkowski.

The following article presents one of the sites investigated during previous season – site 06/09. It was discovered in 2009 and is located in western part of the Central Oasis. It is a sandstone hill, ca. 40 m long and 10 m high, with its northern part covered with petroglyphs. Among the rock art motifs one can distinguish those dated from prehistory, the Dynastic and Roman periods of Ancient Egypt, as well as mediaeval and modern ones. Potentially prehistoric origin may be attributed to drawings of ostriches, which are located relatively high on the hill on a vertical surface. They were engraved (limbs and necks) and rubbed (trunks) into the surface and all are turned in the same direction (to the right). Another example of potentially Neolithic rock art is a giraffe and human figure motifs. The giraffe was drawn in two techniques: engraved (limbs, tail, horns) and pecked (trunk and neck); human figure was just engraved. The composition occupies the vertical surface in the NE part of the hill.

Two most common types of drawings found at the site 06/09 are foot and sandal motifs. All of them were found on horizontal surfaces, what is typical for this kind of drawings recorded elsewhere in the Eastern Sahara. Some of the sandals were just made in outline, while few examples were very elaborately executed having strips drawn in the heel area or even on an entire sole.

Among the younger petroglyphs one can notice some geometrical signs, including squares, crosses and lines. Part of the so called *abstract* signs may be *wusum* – Arabic tribal signs, commonly known from the Sahara. One Arabic inscription was recorded at the site.

A preliminary analysis of rock art distribution on the hill shows that rock art, which seems to be older (i.e. Neolithic) occupies higher surfaces of the *jebel*, while younger petroglyphs are to be found in less remote areas. The hill is highly eroded, which has influenced the state of preservation of drawings. It is certain that we cannot deal with all petroglyphs which were executed throughout the ages in that particular place. Detailed interpretation of rock art, the hill and surrounding landscape will be the aims of future investigations.

Archaeological application of virtual reality based on CAD/GIS systems.

History, ethics and functions

Summary

Virtual reconstruction belongs to the broader issue of Visual Heritage. It is a term referring to all activities related to the protection and study of cultural heritage and its presentation to the public, using computerized instrumentation. Application of Virtual Heritage uses interactive features of virtual reality. Students or visitors of the museum can see the computer reconstruction of historical places that no longer exist or their state of preservation makes it impossible to visit.

A review of Polish archaeological literature suggests that over time the reconstruction began to be badly received by the scientific community. There are two primary factors causing marginalization of virtual reconstruction: departure from the professionalism and integrity and the risk of false image of the past.

Development of computer technology opened up new possibilities. Progress in new software has been focused on enabling 3D spatial modelling. Combination of CAD (*Computer Aided Design*) and GIS (*Geographic Information System*) systems enables the re-creation of a three-dimensional projection, in which the spatial relationships between objects are preserved. The man sees the world in three dimensions, so the process of creating three-dimensional model, similar to the reality, often leads to additional discoveries which can increase our knowledge or change understanding about the specific issue. The CAD/GIS software, in contrast to typical graphics programs, is not only for a visual effect. CAD/GIS systems accurately enter information into the computer space. The use of CAD/GIS in archeology helps to carry out various types of spatial analysis as: kinematic, geometric, perceptual and many others.

Nowadays, the virtual reconstruction does not have to involve considerable time, effort or money. Computerization, without causing damage to the original material, allows to create a model and even trace the process of its creation. The model in the digital version is more flexible, in contrast to the traditional reconstruction, accumulation of knowledge can be enriched with new information. Virtual reconstruction, besides providing a lot of information, is more accessible to the ordinary man. Reconstruction of historic buildings can meet various social functions as: religion, education, culture, historical identity, conservation and research. This is one of the main ways to stimulate public interest in archeology.

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