

ZBORNIK INSTITUTA ZA ARHEOLOGIJU

SERTA INSTITUTI ARCHAEOLOGICI

KNJIGA 10

SACRALIZATION OF LANDSCAPE AND SACRED PLACES



Edited by Juraj Belaj, Marijana Belaj, Siniša Krznar, Tajana Sekelj Ivančan and Tatjana Tkalčec



SACRALIZATION OF LANDSCAPE AND SACRED PLACES

Proceedings of the $3^{\rm rd}$ International Scientific Conference of Mediaeval Archaeology of the Institute of Archaeology Zagreb, $2^{\rm nd}$ and $3^{\rm rd}$ June 2016

ZBORNIK INSTITUTA ZA ARHEOLOGIJU Serta instituti archaeologici Knjiga / Volume 10

PUBLISHER

Institut za arheologiju / Institute of Archaeology Zagreb, Croatia

EDITORS-IN-CHIEF AND MANAGING EDITORS

Juraj Belaj Marijana Belaj Siniša Krznar Tajana Sekelj Ivančan Tatjana Tkalčec

REVIEWERS

Ana Azinović Bebek Katja Hrobat Virloget Luka Šešo

TRANSLATIONS AND TEXT EDITING

Signed below the text or translated/edited by the authors

DESIGN AND LAYOUT

Hrvoje Jambrek

PRINTED BY

Tiskara Zelina d.d., Sv. I. Zelina

CIRCULATION

200

COVER PHOTO BY

Karlo Lolić

Financially supported by the Ministry of Science and Education of the Republic of Croatia

©Institut za arheologiju u Zagrebu. Sva prava pridržana

©Institute of Archaeology Zagreb. All rights reserved.

CIP zapis dostupan u računalnom katalogu Nacionalne i sveučilišne knjižnice u Zagrebu pod brojem 001012819

A CIP catalogue record for this book is available in the Online Catalogue of the National and University Library in Zagreb as 001012819

ISBN 978-953-6064-36-6

FOREWORD	4
Andrej Pleterski MYTHICAL LANDSCAPE. WHAT IS IT?	5
Mia Čujkević-Plečko, Silvija Lasić, Ivor Karavanić Aspects of Symbolic Behaviour at Croatian Palaeolithic Sites	19
Mitja Guštin, Alja Žorž Nova Tabla at Murska Sobota. Burial Site as a Sacred Area	33
Anđelko Đermek The Distribution of Pre-Christian Sacred Sites in the Zaprešić Area	45
Vitomir Belaj, Juraj Belaj Around and below Divuša: The Traces of Perun's Mother Arrival Into Our Lands	69
Marko Smole Sacred Slavic Triangle in the Upper Kupa and Čabranka Valley: A Story about Pre-Christian and Christian Landscape Sacralisation	93
Jelka Vince Pallua A Newly Discovered Figurative Representation of the Mythical Baba – "Old Baba Vukoša" in St. Mary's Church of Gračišće in Istria	105
Lidija Bajuk Over the Mountains High, across the Waters Deep (Astroethnological Contributions)	117
Marina Milićević Bradač Passing through the Countryside : How to Recognize a Sacred Place?	143
Vesna Lalošević Examples of Pagan Sacralisation of Sirmium and Salona Landscapes in the early Christian Legends	165

The Temples of Anāhīd at Estakhr (Southern Iran): Historical Documents and Archaeological Evidence	179
Silvia Bekavac, Željko Miletić Castles of Petuntium, Neraste and Oneum: Sacral Centres of Pagi in the Territory of Salona	195
Dražen Maršić Sacralization of the Salonitan Rural Landscape on the Example of "Gradina in Uvodići"	205
Olga Špehar Changing Sacred Landscape: Christianization of the Central Balkans in Late Antiquity	211
Ana Jordan Knežević Contribution to the Study of Development and Function of Sacral Buildings in Zadar Area (4^{th} – 9^{th} Century)	221
Vladimir Peter Goss SACRALIZATION OF THE VERTICAL	237
Ivana Peškan, Vesna Pascuttini-Juraga Forming of Cultural Landscape through the Network of Ecclesiastical Buildings in the Valley of the River Bednja	251
Jela Duvnjak, Marija Marić Baković Continuity of the Sacral and Actuality of the Cult on the Cemetery of St. Ivo in Livno	259
Maja Cepetić Rogić Patron Saints and Naming of the Landscape St John and Ivanić. Ecclesia, Villa, Comitatus, Insula	277
Rosana Ratkovčić Continuity and Discontinuity of the Holy Sites of Christianity and Islam in the Examples from the Sufi Tradition	287
Andrea Rimpf, Dražen Arbutina ILOK OTTOMAN MOSQUES AND IDEAL RECONSTRUCTION OF MEHMED AGHA MOSQUE	299

Karen Stark From Holy Objects to Sacred Places: Making Marian Sanctuaries in 14 th c. Hungary	325
Silvija Pisk Our Lady of Garić	335
Marijana Belaj, Mirela Hrovatin Cultural Practices in Sacralisation of Place: Vows in the Shrine of Our Lady of Marija Bistrica	343
Antonia Vodanović, Ivan Huljev Houses and Paths from Podgora: A Case of Landscape Sacralization	353
Merili Metsvahi The Europeanisation of Estonia and the Folktale Connected with Lake Valgjarv	367
Cornelia Florea Petrila Mine – Sacred Underground	375
Sandis Laime Offering Cave of the Livs in Latvia – from Sacred Place to Tourist Destination	383
Ivan Majnarić The Uses of the Past – the Case of Maksimir Park Mogila	393
Antonija Zaradija Kiš Saint Martin Space and Its Cultural Perspective	403
Neda Kulenović Ocelić, Igor Kulenović New "Sacred" Places: Heritage Practices on Heritage Sites	415
Sandra Križić Roban Displacement in the Space of Art	423
Suzana Marjanić The Sacralisation of Landscape in Contemporary Art Practices: Croatian Scene Case Study	433

FOREWORD

Human settlement of landscape raises the question of marking the landscape with one's own religion. Changes of religious systems or their coexistence documented in the landscape raises further questions, particularly those pertaining to broader socio-cultural phenomena and dynamics. Even if such processes are not documented in written sources, they could often be recognized in toponyms, folklore, archaeological finds and in contemporary religious practices.

Keeping this in focus, **the Institute of Archaeology** organized the 3rd International Scientific Conference of Mediaeval Archaeology, entitled *Sacralization of Landscape and Sacred Places*. The Conference took place on the **2**nd **and 3**rd **June 2016**, at the **Archaeological Museum in Zagreb**, Croatia.

This is the third in a series of conferences designed to thematise mediaeval archaeology. However, for this third conference we have conceived a much broader framework – our intention was to stimulate an exchange of experiences and knowledge among participants with different research perspectives and disciplines and from different geographic areas and chronological periods.

As many as 74 participants took part in the conference, coming from Croatia, Hungary, Estonia, Slovenia, Romania, Latvia, Bosnia and Herzegovina, Serbia, Italy, Czech Republic, Germany and Iran. All in all they contributed a total of 57 presentations.

Introductory plenary lecture "Sacral spatial arrangement of landscape" was given by prof. dddr. Andrej Pleterski, Research Advisor at the Research Centre of the Slovenian Academy of Sciences and Arts in Ljubljana, Slovenia.

The Conference was divided into the following panels: Human and sacred landscape: paradigms; Traces of sacred sites: prehistory; Myth in landscape; Sacred place - the arena of religious discourses; Social realities in the sacralization of space; Narratives and practices in the sacralization of space; Reading of holy places and sites in Islamic tradition; Traces of sacred sites: antiquity; (De)Sacralizations: spatial biographies; Christian spatial symbolisation.

Most of the presenters at the conference readily adapted their presentations into papers. This publication presents analyses of sacred landscape from the perspective of: archaeology, folklore, ethnology, cultural anthropology, literature, architecture, history, art history, mathematics etc., and at the same time covers the period from prehistory, through antiquity and Slavic period and the Middle Ages to the modern period and contemporary times. In addition to this, it also compares different processes from different regions and times, by and large from Europe.

All the contributions were separately reviewed by carefully selected experts from the international academic community according to their particular discipline or research perspective. By publishing a book in English, we have tried to provide to the authors the widest visibility in the international scientific community.

I would like to thank once again all the participants of the conference for excellent cooperation, as well as to the institutions that helped make it a great success. Special thanks are reserved for the reviewers of individual papers and the proceedings on the whole for their effort, expertise and contribution, as well as for the colleagues from the Institute of Archaeology for their help in the organization of the conference and the publication of these proceedings. We are grateful also to the Archaeological Museum in Zagreb for their support in the organization of the conference. We sincerely hope that the contributions gathered in this publication will encourage colleagues from various scientific disciplines, especially researchers of younger generations, to engage further with the sacralization of landscape and sacred places.

ANDREJ PLETERSKI

MYTHICAL LANDSCAPE. WHAT IS IT?

Scientific paper

This article defines the concept of mythical landscape and describes its function, which is to assist people in their survival. With the help of this function, the components of the mythical landscape are defined. Further on, an idealized model of its structure and its emergence is presented, as well as illustrated with the case of Krakow.

Key words: mythical landscape, concepts, case study Krakow, Slavs

The mythical landscape is a highly complex system and this paper does not presume to be a handbook on it: for such an achievement, a whole monograph would be needed. The context of individual components will therefore not be discussed in detail. Some of these components are described in my monograph (Pleterski 2014), and additional studies exist for fields (Pleterski 2006; 2013), cemeteries (Pleterski 2003; 2008), houses (Pleinerová 1975: 47; Risteski 2005: 118–183), villages (Baran 1992; Risteski 2005: 184–218). The primary aim is therefore to give an impression of what a mythical landscape is.

The emergence of the mythical landscape is to be sought for in the relationship between humans and nature. Human existence is dependent on what happens in nature. In pre-industrial times, when a minor weather disturbance was enough to cause hunger and death, people felt a deep sense of awe at the forces of nature. Back then, people believed it was possible to influence those natural forces, and a system of magical acts was developed and applied. This system changed and evolved in accordance with the needs dictated by the changing environment, economy, society, and way of life. The interrelation of individual system variants is the subject of future research, but the solid structure that was known and used by the ancient Slavs has already emerged. It is extremely archaic, rooted in deep prehistory, apparently in the Palaeolithic. My vision of the mythical landscape is based on this structure (Pleterski 2014).

DEFINITIONS

To begin with, some definitions are needed. It is not my intention to match the terms in folklore studies. I simply want to present, how do I use some words. The already quite domesticated expressions "sacred landscape" or "ritual landscape" are burdened with quite certain meanings, be it a simple estimation or the discussion of sacred places and buildings, with special emphasis on the modern concepts (e.g. Robb 1998; Słupecki 2002; Dobrez 2009). Therefore, I prefer the term "mythical landscape", which can be used in a broader sense, and I want to encourage its use as a technical term. **The mythical landscape** is a geographical aspect of a cultural genome.

Like the biological genome determines our biological appearance, **the cultural genome** (Fig. 1) determines our cultural expression. A cultural genome is a set of primordial findings about the functioning of the universe and the rules derived from these findings, which govern the lives of individuals and communities. The findings and the rules vary in accordance with changes in the environment, economy, social relations. They can be seen as hard-core elements of a certain cultural area. When the findings about the functioning of the universe are verbalized in a narrative, a **mythical story** occurs. In this respect, the mythical story is the textual part of the cultural genome. The geographical aspect of the cultural genome is then the mythical landscape. People used the mythical story as a mental model in order to regulate specific spaces and

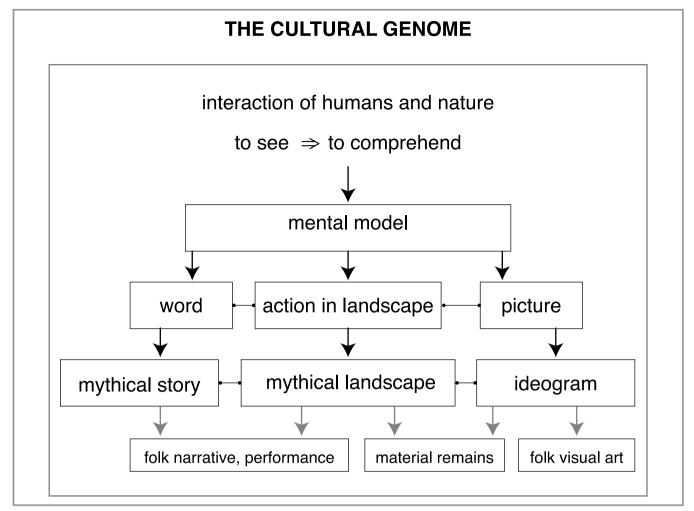


Fig. 1 The cultural genome as the primordial worldview and its relics

consequently the story was materialized as an imprint on the landscape. The mythical story is preserved in the form of the folk narratives associated with individual parts of the landscape. Mental models within the mythical landscape are materialized as **spatial ideograms**. Spatial ideograms are landscape features, either created by people or naturally occurring, but understood in accordance with mythical conceptions. A spatial ideogram was used as a magical means to master the forces of nature and consequently to ensure life and well-being. This is the function of spatial ideograms. At the present stage of the art, recognizing spatial ideograms is the most reliable way to research the mythical landscape. How to do it, is presented below.

THE CONSTITUENT COMPONENTS OF THE MYTHICAL LANDSCAPE

Although it should go without saying, it must be stressed that the fundamental group of components are the **natural features** of the **earth's landscape** – mountains, islands, stones, springs, rivers, lakes, trees, caves. Then, further on, there are the features of the **celestial landscape** – the sun, the moon, the stars. They are an inherent part of the emergence of the primeval astronomy and the calendar. What was the purpose of the calendar? We should not forget that ritual acts within a landscape had to be performed in the exact right moment to take effect. This segment of the mythical landscape is researched by archaeoastronomy (for further details on the subject and research methods, see: Šprajc 1991; Ruggles 2005; Ministr 2007; A. Polcaro, V. F. Polcaro 2009; Rappenglück 2014).

Then we have the **human-made**, artificial features of the earth's landscape – roads, channels, fields, settlements, cemeteries, shrines. These **material artefacts** can be the subject of archaeological research, which provides an opportunity to determine their chronology.

In addition to them, there are the **intangible components** of the mythical landscape. They include the mythical story, which is usually fragmented, as it is preserved in folk narratives and performances, in place-names and sometimes even in

the names of saints, patrons of churches, which overlaid the earlier mythical landscape as a later ecclesiastical structure. These fragments are spatially associated with individual material parts of a landscape. Therefore, we can investigate the link between this tradition and archaeological remains (cf. Lane 2008; Gunell 2008). The chronology of the latter dates the use of the elements of the mythical story.

When it comes to the **ecclesiastical landscape**, the eternal quest of the Christian Church as an institution is to be allembracing, and its method of substitution of earlier sacred places with churches (Jerris 2002) is well known, corroborated in the year 601 CE, with the famous letter of Pope Gregory the Great, which was sent to Britain (Hartmann, Ewald 1899: 56). Therefore, the position and orientation of churches could be a part of the *wirkungsgeschichte* (history of the effects of something) of the earlier mythical landscape. The research of the orientation of churches focused on the longitudinal axis of a church building. The studies of the orientation of the lateral axis or even the diagonal of the church nave (Pleterski 2015a: 26–29) are missing.

The most common traditional explanation that the church orientation was determined by the sunrise (or sunset) on the feast day of the saint to whom the church was dedicated, holds to be true only in very rare cases (Čaval 2010: 162; Sassin Allen 2016: 160). Some other theories (chronological and institutional effects on the orientation, or the direction of the sunrise when the church was first laid out, or the sunrise around Easter), simply cannot be verified, since they are based on unquantifiable variables (Čaval 2010: 163–165; Sassin Allen 2016: 161–163). For the studies of the mythical landscape it is significant that a lot of churches are oriented around landscape features, including old sacred places (Sassin Allen 2016: 169–184). It is, however, worth mentioning that a church as a sacral building could be constructed as a complex structure, where relations, directions, lights and shadows are filled with symbolic meanings (for example: Pejaković 1978; 1997).

To understand the mythical landscape, we should know as many of its components and their positions as possible. While it is not necessary to know them all, their number should be such that the structural mainframe can be recognized. The components must be arranged in an orderly fashion. Only in this way they encourage order, which allows the balance of natural forces and the people's livelihoods. Failure to comply with the order causes chaos, which brings cataclysms and death. On the other side, the existence of order facilitates our study.

NUMBERS AND CHANGES IN NATURE

The mythical story explains the changes in nature during the annual repetition of the seasons. The events run in a circle and have neither beginning nor end. They are illustrated by the story of a mythical couple, a woman and a man, who spend the summer part of the year as spouses in continuous harmonious intercourse. Their coital energy produces fertility, which creates prosperity. The time when they are united is the period of abundance in the cycle of the year. In autumn, their union collapses; the man grows old and loses his sexual power, and the female figure consequently cripples him (castrates him, takes his weapon), swallows him, encloses him in a cavity. With the acquired weapon (fire, lightning, axe ...) the infertile woman rules during the winter. The man is apparently dead (he is sleeping), but in spring, rejuvenated, he can leave the woman's cavity, he beats the elderly woman, forces her into sex and consequently restores her youth and fertility (Pleterski 2014: 7, 37–99). In addition to this story about the fertile and the infertile pair, which is symbolized by the **number four**, there is another version with three characters, who live in a love triangle. There are one woman and two men; the woman has intercourse with one of the men in the winter and with the other one in the summer (see below). They are symbolized by **the number three**.

THE STRUCTURE OF THE ZBRUČ IDOL

Even when we talk about mythical structures in landscape, it is good to be aware that the same structures exist in figural form. The most sophisticated tangible example from the ancient Slavs is a stone pillar, the so-called Zbruč Idol (Fig. 2). The pillar is made of local limestone, figurally decorated with shallow relief. It was discovered during the dry summer of 1848 in the riverbed of the Zbruč, under the mountain of Bogit (today southwestern Ukraine, then the border between Austria and Russia), and since 1851 it has been kept in Krakow, Poland. Its preserved length is 257 cm (the broken-off base remained in the river), and the cross-section measures 29–32 cm (Leńczyk 1964; Tyniec 2011).

While this is not the place for a detailed analysis of its structure with argumentation (for that and for a discussion on the forgery theory see: Pleterski 2014: 363–376), it should be noted that the pillar has three tiers of figures that illustrate the three levels of the universe: the upper world, the middle world and the underworld. A hat covers and unites them all in a whole.

The upper heavenly world features the story of the fertile couple. It is represented by a full-bosomed woman and a man



Fig. 2 The Zbruč Idol, a pillar embossed with reliefs. Found in Ukraine, kept in the Muzeum Archeologiczne, Krakow, Poland (drawing by: A. W. Moszczyński)

(half horse) with a sabre below the waist. The infertile couple consists of an unarmed male figure and a woman with withered breasts and a ring (lightning) in her hand (cf. Pleterski 2014: 151–153).

In the underworld, there is a three-headed figure with only one lower part of the body - Triglav (literal meaning: three-headed). It consists of a female figure - earth, a hairy man - water, and a beardless male – fire. These are the functions of fire or lightning (Perun), water (Veles), and earth (Baba). Together, united in Triglav, they create life energy. Fire controls the upper world, water the underworld, and earth the middle world, as it is explicitly shown by the posture of the woman's hands.

In the middle world of the Zbruč Idol, there are four human figures holding hands and whirling around. They imitate the fertile and infertile couples of the upper world. The fertile man originally had an erectile protuberance (now broken off), while the infertile one is without it. There is a depiction of a child beside the fertile woman, while the infertile one has none. The task of humans is to establish a connection between the triple underworld and the quadruple

world of the celestials. This happens in the springtime wedding ceremony, which brings life energy to the celestial pair so that they can begin their sexual intercourse and procreate prosperity (Pleterski 2014: 368–370).

THE CASE OF SLOVENIAN KARST.

As it can be seen in the tradition of Karst, a region in southwestern Slovenia, mythical structures can also be found in space. The work of Boris Čok, who collected the traditions of Karst stonecutters and their marks (Čok 2015), as well as described the area of the villages of Lokev and Prelože with their traditions (Čok 2012), provides a perfect confirmation for the upper mythical structure of the Zbruč Idol. The tradition of the area of Prelože knows the fertile mythical pair of Deva and Devač, constantly fecundating in the cave of Triglavca (Fig. 3), as well as the infertile couple, the disputing spouses Baba and Dedec (Fig. 4).







A preserved explanation claims that Triglav is a god with three heads. One keeps an eye on the sky, the second one watches the ground, and the third one the underground. The three heads also mean that there are three gods combined in one (Čok 2012: 22–23). It is especially worth noting that one of the gods was a female, who married one of the other two gods in winter and the other one in summer (narrative of Marija Božeglav, information by Boris Čok). This is the description of a love triangle – one woman with two men. The people of Prelože saw the three heads of Triglav in three stalactites in the cave of Triglavca (Fig. 5).



Fig. 5 The Triglavca cave with its three stalactites, Slovenia

The people of Prelože had a shrine called Beli križ ("white cross"), where the cross of Svetovid was composed of stones: the cross was encompassed by a circle, with four stones in each quarter of the circle and four rocks on its perimeter (Fig. 6). It must be stressed that there was also the fifth element, represented by a symbolic young tree in the centre. It symbolically grew up during a rotation ceremony, which was held there in order to retrieve the spring fertility and abundance (Čok 2012: 34; Pleterski 2015: 29).



Fig. 6 Beli križ, Prelože, Slovenia. Reconstruction according to descriptions by locals (the basic photo by: B. Čok)

The four quarters of Svetovid's Cross are supposed to represent the four geographical directions, the four periods of life, the four seasons. The four dots were there as the ingredients of the world – earth, fire, water, and air. The repeated presence of the number four is undisputed, but considering the young tree in the centre of the cross, the **number five** is represented, too (Fig. 6).

Masons sometimes used additional four lines instead of dots in a circle – so that there were **eight lines**

altogether. The four lines forming a cross were more pronounced than the other four lines in between. This underlines the ability that gave the god its name: Svetovid was an old deity who supervised everything and the whole world (folk explanation: Čok 2015: 112). This resolves the etymological enigma of the name Svetovid (details Katičić 2010) – it means supervising the world.

It was, however, not Triglav or Svetovid that was evoked in ritual songs at Beli križ, but Dajbog. In the tradition of Prelože, Dajbog is described as a separate character. His mason mark is a circle. It represents the Sun god with the old name Dejbuh = Dajbog [giving god]— a god who gives all, and without whom all would disappear (Čok 2015: 109). According to the tradition, the **number seven** brings together the two old gods, Svetovid and Triglav, which have a total of seven heads (Čok 2015: 125). This is the explanation behind the number 7, as well as behind the number 34, which is composed of 3 and 4. The circle (also the wreath and the multi-petaled flower) comprising 3 and 4 means that only together, Triglav (life force) and Svetovid (fate and spacetime), both of which are associated with the earth, compose the whole of Dajbog. In this respect, the Sun is, of course, only the most obvious manifestation of Dajbog.

The all-uniting Dajbog, the sum of Triglav and Svetovid, and therefore seven-headed as well as almighty, matches the oldest description of the Slavic religion from the middle of the 6th century, as written by the Byzantine author Procopius

(*De bello Gothico* III, c. 14). Procopius claims that the Slavs "believe that one god, the maker of lightning, is alone lord of all things" (Mansikka 1922: 320). Only Dajbog can master everything. Even Triglav is insufficiently capable, in spite of what I wrongly argued once (Pleterski 2014: 106–107). It still holds true, however, that Procopius does not claim that the Slavs only have one God, but that only one is the master of everything. – With this in mind, the Zbruč Idol can now certainly be called Dajbog. Those who interpreted him as Triglav were right at least to an extent, as well as those who interpreted him as Svetovid. The upper part really is the four-headed Svetovid, comprising four gods, and the lower part really is the three-headed Triglav, comprising three gods. In the middle, there is us, humans.

THE TEMPORAL DIMENSION OF THE MYTHICAL STORY

Mythical structures also have a time dimension, because they are associated with the changes in nature through the year. The arrival of the young god who helps to create fertility in spring is undoubtedly associated with the 23rd April. In the Christian calendar, this is the day of St. George and it is very likely that the old Slavic name of the potent groom is Jarilo (cf. Katičić 2010).

I would like to draw attention to a calendar that is generally not well-known, but is important for the understanding of the ancient Slavic calendar (the latest attempt at its reconstruction, however, not respecting the data from mythical landscapes: Zaroff 2016). Discovered and described by Branimir Gušić (1962) in Malesija on the border between Montenegro and Albania, this is an old calendar of Albanian shepherds, who begin the year on the day of St. George (the celebration begins on the 24th April). The day of St. Demetrius (26th October) marks the middle of the year, and the two halves of the year lasted 180 days each. The day of St. George was celebrated for three days and the day of St. Demetrius for two days. These five days were not counted among the rest of them and thus they got a year of 365 days. This is undoubtedly a solar calendar, which followed the position of the Sun on the horizon and therefore did not know the problem of leap years.

With its help, we can figure out the importance of the days of St. George and St. Demetrius in calendars. From the 26th October up to and including the 23rd April, there are 180 days, i.e. a rounded half of the year. If we observe the sunrises and sunsets on the horizon from the same point in the plane, virtual lines can be drawn, joining the sunrise on the 23rd April and the sunrise on the 26th October – as well as vice versa, the sunset on the 23rd April and the sunrise on the 26th October (Fig. 7). Of course, any other opposing pair of dates could be chosen, but the 23rd April has another important feature that no other dates have. On the 23rd April, the sun rises and sets at the same point on the horizon as on the 20th August. From and including the 23rd April up to and including the 20th August, there are 120 days, which is a rounded-up one third of the year. It begins with the arrival of the potent mythical male character in the spring, who rejuvenates the mythical female character, and they spend the next four months in constant intercourse. The third ends with their separation, when the mythical female character ascends to power (cf. Pleterski 2015b).

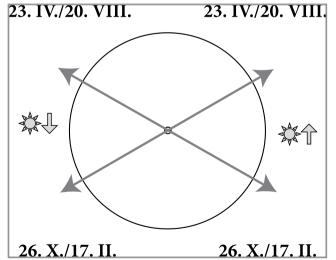


Fig. 7 The sunrises and sunsets in the plain

The separation is a conflict situation and traditional storytelling describes it in a number of ways, but without ascribing it an actual date. One of the few Slavic versions of the mythical story that describe the autumn mythical confrontation in conjunction with an actual calendar date is the story about the origin of the Russian town Jaroslavelj: Сказание о построении града Ярославля (a story of the foundation of the town Jaroslavelj). It is preserved in a record from 1781, which is supposed to be a copy of an unknown older manuscript, most likely from the 17th century. The latter was written

with the help of earlier sources, perhaps the oral tradition of Jaroslavelj (Katičić 2008: 123–124, 132). Among other things, the record describes the worship of Volos, but here we are interested in what the Kiev Prince Jaroslav the Wise (978–1054) experienced during his visit. According to the narrative, he built the church of St. Elijah, because it had been on the day of St. Elijah that he had beaten a wild beast ($\pi \omega ma 38ep$) with an axe. Despite the fact that this date is, of course, already Christian, it is still a very important event in late summer.

The primary autumn sacrifice was probably on the 20th August, at the end of the summer-third of the year (Fig. 8). In

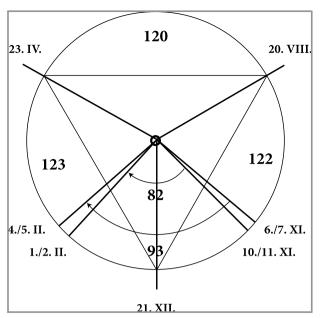


Fig. 8 The three major turning points in the course of the calendar year

Catholic Christianity, the exceptional importance of mid-August is preserved with the celebration of the Assumption on the 15th August. In Macedonia, the importance of this time in August is marked by a special period of twelve days, *Makaevi*, that predicts the fate of the next 12 months (Risteski 2005: 398). In addition, it was transferred to and transformed into the *Ilinden* sacrifices.

MATHEMATICS

The beginnings of mathematics date back to the time before the emergence of the first alphabets (in the modern sense). Objects that indicate certain mathematical knowledge are at le-

ast 37,000 years old (Berlinghoff, Gouvêa 2008: 12; for even earlier beginnings see Rappenglück 2014).

With simple tools, such as a rope and a stick, a circle can be drawn on the ground. Its periphery and centre are given. Using the same tool, the circle may then be divided into four parts, which are determined by the rectangular diameter lines (Fig. 9). If their junctions with the circumference of the circle are connected, we get a square. The ratio between the sides of a square and its diagonal is 1: $\sqrt{2}$. The diameter of the circle is the diagonal of the square, which is divided into two isosceles right-angled triangles. The angle of 90° is given, and by halving it we get the angles of 45° and 22.5°.

If the radius of the circle is used for drawing further circles, which pass through the centre of the first circle and intersect its circumference, we get a six-leaved form (Fig. 10) and six points on the circumference. Together with the centre of the circle they determine six equilateral triangles, while every other of the six points on the circumference determines a larger equilateral triangle (Fig. 11). With simple triangulation, the desired spatial relationships and distances can then be developed from basic triangles. Since the length of one side of the triangle and its adjacent angle are known, the whole triangle

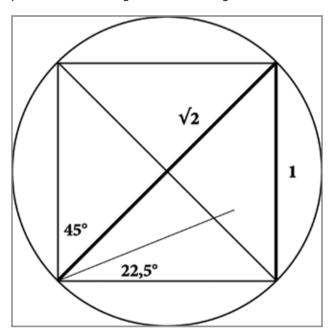


Fig. 9 A circle, a square, a right angle and its halvings, the ratio of $1:\sqrt{2}$

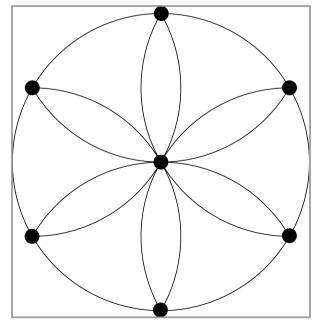
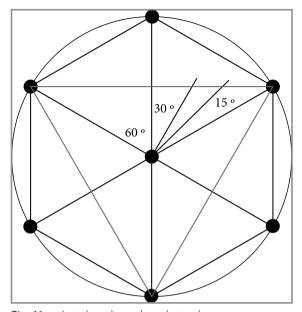


Fig. 10 A circle divided into six parts

may be determined. Equilateral triangles can be used for measuring the distances that are the multiples of an arbitrary baseline distance (Fig. 12). In the same way, an isosceles right-angled triangle may be used (Fig. 13). With the help of three sticks, a straight line can be drawn over mountains, rivers, and valleys.



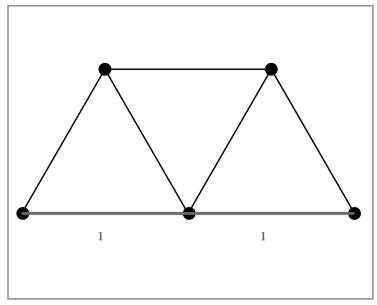


Fig. 11 A circle with equilateral triangles

Fig. 12 Multiples of measurement units on the same line by using triangles

With the help of a vertical stick – gnomon – people were able to determine (Fig. 14) the inclination of the Earth's axis – the ecliptic (ϵ). Even though they did not know what the ecliptic was, they were very aware of its consequences: the changing power of the sun, which can be so weak that everything is trapped in cold and ice, or so strong that it dries and burns everything. The golden mean between the two deadly extremes was set by setting the angle ϵ (about 23.5°), which I have named "the ritual angle". One can imagine that the magical act of the visualization of the middle, helped to maintain the natural balance and well-being. The ratio 1: $\sqrt{2}$ (the hypotenuse as the midpoint between the catheti) has the same function.

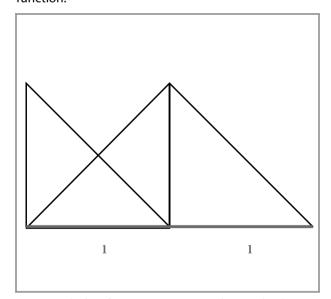


Fig. 13 Multiples of measurement units on the same line by using isosceles right-angled triangles

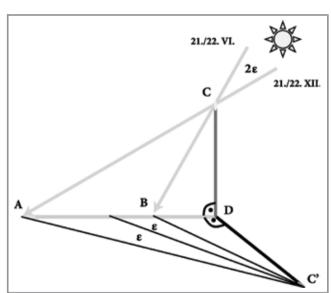


Fig. 14 Determination of the ritual angle

Distance units. German metrologist Rolf Rottländer proved that the development of standardized distance units is at least 8,000 years old. A very important fact is that they are all "genetically" connected (Rottländer 2006). Numerous distances are divisible with the so-called Charlemagne's foot (333.22 mm). The multiples of the Charlemagne's foot in a measurement module and the multiples of the module are repeated in extremely strong symbolic numbers, often associated with the calendar and the numbers of the moon, especially with the formula 3 x 9. The time that passes before the

moon returns to the same place on the horizon is known as the sidereal month and it lasts 27.32166 days. This is a month with 3 weeks, each week with 9 days. The formula 3 x 9 or 27 (the numbers 999 and 39, as well as 93 also belong here) is symbolically very strong. Calling the 27 days of a sidereal month, when the moon "goes and returns", is a spell, used for those who have gone and should return (cf. Žolobov 2004). As the moon constantly dies and revives, it represents the ideal hope for mortal people to be resurrected.

HOW DID THE MYTHICAL LANDSCAPE EMERGE?

Below, I present an idealized model of the formation of a mythical landscape, as it can be summarized based on the study of Slavic material. This, however, does not mean that the model is unique to the Slavs. The Slavic tradition is so archaic that it reliably goes back to the pre-Slavic time, by which I mean the time before the occurrence of the Slavic language. Perhaps it goes even further back, to the time of the Pre-Indo-Europeans. There is therefore a substantial likelihood that the model presented is widely valid. How widely, practical tests will demonstrate.

The mythical landscape (Fig. 15) is structurally consistent with the structure of Dajbog from Zbruč. The structure of mythical landscape was realized separately in different territorial units. Such a unit was connected geographically, politically, economically, juridically, ritually, and in terms of identity. The Slavs called such a unit *župa*. Its outer frame was defined by four mythical points, associated with the mythical events in the four seasons of the year. Two of them denote the summer and winter states, and the other two the spring and autumn changes. At the same time, they designate the four persons of the fertile and unfertile mythical couples. People visited these locations on specific calendar days and performed rituals ensuring the proper conduct of the mythical story and thereby the proper development in nature. In the central part of a *župa*, there were three points associated with the three persons of Triglav, or with his three forces of fire, water, and earth. This trinity could also be presented together in one place (see above and Pleterski 2014: 377–382).

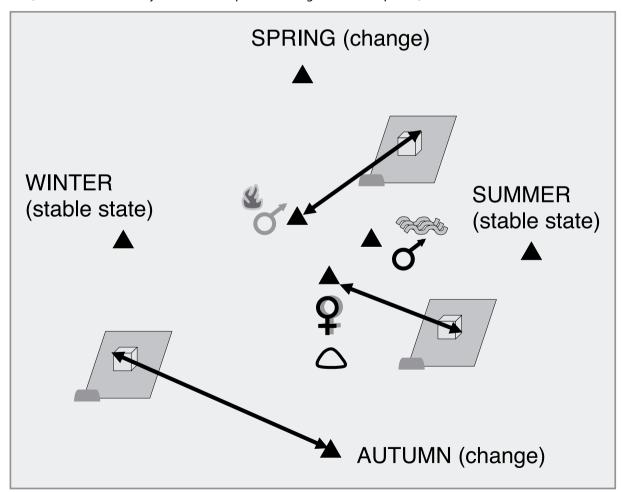


Fig. 15 The idealized structure of the mythical landscape

Within this spatial framework, people placed their settlements, burial grounds, and fields. In doing so, they tried to respect the utmost symbolic directions, distances, shapes, which also denoted the positions of settlements and cemeteries.

The solutions were adapted to specific areas, canonized rules did not exist. Therefore, not even two situations share every last detail, but it is always the same concept that is repeated.

An important property of the mythical landscape is that it does not distinguish between the sacred and the profane; the components of both are everywhere, because it was the desire of the people to be protected in their entire living space. As a result, there is a mythical landscape wherever people lived.

THE CASE OF KRAKOW

In order to avoid being limited to the idealized model, the mythical landscape of Krakow (Fig. 16) is presented here as a case study. It was chosen because it is very well documented in written sources from the end of the 12th century onwards. In addition to that, it is still partially preserved, with many locations that are easily accessible, and some of the sites have been archaeologically investigated. It was created in the 9th century at the latest (detailed documentation and argumentation: Pleterski 2014: 175–222).

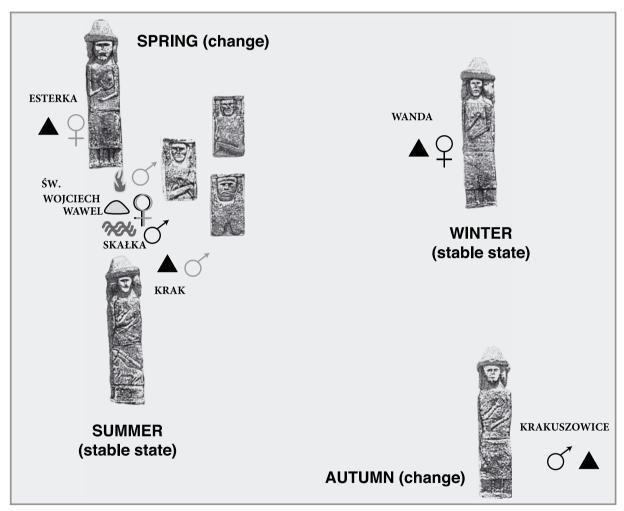


Fig. 16 The basic mythical landscape structure in Krakow

The limits of the mythical space are defined by four (one of them was destroyed during the construction of a sports stadium) huge mounds belonging to four mythical figures. Two of them are male and two female: the fertile Esterka and the infertile Wanda, the dead Krak in Krakuszowice and the abundance-giving Krak in Krakow. The females denote the states of summer and winter, the men the autumn and spring changes. The calendar dates indicated by the mounds might suggest when these changes occurred in Krakow. From the vantage point on the Wanda's mound, the sun sets behind the Krak's mound on the 6th November and the 4th February. But if we stand on the Krak's mound in Krakow, the sun rises from the Krak's mound in Krakuszowice on the 5th/6th November and the 5th/6th February. These dates encompass a time range of 93 days, which is not only the three winter months with 31 days each, but also the spell of 3 x 9, which brings back a deceased person. It is therefore understandable that an abundance of gifts came from the Krak's mound in Krakow in spring,

during the wedding ceremony of *Rokavc* (in Slovenia) and *Rękavka* (in Poland), which was preserved until the 17th century, although in a heavily christianised form and transferred to the celebration of Easter on the mound.

The mounds of Krak, Wanda, and Esterka determine a triangle (Fig. 17) whose shortest side goes through Wawel, the centre of the local ruler, which at the same time stands on the bisector of the angle with the top on the mound of Wanda. The distances between these points are symbolic and use the Charlemagne's foot (see above) is used as a unite. The distances are the multiples of 27 (= 3 x 9) feet between the mounds of both Kraks. Similarly, the distances between the Krak's mound in Krakow and the Wanda's mound, as well as between the Krak's mound and the Esterka's mound coincides with the module of 3 x 27 x 10 feet. Thus, the distance from Wawel to the Esterka's mound is 36 times this module and the distance to the Krak's mound is 27 times this module. The number 27 is associated with the movement of the moon, and the number 36 with the length of the solar year. The Moon and the Sun live in the mythical Slavic ruler's court (Pleterski 2010), which corresponds to a ruler's function of Wawel. At the same time, the ratio of the above two distances is 3: 4 and illustrates the whole Dajbog (see above).

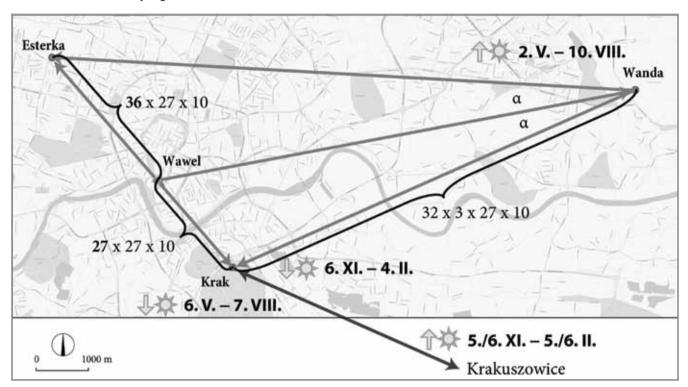


Fig. 17 Krakow, Poland. Spatial relations between the four mounds

The central trinity (Fig. 18) is represented by the points of Wawel (earth), Skałka (water), which used to be an island on the Vistula river, and the area with the church of St. Wojciech. The last two are located on the north – south line. The distances between the points of the trinity to the Krak's mound are 7, 9, and 11 times the above-described module, which reaffirms the equilibrium role of Wawel. The numbers carry symbolic meanings; 7 = 3 + 4, $9 = 3 \times 3$, 11 = 11 characters on the pillar of Dajbog from Zbruč. The first and the third line denote the ritual angle of 23.5°. It is no surprise that Krakow was subsequently the capital of Poland for centuries.

The above case of Krakow shows the applicability of the idealised model of the mythological landscape. We have discussed, how the mythological landscape is composed and how does it works. This was done in a very compressed way. Therefore to expect, now, some short final summary is not realistic. I can only encourage the reader to read the article again. However, at the end of this modest overview, it must be stressed that there is absolutely no guarantee that all the elements of the mythical landscape or all the compositions of these elements have been discussed. Feel free to find any new ones.

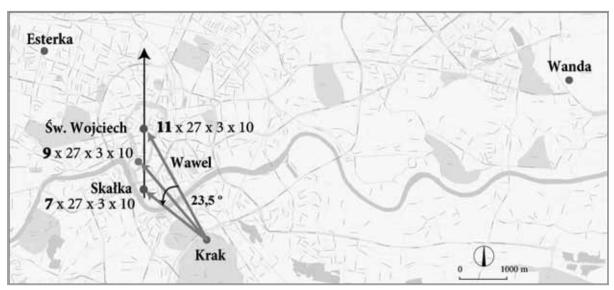


Fig. 18 Krakow, Poland. The mythical trinity and its relations to the Krak's mound

- Вагап, Ja. V. 1992 = Баран, Я. В. 1992, Слов'янська общчина (за матеріалами поселення Рашків І), Дисертаціа на здобуття наукового ступеня кандидата історичних наук, Київ.
- Berlinghoff, W., Gouvêa, F. Q. 2008, *Matematika skozi stoletja*, Modrijan, Ljubljana. (first edition: *Math trought the Ages. A Gentle History for Teachers and Others*. Farmington, Me., Oxton House Publishers, 2002)
- Čaval, S. 2010, Astronomska usmeritev romanskih cerkva v Sloveniji, PhD thesis, Univerza v Ljubljani, Filozofska fakulteta, Ljubljana.
- Čok, B. 2012, *V siju mesečine*, Studia mythologica Slavica, Supplementa, supplementum 5, Založba ZRC, Ljubljana.
- Čok, B. 2015, Kamnoseško izročilo o znamenjih na portalih in kolonah po Krasu, in: *Nesnovna krajina Krasa*, Hrobat Virloget, K., Kavrečič, P. (eds.), Založba Univerze na Primorskem, Koper, 99–134.
- Dobrez, L. 2009, New and Old Paradigms: the Question of Space, in: *Landscape in Mind: Dialogue on Space between Anthropology and Archaeology*, Dimitriadis, G. (ed.), BAR International Series 2003, Oxford, 5–7.
- Gunell, T. (ed.) 2008, Legends and Landscape. Articles Based on Plenary Papers Presented at the 5th Celtic-Nordic-Baltic Folklore Symposium, Reykjavík. Reykjavík: University of Iceland Press.
- Gušić, B. 1962, Kalendar prokletijskih pastira, *Zbornik za* narodni život i običaje Južnih Slavena 40, 169–174.
- Hartmann, L. M., Ewald, P. 1899, *Gregorii I papae registrum epistolarum*, Monumenta Germaniae Historica, Epistolarum Tomus II, Berolini, Lib. XI.
- Jerris, R. 2002, Cult Lines and Hellish Mountains: The Development of Sacred Landscape in the Early Medieval Alps, *Journal of Medieval and Early Modern Studies* 32.1, 85–108.
- Katičić, R. 2008, Božanski boj. Tragovima svetih pjesama naše pretkršćanske starine, Ibis grafika, Katedra Čakavskog sabora Općine Mošćenička Draga, Odsjek za etnologiju i kulturnu antropologiju Filozofskog fakulteta Sveučilišta u Zagrebu, Zagreb – Mošćenička Draga.
- Katičić, R. 2010, Vidova gora i sveti Vid, *Studia mythologica Slavica* 13, 15–32.
- Lane, J. P. 2008, The Use of Ethnography in Landscape Archaeology, in: *Handbook of Landscape Archaeology*, Bruno, D., Julian, Th. (eds.), The World Archaeological Congress's Research Handbooks in Archaeology 1, Walnut Creek, 237–244.
- Leńczyk, G. 1964, Światovid zbruczański, *Materiały archeologiczne* 5, 5–60.
- Mansikka, V. J. 1922, *Die Religion der Ostslaven. I Quellen*, FF Communications, No. 43, Vol. X., Suomalainen tiedeakatemia, Helsinki.
- Ministr, Z. 2007, *Géniové dávnověku. 7000 let orientace ke slunci.* Edice Kolumbus, svazek 186, Praha.
- Pejaković, M. 1978, *Broj íz svjetlosti: starohrvatska crkvica Svetog Križa u Ninu*, Matica hrvatska, Zagreb.
- Pejaković, M. 1997, Znakovi i značenja u hrvatskoj predromanici, in: *Hrvatska i Europa. Kultura, znanost i umjetnost*, Bratulić, J. et al. (eds.), Sv I. Srednji vijek

- (VII-XII. stoljeće), Rano doba hrvatske kulture, Zagreb, 513–542.
- Pleinerová, I. 1975, *Březno. Vesnice prvních Slovanů v severozápadních Čechách*, Academia, Památníky naší minulosti 8, Praha.
- Pleterski, A. 2003, Struktur des Gräberfeldes Altenerding, in: Losert, H., Pleterski, A., Altenerding in Oberbayern. Struktur des frühmittelalterlichen Gräberfeldes und Ethnogenese der Bajuwaren, Scribvaz Verlag, Berlin-Bamberg-Ljubljana, 505–684.
- Pleterski, A. 2006, Poliški tročan, *Studia mythologica Slavica* 9, 41–58.
- Pleterski, A. 2008, Lauterhofen: Strukturen des Gräberfeldes und chronologisches Verhältnis zu Altenerding, *Slovenska archeologia* 56, 61–80.
- Pleterski, A. 2011, Wie auf der Erde, so im Himmel himmlischer Hof bei den Slawen, in: *Frühgeschichtliche Zentralorte in Mitteleuropa*, Macháček, J., Ungerman, Š. (eds.), Studien zur Archäologie Europas, Bd. 14, Bonn, 125–132.
- Pleterski, A. 2013, *The invisible Slavs. Župa Bled in the prehistoric Early Middle Ages.* Opera Instituti archaeologici Sloveniae 28, Ljubljana.
- Pleterski, A. 2014, *Kulturni genom. Prostor in njegovi ide- ogrami mitične zgodbe*, Studia mythologica Slavica, Supplementa, supplementum 10, Založba ZRC, Ljubljana.
- Pleterski, A. 2015, Preplet 3 in 4, preloška Beli Križ in Triglavca ter Zbruški idol, in: *Nesnovna krajina Krasa*, Hrobat Virloget, K., Kavrečič, P. (eds.), Založba Univerze na Primorskem, Koper, 21–33.
- Pleterski, A. 2015a, Staroverstvo in pričevanja starovercev, in: Medvešček, P., *Iz nevidne strani neba : razkrite skrivnosti staroverstva*, Studia mythologica Slavica, Supplementa, suppl. 12, Založba ZRC, Ljubljana, 15–33.
- Pleterski, A. 2015b, Ilinden in the cycle of a mythical story, *Balcanoslavica* 40–44, 19–26.
- Polcaro, A., Polcaro, V. F. 2009, Man and sky: problems and methods of archaeoastronomy, *Archeologia e Calcolatori* 20, 223–245.
- Rappenglück, M. A. 2014, Stone Age People Controlling Time and Space: Evidences for Measuring Instruments and Methods in Earlier Prehistory and the Roots of Mathematics, Astronomy, and Metrology, in: Scientific Cosmopolitanism And Local Cultures: Religions, Ideologies, Societies, Katsiampoura, G. (ed.), 5th International Conference Of The European Society For The History Of Science, Proceedings Athens, 1-3 November 2012, National Hellenic Research Foundation / Institute of Historical Research / Section of Neohellenic Research / Programme of History, Series Conference-Symposia 2.8, Athens, 466–474.
- Risteski, Lj. 2005 = Ристески, Љ. 2005, *Категориите* простор и време во народната култура на Македонците, Матица македонска, Скопје.
- Robb, J. G. 1998, The "ritual landscape" concept in archaeology: a heritage construction, *Landscape Research* 23/2, 159–174.
- Rottländer, R. C. A. 2006, *Vormetrische Längeneinheiten*, http://vormetrische-laengeneinheiten.de/index. html (9. 10. 2012).

- Ruggles, C. 2005, Ancient Archaeoastronomy: An Encyclopedia of Cosmologies and Myth, ABC CLIO Inc., Santa Barbara.
- Sassin Allen, A. 2016, Church Orientation in the Landscape: a Perspective from Medieval Wales, *Archaeological Journal* 173:1, 154–187.
- Słupecki, L. P. 2002, Pagan religion and cultural landscape of Northwestern slavs in the early Middle-Ages, *Siedlungsforschung. Archäologie Geschichte Geographie* 20, 25–40.
- Šprajc, I. 1991, *Arheoastronomija*, Slovensko arheološko društvo, Ljubljana.
- Tyniec, A. 2011, Światowid ze Zbrucza, http://www.ma.krakow.pl/pradzieje/swiatowid/ (23. 10. 2013).
- Zaroff, R. 2016, Measurement of Time by the Ancient Slavs, *Studia mythologica Slavica* 19, 9–39.
- Žolobov, O. F. 2004 = ЖОЛОБОВ, О. Ф. 2004, Об одном балто-славянском архаизме: "3 x 9", *Studia mythologica Slavica* 7, 155–171.