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Requiem for a pagan soul. Pagan reminiscences in 19th century cemeteries in Lithuania

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> The historian of death must not be afraid to embrace
> the centuries until they run into a millennium.
>
> (Ariès 1981, xvi)

Abstract

European burial grounds suffered a great shift in the 19th century: hygienic strategies of city development brought them to be outside of the city cores. A new model of cemetery handed a right to memory for those social classes that were sentenced to forgetting before: it was the time of the rise of the individual. Following garden development – from hortus conclusus to an open landscape – first through the use of the false funeral monuments in the gardens, then placing real tombs in natural milieu (for example, a tomb of Jean-Jacques Rousseau in Île des Peupliers in Ermenonville) – people got accustomed to see death in the garden and burial spaces acquired Edenic expression.

Lithuania was the very last European country to accept Christianity; all the territory was only Christianised in the beginning of the 15th century. Therefore this article approaches burial grounds in Lithuania as places where pagan culture meets recent Christian attitudes and concerns.

The first trigger for this research was an urge to identify elements of pagan beliefs in spatial solutions of Lithuanian cemeteries. In order to decode a morphogenetic identity of Lithuanian burial grounds, two 19th-century cemeteries in Vilnius, Lithuania, were approached from a syntactic point of view taking into account the mythological references of Christianity and Baltic paganism. The spatial texture of two cemeteries – Rasos and Bernardines - is analysed and compared, by interpreting it as a system of accessibility axes. Configurative relations are used to inform morphological analysis by identifying their architectural character and cultural identity as well as relating them to the pagan imaginaries of the afterlife.

To understand the spatial reality of the cemeteries, observations of the movement have been carried out, helping to construct simple graphs of cemeteries' plans, significant for genotype definition.

Through the configurative relations it was possible to confirm a premise that the two burial grounds studied in the paper are symbolically-organic spaces, which could have evolved in the sequence of the pagan custom to bury in the wilderness – places associated with abode of gods and the dwelling places of dead.

Keywords: burial ground, graveyard, urban cemetery, history of burial, architecture for death.

Introduction

Funerary culture changes slowly, keeping various elements of previous beliefs and customs still in use. The layer of historical conditions and cultural contexts of burial grounds is camouflaged with habits that in most cases happen to be comprehended on the basis of the very recent history. Throughout the centuries a manner of dealing with dead has been changing very slowly, therefore the meaning of certain solutions was transformed or forgotten.

Lithuania – denominated as the last pagan country in Europe – was completely christianized only in 1413. Christian missionaries were sent to the Grand Duchy of Lithuania since the tenth-century. First centuries after Christianisation saw a lot of difficulty in eliminating pagan customs. A transition from one religious system to another transformed or eliminated customs and rituals that were not suitable to Christian dogma. Nowadays Lithuania is a Catholic country surrounded by Catholic, Protestant and Orthodox cultures (fig. 1). Mixed religious context and pagan cultural heritage influenced the development of cemetery genotype, resulting in a peculiar spatial dynamics of burial grounds in Lithuania.
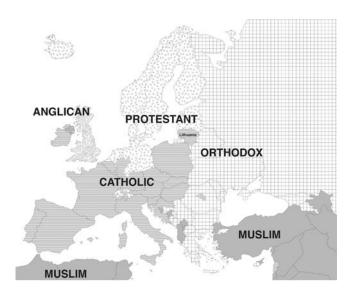

Figure 1. Lithuania is surrounded by three different branches of Christianity. This variety of influences, still visible in contemporary context, might have led to a resistance to them and to maintaining the original approach to the issue of burial.

Plenty of church reports mention inappropriate burial customs practiced by the *New Christians*. Christian graveyards were used only by the Balts that lived close by. The rest still continued to use old burial places in the wilderness – fields and forests (Vėlius 1996; Vėlius 2001; Vėlius 2003; Vėlius 2005; Paknys 2008, 101). Various reports refer that these burial places were not enclosed, and supposedly not planned, obeying path network shaped by informal walking behaviour and popular notion of tradition.

There is no proof that any specific planning of cemeteries in Lithuania existed, only tomb designs and cemetery chapels were produced following architectural projects and artistic interventions. This might have happened because of political instability (the country was wiped off the map in 1795, and organized several upraises against Russian oppression). A complicated political context did not allow a lot of consideration for burial ground design, and this could have been enabled to intuitively continue applying the cultural codes of previous beliefs and myths of afterlife. It is probable that pathway network developed on the basis of informal walking behaviours.

The two nineteenth-century cemeteries in Vilnius (fig. 2) – Rasos (fig. 3) and Bernardines (fig. 4) studied in this article, carry pagan reminiscences of burial culture blended into a spatial morphology of the place, while the burial ritual itself is a result of mixed pagan and Christian cultural codes. The aim is to understand the network qualities, i.e. the spatial texture of these cemeteries that result from beliefs. It is argued that social logic of Lithuanian cemeteries differs from canonical Catholic model, where centralized geometric planning is exercised. Certain pattern of connections in Lithuanian cemetery suggests measuring configurational properties to understand if any order leads the visitors to certain locations. However, the way

visitors move in a cemetery today reflects the initial idealization of suburban cemetery. Hence it is argued that the type of rules imposed on user's movement in space constitutes a key condition in how the socio-cultural significance is understood.

Figure 2. Vilnius city map in 1840, with out-of-town cemeteries identified. At the time there were still several graveyards (burial grounds by the church) inside the city used for burying. A location of two cases of study: a) Rasos cemetery; b) Bernardines cemetery (Plan Goroda Wilny, 1840, from the collection of Ryszard Hubisz)

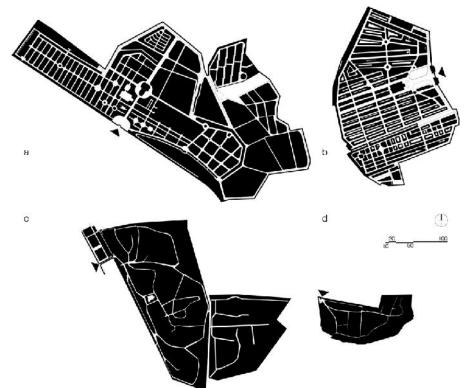**Figure 3.** Rasos cemetery

Figure 4. Bernardines cemetery

The reality of a cemetery mostly counts with walking visitors that move from the entrance to the grave. Furthermore, for their symbolic, historic and cultural value curious *flâneurs* and tourists visit cemeteries. All in all, a cemetery embraces two kinds of activities: group and individual. It can be argued that Lithuanian cemeteries are shaped for an individual visit of a grave (pompous promenades and spaces for gathering are very rare in Lithuanian cemeteries). However, cemeteries designed in the 19th century Europe functioned as political stage with educational intentions, and therefore their functional zoning dealt with all levels of visit, from representative urban scale of memory celebration to small-scale individual visit. The question is how these relations are idealized in the cemetery structural pattern.

Hillier (1989, 12) points out that in organic settlements, the movement of people shapes the structure of space and the configuration of the streets reinforces these movements.

The spatial dimension of Lithuanian cemeteries and canonical Catholic cemeteries are quite different. Besides dissimilarities in the spatial layout, relations with buildings of symbolic importance such as chapel, volumetric scale of tombs and vegetation differ as well. The canonical Catholic cemetery is an enclosed territory, geometrical and organized hierarchically, with a temple as a core figure located on the axis of the main entrance, marking a visual and physical centre of necropolis. Burials, both underground and above the ground, are located along the pathways of different width, offering several options of burial with different price ranges, shaping a symbolically-ordered space, representing a city of living in the territory of dead.

On the contrary, traditional Lithuanian cemeteries have low walls; cemeteries' plans represent features of organic development; only underground burial (inhumation) is practiced; in rare case a building with burial niches are available as well. Thus, it is possible to consider that Lithuanian cemeteries follow a symbolically-organic model while Catholic cemeteries are symbolically-ordered spaces, realizing quite different social contexts.

Figure 5. Cemeteries founded in the 19ᵗʰ century. Canonical catholic cemeteries: a) Alto de São João cemetery, Lisbon; b) Prazeres cemetery, Lisbon. Cemeteries in Lithuania: c) Rasos cemetery, Vilnius; d) Bernardines cemetery, Vilnius.

An exploratory model defined to understand canonical catholic and Lithuanian cemetery layouts, is presented in the following diagrammatic graph-based representation (Fig. 6). These graphs were produced considering the cemeteries path network, in order to mark nodes and identify if three-way, two-way, one-way choices or dead-ends are prevailing in the spatial structure. If two-way choices are prevailing (as it seems at first look), it can be considered that Vilnius cemeteries' structures are organic networks.
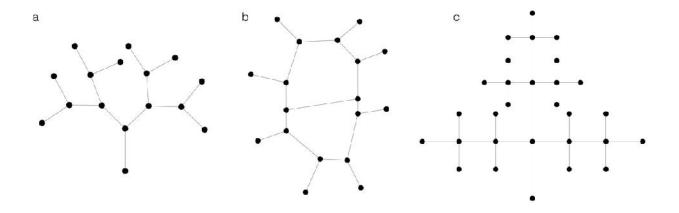
Figure 6. Structural roots of cemeteries' pathway networks: a) two-way choice grid evolving from the entrance; b) two-way choice grid organized in ring structure; c) three-way choice grid prevailing in canonical catholic cemeteries.

Diagrams show that three-way choice nodes are prevailing in canonical catholic cemetery configurations following a symbolically-ordered model (fig.6 c), and two-way choice nodes prevail in Vilnius cemeteries reproducing an organic model (fig.6 a). Moreover two-way choice structure in case of Vilnius cemeteries results in closed ring network with pathways expanding from it (fig.6 b). Grids differ from organic vs. planned realizing in space different social schemes.

Following Hillier and Hanson (1984) approach, spatial patterns incorporate and give shape to social patterns. The topological structure is a primary element by which society creates and establishes roles to develop social patterns that shape social relationships. The ultimate goal is to scrutinize the spatial texture of Lithuanian cemeteries and explore how social representations are reproduced in space.

This article is organized in two parts. The first one debates the premises of pagan mythology and Christian imaginary in cemetery spatial texture. The second one introduces the case studies – Rasos and Bernardines cemeteries in Vilnius – providing a global picture of their organic forest-like features. The article concludes that a fluid centrality of organic kind is present in these two cemeteries while no social stratification can be identified. This study enables one to understand the Lithuanian burial physical forms and configurations as socially and culturally meaningful objects, able to communicate ideas and values, locating a morphological model (genotype) of Lithuanian burial ground in a larger context of European burial culture.

1. Mythology in Space: On a Hill in a Forest

Approaching mythology as a tool to understand the origin of spatial solution of Lithuanian cemetery has been a key to map it in the wider context of European cemeteries.

The Grand Duchy of Lithuania was the last Christianised country in Europe. Partly because of the late change to Christianity, it kept a ritualistic intuition, still present in the later burial solutions.

The controversy of Lithuanian forest in the Medieval cartography bears on two poles – first, unknown territories needed a *stuffing* and for that natural landscape elements like forests or mountains served perfectly (Tucci 1984, 132). These

illustrations for the unexplored inaccessible lands under these images complemented a Christian perception of the world – all shaped around the geographical centres of Jerusalem and Rome. Lithuania belonged to another – pagan – dimension (Avinaitė 2013, 507).

However, while undulating mountains in several maps seem a great exaggeration - terrain of the Duchy was far less expressive – forest covering seems to hit the point – the Duchy was actually covered with forests. Lacking precise data, it was therefore known that travelling to Lithuanian cities required physical efforts and the appropriate weather conditions – swampy afforested terrain was best to be travelled through in winter (Briedis 2008, 41–42). What is more, Baltic tribes were already famous for the forest cult.

Behind the forest cover, there was life – cities, towns and villages – far from uncivilised or barbarian as the cartography intended to suggest. The deviation from the truth was common for the less explored, more distant places that had scarce descriptions and cartographers had to fill these territories with what they knew – often using the cultural peculiarities or historical experience, based on the perspective on their country of origin (Tucci 1984, 141).

A cult of forest realm and the abode of gods are connected as far as primordial times: a place of initiation, a place of passage from one state to another (Eliade 1957, 194). Initiation in itself encodes death of *an old being* as a bridge to a new phase (Eliade 1957, 189–92). Birth and death stand side-by-side giving a beginning to the end - the basis of cyclical time. Forest or jungle – with its darkness and shadowiness – in a variety of cultures was (and in some cases continue to be) used as initiatory location.

Alienation of a medieval man from nature, seen by Christianity as a place of danger, in a certain way echoed the loss of human race for being expelled from harmonic nature of paradise into unfriendly milieu, that had to be conquered by hard labour.

Forest worshipping was then seen as inferior to the urban progress, primitive and heathen. When Charlemagne conquered Saxony in 785 and Christianised its people, he destroyed as well what was still considered sacred by the newly Christianised peoples: destroying sacred forests and sacred trees made part of the process of affirmation of political domination – the symbols of the pagan beliefs had to be destroyed in order to establish a realm of a new God.

Apparently after Christianisation, Balts still tried to reconnect them to the lost sacredness of neglected gods. Daily customs are easier to change, but when it comes to dealing with death, one grasps to the tradition he has inherited. Survival of a burial spatial solution of burying in the natural context, a belief that gods reside in the forests, and the dead through the process of metempsychosis inhabit the trees, prevented a direct adoption of canonical catholic morphology in Lithuanian cemeteries, as well as in surrounding countries.

Vėlė represents a soul of the dead, but contrary to the Christian perception of soul where it is seen powerful life energy, *vėlė* is cold and bloodless (Gimbutienė 1985, 178). Baltic belief is that the *vėlės* inhabit trees is traced back to the pre-Christian times, and referring to the *vėlės* suffering in the trees is already a *Christianised* imaginary ((Beresnevičius 1990, 42).

In the land of vast forests where stone resources were very scarce and stonework craft was undeveloped, wooden crosses apparently were the first grave markings. Several scholars argue that wooden poles were used before a custom of marking the graves with wooden crosses (Galaunė 1988, 105). When the territory was Christianized, Baltic peoples (including Prussians and Latvians), adapted traditional grave markings to the new religious beliefs – poles with additional horizontal

spokes *became* crosses and maintained pagan decorative features – snakes, suns, moons, flowers and leaves. Even appearing like crosses, such grave markings were seen as inappropriate for Christian burials, and bishop Michael Junge, who worked in Prussia, in 1426 forbade such crosses in the cemeteries, adding one more point in the edict – stopping exercising devilish rituals in groves and forests (Dundulienė 2005, 323). Any pagan activity was seen as devil worshipping.

Wooden marks on the graves were interpreted to be tree avatars. Poles had holes that were open on purpose – this is where *vėlės* could rest protected from wind and rain. Even a specific kind of tree was chosen according to the deceased – poles for men's graves were made of oak, birch or ash, meanwhile poles for women's graves were made of linden, spruce or asp (Kontrimas 1991, 15). As late as the eighteenth-century Lithuanians in the Prussian territory (known as Minor Lithuania) were still making grave crosses from respectively feminine and masculine trees (Balys in Beresnevičius 1990, 47).

Probably, those crosses with pagan symbolic elements were banned. Statues of previously worshipped divinities were replaced with ones of Jesus Christ and Virgin Mary, and those trees believed to be abodes of souls or gods received huge numbers of crosses (Brenšteinas in Galaunė 1988, 157). The plants – both trees and flowers – were untouchable in the cemeteries as a belief that they were inhabited by *vėlės* continued (Dundulienė 2005, 326). As late as the twentieth-century cemetery visitors were reminded not to take anything from the cemetery, and this rule was as well applied to the vegetation: "blood of the dead runs in cemetery trees and grass" (Gimbutienė 1985, 178).

Beresnevičius (1990) through the studies of fables and *sakmės* collected in the nineteenth-century, depending on the historical period mentions several spaces of Baltic imaginary afterlife. Some images were already Christianised: the shadows of the dead settle in the abode of gods, located in the skies, in the Northern part of the Milky Way; they would spend time speaking to gods, drinking beer, enjoying various pleasures, free from Russian oppression and governing from the Germans (Narbutas in Beresnevičius 1990, 20). However, the most common places frequently present – forest/grove, mountain/hill and meadow. These spaces in some cases are located "beyond the water" or "overseas", in some cases they are located close to the territories of the living, sometimes far, but generally this is where the dead travel to after life (Racėnaitė 2011).

Mountain/hill is mentioned as a connection between heaven and earth, as an abode of god, sometimes locating a garden or a forest over it. Curiously, traditional patterns reveal a common sign for god and mountain; in some cases these elements shape a tree of the world, turning sign language into a plot of cosmology.

Other fables tell about an afterlife world that is a meadow, and the dead are pictured as pasturing animals, herded by an old man (Vėlius 1987, 173). This meadow is located either beyond the waters, or on top of the mountain.

Several Church reports describe the burial situation in sixteenth-seventeenth century Lithuania – few people bury in the graveyards by the church, most of them bury the dead in the forests and meadows (Vėlius 1996; Vėlius 2001, 231; Vėlius 2003, 44, 367; Vėlius 2005; Purvinas and Purvinienė 2010, 38), in open spaces – not enclosed territories as Catholic cemeteries were meant to be, without the presence of a priest and Catholic ritual.

A shift from one religion to another is a long process – newly Christianised people continued to worship old pagan gods. Unacceptable rituals had to be hidden away, and forest milieu served this purpose well enough. Therefore a choice to exercise rituals in forests can be seen as a necessity to hide, and not necessarily for the magical meaning of place. Gotthard Kettler – a church visitator – in his report of 1565 mentions that Lithuanians practice black magic in the forests (in Vėlius 2001, 666–67). However, all that was pagan had been pictured as black magic and denounced as unacceptable.

On the other hand Vėlius (2001) recalls that significant part of Baltic rituals were done in the sacred groves – in the ancient burial places (Vėlius 2001, 666).

Johann David Wunderer in the notes of his trip through 16th century Denmark, Russia and Sweden mentioned that Latvians bury their dead in the closest forest (in Vėlius 2001).

In the edict of 1578 (also known as a decree of markgrave Georg Friedrich) to the churches in the district of Tilsit, Prussia, it was mentioned that the dead were buried in open spaces, and not in the sanctified graveyards by the churches as good Christians should (in Vėlius 2001, 231).

A transfer of burials to the churchyard from the traditional burial grounds apparently had not been a smooth process. Paknys (2008, 101) notes that Catholic Church gave little attention was given to the burial customs until the Protestant Reformation, and therefore in some cases churchyard cemeteries were easily accepted, and there were other cases where tradition to bury in the separate cemeteries outside settlements continued. With the expansion of parish network a custom of burying away from church was left behind. However, in 17th century Poland there were still cases of burying in the cemeteries in fields that where close to the homesteads.

2. Structural Analysis

Two case studies (fig. 5, c-d) – Rasos and Bernardines cemeteries in Vilnius – represent strong natural features, unintentionally preserved topography and fluidity between the inside and outside.

Rasos cemetery was founded in 1801, or even before, possibly in the 16th century, used for burying victims of various epidemics (Girininkienė 2004, 66; Girininkienė and Paulauskas 1988, 7). This territory could have been used previously for pagan festivities (Girininkienė 2004, 64). The cemetery since its foundation and even today is in suburban territory, surrounded by afforested areas and sporadic buildings. The cemetery consists of two parts. The road that divides them today existed before the cemetery was founded. The small part of cemetery, located on another side of the road, was founded later, in the middle of the 19th century, and holds no chapel or any cult element in its territory.

Bernardines cemetery was founded in 1810. The cemetery was first used only for burying monks from the Bernardines monastery, but later any citizen could be buried there. In the plan of the cemetery, prepared at the time of the cemetery's founding, no drawing of path network or chapel location was included, however the chapel was built the same year as the cemetery was founded (Girininkienė and Paulauskas 1994, 7; Girininkienė 2010, 141). It is located in Užupis an area that was Vilnius' suburb at the time the cemetery was founded, nowadays it is a prestigious residential area. Nevertheless, the cemetery, hidden behind buildings, remains unnoticed by daily urban life.

Even though chapel locations in both cemeteries expose certain discreet centrality, there is still no direct relation with the main entrance. Both cemeteries have one main entrance, and several secondary ones. Moreover, they do not possess any significant points of attraction, just the chapel and a small open space around them. A permeable tomb layout and the small scale of the cemetery make orientation easy.

Underground burial and a wall with burial niches, were the only two options of burial in these cemeteries, as in most of the cemeteries in Lithuania. Land plots were given for free, as it is still practiced nowadays, declaring it as one of the citizen rights.

Both cemeteries are of national value for their cultural and historical features. Most of the tombs in these cemeteries are of small scale, attracting single visitors or families. Bigger groups often visit the cemeteries in the occasions of famous figures' funerals.

According to the available research on Lithuanian cemeteries (Kasperavičienė 1989; Kasperavičienė 1991; Girininkienė 2010; Purvinas and Purvinienė 2010; *inter alia*), it seems that there had never been any intentional planning of cemeteries' pathways and tombs, possibly the networks revealed themselves through the visitors' most commonly used ways to reach the tombs, and these pathways were later covered with stone or asphalt.

The extremely *porous* spatial texture of the two Vilnius cemeteries - presents some problems with the use of space syntax pattern description and relationships, namely in bounding spaces for analysis. Built and natural elements such as graves, trees or bushes might serve as objects to define spaces, but they simply define imprecise boundaries. As a drive of this research is to understand if any order exists in conducting the visitors to certain locations, i.e. to explore how the spatial texture of Lithuanian cemeteries affect visitors' movements and explorations, only formal footpaths were considered. This option follows the assumption that "The paths, the network of habitual or potential lines of movement ... are the most potent means by which the whole can be ordered" (Lynch 1960, 96). Detailed *in-situ* observations were carried out to identify the footpaths network and to enable converting the cemetery space into a discrete configuration.

A further study of configurative structure of cemeteries employs Space Syntax theory (Hillier and Hanson 1984) that is applied to cemetery plans in order to retrieve the axial graphs from Depthmap software, focusing on three main variables: connectivity, integration and angular choice.

Integration "basically represents the amount of steps it takes to get from one particular location to any other in the environment" (Kalff 2012, 10). Integration, following the formula described by Hillier and Hanson (1984, 108), considers a value for a mean depth and a number of axial lines in the system. Parts of a structure of the highest values of integration usually are found in the city centers (Holanda 2012), the same organization is found in Alto de São João cemetery.

In light of the research objectives, Space Syntax analysis was firstly conducted by means of classic syntactic measures of local and global integration and intelligibility using axial maps processed by Depthmap software. The use of axial maps enabled to refer directly to previous studies dealing with the relationship between spatial configuration and social-cultural significance.

The axial analysis was complemented by a graph-based representation produced to help depict the relation between spaces regarding the natural context and the structuring of the forest-like layout, i.e. to pick up "the nonlocal, or extrinsic, properties of spaces that are critical to the movement dynamics. Nonlocal properties are those that are defined by the relation of elements to all others in the system, rather than intrinsic to the element itself" (Hillier 1997). The formal footpaths networks include several undulating pathways resulting from the cemeteries' topography. In-situ observations highlighted that topographic conditions and "porous" tomb layout might supply an organic network with high level of intelligibility and wayfinding clues. When producing these graphs, axial lines were simplified for the reason that walking in "porous" settings as Lithuanian cemetery without high walls, the pathway is visible and it is not conceived by the visitor as a broken line.

Rasos cemetery axial map has 125 lines, and the simplified graph has 69 lines and 76 nodes, while Bernardines cemetery in Depthmap axial map has 92 lines, while the simplified graph contains 25 lines and 33 nodes. This great difference in the number of lines in axial map and the simplified graph in the case of Bernardines cemetery suggest that the network is easier to simplify, and eventually this structure could be more intelligible than Rasos cemetery.

However, Rasos cemetery (exactly three times bigger than Bernardines cemetery), has more nodes (crossroads) for the quantity of lines than Bernardines cemetery. This can mean that bigger structure develops more intermediate (weaker) connections that are considered pathways later. To confirm this premise a study of significantly larger structure should be done.

The number of lines in the axial map does not deviate as much from the area (125 lines for 10,8 ha of Rasos cemetery, and 92 lines for 3,6 ha of Bernardines cemetery). A higher number of lines in simplified graph results from curly dead-end pathways in Bernardines cemetery, taking from the central ring down to the river.

Although Bernardines cemetery is easier to simplify, presenting lower number of lines in the simplified graph, the network of pathways is more dense than Rasos cemetery: 25,56 axial lines per 1 hectare in Bernardines cemetery, and 8,52 axial lines per 1 hectare in Rasos cemetery (Fig. 7).
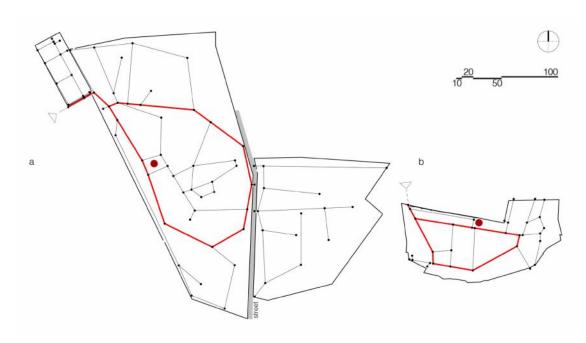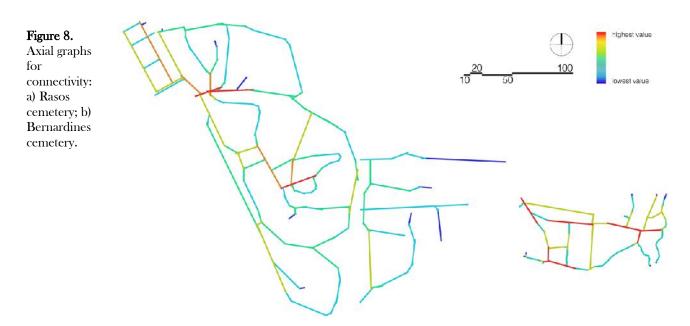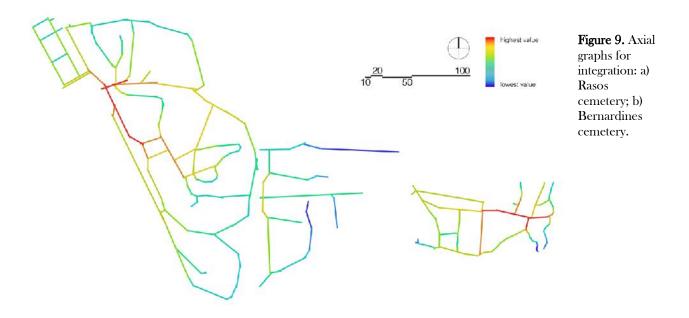

Figure 7. Simplified graphs with a predominant movement ring in a) Rasos cemetery; b) Bernardines cemetery. Red spots marks where chapels are located.

In both cemeteries the shortest axial lines are predominating (50 out of 125 in Rasos cemetery and 62 out of 92 in Bernardines cemetery). The longest lines in both cases carry no significant function; in both cases they serve as a secondary transition revealing quite an instrumental role. The longest lines have medium values of connectivity, just as the majority of lines in the networks.

The shortest lines are scattered through the whole network of Rasos cemetery, while in Bernardines cemetery they are located around the dead-end pathways leading to the cemetery's frontier. These short lines enable small deviations of direction, contributing to the creation of the organic network. Possibly, for its more undulating topography, Rasos cemetery has got more short lines than plainer Bernardines cemetery.

Figure 8. Axial graphs for connectivity: a) Rasos cemetery; b) Bernardines cemetery.

In the case of Rasos cemetery, the sequence of the axial lines, connecting the entrance to the chapel and other direction leading from the entrance to the new part of the cemetery, have the highest values of integration (Fig. 9). *In Bernardines cemetery the most integrated lines are located in front of the chapel, extending in the direction of the wall.*

Figure 9. Axial graphs for integration: a) Rasos cemetery; b) Bernardines cemetery.

The experiment of introducing the connection between the old and new parts of Rasos cemetery is a way to see how this link changes the behaviour of the internal structure of the cemetery (Fig. 10).

With the aim to understand how the integration of the old part of Rasos cemetery changes when the new part is considered, axial maps of Rasos cemetery were split into different graphs as follows: a-b) disconnected and processed separately; c) analysed in the same graph, but disconnected in between them; d) connected through the road that divides them.
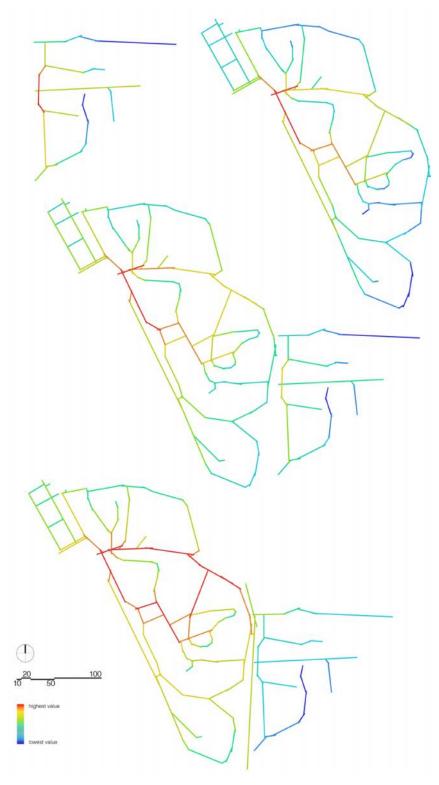
Figure 10. Axial graphs for integration in Rasos cemetery: a) new part; b) old part; c) both parts of the cemetery, disconnected, but processed in the same axial graph; c) both parts of the cemetery, connected and processed in the same axial graph.

In the connected axial graph (two parts of cemetery are connected through the road, passing between them), the sequence of lines extending from the central entrance of the old part in the direction to the new part of the cemetery, gains higher values of integration. This link gives a significant notion of the existence of this connection, and strengthens the centrality of the cemetery, shaped around the chapel in a smaller ring of different topographic complexity of movement.

Furthermore, this extension of cemetery is significant for a value of intelligibility: when two parts of Rasos cemetery are analysed one by one, the new part (located in the southeast) has a higher 0,645 value for intelligibility, and the old part (located in the west), has a lower 0,398 value. When the two parts are processed together disconnected, the value is 0,443, and when processed together and connected – 0,278.

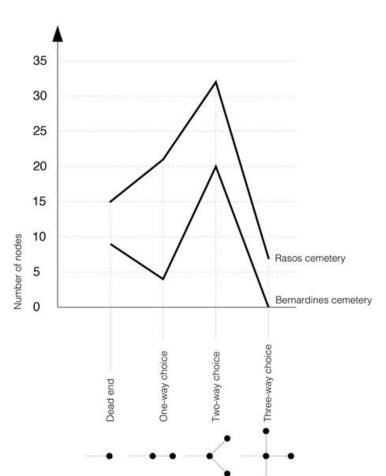The connection between cemeteries strengthens the value of integration, giving a stronger significance to the route from the main entrance to the entrance to get to the new part of the cemetery (the upper part of the ring), however, the connection lowers in value for intelligibility received from correlation of integration and connectivity (0,278).

This takes us to analyse a question of angles and angular choices in the network, and to inventory all the nodes of both networks. This inventory, which is not a study of angular choice (Hillier, Yang, and Turner 2012, 157) used simple graphs and intends to analyse the extension of axial lines and the number of cases in which the visitor has to decide between three, two, one direction and no direction at all (dead-end).

All the nodes were counted (Table 1) to identify if any contrast between the quantities of the pathways of three-way, two-way, one-way choices and dead-end exists. The number of choices was counted as *n-1*, considering that *n* is the number of all directions meeting at the node (crossroad), and by subtracting 1, responding to the direction used to come to the node, we come to the result of the number of choices of a direction.

					Total number of nodes
Rasos	7	32	21	15	75
Bernardines	0	20	4	9	33

Table 1. Number of nodes where three-way, two-way, one-way or dead end options are available for movement continuation.

Figure 11. Diagram of distribution of available direction choices

The diagram (Fig.11) shows that in both cemeteries the peak arises for two-way direction pathways. This model must be quite common in organic structures, eventually in the pathways strolled down by visitors looking for the shortest way to reach their point of destination. This happens in natural conditions, where rational urban grid is not placed as an objective.

After conducting a manual study of direction choice, that brought significant information about spatial distribution of pathway network, revealing a prevailing number of two direction choice nodes, a syntactical analysis of normalised angular choice (NACH) was processed (Fig. 12).

In the case of Bernardines cemetery, the highest angular choice is located at the corner of the central ring, corresponding to the results of integration (HH), previously presented.
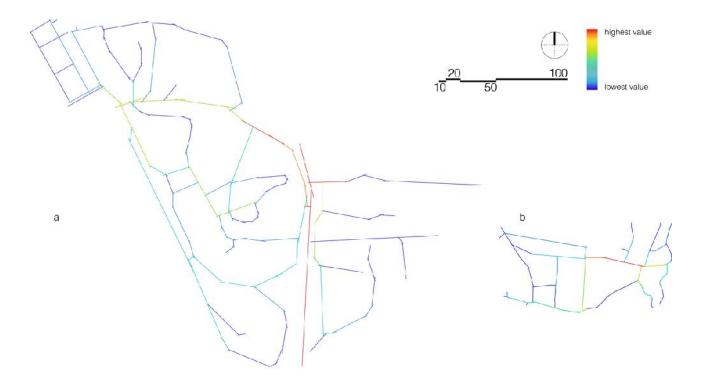
Figure 12. Axial graphs for NACH: a) Rasos cemetery; b) Bernardines cemetery.

Observing the introduction of the road (fig. 10), it can be seen how the green line in the old part with the angular choice of the value 0,72, in the connected plan, lowers down to 0,45. The emphasis turns to the eastern part of the ring, bringing 0,65 value of NACH.

This change of the values, dislocating the hot zones in the cemetery plan, might be confirming a premise of the low doubtful centrality of this cemetery, and apparently other cemeteries of organic nature as well.

The axial analysis confirm a fragmented nature of cemetery network, apparently lacking the expressed centrality (that was observed in the field work as well), however low intelligibility values can be confronted by the importance of cemeteries' natural conditions and small scale enabling a comfortable orientation inside the network.

At first look Rasos and Bernardines cemeteries do not exhibit any hierarchical structure. After analysing the networks through the simple graphs, identifying most prevailing number of direction choices and observing the daily life of visits to the cemeteries, dialoguing with the visitors, certain order can be identified.

In particular, a central ring (fig. 7) is connected to the entrance and covers almost all the territory of both cemeteries' precincts. In Bernardines cemetery, the majority of pathways extending from the ring, lead to a dead-end. While in Rasos cemetery, two other rings are extending from the central one.

A chapel is located either inside or outside the ring, and it takes one significant angular change to get there from the central entrance (in case of canonical catholic cemeteries a chapel is placed right on the entrance axis, getting a privileged view right when entering the cemetery). In the case of these two Vilnius' cemeteries, the way to chapel is not that obvious – besides angular choice, in the case of Rasos cemetery it is necessary to go to the top of the hill, and in both cases, a significant

direction choice must be made. In none of the cases, is the chapel a central figure in the spatial solution of cemetery design; it is less significant in the purpose of orientation, however, certain centrality can be identified in location of the chapel in the ring network – in both cases chapels are located on the sequence of the most regular, the straightest pathway lines in the whole system.

This model is identifiable in both cemeteries. However, to confirm if this structural pattern is common for Lithuanian cemeteries, a more extended study is necessary, including more cemeteries from the period.

4. Conclusion

Catholic cemeteries are usually understood as hierarchical structures, a way to show political, religious, economic and social power. The canonical 19th century cemetery model is based on a plan of orthogonal nature, where a centralized geometric planning is exercised and space is organized in relation to buildings of symbolic importance, e.g. the chapel. The emphasis is placed on what must be celebrated, blending the unimportant into the mass.

On the contrary to the canonical Catholic model, and in line with the initial hypothesis the two Vilnius Catholic cemeteries, of non-geometric plans exhibit a weak hierarchical condition, which is mainly guided by the pattern of the overall spatial structure.

The spatial pattern of two cemeteries approached through syntactic tools, enabled one to recognize morphogenetic root of burial ground space that might be a more universal rule of intuitive cemetery development in Lithuania.

Figure 13. An image of Prussian (one of Baltic tribes) sanctuary with three main gods inhabiting a tree, where the believers would make sacrifices (Hartknoch 1684, 116)

This premise, recognizable in the two case studies, along with qualities of fragmented texture, floating centrality, set of rules of different symbolic meaning for cemetery development, endorsed to deduce that a meaningful position has been given to the previous beliefs of where the gods and dead dwell, and where by habit pagan Lithuanians would bury their dead. Unconscious set of rules overpassed the centuries of religious transformation, communicating the pre-Christian values and beliefs.

For confirming the premise of the alikeness of the structure to organic, forest-like pathway network, it would be critical to compare the networks of these cemeteries to the pathway networks in the natural environments.

Finally, it should be noted that the findings of this article have shown the analytical methods offered by the space syntax approach have the potential to represent salient geometric and topological characteristics of an organic, forest-like cemetery. While, the scope of this article was limited to an examination of cemeteries spatial configuration, measured in topological distances and based on the axial lines approach, further research using a visibility graph is essential for improving the understanding of how different parts of these cemetery precincts are connected and mediated by visual integration patterns. What is more, for to identify ideological values expressed through topological cemetery layout, the same method should be applied for canonical catholic cemeteries' analysis and compare data with organic cemeteries' networks as forests and groves, as a key for understanding a symbolic closeness of Lithuanian cemeteries with the distant pagan origin.

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Egle Bazaraite is an architect. She has a Bachelor's degree from Kaunas University of Technology, which included one-year exchange in Universidade Lusófona de Humanidades e Tecnologias in Lisbon. Master's studies attained at Vilnius Gediminas Technical University, Lithuania. Her final project – design for mourning spaces and cemetery in Vilnius – received the Lithuanian Architects Union's prize for the best Master project in architecture. 2007–2012 she worked in the architecture field both in Lithuania and Portugal. Since 2005 she has been collaborating with the architecture journal "Statybu Pilotas". In 2012 she started a PhD in Instituto Superior Técnico, Universidade de Lisboa. Researching canonical and non-canonical Catholic cemeteries and their relation to pagan mythology.

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Abstrakti

Eurooppalaiset hautausmaat kävivät läpi suuren muutoksen 1800-luvulla: kaupunkikehityksen hygieniastrategiat toivat ne kaupunkien ytimien ulkopuolelle. Hautausmaiden uusi malli salli oikeuden muistiin niille sosiaalisille luokille, jotka olivat tähän asti tuomitut unohduksiin: oli yksilön nousun aika. Hautausmaiden suunnittelu seurasi puutarhasuunnittelua, jonka myötä ihmiset tottuivat näkemään kuolemaa puutarhassa ja hautaukset saivat Paratiisinomaisen ilmaisun.

Liettua on viimeinen Euroopan maa, joka hyväksyi kristinuskon (1500-luvun alussa). Tästä syystä tämä artikkeli lähestyy liettualaisia hautausmaita paikkoina, joissa pakanakulttuuri kohtaa Kristinuskon asenteet ja kiinnostuksen kohteet.

Tämän tutkimuksen lähtökohta on halu tunnistaa pakanallisten uskomuksien elementtejä liettualaisten hautausmaiden tilallisissa ratkaisuissa. Tutkimus tarkastelee kahta 1800-luvun hutausmaata Vilnassa, Liettuassa. Niitä analysoidaan syntaktisesta näkökulmasta, joka ottaa huomioon mytologiset viittaukset Kristinuskoon ja balttilaiseen pakanallisuuteen, jotta näiden hautausmaiden morfogeneettistä identiteettiä voidaan avata. Kahden hautausmaan – Rasos ja Bernardines – tilallista tekstuuria analysoidaan ja vertaillaan tutkimalla sitä, miten niiden arkkitehtuuri ja kulttuurinen identiteetti on järjestetty suhteessa pakanallisiin uskomuksiin kuolemanjälkeisestä elämästä.

Asiasanat: hautapaikka, hautausmaa, urbaani hautapaikka, hautauksen historia, kuoleman arkkitehtuuri.

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When I die, bury me at home in Africa! U.S African immigrants' preference for burial in ancestral land

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Abstract

African immigrants highly regard their ancestral land and many of them are faced with a longing for home in the native country, the need to maintain their African identity, as well as adapt to American life. Many African Immigrants are committed to their ancestral land as can be seen by the extent to which many of them prefer the bodies of their loved ones and themselves to be buried in their ancestral lands upon their death in their diaspora homes. The location of burial is important with attached symbolic significance to African practices. Many communities in Africa place great emphasis on burial location as the basis for asserting land rights, origin, identity and belonging.

This article explored the perceptions of burial in ancestral land. It exposed a greater understanding of and answers to where African Immigrants prefer to be buried and why, the meanings African immigrants attach to their preference of burial location and how has African Immigrants, who have lost their relatives through death handled the experiences of burial, given the fact that they are in another continent. The majority of African Immigrants expressed the preference for burial in their ancestral land due to cultural, religious, social and economic factors.

I used ethnographic participant observation and unstructured interviews to collect and analyze data during fieldwork. My level of participation in the daily activities of the African immigrants was moderate, a balance between participation and observation, or outsider and insider. To facilitate my entry into the community and build rapport with immigrants, I live in a residence belonging to a Liberian immigrant in the Eastern Knoxville which has the highest concentrations of African immigrants. I build a good rapport that enhanced a comfortable relationship that encouraged informants to talk freely and to eventually confide in me because they trusted me and I was able to ask sensitive personal questions. I actively engaged in the activities of African immigrants to gain an understanding of their daily life experiences in Knoxville. I accompanied my informants to the Churches where they go for prayers. I will frequent social establishments of African immigrants like University of Tennessee African Students Association, as well as agencies that deliver services to the immigrant community.

I used open-ended semi-structured interviews to allow for minimum control of informants' responses, asked the same questions to ease comparison across informants. All the interviews were tape recorded with the permission of each informant. I used various techniques to record my observations. I carefully documented daily observations, conversations and informal interviews by tape recording interviews and events with the permission of informants to supplement my field notes. I maintained a detailed record of both my objective observations and my subjective feelings in my field notes.