

**Mamina ARINOBU (Tokyo)**

**Urban Food Culture in Medieval and Early Modern German-Speaking Areas. For Comparative Studies with other Contemporary Regions**

"Is it possible to provide a general overview of 'Medieval European food culture'? The key factors in exploring medieval food culture are 'what' (ingredients/foodstuffs) and 'how' people ate. Various sources can be used to understand the dietary habits of the Middle Ages and Early Modern Period, including chronicles, account books, materials on the distribution of foodstuffs such as those from the Hanseatic League, and cookbooks. In this presentation I will focus on one of the medieval/early modern cookbooks, "Cookbook of Sabina Welserin"(Augsburg), to illustrate what and how food was prepared in southwestern Germany at the time. I aim to provide material for comparative studies with other contemporary regions. How might people from non-German-speaking regions in "Europe" perceive the dishes and ingredients/foodstuffs described in this cookbook?"

**Tetiana Hoshko (Lviv)**

**Beer in Diets, Medical, and Cosmetic Practices of Townswomen in the Polish-Lithuanian Commonwealth (16th-17th Centuries).**

In recent historiography, the social history of alcoholic beverages has become a significant area of food studies, highlighting the important role of these drinks in the daily lives of European burgers, particularly in the Polish-Lithuanian Commonwealth. This paper explores the multifaceted role of beer in the lives of townswomen in the Crown of Poland during the 16th and 17th centuries. Women in urban areas often brewed beer for non-industrial purposes, adhering to established brewing procedures even at a domestic level. The study draws on official sources and treatises from the 16th to the early 17th century, including legal, botanical, and medical texts, employing a cultural-anthropological approach for analysis. In the Polish-Lithuanian Commonwealth, city councilors regulated beer production and sales, as mandated by German town law. City governments supported breweries, overseeing the production, transportation, and sale of beer through municipal ordinances (Willküren) and enforcing penalties for regulatory violations. Beer was widely consumed not only as a beverage but also as a food product by both men and women, with the quality of beer varying according to the consumer's social status. Cookbooks from the 16th and 17th centuries contain numerous recipes for beer-based dishes. In the 16th century, beer began to be recommended as a pharmacological agent, first mentioned in Polish herbalists by Marcin Sennik in his notable work "Herbarz" (1568). Physicians of the time provided guidelines on the types of beer best suited for individuals based on age and gender. The primary concern for women's health in the 16th and early 17th centuries was reproductive health, including the ability to conceive and bear healthy children. Many dietary recommendations from medical and naturalist literature of this period addressed these concerns, with beer included as a recommended dietary product for pregnant and breastfeeding women. Additionally, beer found use in cosmetic practices and was suggested as a rub for babies in

medical and botanical literature. Beer was the most popular alcoholic beverage in the Polish-Lithuanian Commonwealth until the 17th century. It was commonly used in both medicine and food preparation, and even townswomen were known to widely utilize it.

**Sandra Paczkowska (Torun)**

**Atypical and anti-vampire burials in pre-modern Polish towns as an example of unusual funeral practices**

This presentation aims to show atypical and anti-vampire burials in pre-modern Polish towns as an example of unusual funeral practices. The speech is divided into three parts. In the first one, there is a brief explanation of what makes an archeological burial classified as atypical or anti-vampire. Following, selected examples of anti-vampire burials excavated from pre-modern town archeological sites in Poland are provided and accompanied by analysis and comments on uncommon funeral practices found in those burials. Finally, the outcomes of the analysis of such practices highlight how pre-Christian beliefs are reflected in mostly drastic and atrocious post-mortem treatment of people accused of being different or demonstrating divergent behavior or being of abnormal appearance, which leads to conclusions on pre-modern Polish towns' society mindset and even more, ways of judgment.

**Yurii Zazuliak (München-Lviv)**

**Daily Life, Crime and Magic in the 17<sup>th</sup>-Century Lviv**

The paper intends to highlight some aspects of the specific 'economy of the sacred' in early modern Lviv, which was based on beliefs in the permanent interventions of the supernatural in the daily life. Namely, it aims to show how the communication with the supernatural, and especially evil, forces was perceived as a danger for the town's sacral order, which challenged the unstable balance between the individual and communal salvation and damnation. The analysis focuses on the evidence of the "Leopoliensis archiepiscopatus historia" (A History of the Lviv Archbishopric) written by the Lviv 17<sup>th</sup>-century clergyman Jan Tomasz Józefowicz. As a historian, Józefowicz was known for his accounts of miracles, visions and saints; ghost, vampires, and even a pact with the devil, as well as his crime reporting. Many of his insights into the contemporary urban life were thus marked by the supernatural twist, and could be linked to a wider popular demand and thirst for the sensation, supernatural, and gossip in the life of contemporary urban society, including its clergy.

**Agnieszka Bartoszewicz (Warsaw)**

**Grandparents and Grandchildren: Family Relationships in the Cities of the Kingdom of Poland in the Late Middle Ages and Early Modern Period**

Although the pre-modern European cities' families were primarily nuclear, an analysis of

preserved source material allows for the recognition of multigenerational relationships, including relationships between grandparents and grandchildren. The regulations of German law explicitly emphasise the role of grandfathers as potential guardians of orphan children and the mutual inheritance rights of grandfathers and grandchildren. In urban religiosity during the study period, the cult of Saint Anne, the grandmother of Christ, has played an increasingly important role, with her image along with her daughter and grandson found in many churches.

In relation to these phenomena, the aim of this document is to analyse the source material produced by the city Chancery from the perspective of three generations. The basis of this research is a record preserved in the books of the municipal courts of several towns in the Kingdom of Poland (Kraków, Lublin, Poznań, Old Warsaw, Lublin, Płock) from the second half of the fifteenth century and the first decades of the sixteenth century. First, the terms for this type of kinship in the sources examined will be discussed, both in Latin and in vernacular languages. However, the main questions analysed in this paper will be the intergenerational relationships observed in the bourgeois family, the nature of the interaction between grandparents and grandchildren, and the factors that influence these relationships. It is undoubtedly true that the preserved records concerning the appointment of guardians for orphans, financial agreements made by orphans at the age of adulthood and the appointment of legal representatives show the role played by the grandfather in the case of the father's death, and sometimes even when both parents were alive. Important insights will also be provided from information contained in life pension contracts, which show the role of the elderly in urban society during the period under investigation, which must also have had an impact on intergenerational relations. Particularly valuable source material is also provided by wills, which allow for the examination of the nature and circumstances of gifts made by grandparents to their grandchildren. In this case, it will be possible to try to analyse the emotional bonds between these people.

### **Igor Serdiuk (Poltava/Kyiv/Sofia)**

#### **Family Structure and Demographic Characteristics of Town Dwellers in Hetmanshchyna as Markers of Urban Way of Life**

The report deals with the peculiarities of the cities of the Hetmanshchyna (Hetmanate) of the 18th century - a historical region of Ukraine, which in the 18th century maintained autonomy as part of the Russian Empire, used its own legislation and had a distinct local identity of its inhabitants. From the point of view of everyday and social history, the Hetmanate is traditionally depicted as a «frozen» peasant world. Despite the presence of a network of regimental and hundred towns (administrative centers of regiments and hundreds), there is a thesis that these towns had an agrarian way of life, and the everyday life of their inhabitants did not differ in any way from the way of life of the surrounding villages. Of course, in some towns we can find some unique features (the presence of non-ethnic communities, an educational institution, a market), but are these features a consequence of city life? One of the options for checking the town of Hetmanshchyna for the presence of elusive features of everyday life is the establishment of demographic markers, such as the structure of families, the sex-age structure

of the population, and the peculiarities of demographic behavior. They can provide measurable and comparable information, as well as a basis for understanding and interpreting urban everyday life.

### **Maria Pakucs (Bucharest)**

#### **"Greeks in the Saxon towns in the 16th and 17th century"**

The presence of the Christian Ottoman merchants from the Ottoman provinces south of the Danube has become a nuisance for the Saxon traders of Braşov/Kronstadt and Sibiu/Hermannstadt beginning with the 1550s. Until then, foreign merchants followed the rules of the staple right but once Transylvania became a tributary state to the Porte, the leverage of the privileged Saxons diminished considerably. In my paper I examine how the town councils but also the great councils (the centumviri) of the two Saxon towns dealt with the issue of the growing presence of the "Greek" merchants in their towns, mostly trying to keep them out of the town markets and stopping them to settle in their community.

### **Iryna Papa (Lviv)**

#### **A Dane's Impressions of Toruń in 1711: «denne bye Thorn er dend ældste friestad af alle de Pohlske og Preussziske frie stæder».**

According to Bernhard Struck, the Polish-Lithuanian Commonwealth was a kind of «transit zone» for numerous travelers («a place one had to pass to go further East») until the end of the 18th century, therefore it was rarely or never mentioned in travel accounts. [1] In the Danish travelogue, compiled by Just Juel and Rasmus Ærebo during their diplomatic mission to Peter the Great in 1709-1711, the «Polish» part of was the final stage of the journey. Thus, it is less detailed than the previous ones, even though the Polish-Lithuanian Commonwealth was a kind of arena for numerous campaigns of the Great Northern War and a source of human and material resources for the tsarist army.

In early September 1711, the Danish travelers continued their journey through the Polish-Lithuanian Commonwealth after a brief stop in Lemberg. This part of their journey was no less eventful than the previous ones (e.g. across Petrine Russia and Ukrainian lands). The arrival in Torun (24th of September) and the longer stay in this city (until 9th of October) were reflected in a detailed description of the town and communication with the wife of Peter I, some European officials (e.g. Ferenc Rákóczi) and diplomats. In the description of Torun, Danish travelers mentioned selected episodes from the city's history (e.g., a 22-week Swedish siege), paid attention to the sacral landscape, and described the current state of affairs (e.g., Russian troops and representatives of the tsarist court in Torun).

Therefore, we would like to pay attention to the peculiarities of this travel through the Polish-Lithuanian Commonwealth and visit to Torun, its historical context, and possible interpretations based on the cultural history of travelogues (Peter Burke) and the concept of «tourist gaze» (John Urry). In our humble opinion, this travelogue allows us to reconstruct the Danish perception of the Polish-Lithuanian Commonwealth in the early 18th century.

[1] «Terra Incognita, European Civilization, and Colonized Land. Poland in Mid-eighteenth Century to Mid-nineteenth Century German Travel Accounts», in: Schulz-Forberg, Hagen (ed.), *Unravelling Civilisation. European Travel and Travel Writing* (Brussels: Peter Lang, 2005), 154–79.

**Simon Dreher (Münster)**

**Households of Polish-Lithuanian Prisoners in 17th-Century Moscow. Every-Day Life between Capture, Relocation and Release**

During the so-called Thirteen Years War from 1654 to 1667, Muscovite troops invaded the Polish-Lithuanian Commonwealth. During Muscovy's occupation of Lithuanian towns and regions, the Muscovite troops concentrated their efforts on military defence and the extraction of parts of the population as prisoners. Together with those who were captured during battles or raids in villages, craftsmen and their families were deported into the inner parts of Muscovy. Numbers given by contemporary authors as well as estimations by modern historians indicate a total number of several hundred thousand prisoners.

Prisoners were only held in prisons or cells in the Muscovite departments for questioning for a short time. Most of them were then resettled to different parts of Muscovy, many into suburbs dedicated to host foreign prisoners. Others lived in the households of townspeople or other foreigners. Orthodox prisoners, mainly Belarusians from eastern Lithuania, were held as unfree peasants on church lands. While craftsmen from occupied towns were mostly resettled into Muscovite towns, Polish-Lithuanian soldiers were carried further to Siberia where in the course of the seventeenth century, the term Litvin became synonymous to former prisoners employed in military service.

After the end of the war, the 1667 treaty of Andrusovo allowed many prisoners to return to the Commonwealth. However, probably due the devastations by the war and the prisoners' loss of their land property after years of absence, many former prisoners stayed or returned to Muscovy a few years later. In Moscow, only a few of the prisoners lived among the other foreigners in the foreigners' suburb founded in 1652 while most were scattered throughout the city until in 1671, a new suburb for the former prisoners was founded, the Meshchanskaya Sloboda.

Other than in the better known of Moscow's foreign suburbs, the Inozemskaya Sloboda founded in 1652, in which the primary distinction of its inhabitants from the Orthodox Muscovites was their Protestant and Catholic confession, the Meshchanskaya Sloboda was inhabited by people of both, Orthodox and Non-Orthodox Christian faith, making their background as former inhabitants of Poland-Lithuania their predominant common feature. Census data, collected by Muscovite clerks going from house to house and questioning the inhabitants, presents itself as an intriguing source on everyday life in this Polish-Lithuanian enclave just outside Moscow's city walls. The presentation analyses the social and economic circumstances of the former prisoners from the 1650s to the 1670s as well as their everyday interactions with both, native Muscovites and foreign immigrants.

**Filip Emanuel Schuffert (Regensburg/Gießen)**

**Saxon Refugees in Warsaw and their Contribution to Urban Development**

**Catalysts, New Beginnings and Stagnation in Warsaw at the End of the Saxon Period**

When Dresden was occupied by Prussian troops in 1756, the planned journey to the Sejm by the Polish-Saxon King August III turned into an escape. Contrary to his plans, the king remained in Warsaw and held court there during the Seven Years' War until 1763. Due to the lack of a standing court in Warsaw, all the necessary personnel had to be brought from Saxony. This first wave of migration or flight in 1756 was followed by a second wave of flight towards Warsaw in 1758/59 as fighting increased in Saxony.

In Warsaw, the members of the court generally moved into the Saxon Palace and thus formed a Saxon exclave in the Warsaw agglomeration. From there, various processes of exchange and acculturation with the outside world of the city took place over the seven years. Contact between very heterogeneous Saxon and Polish actors took place at various levels (e.g. opera, balls, festivities, hunts).

Augustus returned to Dresden with his court in 1763. Only a few people remained in Warsaw, but they were certainly significant for the city's history (e.g. Steinhäuser, Mitzler de Kolof). This changed with August's death and the *rétablissement* that began in Saxony. Relying on the relationships they had built up over the years, many artists, musicians and civil servants returned to Warsaw and found employment with the king and nobility (e.g. Bacciarelli, Canaletto).

In my contribution, I would like to briefly trace the flight of the court and the opportunities and places of exchange between the refugees and the local actors on the basis of Warsaw and Dresden archive holdings. With reference to the theory of acculturation, the potentials, limits and traces of interdependence during the Seven Years' War will be analysed. Finally, this period will be categorised in the history of the city of Warsaw and its aftermath will be illustrated using several examples.

This contribution is part of my dissertation project at the University of Regensburg and Justus Liebig University Giessen on the urban history of Warsaw in the 18th century.

**Maryana Dolynska**

**Lviv Late Mediaval Measuring and Fiscal Suburbs' Units**

The study of city names is organically linked to the study of historical topography. This thesis is based on the assertion that in order to study intra-city naming, it is necessary to analyze the places describe by the names (vegetable gardens, fields, households, mills, ponds, hills), not the proper-nouns themselves. Borrowed from linguistics, the hierarchical division implies a division into levels. Its application shows that, perhaps, the largest group among man-made objects in the late Middle Ages is landed immovable property.

The analysis of named places allowed us to revise the scheme of spatial formation of the territory of the Magdeburg town. The concept of "vegetable garden" (orthus) played a special role.

From the context of the early 15<sup>th</sup> c. records a scholar sees that the typical form of real estate in Lviv's suburbs is the "ortus". Such real estates is singled out by the government official in both cases of Halych and Krakiv suburbs. The logic of the records for the Krakivsk suburb, since vegetable gardens are

mentioned in the title, suggests that the townspeople planted vegetable gardens in the area near the Krakivske gate, and only a certain Gundirmarg built a house on the plot. As for the Galician suburb, the conclusion is different: given the title and the separately identified “area” in the list, it follows that the concept of “ortus” was perceived by contemporaries as a full-fledged household in the suburb (similar to “domus” in a city within walls). Based on the above, we can imagine that the area near the Galician Gate was inhabited by artisans as early as the fourteenth century, and that is why the clerk called their households “ortus”, a popular Latin term of the time. Despite the Krakow Gate, real estate was just beginning to be acquired, so the clerk perceived these measured plots as full-fledged real estate - “ortus” - and marked the built-up ones with a separate entry.

Thus, it can be concluded that the “vegetable garden” was the fiscal unit of real estate in Lviv suburbs during the fourteenth and sixteenth centuries: “ortus/hortus” - ‘ogrod’. Perhaps a relic from princely times. Later, the term declined and acquired its modern meaning in the Ukrainian language.

### **Laurent Tatarenko (Warsaw)**

#### **The rest of the dead in the face of confessional confrontation: desecration and sharing of urban burial spaces in the Polish-Lithuanian Commonwealth (16th-17th centuries)**

In the abundant historiography devoted to the practices of coexistence in the towns of the Early modern Europe, the question of death is most often approached either through the eyes of the dying through their testamentary dispositions or through the prism of funeral rituals that could lead to confessional clashes. This is why most of these studies focuses on mentioning burial sites, without analysing their role in the confrontations and negotiations between competing religious groups. However, by its very nature, which involved spiritual, memorial and financial aspects, cemeteries constituted an essential heritage element in the representations of individuals, their families and the local communities of the faithful. From the 16th century onwards, religious upheavals confronted these spaces with new challenges. Indeed, in regions marked by religious plurality, the co-presence of cemeteries attached to different institutions was compounded by the problem of sharing burial sites between populations which, despite a common history, found themselves divided by borders shaped by mutual accusations of schism or heresy. Focusing on the case of the Eastern Christians of Poland-Lithuania in the first decades following the Union of Brest (1595-1596), the aim is to examine how and to what extent the tensions that arose between supporters and opponents of attachment to Rome were expressed within the necropolises themselves. This approach will also study the evolution of testamentary behaviour with regard to burials, with the intention of protecting against possible changes of obedience after death. Finally, we will look at the role of urban funerary spaces as a rhetorical figure of controversy, designed to extract the confessional ‘enemy’ from the shifting space created by fragile religious compromises and to demonstrate his guilt on the public stage in front of the entire civic community.

**Alfons Brüning (Nijmegen)**

**Addressing a Blind Spot – Parish History in Central and Eastern Europe**

The methodological paper seeks to establish a link between an already established network on “parish history”, currently related to the University of Warwick (UK), and historiography on the history of parishes, and – in a broader sense – on religious and confessional culture carried out in recent decades in countries of East Central and Eastern Europe. What is known about the history of parish life in these regions so far will be recapitulated, addressing patterns known from the West (such as distinctions between towns and countryside, social discipline, the image of the priest etc.), but also those typical for the European East. Among the latter might be counted phenomena of religious interactions, tolerance, or – in more professional terms derived from the debates around the “confessionalization paradigm” – interconfessionality, transconfessionality, confessional ambiguity and the like. The suggestion linked with such explanations is the compilation of a more concise bibliography containing also the works of experts from countries like Poland, Ukraine, Romania, the Baltic states or the Balkan region.

**Ivan ALMES (Lviv)**

**“Precious yet Unevaluated Deposit”: Relics of St John the New of Suceava and Parish Forming in Zhovkva in the first half of the 18th century**

The research concentrates on the cult of an Orthodox saint and the patron of Moldavian lands and trade, John the New of Suceava, in Zhovkva in the first half of the 18th century. In the summer of 1686, Polish king Jan Sobieski, returning from a Moldavian war campaign, took Metropolitan Dosytheus and St. John the New relics from Suceava. The relics first came to Stryi and then to Zhovkva (now a city in Ukraine) monastery. The fact that the Polish king himself, as the promoter of the cult, relocated the relics to the Zhovkva monastery was one of the most powerful arguments for practicing the cult despite confessional borders. Moreover, the appearance of relics contributed to the prosperity of the local monastery and parish. 26 April 1684, Jan Sobieski granted the privilege to raise funds from the estates of the King and the Grand Duchy of Lithuania to complete the Church of the Nativity in Zhovkva. However, on May 11, 1691, a fire broke out in the city, and the unfinished church burned down. Therefore, the local brotherhood again appealed to the king for help, but this time there was no privilege, but the king promised to help. The relics of St. John became such a deposit from the king. Similarly, in 1753, Prince Michal Raziwill noted the importance of the relics for the local parish in his foundation document: “So that for eternity from this bellow this precious yet unevaluated deposit, will not be moved.” The transfer of relics from Suceava to Zhovkva led to the cult's emergence in a new place that had not previously been associated with St John in any way. The following questions arise: Did the local saint (Suceava) and patron saint of Moldova become local to another place? What were the strategies for implementing and practicing the cult in a new locus? Research also discusses the borderless cultural practices beyond political (Polish-Lithuanian Commonwealth and Wallachia



from the Ottoman empire) and confessional (an Orthodox saint in an Eastern Catholic monastery) borders.

### **Nataliia Fedyshyn (Lviv)**

#### **The Miraculous Icon of the Holy Virgin of Terebovlya and Its Influence on Parish Life in 17th- and 18th-Century Lviv's St. George Basilian Monastery**

The Terebovlya Miraculous Icon of the Holy Virgin became a central object of veneration at the St. George Basilian Monastery in Lviv during the 17th and 18th centuries. Originally housed in Terebovlya, the icon was transferred to Lviv in 1674 by Bishop Joseph Shumlianskyi to protect it from potential Ottoman raids. Its miraculous reputation had already been established after the 1672 Ottoman siege of Terebovlya, when, according to local tradition, the Virgin's intercession saved the fortress and its defenders. The transfer of the icon to Lviv not only safeguarded it but also elevated its status, drawing pilgrims and worshippers from across the region.

Though not a traditional parish church, the St. George Monastery fulfilled a central role for the local community. It offered regular liturgical celebrations, processions, and feast days, with the Terebovlya Icon playing a significant role in these religious practices. The icon's veneration further intensified after the 1704 miracle, where it reportedly shed tears during the Swedish siege of Lviv, leading to the enemy's retreat. The Brotherhood of the Terebovlya Icon was responsible for maintaining the icon, organizing processions, and integrating it into the spiritual life of the monastery. The construction of a dedicated altar for the icon in 1722, with elaborate baroque architecture and decorations, underscored its importance within the monastery. Historical texts, such as the epistle of Athanasius Sheptytsky, document the brotherhood's role in ensuring the icon's continued veneration and care.

This paper seeks to address the following question: To what extent did the veneration of the Terebovlya Icon and its associated brotherhood shape both the spiritual and social dynamics of the St. George Monastery, and how did its influence extend into the wider community of Lviv during the 17th and 18th centuries?

### **Volodymyr Maslychuk (Kyiv)**

#### **Everyday life of Kharkov inhabitants in Moscow documents of the second half of the XVII century**

Kharkiv is a new city that arose on the Russian-Ukrainian border in 1654. This documentation is only partially published. The characteristics of the everyday life of this city are related to the instability of the population. The main occupations are seasonal, leaving the city: mills, apiaries, salt mining. This goes hand in hand with the reluctance to build fortifications (they themselves built very primitive ones from simple wood), the production and consumption of alcohol, gambling (dice), theft of livestock outside the city, disobedience to the central government (refusal to perform military service, building a road to salt lakes).

A separate question is the issue of personal identification of the local population. In the documentation,

it is "Cherkasy" (the name of Ukrainians in the Moscow documentation), while there are also Russians serving in the Kharkiv Fortress but living in nearby villages. "Cherkasy" in this case is more of an ethnic than a social category (Cossacks). The documents clearly indicate the ethnic character of the city.

At the same time, we observe the development of crafts (one of the first cases about this city is the case of counterfeiters), peculiar ties with the Crimea (Cossack campaigns (by Kharkiv colonel Ivan Sirko in 1667) and trade (the arrival of a Crimean Greek in Kharkiv in 1688), disputes with the Russian population (the robbery of apiaries by the Russians in 1659, the complaint of the Russian population of the village of Zhyhar in 1658).

The creation of church centers is associated with the request for salaries by local priests from Moscow (the arrival of priest Ivan Opanasenko (Afanasiev) in Moscow (1658), which was a strategy of behavior of the clergy on the border. The appearance of Moscow decorations of churches and books took place in parallel with the presence of Kharkov settlers with their own icons, iconographers and books of the "Kievan" press, accusations of Moscow leaders of "wrong prayers", refusal to swear (kiss the cross) to the Moscow tsar.

The peculiarities of Kharkiv life will also be the presence of features of city self-government: a stratum of burghers with an elected leadership (bourgeois hundreds in the census of 1660 with centurions and atamans), the presence of a guild organization, contradictions between the branches of power regarding the management of the city (numerous complaints from representatives of the Moscow administration). According to the documentation, the fortified city of Kharkiv appears as a city with dynamic development, despite the presence of a "peasant economy" and an uncertain population, a trade and church center (8 churches and a monastery near the city from 1673, there are mentions of church brotherhoods). The lack of documents on certain aspects of life causes a lack of interpretive capabilities. The study of this documentation is an important basis for explaining the numerous transformations in the future.