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PLANTS IN FUNERAL CEREMONIES IN POLAND AND EUROPE NORTH OF THE ALPS (13th-18th CENTURIES)

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6. A SUMMARY OF THE FUNCTIONS AND MEANINGS OF PLANTS IN FUNERAL CEREMONIES IN EUROPE NORTH OF THE ALPS IN THE MEDIEVAL AND MODERN PERIODS – CONTINUITY OR CHANGE?

Plants at a Christian funeral have been used since its beginnings in Antiquity. The evolution of the customs associated with plants has been directly influenced by the transformations of the funeral ceremony. These changes have resulted in new needs and uses for plants during the preparation of burial. It is recognisable that the evolution of the funeral occurred in parallel with epochs in culture, but the shape of the funeral ceremony in the past depended on a multitude of intertwining factors. The philosophical basis of the epochs influenced the view of nature which determined both the position of man and plants in the universe, and attitudes towards death.

Needs for identification and distinction are among the factors contributing to the elaboration of funerary ceremonies. The funerals of rulers, clergy, elites, urban citizens and the poorest varied throughout the period under study, and the subtle dynamics between social strata were one of the most important drivers for the transformation of the ceremonies.

Funeral customs associated with plants were influenced by intellectual, religious and worldview, demographic, economic, market and industrial transformations that affected not only Europe north of the Alps, but reached across the continent and beyond. Of immense significance were the events that consequently reshaped the world order of the time, such as the establishment of monastic networks, the Crusades, the invention of printing, the religious reformation, the colonisation of foreign continents, and the Industrial Revolution.

Characteristic is the survival throughout the period under study, of factors that influenced the view of nature and man in culture, although their reception has changed over the centuries. These include ancient natural, historical and philosophical works, discovered, reinterpreted and adapted by successive generations. Scripture has been the primary source of knowledge, inspiration and compass determining the principles of Christian burial and the relationship to nature.

The existence of a folk pathway for the development of plant-related customs which, however, is not sufficiently reflected by the official sources, must also be acknowledged. Suggestions of the survival of a pre-Christian tradition of plant-related customs have appeared in the literature, but these are difficult to confirm. The scientific description of nature was revived in Europe in the 13th century under the influence of Aristotle's treatise *De vegetabilis* (Goody 1993: 150-151), but the accumulation of knowledge passed on in oral form probably never subsided.

During the early Middle Ages, a tendency existed to combine Christian and pre-Christian customs syncretistically. Elements of Roman and Greek rituals were incorporated into early Christian ceremonies. The first Christian liturgies included customs directly drawn from ancient Roman traditions. Among the ancient elements of reli-

gious ceremonies practised by the early Christians was the use of plants - crowning of heads, decorating graves with wreaths, offering flower sacrifices, eating feasts on graves. These were condemned by Christian theoreticians who valued spirituality over contemplation of the material world and were alert to practices associated with pre-Christian beliefs. However, some of these customs were revived in the Middle Ages. They were imported into religious practice in a Christianised form. The incorporation of plants into Christian cult was probably a compromise between high culture and folk culture. Compromising to some extent was also the expansion of rituals to include the use of material objects and images in official Christian worship (Goody 1993: 121-123). The Middle Ages were also characterised by the persistence of the ancient belief in transferring power through plants.

Older customs and rituals were Christianised by adding a new meaning to them. The offering of plants on the altar became part of the worship of Mary and Christ. Healing through plants, formerly associated with deities, was replaced by healing through the intercession of saints. This process is reflected in phytonyms referring to Mary, Christ and Christian saints. Former ritual plants also began to be attributed to negative legends, reducing their former role to the activity of Satan. According to Józef Rostafiński, all pre-Christian customs and knowledge of plants among the Slavs were eradicated or distorted (Zemanek 2000: 205--206). The Orthodox Church demonstrated greater tolerance. In Eastern Europe, elements of the Slavic cult of the dead have probably survived to this day.

For burials dating back to the Middle Ages, plants were used primarily as bolsters, linings, to fill pillows, to line the walls of coffins, the boards on which the dead were buried or sarcophagi, and for embalming. The so-called pilgrim's staffs, in the form of a symbolic branch or a rod, must also be mentioned. Their placement in burials began in Scandinavia, probably in Denmark, before the year 1000, and from the mid-11th-13th century the custom spread to England (Gilchrist and Sloane 2005b: 173). The youngest burial with a so-called pilgrim's staff in the catalogue dates to the early 16th century.

In Western Europe, the greatest number of burial botanical sources date from the early Middle Ages, but their number is decreasing over time. The trend towards the more frequent use of plants in Christian burials is visible since the late Middle Ages. This result may be related to the increase in burials inside temples, as stable climatic conditions of the inner buildings are more favourable for the preservation of organic materials. It is likely, however, that the influence of factors such as the Church's adoption of the Doctrine of Purgatory, encouraging a certain differentiation in the procedures performed on the body of the deceased, and the stabilisation of the funeral liturgy in the West in the 13th century, which also defined the symbolism of herbs used in Christian burials, were not without significance for the development of plant-related customs in the High and Late Middle Ages.

The greatest number of examples of cushions and linings were recorded in England, France and the Netherlands. This is also where the earliest finds for the period under study were recorded. It is likely that the origin of Christian custom in Europe which has its roots in the Iron Age, can be placed in this area. Pillows were used in coffin burials while linings also occurred in graves without a coffin and board burials. It is likely that in earth graves the open bottom of the pit may have been covered with organic matter.

On Polish territory, the presence of cushions and possible linings (?) has been determined in the graves of clergy. It is likely that cushions, head rests or linings were more common than the number of archaeological finds suggest. On Polish lands, remains of plant furnishings have been found in graves dating to the early Middle Ages (Kurasiński *et al.* 2018). Most likely, when deposited in the ground, plant fragments were enclosed in vessels, pouches or sacks, forming part of the deceased's clothing. They were not, however, forming cushions or linings, so it can be assumed that the lining of graves with plants appeared in this part of Europe together with Christian funerary customs.

The use of objects and grave furnishings associated with sleep in Western and Northern Europe is evident in Iron Age graves. During the early Middle Ages in Western Europe, pillows were found in the burials of elite representatives from Germanic tribes. Pillows with herbs and linings have been discovered in Merovingian graves from the 5th century (Thompson 2012: 110). A cushion or decoration of the head area was present in the burial of Saint Tulle at Saint-André de Villeneuve-lès-Avignon (Corbineau 2014: 390). Cushions or head rests occurred in Roman burials from the 1st-4th centuries. In Britain, the appearance of stone head supports is associated with Roman burial customs, but may also be an indication of Celtic ritual. Pillows have been discovered in Anglo-Saxon burials from the 7th-8th centuries. They were used in funerary rituals by the Vikings from the late Iron Age onwards (Panagiotakopulu *et al.* 2018: 11).

In the 11th century in the Romanesque art of Western Europe, pillows began to be depicted under the heads of the deceased on tombstones. During the Middle Ages, graves featured a variety of forms of head supports made from a range of raw materials. In Britain, the Netherlands and France, grave pits were sometimes anthropomorphic in shape. It is presumed that the part of the grave pit around the head was shaped to stabilise it. The same function served piling up a mound or building a support around the skull. The permanent positioning of the head with the face towards the East was motivated by ideas concerning the Judgement Day when the light of the returning Christ is supposed to be visible first from this world direction.

The arrival of pillows and grave linings is undoubtedly linked to the custom of displaying the corpse before burial. It was practised already by the ancient Romans. The description of the funeral of Emperor Constantine the Great, by Eusebius of Caesarea, became a model for the funeral ceremonies of rulers in the Middle Ages. The funeral of Emperor Constantine, who only converted on his deathbed, was a combination of pre-Christian and Christian rites. After the secular part, during which the emperor's image was displayed in a golden sarcophagus, the corpse was handed over to the Christian clergy (Chrościcki 1974: 31-33). The custom of displaying the corpse before the funeral and keeping vigil at it was later adopted in the monastic funeral ritual. It should be emphasised, however, that keeping vigil at the corpse was also practised by many European nations before the adoption of Christianity and by the Jews.

In the monasteries, the rite of mortification of the body during the agony by laying on the floor, on straw, hay, ashes, a bed of straw mixed with ashes, on a board, a mat or laying the head on a stone developed.. Penance demonstrations were legitimised by Pope Innocent I in the 5th century, but are probably older, as evidenced by descriptions of the deaths of the earliest Christian saints (Deforce *et al.* 2015: 602). Mortification of the body before death was imitated by European rulers from around the 12th century onwards.

Hay or straw was useful for washing the deceased which was performed on the floor, sometimes covered with organic mat. Absorbent padding was used as a base for the corpse and also for its drying. The bodies of the deceased after cosmetic procedures were placed on absorbent lining before being wrapped in a shroud made of usually white cloth which would easily become stained. Medieval and modern artistic representations show the deceased resting on bundles of straw or mats on the floor or inside the bed. The organic filling of the cushions or mattresses gave them volume and provided adequate support for the inert body, preventing the unpleasant sight associated with the skull tilting and opening of the mouth. Straw mats were also rolled up at one end to form a bolster, supporting the head. It is likely that the bolsters, mats, straw, hay or grass used were subsequently placed in the graves.

It appears that, initially, the use of cushions and linings would have been most appropriate during the funerals of people whose bodies were displayed to the public. The dying and the medieval funeral were events that were participated collectively. Roberta Gilchrist has drawn attention to church burials in England in which the head of the deceased rested on a stone decorated with engravings at the bottom of the burial pit. The decoration made on the stone suggests that it may have been intended for viewing by those attending the ceremony (Gilchrist and Sloane 2005b: 125). It is also possible that the stone bolsters were covered with, for example, fabric or some other unpreserved substance of organic origin, thus creating the illusion of a cushion. It can therefore be assumed that, despite the customary hiding of corpses from the view of mourners (as Philippe Ariès has emphasised), props for the presentation of bodies were included in the average medieval funeral ceremony.

In Gothic art, on the other hand, the depiction of the deceased in an upright position with their heads on a pillow, became widespread. Assuming a high level of realism, especially of late medieval artistic representations, it can be concluded that the use of pillows or bolsters at this time had already entered the canon of elite funeral ceremony furnishings.

The occurrence of medicinal cultivated herbs in the composition of coffin linings is most likely to be linked to the conservation of corpses. Embalming was practised in ancient Rome and Greece. In the early Middle Ages, in Western Europe, cosmetic preservation treatments were performed on the bodies of the deceased from the elite. From the 13th century onwards, embalming of the deceased combined with the removal of the viscera and filling the empty body cavities with dry organic matter became increasingly common in Western Europe.

The beginnings of the use of grave linings and cushions made from aromatic plants at Christian funerals appear to be linked to the spread of embalming procedures. Filling the inside of bodies, garments, shrouds and coffins with herbs was part of a range of practices associated with the various techniques of corpse embalming. Dry plant matter was helpful in the process itself. It was used to fill the disembowelled body, to wipe or dry it, to absorb embalming fluids and fluids leaking from within as a result of decomposition. It could then be placed with the deceased in the coffin. Following the embalming procedure, the liquid mixtures used for preservation continued to drip from the corpse, thus use of absorbent filling materials in coffins.

Unfortunately, few details of the composition of medieval herbaceous linings and cushions are available due to the limited possibilities of preservation of organic remains in the ground, the manner in which past archaeological excavations were conducted and the accompanying analyses were applied. Of the plants identified in medieval burials, the majority are locally occurring species. The herbs used for burial linings are mainly among those that are strongly fragrant and have astringent, antibacterial and preservative properties. The use of aromatic plants in the linings may indicate their connection with the embalming procedure itself. They may have been an additional factor contributing to the preservation of the corpse. Medieval embalming is assumed to have been adopted from Antiquity; unfortunately, few records on the process from the early Middle Ages have survived. Among the described botanical finds from medieval graves, the locally occurring species dominate. In the late medieval and modern periods, embalming was performed using locally grown plants of Southern European origin and imported spices and resins. The raw materials used for embalming usually fell into the luxury category being expensive and exotic. Although, in the absence of hard-to-obtain ingredients, more accessible, native equivalents were frequently used. Variations in the recipe may also have resulted from incorrect plant identification.

There are indications of the existence of Christian herbal symbolism in funeral ceremonies from the 13th century, provided by Durandus in his description of the Latin church liturgy. This may well be an attempt to adapt customs practised in the Roman part of Europe earlier, especially as the cypress and laurel described by Durandus belong to Roman funerary plants. The cultivation of Mediterranean herbs and medicinal plants arrived in Northern Europe in the early Middle Ages along with monks who planted them in gardens established within monastic sites. In the late Middle Ages, evergreen plants were an important part of the setting of church festivals (Goody 1993: 153-154).

The supra practical role of grave linings made from plants in medieval devotion is supported by stories of miracles performed by the saints. These include the supernatural transformation of the linings on which they slept during their lifetime or died (for example turning bedding into violets by St Fina of San Gimignano, or healing with straw from the bedding by St Martin of Tours).

In the case of modern grave linings and pillows, with a much more extensive source base than for the Middle Ages, the tendency to use aromatic plants and those with preservative, wound astringent, disinfectant and insect repelling properties is clearly recognisable. The use of modern herbal grave linings and pillows can undoubtedly be linked to body preservation procedures.

The most common raw materials used in the Middle Ages to line graves and fill cushions were hay or grass. Equally popular may have been straw mats which appear in iconographic representations and in written sources from the 13th-16th century, mainly in France and the Netherlands. Cushions and paddings made of hay or grass were present in coffins from all over the analysed area until the 19th century (i.e., up to the upper chronological limit of the study). Numerous iconographic representations of the bodies of the deceased laid out on mats, straw or hay, on the floor or inside the bed, dating from the 15th-17th century, have also survived. Hay, straw or grass provided a pad on which corpses could be laid during hygienic and ritual procedures in the Middle Ages. In the early Middle Ages, monks mortified themselves before death by laying on the floor on a mat or straw with ashes. A mat served sometimes as a substitute for a textile shroud which was expensive to purchase. Presumably, straw and hay were regarded customarily as materials appropriate for an unsophisticated, modest and cheap funeral as early as the Middle Ages.

In the late medieval and modern periods, hay and straw remained symbols of humility and repentance. The modern emblems which consisted of graphics with a representation of a bale of hay paired with a motto from the Scripture (Sir 14:18, Is 40:6), can be understood as expressions of this concept. Both the images, the mottoes themselves, and the aforementioned Bible quotations, were placed on coffins, sarcophagi and tombstones.

The custom of laying the dying person on straw or dried parts of other plants was known in rural areas throughout Europe until the 20th century. It was believed that plants were able to facilitate and hasten death. The straw, and all objects in contact with the corpse, were then placed in the graves or destroyed.

The long presence of grave linings and pillows filled with hay in European funerary customs may result from it being a popular raw material for filling of bedding. Sleeping on straw mattresses continued in post-war Poland in the second half of the 20th century. Hay or grass was also used to fill upholstered furniture. Perhaps the deceased's personal bedding, or that on which his body was displayed before burial, could be used during the funeral.

The next most common raw materials for filling cushions and coffins since the Middle Ages were wood shavings, sawdust or waste wood. Shavings, sawdust and wood waste in grave cushions, linings and mattresses remained common until the 20th century. Linings made of shavings, hay or straw were not usually intended to be seen by those attending the funeral. The use of shavings as a lining at the bottom of the coffin without textile cover occurred very rare.

Like straw, hay and other dry organic matter, served as absorbent padding and support for the body. They were also used to fill the inside of the coffin after the body had been placed in it. Shavings or sawdust may have acted as an absorbent, sealing the bottom and preventing the contents of the coffins from shifting during transport. Their possible use as a means of preserving and aromatising corpses may be evidenced by the frequent use of wood shavings in combination with aromatic hop cones containing bactericidal and fungicidal substances. However, it has been observed that the presence of any lining made from organic materials can, under specific conditions, accelerate decomposition of the corpse, and also in the case of interments, promote skeletal decomposition.

The folk beliefs and convictions in the magical powers of trees, including their influence on the dead, have to some extent shaped local preferences in the past regarding, for example, the choice of raw materials for the coffins, other grave furnishings and house or pathway decorations (branches), or the whips used by hearse drivers.

In the 19th-20th century in Europe north of the Alps, there was a widespread conviction that the shavings, sawdust and waste produced during coffin manufacture should be placed with the deceased. For a more precise determination of the function of wood shavings in burials, species identification analyses of the wood and determination of whether it was obtained from deciduous or coniferous trees could prove valuable. The type of wood may be consistent with that used to produce the coffin. Different types of wood may have had a varying impact on the state of preservation of the remains.

Cushions and linings in burials in the early modern period became widespread with the increasing use of coffins. The vast majority of the archaeological sources included in the study come from modern crypts. Coffins were necessary for burials in a crypt or under the floor of a temple due to hygienic reasons. Plants were placed in them to help absorb moisture and mask odour. Covering the inside of coffins placed in crypts with sawdust, twigs, bark or conifer leaves was supposed to create a sort of air filter. Pillows were primarily intended to stabilise the body of the deceased and aid its dignified presentation in the coffin. However, a type of scented cushion which was filled with aromatic plants, can also be distinguished.

In the modern period, only bouquets, flowers, wreaths, garlands or grave crowns were intended for the eyes of the participants in the ceremony. Plants contained in cushions, linings and mattresses should rather be considered as grave furnishing element that was to remain hidden under pillowcases or fabrics which often incorporated their own decorative floral motifs. In the case of the plants contained in pillows and linings, more important than the symbolism is their relevance to the beliefs, economy, cosmetics and, above all, medicine and botany of the time which were syncretistically combined with magic and astrology, and relied on knowledge accumulated over the centuries from a wide variety of sources. Insights into these aspects are provided by modern herbaria and, in part, by traditional herbalism, the principles of which only began to be systematically archived from the 19th century onwards. Magical, economic and medicinal plants occurred more frequently in the linings than in the other types of the grave furnishings.

Following the rules of Hippocratic humoral medicine, the individual herbs described in herbaria were characterised by four qualities: hot, cold, dry and moist. The properties of the plants could reveal varying degrees (up to three degrees). They influenced the levels of the four humours inside human body: blood, phlegm, yellow and black bile. Health was to be guaranteed by maintaining the harmony of the humours (Geller 2015: 67). Worth mentioning is the fact that for grave plants were being chosen mainly those classified in herbaria as being characterised by their ability to heat and dry out. 'Hot' and 'dry' herbs usually possessed physical signs of vitality - a strong aroma, green colour, and often belonged to evergreens. Also, the scents emitted by plants were attributed with the ability to warm, cool, dry or moisten, for instance the aroma of ornamental flowers was cool while that of lemons or cloves was hot and dehydrating.

The production of herbal linings or cushions was not regulated by church rules. The subject was neither addressed in the Catholic liturgy nor in the funeral law regulations issued in Protestant cities. The written sources do not provide information on who was in charge of making coffin linings. It is likely that the people responsible for making them were ones who carried out the washing of the deceased or prepared the coffin.

It is possible that cushions and linings may have been created under the guidance of medically trained people, particularly in the case of funerals of individuals whose bodies were embalmed and then encased in coffins specially adapted for storage in crypts. However, it has not been possible to identify early modern medical formulas in the composition of grave linings which may pose a future perspective of further research on this topic.

It is not possible to reconstruct with certainty the motives that led non-professionals in the choice of herbs used in linings and pillows, as the sphere of folk herbalism has not been sufficiently documented in the sources and was probably characterised by considerable regional variation. On the other hand, it is very likely that, as in the non-professional medicine of the 18th-19th centuries in the lands of Poland, the resource of information on plants used during funerals was partly drawn from printed herbaria. However, it seems that uncodified natural knowledge, tradition and experience played the leading role.

The 'plague ordinances' had a significant impact on the spread of knowledge of plague prevention. The organised actions against epidemics undertaken by town councils after the catastrophic experience of the bubonic plague pandemic in Europe in the 14th century included, among other things, informing the public about the course, causes and ways of combating infectious diseases. The information provided was based on the humoral medicine. It was written down or passed on orally when an emergency arose. In the modern period, informative calendars and other leaflet prints appeared. However, it is difficult to determine the impact of information campaigns on the poorer strata of society and the real extent of the activity of doctors employed by town councils to treat the less affluent urban population. People belonging to the wealthier strata of society had access to private or municipal doctors,

from whom they could obtain information on hygiene and epidemic safety conditions (Płonka-Syroka 2020: 82-84).

In the modern period, mainly cultivated plants were used to fill pillows, mattresses and coffin bottoms. These included various cereals, straw, common hop, ornamental and edible plants along with crop weeds. This group is dominated by herbs of Mediterranean origin which in Europe north of the Alps are found primarily in cultivated form. In the fillings of cushions, mattresses and linings, plants collected from the wild were more often placed intentionally than in the rest of the grave furnishings. A sizable number of finds are linings formed as a result of a single harvest, from plants growing together in natural conditions, probably accumulated from one or more specific, co-occurring plant communities preferring specific types of natural sites (meadows, forest edge, scrub, crops, ruderal areas). Probably the most common, however, was the use of in-house reserves of economic and medicinal plants.

Compared to the rest of the grave furnishings, the composition of the fillings of cushions, linings and mattresses is characterised by the greatest variation in terms of species. However, there is a high proportion of plsnts incorporated accidentally, e.g., harvested together with grass or moss. The use of domestic and household waste in bedding is also highly likely. In particular, this may apply to linings prepared in winter, when plants available at home for other purposes – edible, medicinal or industrial, were used. From the 19th-20th century, there are accounts on coffins being lined with, for example, wood shavings from cleaning workshops.

In the case of grave linings, when analysing the plant composition of a burial, an individual approach is necessary. Regarding the aristocracy, the reconstruction of the supply of private apothecaries and gardens should be included in the analysis.

On the basis of the collected source materials, plant species that were used in burials in a similar way throughout Europe north of the Alps in the modern period, were identified. The most common plants chosen for this purpose include the common hop (*Humulus lupulus*) and aromatic plants from the *Labiateae* family, the umbelliferae (*Apiaceae*) and compound (*Asteraceae*). The results are consistent with the previous findings from the analysis of written sources on embalming of corpses in Europe in the medieval and modern periods (Corbineau and Georges-Zimmermann 2015: 165; Corbineau *et al.* 2018: 152).

The results of botanical analyses in the literature are presented in different ways which makes them difficult to compare. While archaeological findings from several sites have been presented in fine detail, in the majority of publications the subject of plants in burials is communicated with a lesser precision. Anna Drążkowska published results of research conducted in the Lublin Upland and the former Borderlands of the Republic of Poland. Those areas were screened to an advanced degree in terms of modern grave finds. The catalogue at the end of this book therefore includes numerous plants associated with the flora of the region. This has resulted in an over-representation of some of the wild species occurring naturally in the area, which may lead to the illusory impression of their greater importance in European modern burial ceremonies.

There is a high possibility that plants from garlands and bouquets blessed during church festivals may have been found in the modern grave linings and pillows. Later accounts on rural medicine in the lands of Poland reveal that blessed plants were kept in homes as amulets or source of medicinal raw materials, and they were sometimes placed in coffins (Köhler 2017: 44). This possibility is also suggested by the likely time of collecting of the plants which can be identified, in the case of several cushions resulting from a single harvest, as late summer (Święta-Musznicka 2012: 209). It is possible that plants ordained on 15th of August at Feast of Our Lady of the Herbs or Corpus Christi and the Precious Blood and during its octave, were used to create them.

Among the plants most commonly used for making linings, mattresses and pillows in Europe north of the Alps in the modern period was common hop (*Humulus lupulus*, Fig. 90). It was found in burials dating back to the first half of the 16th century. Nowadays, the plant's bactericidal and fungicidal properties have been proven. The use of hop is probably connected to the observed sedative and sleeping effects of the lupulin produced in its cones. In the modern period it was believed that, according to the view derived from Antiquity, herbs placed in bedding could influence people therapeutically and induce sleep. In addition to hop, other plants demonstrating soothing and calming effect were used in the preparation of linings, coffins and pillows, such as lemon balm, lavender, valerian or, regarded as a tranquilliser – dill.



Fig. 90. Common hop (Humulus lupulus)

The hops contained in the burials may have come from harvests intended for beer production. This suggests the use of only female specimens, and the frequent co-occurrence of hops and cereal grains in burials.

Of particular note is the use of poisonous plants, or plants considered to be harmful, in the linings and pillows. Toxic herbs probably served to disinfect coffins (in the contemporary sense) and to repel or kill animals that preyed on the corpse. Some of the finds would have to be linked to treatments of protective magic in defence against the deceased and protection of their souls after death.

Performing worship in temples, which were becoming also burial sites, was extremely difficult, especially during the warm months of the year. The odour from the crypts could provoke nausea and vomiting. Masses were then celebrated with the doors open, frequently outside the churches (Kallio-Seppä and Tranberg 2020: 9). The decomposition of organic matter was believed to generate miasma, the inhalation of which posed a risk of disease. Smells, according to the state of scientific knowledge at the time, were considered to be clouds of air carrying particles of a fragrant object. The miasma was thought to be a vapour of moisture rising with particles of rotting flesh, but also of wet earth or polluted water. They penetrated through the skin and via the nose reached the brain leading to infection (Kallio-Seppä and Tranberg 2020: 3). The strong scent and drying properties of the plants were believed to inhibit the release of miasma from the corpse.

Edible fruit and cereals are rarely recorded in medieval and modern burials. The presence of food in graves in Western Europe is explained as a consequence of pre-Christian burial practices. Early Christianity also adapted Roman customs of feasting on graves, but these were soon officially excluded from religious practice due to associations with pre-Christian forms of burial and worship of the dead. Also on Polish lands, early medieval finds are usually understood as a continuation or adaptation of elements of pre-Christian funerary rituals to the rules of Christian burial.

In the Middle Ages throughout Western, Central and Eastern Europe, communion of the dead was practised, which involved the laying of bread/grain, wine or vasa sacra – chalice and paten (or copies thereof), in the tombs. Communion of the dead would survive in France until the 18th century.

In the modern period, the grain which dies in order to be reborn again, was an important motif of funerary symbolism. The placement of grains in the tomb can be linked to the hope of a resurrection or Eucharistic symbolism. It is also likely that bouquets or wreaths ordained at church ceremonies containing agricultural produce, including cereal ears, were used to prepare coffin linings and decorations. Grains and parts of ears in burials may have found their way by chance together with the straw used to line coffins and burial pits, along with other household waste or as a result of post-depositional processes, for instance animal activity.

Modern finds of cereals and edible plants in burials from Polish lands do not differ significantly from Western and Northern European examples. One exception is the unique use of millet in the form of a dough or lump placed in the stocking in the burial of Bishop Walenty Wężyk in the Archcathedral in Przemyśl (Cat. J260). According to ethnographic accounts, anti-vampiric treatments involved the sprinkling of cereal grains or other crops into the coffins in order to focus the attention of the dead and thus stop them from emerging from the burial site. Evidence of this kind of anti-vampiric practices was perhaps recorded in the Holy Trinity Basilica in Strzelno (Cat. J8; Święta-Musznicka 2021: 209).

In rural areas of Central and Eastern Europe, food and drinks were deposited in coffins until the 20th century, which would have been a remnant of former customs prior to the adoption of Christianity. Grain and straw were also props of agrarian annual rituals performed at the turn of the seasons, including Easter and Christmas, which served a protective purpose, ensuring proper vegetation and revival. In popular culture, the apotropaic function of bread and all the equipment associated with its baking is clearly evident.

It is not possible to determine when single twigs and flowers began to be placed in burials, usually due to the impossibility of specifying whether finds of this type formed a stand-alone decoration in a burial or were part of larger constructions. This way of using plants began to be shown in sepulchral art from the late 16th century onwards. On Silesian tomb plates, people holding a single flower in their hands began to be depicted at the very end of the 16th century. The greatest number of images of this kind date from between the beginning and end of the first quarter of the 17th century.

Artificial flowers were not recorded in burials from the study area dating before the late 15th-early 16th century. It is difficult to determine whether artificial flowers were valued more than living flowers in the modern period. They were certainly more durable and therefore worked well for prolonged funeral ceremonies and as a funeral memento

that could be preserved for years. Artificial flowers would replace natural plants in the winter months, but wealthy people could make use of the resources of private conservatories and potted crops. Dried plants were probably also used to weave grave wreaths.

Artificial flowers emitted no fragrance which was their major disadvantage. For this reason, wreaths and bouquets made of artificial flowers were supplemented with organic parts of natural aromatic plants. Flowers have been the primary source of fragrance in cosmetics. In the modern period, they were considered by Protestants to be the only acceptable aroma, as opposed to genuine perfume, which was condemned as being extravagant. In the funeral law regulations of Hanseatic cities, the use of only natural flowers at the funerals of young girls were requested, due to concerns of immodest elaborate decorations. Wreaths, crowns and grave bouquets composed of artificial flowers shaped from brass wire evoked gold. They were supposed to give the impression of costly wares. Much rarer are the finds of wreaths/crowns decorated with noble metals, silk and natural pearls.

On the other hand, natural cultivated flowers remained fresh for a very short time and were impossible to obtain for most of the year, allowing some of them to be considered luxury wares. Like exotic spices, investment in which was considered wasteful by Protestants, cultivated flowers in the modern period represented a perishable good. This is probably one of the reasons why many species of ornamental flowers bearing symbolic meaning related to death, mourning and resurrection, most often depicted in funerary art, such as roses, tulips, lilies, anemones and forget-me-nots, were not discovered in burials. When it was not possible to acquire them at the time of the funeral and to keep them in good condition for a long time, artificial flowers were used, most often, however, not exactly mimicking any of the species existing in nature. It seems that drying tulips or roses in the modern period could hardly have been carried out with satisfying results, as they lost the intensity of their most essential characteristics - colour and fragrance.

Aroma appears to be one of the most important determinants in the selection of plants for funeral decorations. Up until the 16th century, perfumes made from damask roses, grown in the Middle East, were imported to Europe. In the modern period, adaptation of this rose species to climatic conditions of Europe north of the Alps was achieved. Items of daily use and clothing that were perfumed with the scent of roses, became popular in the 16th-17th centuries. These were mainly gloves (including gloves that were part of mourning attire), but also fabrics, buttons and artificial flowers (Dugan 2011: 49-52). The use of perfumed flowers and fabrics to decorate modern coffins cannot be ruled out. The placement of fragrance containers in coffins was mentioned by Edmund Kizik (Kizik 2001: 201). The discovery of a pomander fragment in one of the early modern burials at Płonków, should also be indicated (Cat. J5, Grupa *et al.* 2015b: 35).

Based on the collected evidence, it can be concluded that bouquets began to be placed in burials in the early modern period. Cut flowers were probably not used on their own until the end of the Middle Ages. Before that, they were only available in the form of flower petals, wreaths or garlands. In the late Middle Ages, floral arrangements were used as decorations at family celebrations, festivals and feasts (Goody 1993: 157-160). At the end of the 15th century, flowers in vases appeared in Northern European paintings, above all in scenes of the Annunciation as a realistically depicted attribute of the archangel Gabriel or a symbol of Mary's purity.

Bouquets developed as personal decoration in the 15th century. They were also carried for health reasons, as the aroma of the plants counteracted the foul air. It was not until the 16th century that bouquets came into general use as a decoration for living spaces, as indicated by the development of domestic furnishings dedicated to their presentation (Goody 1993: 187). A significant development of floral decorations in the private domain occurred in relation to the Reformation. Protestants abandoned the customs of decorating images of saints, the use of flowers in worship and in religious art. While flowers were expelled from churches, floral still lifes were created in the Netherlands and northern Germany for private art collections (Goody 1993: 186). Bourgeois patronage and the demand for works of art for individual purposes developed.

Bouquets in the early modern period were placed in the folded hands of the deceased. They were also put on grave linens or attached to clothing on the body of the deceased. They were sometimes located on the lid of the coffin. Structurally, modern bouquets resemble grave wreaths which might make them difficult to distinguish from other coffin decorations inside the tomb. Bouquets, such as the wreaths, were created from natural plants combined with artificial flowers. Examples made exclusively from natural plants are found much less frequently. Special holders were used, or bouquets were only tied with a ribbon or a cord.

Bouquets composed of medicinal and aromatic plants had primarily decorative, but also hygienic and apotropaic functions. Similar to wreaths, bouquets were placed in the coffins of young people, brides and bachelors. They were produced from plants symbolically linked to the nuptials. Analogous to the grave wreaths, in the bouquets mainly aromatic evergreen plants were employed, such as boxwood, rosemary, common oregano, hyssop, myrtle, orange tree, as well as spices: cloves, juniper berries, nutmeg. In coffins, bundles of plants are also found, scattered irregularly over the corpses. This kind of bunches of herbs were unlikely to have served as decorations.

Representations of bouquets in Silesian grave art are most common for the first half of the 17^{th} century. They were depicted in the hands of the deceased. Bouquets in vases appeared on tombstones in the second half of the 17^{th} century.

The second half of the century is characterised by a general decline in the number of tomb panels with representations of the standing deceased, adorned with flowers, bouquets, wreaths or garlands. Nevertheless, they continued to occur throughout the whole century. In the late 17th and early 18th centuries, depictions of the deceased on tombstones and epitaphs were characterised by an elaborate narrative, with flowers appearing not only as personal attributes but also as staffage, background symbols, borders and still lifes.

In the 17th century, bouquets of flowers were depicted in *vanitas* still lifes. The impermanence of flowers was associated with the shortness of human life. In the modern period, the bouquet motif appeared on coffins, mourning prints, epitaphs and also posthumous portraits.

Medieval written and archaeological sources sporadically feature wreaths and branches used at funerals. These

references are extremely rare and there are also no known iconographic representations that show the use of floral decorations at funerals at this time. Certainly, the choice of evergreen plants for this purpose is characteristic. In ancient Rome, evergreen plants were dedicated to Pluto and used in rituals to honour the dead. In the Middle Ages, evergreens were known primarily among the elite. Portraits have survived showing young men and maidens with green wreaths of Mediterranean evergreen herbs on their heads. In Europe north of the Alps, procedures for embalming the bodies of the dead using plants of foreign origin were in use among the wealthiest strata of society at the end of the Middle Ages and the beginning of the modern period. The plants used to produce the wreaths used at funerals and the plants planted near graves at this time also belonged to evergreen species.

It seems that the development of the bouquet and grave wreath in forms such as those described in this study should be placed only at the end of the 15th century and the beginning of the early modern period. However, the continuation of the concept itself of the use of the wreath during burial from the Middle Ages onwards is not excluded. This may be indicated by the preference for evergreen plant species in modern wreaths as in the Middle Ages, although the similarity may be a result of drawing on antique models in both eras. Wreaths of artificial flowers and decorations made of inorganic and organic parts, probably came into use at the beginning of the modern period.

The oldest grave wreaths, similar in form and construction to modern ones, have been found in the Netherlands. They date from the 15th century. Wreaths of natural plants and crowns began to be depicted on tombstones and epitaphs in the second half of the 16th century. In the St James cemetery in Toruń, the oldest grave wreath were recorded in layers dated to the half of the 16th century (Sulkowska-Tuszyńska 2022: 115). Most depictions for Central Europe date between the 1670s and the end of the 1730s. The number of depictions dominates the number of archaeological finds from to the same period. In the second half of the 17th century, the popularity of images of the dead crowned by angels increased. The widespread adoption of the custom of placing of wreaths and crowns in graves in Europe from around the mid-17th century is evidenced by the numerous archaeological finds and commemorative objects preserved in museum collections.

Grave wreaths in Germany are found mainly in areas where Protestant denominations prevailed, although they were also used in Catholic ceremonies. In the 17th century, the use of wreaths at funerals were reintroduced in England, after a brief period of decline for religious reasons (Goody 1993: 202-204). The maiden wreaths or crowns are preserved in several churches, as the funeral mementoes (Morris 2003: 333-335). The appearance of grave wreaths in England is most likely linked to German or Dutch influence. The term, by which they were referred to ('crants', 'cransties'), can attest to this claim (Morris 2003: 333). Ethnographic accounts indicate that in the 19th century grave wreaths were known throughout Europe, mainly among the lowest strata of society, and beyond - in Siberia and the Americas. Grave wreaths were used longest in Germany, until about the middle of the 20th century.

The origins of the custom have not been explained. The most likely hypothesis is that it refers to an ancient tradition or is effect of a continuation and modification of a medieval one. Wreaths were used at funerals and ceremonies in honour of the dead in Antiquity. In ancient Rome, people who obtained a wreath during their lifetime for merit in war, artistic activity or religious service, were entitled to be buried with it on their head. The earliest mention of wreaths being placed on the heads of the newly baptised dates back to the 7th century in Alexandria (Łuczaj 2012: 229). The Greek Church also adopted the custom of using wedding wreaths. In the Middle Ages, wreaths were incorporated into the tradition of celebrating Corpus Christi. The feast was officially established in 1264 by Pope Urban IV. In the 14th century, during the feast processions towns and participants were decorated with floral wreaths and petals. In Germany, the day acquired the name Kranzeltag (in German 'Wreath Day'; Łuczaj 2012: 229).

The oldest documented burial of a person wearing a wreath of plants on the head is believed that of Werner von Oberwesel which took place in the 13th century (Segschneider 1976: 16). However, the wreath, in which Werner was buried, should rather be understood as a symbol of his martyrdom. The hypothesis of the origin of secular wreaths from church ceremonies in the Middle Ages is insufficiently supported. It is more likely that they initially appeared among lay people as a remembrance of ancient flower offerings on altars, before being admitted to official cult. In Western European culture, a revival of wreaths uses in secular contexts occurred in the 12th century among the elite, as a result of a return to the ancient tradition. In the 13th century, a floral wreath was depicted on the tombstone of the minnesinger Heinrich von Meissen in Mainz Cathedral, as a reference to the ancient custom of wreathing poets (Lauffer 1916: 230).

In the Middle Ages, wreaths were worn at religious and secular ceremonies, festivals, dances, and homes were adorned with them. They were used as personal ornaments, parts of the attire attributed to maidens and bachelors, or love gifts for engagements or weddings. From the 12th century onwards, they became a symbol of servitude – a wreath could be given both when paying homage to a vassal and to a lady of the heart. They were also used to decorate winners of competitions, tournaments and poets.

Metal diadems which may have been decorated with sprigs of natural plants, have been discovered in medieval layers in urban areas. In Poland, head ornaments known as headbands or diadems, decorated with metal appliqués, were also found in female burials from the 12th-14th century. In Germany, the type of wreath worn on the bride's head during the wedding ceremony developed considerably earlier. Wedding wreaths were primarily made of rosemary and later of myrtle. Only the maiden was allowed to wear a headband or wreath. The medieval tradition of differentiating between married women and maidens by means of dress and headdress undoubtedly influenced the equating of the wreath symbolic meaning with the virgin status symbol.

In late medieval testaments occasional references are made to the use of floral wreaths at funerals in the Netherlands. These texts suggest the existence of customs of decorating the coffin with wreaths and wearing of wreaths on the heads at the funeral. In particular, the wills mention evergreen species – periwinkle, ivy, laurel, marjoram, but also roses, which may have been symbolically associated with mourning in the Middle Ages (Corbineau 2014: 80). However, there are not known iconographic representations depicting the use of wreaths or flowers at funerals in late medieval Europe. Medieval wreaths cannot be attributed to the deceased of a particular gender or age.

In the early modern period, wreaths were still in use as part of the costume. Specialised wreath makers operated in the cities. With the development of Protestant piety in Western Europe, the custom of wearing wreaths began to be criticised, as they were associated with Catholic ceremonies (Łuczaj 2012: 230). There was also a reaction against folk celebrations, being qualified as a manifestation of 'paganism'. Secular wreaths became a sign of extravagance, lack of decency, and were associated with folk divination or games, during which they were most often worn.

One hypothesis of grave wreaths development in the early modern period put forward by Gerhard Seib, is that they originate from folk piety (Seib 1979: 114). This is a highly probable path of grave wreaths formation, but one that is difficult (impossible?) to be documented through archaeological finds. The custom of crowning the heads of the dead became widespread at the end of the 16th-17th centuries, probably as a result of religious changes and a reaction to the Protestants' rejection of the need to pray for the dead.

The Catholic Rituale Romanum published in 1614 stated that the coffins of baptised children should be decorated with flowers. It was customary in many regions of Germany that a grave garland for a deceased child was purchased by the godparents, as confirmed by bishops' orders from the 16th century. The law regulations placed great importance on baptised children being buried with a wreath. Attempts to regulate this issue legally indicate that the custom of placing wreaths on the heads of deceased children may have been practised on a significant scale at the time. Up to that point they probably belonged to the unofficial sphere of folk piety. Until as late as the 15th century, the burial of unbaptised children in cemeteries was not permitted. In the modern period still, despite the lifting of these restrictions in Germany, their burial may have differed from the average. It is likely that children were buried with wreaths as a headdress attesting to their baptism, as an equivalent of the sacrament itself.

There is also a clear link between the grave wreath and the headdress worn by the bride on her wedding day. Wreaths are mainly found in the graves of young people and children. Funeral ceremonies for people who did not receive the sacrament of marriage in the modern period included references to the wedding. This is also indicated by the clothing of the deceased resembling wedding garments or emphasising the innocence of the deceased child, and the use of grave bouquets, as can be seen in portraits. Recurrent references to the *Song of Songs* are also noticeable in sepulchral art. Marrying the soul of the deceased to Christ during a funeral served a protective function. The tradition of nuptials at a funeral (German *Totenhochzeit*) continued in European culture until about the middle of the 20th century.

On the other hand, the origin of wreaths and grave crowns could perhaps be placed in the ceremonies of rulers and nobles, which were enriched with references to ancient ceremonies and triumphs. Elite funerals have been the subject of imitation by the lower strata since the Middle Ages.

Wreaths were made from plants with similar properties and external characteristics: small-leaved, evergreen, strongly aromatic, mostly of Mediterranean origin. Leaves, fruit, dried seed bags and seeds from medicinal and utility plants were used to decorate them, and to create imitations of flowers or jewels. The base of the wreath could be formed by hoops made of flexible branches of natural plants, wood or bark. Natural flowers were rarely used to create grave wreaths (or crowns). Artificial flowers were instead connected with herbaceous parts of natural plants. It was probably the green colour and the intense fragrance that influenced the choice of plants for the construction of wreaths. One of their more important functions was to mask the unpleasant smell of decay. The same species, or plants with similar characteristics, were used to create other forms of decorations to be placed inside and on the coffins. They were also used to fill coffin cushions and to embalm the bodies.

The plants used to make garlands were formerly classified as warming and drying. Some were considered to repel parasites, heal inflammations, skin infections and even to ward off snakes and neutralise venoms. The green colour associated with vitality and longevity meant that they were attributed an apotropaic role. Among the plants used in garlands, evergreen species predominate, which can symbolise a prematurely deceased person or the hope of Salvation and eternal life. The choice was probably also influenced by fashion, as evergreen species such as boxwood and rosemary, have been favoured in elite horticulture since the Renaissance. It is also significant that, thanks to pot cultivation and in conservatories, evergreens have become available for most of the year.

The species woven into garlands were mainly those foreign to the areas of Europe north of the Alps. For the most part, these are plants that were first brought from Southern Europe in the Middle Ages and were still not widely distributed in the modern period. Parts of exotic plants have been found in grave wreaths, such as the seeds of a pumpkin imported from South America. The display of imported plants, the purchase of which was initially associated with considerable expense, was a manifestation of the wealth.

In the modern period, collecting exotic plants and animals and an interest in scientific developments in biology or horticultural techniques became a pastime of the elite (Jagiełło-Kołaczyk and Brzezowski 2014: 108). In the process of cultural adaptation of plants from the south in Europe north of the Alps, a significant role was undoubtedly played by the reading of Scripture which became widespread through the Reformation and translated into the national languages, along with classical education based on knowledge of Greek and Roman literature, mythology, philosophy and art.

The creation of medical-herbal compendia which were printed guides to the botany created for use by laypeople to enable them self-medication, revolutionised the way in which knowledge of plants could be accessed and reproduced. Supplied with illustrations, herbaria made it possible to identify local plants and as well become familiar with foreign species. In addition to medical knowledge, herbaria provided an insight into the legacy of European natural science, developed since ancient times. Along with information about plants, the cultural traditions associated with them were also drawn upon.

The spread of the botanical knowledge and symbolism of Mediterranean plants is also linked to the development of emblematics and the arrival of personifications, allegories and emblems in the iconosphere. Emblems and allegorical still lifes were placed on coffins, sarcophagi, funerary equipment and also used in works of art commemorating the dead. Vegetal decoration was spread as well thanks to the inflow of imports from cultures where art based on independent floral motifs existed – Japan, China, India and the Islamic world, to modern Europe (Goody 1993: 208).

In the materials collected for the study, no strict correlations between the sex and age of the deceased and specific plant species were discerned. Such variation can be seen in the context of the form of use (flower, twig, wreath, bouquet), rather than the selection of plant species for the coffin, but there are also exceptions. Many plants were employed without restriction, for example boxwood was used both to cover the bodies of adults and to create wreaths for children. A link between the cause of death and the general health of the deceased and the botanical specimens placed in his tomb has not been observed either, apart from the presumed traces of medicines of plant origin applied probably while still alive or perimortem.

The recorded increase in the use of plants in funerary ceremonies in the modern period, especially during the Baroque era - from the late 16th-1760s, was mainly result of the tendency to elaborate funerary ceremonies. Furthermore, burials in crypts became widespread during this period. In contrast to the medieval tradition of sewing the body inside a textile, robe-like shrouds uncovering the face and hands came into use in the 16th century which then evolved into mortuary shirts. The uncovered surfaces of the bodies began to be decorated, also using plants. Corpses were temporarily preserved, also with the use of plants. Preparing the body for burial in the crypt also required the application of plants for aromatisation, preservation and the creation of an absorbent lining. Plants were important decorative symbols that were depicted at the equipment used during the ceremony: coffins, sarcophagi, funerary fabrics, and in the composition of catafalques or castles of sorrow. The modern period also witnesses the development of various types of artworks commemorating the dead, featuring floral symbols. While awaiting burial, representational portraits were made, for which the body was probably stylised with expensive fabrics and flowers (fig. 91).

The dominance of crypt finds can create an apparent perception of the luxurious nature of the custom of placing plants in burials. In the case, where the plants applied are rare, exotic, difficult to obtain, expensive species at the time of their deposition, they may be considered a manifestation of wealth.

The current state of research indicates that, in the past, a dynamic took place in funerary customs, leading from the most privileged groups to the lowest. The richest elaborated ceremonies to widen the gap between social strata while the poorest sought to shorten this distance by adopting the customs of the elite. The largest body of information on bourgeois burials relates to the 17th and 18th centuries, for Polish lands being a time of reduction of material disparities between the nobility and urban residents. In contrast, the greatest amount of information on plants in burial ceremonies in the rural areas and among commoners comes from the 18th and 19th centuries. This is most likely due to the rise of ethnographic interest, the superior state of preservation of more recent finds, but may also indicate a 'renaissance' of elite funerary customs among the lowest strata of society.

The end of the period under study is characterised by a departure from modern emblematics. The antique heritage was being read and reworked. Motifs in the arts and crafts associated with funerals continued to be drawn from the heritage of Antiquity. Funerary symbolism in the 19th century became standardised through the introduction of mass-produced funerary equipment. Plants such as poppy, palm, laurel, rose and ivy which were well-known in earlier funerary art, continued to figure in the resource of sepulchral symbols. However, they acquired meanings relating to specific terms and not, as before, concepts and narrative stories. There is a distinct tendency to use coniferous tree branches, as in funeral garlands of today. Coffins were lined primarily with wood shavings and sawdust, but also with hay and straw. Triumphal wreaths appeared which no longer had any connection with the virginity of the person buried. Maiden wreaths, however, continued to be used into the 20th century.

The overall picture of the era was significantly influenced by demographic changes in the cities which involved the migration of the rural population along with their funerary traditions and customs. The emergence of urban crypts, in which people with a different social and economic status were buried, should also be noted. The catalogue of this study also includes a small number of finds from rural cemeteries and churches from the 18th--19th centuries.

Ornamental flowers and exotic plants which had been brought to Europe from the Americas much earlier, were only identified in burials dated to the end of the early modern period (date palm, globe amaranth, Mexican marigold, apple-of-Peru). While this may be due to a long process of adaptation of new horticultural acquisitions, could also be the result of a phenomenon that involved a transfer of emphasis. Plants and furnishings, previously considered luxurious and representative, became so widespread at the end of the modern period, that wealthy people began to turn to newly imported species. This mechanism may also have been responsible for the flourishing of the custom of using grave wreaths in the rural areas, while it was rather obsolete among the other social strata.



Fig. 91. Portrait on the bed of state of Wilhelm von Sachsen-Weimar who died on the 17th of May 1662, Weimar, currently: Skokloster Castle