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

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5. EDIBLE PLANTS IN BURIALS

5.1. Cereals and flour crops

Cereals played an important role in rituals related to agriculture, fertility and death in many pre-Christian cultures and the triad of meanings may be archetypal (Hansson 2005: 53; Lurker 2011: 428-431). Cultivated cereal grains were used in funerary ceremonies, the preparation of burials, and the commemoration of the dead in ancient Egypt, Greece and Rome and its provinces (Marinval 1993).

Cereals have been found in Viking (7th-11th century) cremation burials. They were burnt together with the body or thrown on top of the incinerated remains of the pyre. They could also be placed in the grave as fodder for horses buried with the deceased or lining under the corpse. In Scandinavia from the Neolithic through to the early Middle Ages, the burial sites were located among agricultural fields, which is considered to be evidence of an ideological connection of agrarian and sepulchral beliefs (Hansson 2005: 54).

The sacrificial feast which can be described as a kind of 'communication' or 'communion' with the deity, was practised in many cultures in different parts of the globe. The Christian Eucharist has its origins in ancient mysteries, a combination of agrarian rituals and beliefs concerning the afterworld, during which sacrifices were offered and consecrated bread and wine were consumed.

For people from antique Greece or Rome, bread and wine represented the basic foods needed for everyday life. The importance of food as a sacrifice, is based on the principle that it is necessary first to destroy raw material (sacrifice) in order to achieve its transformation, for instance grain dies in the ground in order to grow new ears, it is ground to make bread, grapes are crushed to squeeze out the juice (Lurker 2011: 423-427). Christ in the *Gospel of Saint John* directly refers to himself, or his flesh, as bread: "I am the bread of life. Your ancestors ate the manna in the wilderness, yet they died. But here is the bread that comes down from heaven, which anyone may eat and not die. I am the living bread that came down from heaven. Whoever eats this bread will live forever. This bread is my flesh, which I will give for the life of the world" (John 6:48-51).

The second source of the Eucharist is the Jewish Passover supper held to commemorate the Exodus from Egypt. On Passover, the Jews ate a roast lamb, two unleavened breads and bitter herbs (Starowieyski 1987: 31). The feast began with a blessing and the breaking of bread. At the end, the father of the family (or spiritual leader) recited a prayer of blessing and thanksgiving over the chalice of wine, from which Christians took the name of the rite (from the Greek *eucharistia* – 'thanksgiving'). This ritual in remembrance of the last Passover supper with Christ which was repeated by his disciples and the first Christians in Jerusalem. The Eucharist which soon took shape as a rite separate from the Jewish religious rituals, referred in form to the less elaborate Sabbath supper cel-

ebrated every Friday evening (Starowieyski 1987: 35). In the first centuries of Christianity there was also a liturgical meal at a communal table, called *agape*, which declined over time (Starowieyski 1987: 37).

The earliest description of the Eucharist comes from the second century AD in the *Apology of Saint Justin*. After the reading of the Scripture, the celebrant recited prayers and thanksgivings over bread and wine mixed with water. The food and drink were then distributed to the worshippers, and delivered to the absent members of the congregation (Starowieyski 1987: 38). The customs of keeping consecrated bread in homes, carrying it to the sick and prisoners, taking it on journeys and sending it to bishops were practised. The first prohibitions of such practices began to be forming in the 4th century (Starowieyski 1987: 24).

In the early days of Christianity, Christ's presence in the Eucharist was understood to be complete, and the bread and wine were regarded as the true body and blood of the Saviour, even beyond the duration of the rite. In later centuries, as Christianity moved beyond the ancient world, the nature of Christ's presence in the Eucharist became a matter of dispute. In the Middle Ages, the dogma of transubstantiation was accepted in the Roman Catholic Church[1].

In the church in Western Europe, liturgies developed individually in different cultural traditions (Starowieyski 1987: 45). The Eucharist in the Middle Ages underwent changes related to its transfer beyond the Greco-Roman world. Above all, wine and bread made from wheat were not the staple food of people living north of Mediterranean cultures. Moreover, the Christianised Germans grew out of a different symbolic tradition, which emphasized the material impact of objects.

In the Middle Ages, the Eucharist lost its original character as a sacrificial mystery, a thanksgiving feast and a meal to unite the worshippers. It was received very rarely, about three times a year. Masses were evolved into religious services without the celebration of the sacrament of the Body and Blood of Christ (in the late Middle Ages 'dry masses' in Latin *missa sicca* were introduced). The importance of the Eucharist as a sacrifice was only attempted to be restored during the Council of Trent.

For the Western European communities of the early Middle Ages, the presence of food in graves is explained as a legacy of pre-Christian funerary practices. In France, western and southern Germany, in the territories of the Franks and the Alans, in graves are discovered whole vessels, charcoals and leftover food (animal bones, eggshells, fruit stones). The finds are usually interpreted as a pagan meal for the dead, although this explanation is now being challenged by authors who consider the ashes to be the remains of censers, which was not incompatible with Christian ritual at the time (Gärtner 2009: 215). The broken vessels, coals and food remains, on the other hand, are supposed to be evidence of communal feasting on graves. For the early Christians, feasting on the grave was an acceptable part of the funeral and a form of commemoration of the dead. Under the cathedral of Xanten in North Rhine-Westphalia, a double tomb of Christian martyrs from around 400 AD was discovered. In the vicinity of the grave, consumption waste, interpreted as traces of feasting, was found. From the 4th century onwards, the Church opposed the customs of feasting on graves, considering them to be manifestations of paganism (Gärtner 2009: 221).

Also on Polish territory, early medieval finds are perceived as the result of the continuation or adaptation of pagan burial practices to the new Christian burial rules. Traces of fire burning, cereal grains and remains of other useful plants such as peas, hazelnut, vines, hemp, black mustard or poppy are found in graves, deposited in vessels, various kinds of containers or in some other form. These types of grave gifts have traditionally been attributed a magical function, with an orientation towards Slavic Central-Eastern, Eastern and South-Eastern Europe in search of explanations (Kurasiński *et al.* 2018: 176). Atypical grave furnishings are also thought to indicate the persistence of customs associated with offerings to pre-Christian deities (Wawrzeniuk 2004: 150-151).

[1] In the Roman Catholic Church today, it is accepted that during the Eucharist the bread and wine undergo a real and permanent transformation into the Body and Blood of Christ (Starowieyski 1987: 21-22). Lutherans believe in the real presence of Christ in the bread and wine only during the sacrament (consubstantiation), Calvinists in a spiritual presence, other denominations: Baptists, Pentecostals consider the sacrament to be a commemoration of the Last Supper, Orthodox believe in a real transformation through the Holy Spirit.

There are also few proposals for a new interpretation of the furnishings of early medieval burials which attempt to explain phenomena hitherto regarded as pre-Christian, or as reminiscences of paganism, in Christian terms, particularly with regard to graves from cemeteries close to the centres of the new faith in Western Europe (Wittkopp 2009: 190-193).

Among the items of grave equipment discussed, indirectly related to the plants are sickles. In *Revelation*, the end times are described using the metaphor of the harvest: "I looked, and there before me was a white cloud, and seated on the cloud was one like a son of man with a crown of gold on his head and a sharp sickle in his hand. Then another angel came out of the temple and called in a loud voice to him who was sitting on the cloud, 'Take your sickle and reap, because the time to reap has come, for the harvest of the earth is ripe.' So, he who was seated on the cloud swung his sickle over the earth, and the earth was harvested" (Rev 14:14-16). According to Blandine Wittkopp, sickles found in monastery cemeteries are the 'divine instruments' of *Revelation*, and should be considered as Christian grave furnishings alluding to visions of the end times. Perhaps the sickles in the graves can also be understood as Eucharistic symbols through the obvious connection to the harvesting of grain for bread (Wittkopp 2009: 192-193).

In Central Europe, burials with sickles have been found dating from the early Middle Ages to modern times (16th--18th centuries). The iron sickle in the tomb is most often

interpreted as a means of trapping a demonic being in the grave, into which it was believed the dead belonging to specific categories, such as the excluded, disabled or suicides could turn. This explanation is rather applicable to early modern burials. Recently, a grave of a woman with a sickle at her neck and a padlock on her foot from the 17th century was discovered in Pień, in Kuyavian-Pomeranian Voivodeship in northern Poland. The discoverers assume that this is the burial of a person suspected of becoming a vampire, and iron objects were supposed to hinder her from getting out of the grave (*Pień, badania archeologiczne*, n.d.). For burials from the early Middle Ages, several explanations have so far been proposed. Besides an apotropaic function, sickles in graves may be considered the sign of a farmer, a warrior or a wealthy person (Polcyn and Gajda 2015: 1381).

Throughout early medieval Christian Western Europe, the so-called communion of the dead (in Latin *communio mortuorum*) was used as a variant or development of the viaticum. It included placing consecrated bread and wine, or one of two forms of communion, with the deceased in the tomb. The earliest traces of communion of the dead date back to the 4th century. Glass ampullae, chalices and patens have been found in burials, especially of clergy. Unfortunately, it has not been proven whether these vessels originally contained wine or bread. References to this are provided only by historical texts, e.g., in the tomb of the Bishop of Lausanne, Roger de Vico-Pisano, who died in 1220 (Cat. M9), a wooden chalice containing grains was discovered. Wine in a lead chalice and bread on a paten were probably placed in the tomb of the Bishop of Angers, Nicolas Gellent (Cat. F4) in 1290 (Dąbrowska 2008: 166). Traces of perhaps wine and host were found on the walls of a chalice and paten placed on the coffin of an unknown clergyman (Cat. O34) buried in the 13th century at Lichfield Cathedral (Gilchrist and Sloane 2005b: 175). Chalices and patens made of cheaper materials were also placed in graves of lay dead. Fragments of wax chalices were discovered in the parish church of the Sacred Heart of Jesus in Żary, in western Poland.

Communion of the dead was opposed as early as the 4th century at synods in North Africa, but repeated prohibitions suggest that the practice did not cease until at least the 9th century. The profanation of the host remained undefined, for instance according to the 8th century *Life of Saint Basil*, he kept a fragment of consecrated bread to be buried with it. In later centuries, the chalice and paten in the tomb were primarily markers of priestly dignity, but burials of lay rulers equipped with liturgical utensils are also known. Communion of the dead was to persist into the modern period, as evidenced by the records of custom of laying of wine and hosts beside the corpse in the funeral ceremonial of the bishops of Paris in 1763 (Dąbrowska 2008: 167).

The grain or bread in medieval Christian burials was communion and a guarantee of protection from evil for those who did not manage to receive the viaticum. In

light of the literal understanding of the afterlife and Resurrection in the Middle Ages, consecrated bread, wine or grain, as well as other items of grave equipment, were characterised by a causal rather than symbolic action. At the funeral of Emperor Henry IV in 1106 in Liège, participants were told to scatter old grain on his coffin, mix it with new grain and sow it "hoping thereby to obtain an abundant harvest" (Dąbrowska 2008: 165-166). Western European materialism which h also underpins the cult of relics, sanctioned the belief in the transmission of holiness or power through material objects. Thus, the belief in the causal force contained in grain or straw did not conflict with Christian spirituality. It is therefore not necessarily a manifestation of the remnants of ancient pagan beliefs, although can be considered as evidence of a magical way of thinking present in the Middle Ages.

According to classical views, offering of gifts to the deceased which are necessary for their posthumous journey or to guarantee their stay in the afterlife, was transformed in the late Middle Ages and the modern period into the offering to the Church on the funeral occasion. The origins of the wake, or refreshments for funeral participants, are also traced to pre-Christian rituals. Those who provided service to the dead in the early modern period, received gifts of an apotropaic nature – bread, sprigs of herbs or fruit, for protection against the stench of the corpse. The wake which was limited in Protestant cities because of the moral scandals that often accompanied the consolations, involved refreshments consisting in the humblest version of alcohol and sweet cakes.

In Central and Eastern European villages in the 19th and early 20th centuries, food and drinks, including alcohol, were placed in the coffins, which is also sometimes explained as a remnant of pre-Christian funeral rites that were supposed to be preserved among the folk in a slightly transformed form (Fischer 1921: 165-166). In Eastern Europe, elements of the old Slavic rites, involving leaving food for the dead, may have survived into contemporary times. In Belarus, celebrations in honour of the dead featuring eating and leaving eggs, bread or cereals on graves are still alive today. In eastern Poland, the custom of digging or eating eggs on the graves of ancestors was practised until contemporary times (Wawrzeniuk 2004: 151). In the Orthodox Church, during funerals and memorial services a wheat dish called *koliva* is blessed, which originated from the ancient Greek feasts in honour of Dionysus.

In traditional folk culture, the apotropaic function of food is very clear. Food played the role of means of communication with the spirit world. It was expected that thanks to food offerings these contacts would not have negative effects on the living. Protection was especially necessary at liminal moments, such as birth and death. When the corpse was displayed in the house, the coffin was surrounded by food, visitors of the home of the deceased were fed and a feast was held after the funeral. In the rural areas of Poland, grain was sometimes placed by the coffin in a pot with a candle stuck on it. Grain was also sprinkled on household items touched by the coffin to cleanse them of the taint of death which harmed any vegetation. It was believed that a person who touched the corpse, should not graft fruit trees or sow grain (Fischer 1921: 225).

The apotropaic role of bread is manifested in numerous customs associated with transitional moments in life – birth, baptism, the introduction of a child into the community, nuptials and funerals. In folk culture, the baking of bread was understood as a supernatural transformation similar to the pregnancy (Walęciuk-Dejneka 2010). Also in German language, the words *Laib*, *Leib* and *Leben* ('loaf', 'body', 'life') share a common root origin (Lurker 2011: 433).

Adam Fischer, in *Funeral Customs of the Polish People*, listed a number of traditions involving placing of food, groats, bread, grain, fruit or drinks near the corpse which were known in the lands of Poland, Belarus, Ukraine, Russia, Romania, Bulgaria, Slovenia, Czech Republic, Germany, France, Italy, Scotland, Ireland, and among Polish Jews. Food was left for the returning soul (Fischer 1921: 193-201).

The pouring of seeds or grains into coffins, as described by ethnographers, was a way of protection from the revenant who, before leaving the grave, was forced to count or collect all of them first (Kurasiński *et al.* 2018: 182-183).

In the modern period, Eucharistic or Resurrection symbolism of grains seems to have played a key role in its intentional placement in graves. Remembrance of the ancient meanings of grain as a sacrifice which dies in order

to be reborn, was sustained in the modern period through Scripture. It interacted with the Baroque philosophy of the futility and transience of the material world.

The comparison of human death and resurrection to a seed that dies to later sprout again is contained in the Scripture. In the *Gospel of St John*, Christ explains the essence of the resurrection through death by comparing Christians to grains of wheat: "Jesus said to his disciples: 'Very truly I tell you, unless a kernel of wheat falls to the ground and dies, it remains only a single seed. But if it dies, it produces many seeds. Anyone who loves their life will lose it, while anyone who hates their life in this world will keep it for eternal life'." (John 12:24-25). In a similar way, St Paul explained the meaning of the resurrection in his *Letter to the Corinthians* (1 Cor 15:42-44).

On the basis of the Gospel parable and with reference to quotations from Isaiah's prophecy (Isaiah 40:6), emblems with representations of crops, gardens, hay, harvest and fields were created in the modern period to illustrate the concept of the shortness of life and mortality. The warning of inevitable death for all was combined with the hope of Resurrection expressed in the texts under the emblem icons. Typically, the meaning of the emblem motto was that death was a necessary condition for eternal life.

An emblem with a skull, from which grow three ears of grain, was depicted on the tombstone of Elia Jakisch and his daughter Barbara from the Evangelical church in Twardogóra (district of Oleśnica in Lower Silesian Voivodeship), created after 1677 (Cat. J88). The motto refers to the short duration of human life, analogous to vegetation of plants[2]. A similar emblem was placed on the tombstone of a woman who died in 1676, which is located in the wall of St Andrew's Church in Środa Śląska (Lower Silesian Voivodeship).

Bouquets of cereal ears and flowers are held in the hands of deceased children on tombstones from Silesia. Ursula von Promnitz (Cat. J179) was depicted with a bouquet of poppy flowers and ears of grain in the Church of St John the Baptist in Dzietrzychowice. Several ears are shown in the hand of Anna Maria von Hund (Cat. J92) on a tombstone from Oława, from around 1618 (Stankiewicz 2015: 97-98).

[2] It says: „Wie die Frucht im Sommer reisst so der Tod uns greifen".

Cereals have been a dietary staple for centuries. In the late Middle Ages, the percentage of cereal remains found during archaeological excavations carried out in cities of Kraków and Gdańsk was lower than in the preceding centuries, which may reflect development of trade and the changes taking place at that time in the system of its processing. From now on it was mainly taking place outside the city walls (Mueller-Bieniek 2012: 82). The most widespread flour cereals were wheat and rye and the less commonly consumed barley. In the modern period, wheat was much more expensive than rye. Flakes and groats made from oats were also consumed, although oats, like barley, were mainly fed to animals (Badura 2011: 193). Barley was also used for beer brewing. Straw of rye and wheat served as a roofing material (Mueller-Bieniek 2012: 81-82).

A possible reason behind the discovery of cereals inside burials is the use of straw coffin linings and straw-filled pillows, or employing of straw during the ablution of the deceased's body. In this way also grains may have been transported to the burial unintentionally.

A single fragment of a burnt cereal grain was found in the material from the coffin filling of a woman in the cemetery at the former Cistercian convent in Koszalin (Cat. J267) who died at mature age (*maturus*) between the mid-13th and early 14th centuries. Its state of preservation did not allow the taxon to be determined (Abramów *et al.* 2015: 208).

Furthermore, grains, ears of grain and cereal fragments have been found in early modern burials. In a sample from the lining of the coffin of the nun Johanna Dorothea Maria von Estorff (Cat. H109), deposited in the crypt beneath the Chapel of Saint Barbara in Lüneburg, in addition to the remains of the common hop (*Humulus lupulus*), 3 fragments of ears and 3 whole ears of rye, about 8 hulled grains of oats (*Avena sativa* L, Fig. 64), a whole ear of lopsided oat (*Avena strigosa* Schreb.) and a fragment of a barley husk were determined (Wiethold 2005: 31). Lopsided oat (*Avena strigosa*), now a field and ruderal weed, was cultivated until the 19th century (Lityńska-Zając and Wasylikowa 2005: 106). Rye, oats and barley were found in the lining from the coffin of the Bishop of Lund, Peder Winstrup (Cat. N11; Lagerås, 2016a, 2016b: 17-19).

Rye seeds and corn-cockle seeds were identified in the lining of Ann Belfour's coffin (Cat. C13) buried in the crypt of St Olaf Cathedral in Helsingør. Grains of barley (*Hordeum vulgare*), wood shavings, hops (*Humulus lupulus*), pea seed (*Pisum sativum* L.), common rue (*Ruta graveolens* L.), juniper (*Juniperus communis* L.) and hyssop (*Hyssopus officinalis*) formed the lining of the coffin of Hans Andreas Nordborg (Cat. C2) in the crypt of the same church. Two further burials of persons unknown by name contained cereal grains and the remains of cereal crop weeds (Cat. C4, C5). The deceased circa 1760 (Cat. C10) was buried on a lining and cushion filled with wood shavings, between which hop fruit (*Humulus lupulus*), oat seeds (*Avena sativa*, Fig. 64), barley grains (*Hordeum vulgare*, Fig. 84), corn-cockle seeds (*Agrostemma githago* L.) and an unidentified flower from the *Labiatae* family were recognised. In the lining from the coffin of anonymous child who died around 1700 (Cat. C7), straw, hop (*Humulus lupulus*), oat seeds (*Avena sativa*) and fragments of an ear of barley (*Hordeum vulgare*), were discovered. In addition, a single seed of corn spurry (*Spergula arvensis* L.), a weed associated with cereal and legume crops, was detected. Also recorded in the lining were the remains of flowers from the *Compositae* family, seeds of corn marigold (*Chrysanthemum segetum*) and a single seed of devil's-bit (*Succisa pratensis*) (Karg 2001: 133-142).

Straw with ears of barley (*Hordeum vulgare* L.) was discovered in the coffin lining from the grave of a woman buried in Thaldorf cemetery (Cat. H143). Fragments of pods of an unspecified plant from the *Fabaceae* family were found in the same burial. Numerous species with utilitarian value belong to this family: edible, fodder, oilseed and green manures. The *Fabaceae* were grown in rotation with cereals. It is possible that an unspecified plant was one of the useful plants or ended up in the coffin mixed accidentally with cereals (Hellmund 2006: 266).

Grains of proso millet (*Panicum miliaceum* L., Fig. 85) are a particular find in modern burials. Millet is one of the cereals most frequently found on archaeological sites dating from the early Middle Ages. Its contribution to the botanical material decreases in later centuries, but it is still one of the greatest represented cereals in urban stratifications in the late Middle Ages. The reasons for this can be attributed more to its past storage and processing methods which facilitated the spread of decay-resistant millet husks in and around human settlements, than to its actual popularity (Mueller-Bieniek 2012: 75-76). Nevertheless, it was one of the staple cereals in Central Europe (Badura 2011: 193). The finds from latrines prove its important role in the daily diet of the bourgeoisie between the 14th and 18th centuries (Badura 2011: 158). Millet was mainly consumed in the form of groats while other cereals were cooked into pulps and used to bake bread (Badura 2011: 185). Processing it into porridge resulted in numerous remains being preserved in the archaeological materials. It was also fodder for domestic fowl, thus the high concentration of finds in the rear of residential plots (Badura 2011: 157).

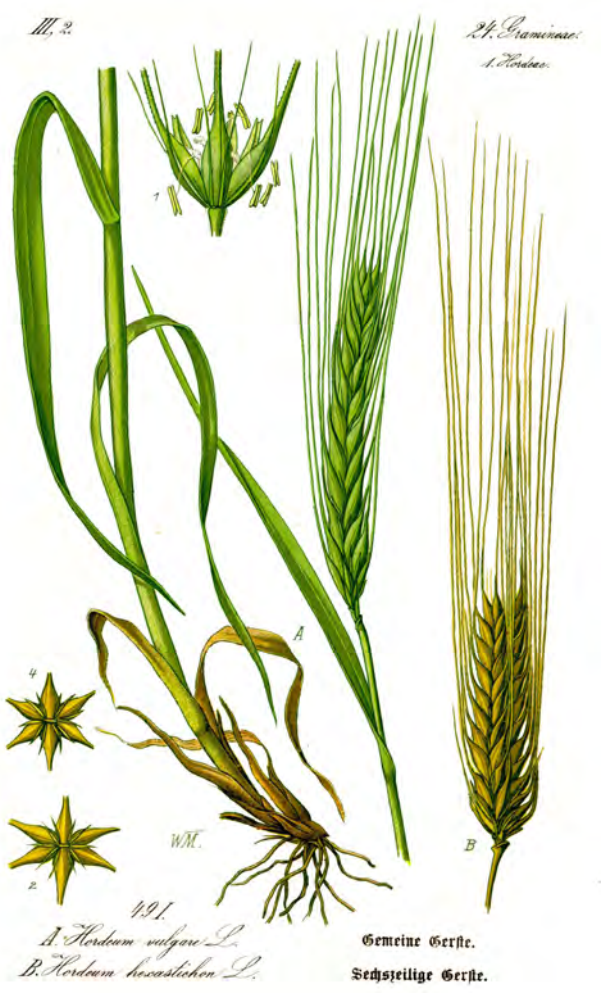

Fig. 84. Barley (*Hordeum vulgare* L.)

Fig. 85. Proso millet (*Panicum miliaceum*)

A lump of millet seeds was found inside the stocking of Bishop Walenty Wężyk (Cat. J260) buried in the Przemyśl Archcathedral. Other plants from the stocking were mixture of cultivated herbs. The unusual form of application led Agata Sady and Katarzyna Pińska to speculate on the apotropaic role of the find. The grain placed in the stocking was supposed to be food for the deceased who thus could be functioning in the afterlife. This seems doubtful in the burial of a high ecclesiastical dignitary. However, it must be acknowledged that the Church's control did not extend to this aspect of preparing the deceased for the ceremony. It is likely that, in the case of Bishop Wężyk, the mass made from millet served a medicinal purpose, as the bishop was suffering from an infection of his lower limb. Amputation of the foot did not stop the progression of the disease and the bishop died (Drążkowska 2014: 102, 2015: 305).

Traces of millet were also discovered in the coffin of Anne d'Alègre who died in 1619 and was buried in the crypt at the Vieux-Chateau in the Ville de Laval in the Loire region of southern France (Cat. F5). The brain and internal organs were removed from Anne's body and the empty cavities were filled using plants, including common millet. The bottom of the coffin and the pillow were covered with plant matter. Most species belonged to the umbelliferous, *Compositae* and *Labiatae* families, along with grasses characteristic of wetland habitats (Ruas 1992: 87- 91). Recently, millet remains were identified in the chest fill of a man buried beneath the church of St Francis in Kraków (Cat. J39).

The presence of proso millet grains was indicated in burials at the Norbertine monastery in Strzelno (Cat. J8; Święta-Musznicka 2021: 209). The agricultural crops discovered in the Strzelno burials were quite likely to have been part of bouquets or wreaths blessed in churches to celebrate Our Lady of the Herbs. In one of the burials, millet was found to have been intentionally scattered around the body (Cat. J116). The use of sacrificial bouquets or 'horns of plenty' filled with agricultural crops can also be assumed in the burials of the nuns in Lüneburg (Ströbl and Vick 2007: 53).

In emblematics, the representation of millet illustrates the concept of 'purity' or 'immaculateness'. An emblem with a bundle of millet held by a hand emerging from the clouds was described with the maxim: "Mich und andere zu bewahren, ist mein Teil. Sich und andere bewahrt ein züchtiges Weib vor Vergehen, wie auch die Hirse den Fäulniserreger fernhält" (Henkel and Schöne 1996: 329).

Adam Fischer in *Zwyczaje pogrzebowe ludu polskiego* lists numerous rituals related to the sowing of millet and the process of cleansing the grains by sifting them over a flame or by incensing them. Millet was important attribute during Christmas Eve suppers, wedding rituals, and the casting of charms (Fischer 1921: 253). It was used during funerals to prevent the return of the dead in the form of a wraith. It was poured into the mouth, scattered in the coffin and on the road leading to the cemetery. The restless soul was supposed to collect the seeds which prevented it from wandering back among the living. Poppy seeds and other useful plants were supposed to also be used in a similar way. Southern Slavs serve mil-

let cakes as a traditional meal at funerals (Kurasiński *et al.* 2018: 187-188).

The mattress and pillow fills from the burial of Bishop Peder Winstrup in Lund contained the remains of more than a dozen plants identified to genus or species level (Cat. N11). The majority of these are cultivated plants and wild plants formerly collected for consumption, economic and medicinal purposes. The burial took place in January 1680, so the plants must have been stored, probably in dried form, in a household larder or apothecary. Bishop Peder suffered from chronic illnesses which he may have tried to treat with herbs.

There were two cushions under the bishop's head. The large cushion, made of silk, was filled with hop cones, grains and a small amount of oat, barley and rye straw. It also contained an admixture of flowers and seeds of lavender, hyssop, lemon balm and dill. Juniper berries and leaves, boxwood leaves and individual seeds of several other plant species were also found inside the cushion.

Underneath the silk cushion was a smaller one which was filled with aromatic plants: lavender, hyssop, lemon balm, the flowers of dwarf everlast (*Helichrysum arenarium*), a small admixture of juniper, dill, boxwood and other plants. Under the cushion were wood shavings.

The bishop rested on a mattress, the lining of which contained predominantly hop and cereals. The bottom of the coffin was filled with dry plant matter, mainly two species of mugwort: wormwood and southernwood. Among the medicinal plants, of which single traces were obtained by archaeobotanical analysis, the author of the study mentions black henbane, black nightshade, dwarf elder, hemp, cornflower and common marigold. Grasses and sedges and mouse-ear chickweed which grows wild in wet meadows, were also recognised in the burial.

Alongside the intentionally placed aromatic herbs, shavings and straw, the isolated botanical remains and individual seeds of consumable plants which, as the author of the study notes, may have originated from the home garden and their presence in the coffin is presumably coincidental. These include a cherry stone, hazelnuts, flaxseed and flaxseed capsules, buckwheat seeds and field mustard seeds (Lagerås 2016a, 2016b: 17). Carrot (*Daucus carota*) seed remains were also distinguished in the archaeobotanical material, but unfortunately no further details necessary for the interpretation of the find were provided. Carrots were also discovered in the burial of a man in the crypt beneath the church of St Francis in Kraków (Cat. J38) which, as in the case of Bishop Peder, contained numerous food and utility plant species.

Field mustard (*Sinapis arvensis* L.) was formerly a weed of flax crops, but is also found in cereal crops. It may have been used as animal feed, but it was also sometimes consumed by humans. Corn spurry and cornflower discovered in burials also belong to the weeds of cultivated fields. Some of the identified plants, such as common sowthistle, colonise rubbish dumps and other areas transformed by humans (Mueller-Bieniek 2012: 200-201).

Buckwheat (*Fagopyrum esculentum*, Fig. 86) is one of the pseudocereals. Buckwheat fruit was used to make groats and flour which was not suitable for breadmaking due to its lack of gluten (Badura 2011: 111). In towns and cities, constant presence of buckwheat in the diet is recorded from the 12th/13th century, throughout the modern period and up to the present day (Lityńska-Zając and Wasylikowa 2005: 159).

Bishop Peder's coffin also contained foxtail millet (*Setaria italica*) which was cultivated in medieval and modern times. It was made into groats and cakes and served as animal feed (Badura 2011: 109-110).

Hemp, discovered in the bishop's coffin, was also cultivated for consumption. The roasted oil cakes were turned into porridges, soups, drinks and pulps. Besides, it was an oil and fibre crop (Mueller-Bieniek 2012: 84).

Among the plants from bishop's burial melde (*Chenopodium album* L.) was also identified. Melde was used to make flour and also as a feed for poultry. The young leaves of melde are edible. It was called a famine plant (Badura 2011: Tab. 25). However, it is unlikely that melde was formerly cultivated (Lityńska-Zając and Wasylikowa 2005: 160).

The remains of three poisonous plants were found in the bishop's coffin. Black henbane (*Hyoscyamus niger*) and wild dwarf elder (*Sambucus ebulus* L.) may have been cultivated for medicinal purposes, while black nightshade (*Solanum nigrum*, Fig. 87) was probably collected from the wild. Used in moderation, these plants could have provided a therapeutic effect and may have been stored for this

purpose. Among plants being former herbal medicines in bishop's Peder coffin was found also common bugloss (*Anchusa officinalis*) which was also used also as a dye plant.

5.2. Fruit in burials

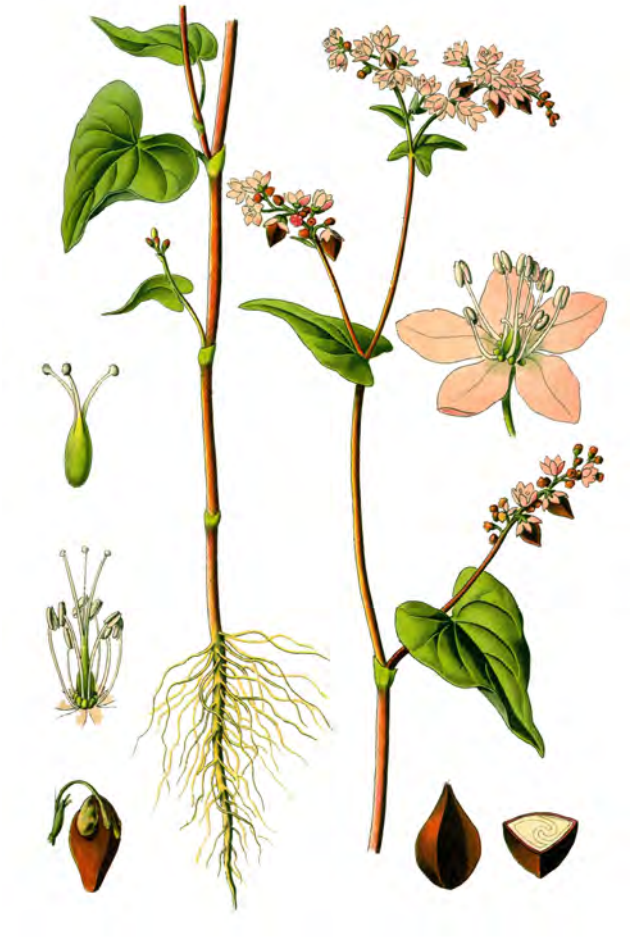

Fig. 86. Buckwheat (*Fagopyrum esculentum*)

Edible fruit is found very rarely in burials, with the exception of citrus fruit whose association with funerary ceremonies has been reported in Germany (Neurath-Sippel 2011: 121).

The fruit in Europe north of the Alps may has ended up in the graves as accidental deposits. Animals intruding into the crypts may have been responsible for the accumulation of fruit, seeds or nuts inside the coffins. It is also possible that the fruit was placed along with other plant material, with which the coffin was filled, or as a result of other post-burial processes.

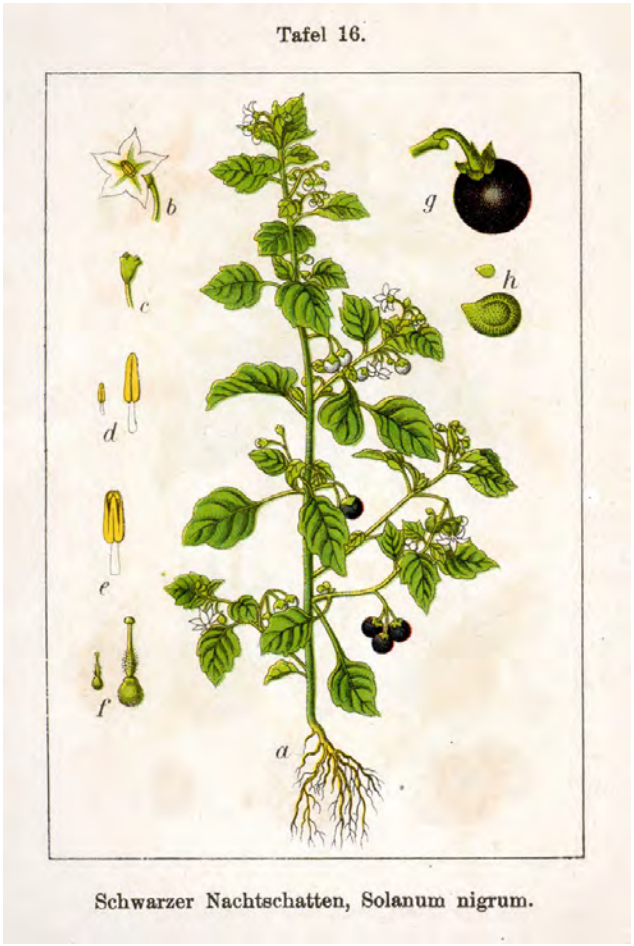

Fig. 87. European black nightshade (*Solanum nigrum*)

In the 19th and 20th centuries in Polish villages, as grave goods in children's tombs served objects that brought pleasure to the deceased during their lifetime, e.g., toys, nuts, pumpkin seeds or apples. Adults were also given their favourite treats for their last journey. These were often snacks, especially apples (Fischer 1921: 166). Similar funeral customs were known in Scandinavia (Sidén 2016: 133-134). It is likely that fruit was put into coffin spontaneously, the same as other items of a personal nature. However, it is impossible to answer the question of whether fruit was placed in graves in the modern period to comfort or entertain the deceased, as it was done in later times.

Archaeological finds of apples in burials are scarce. Recently, apple seeds were discovered inside a cushion from the coffin of a man buried beneath the Church of St Francis in Kraków (Cat. J38).

In Gothic sculpture and paintings, apples can be seen in the hand of the baby Jesus. The fruit symbolised the

original sin redeemed by Christ's Passion. Other fruit, such as pomegranates, peaches, grapes, oranges, figs, or quinces, may also have foreshadowed Jesus' future role as a Saviour, although it was apples that played this role most commonly (Michniewska 2014: 67-69). Their colour and juiciness caused them to be associated symbolically with blood. The shape of the fruit alluded to the globe or *globus cruciger*, an insignia of royal power.

In the ancient Latin, all fruit was referred to by the common name *malum*. The addition of a specific epithet created a name that allowed more precise identification. This inaccuracy encouraged misinterpretations. In the Middle Ages, the apple tree was associated with the tree of the knowledge of good and evil in the middle of the Garden of Eden, and the apple with the forbidden fruit, becoming the symbol of original sin. At the same time, the fruit adopted the opposite meaning. In its positive aspect, the apple signified life, fertility and resurrection. It also symbolised Christ himself who hung on the tree of the cross for salvation of people.

Apples and pomegranates were depicted on early modern tombstones from the 16th century onwards. Representations of pomegranates in medieval paintings of Europe north of the Alps reveal that artists had rarely seen them in nature (Michniewska 2014: 68-69). On tombstones from the territories of Poland and Germany, apples were shown in the hands of deceased children and, less frequently, adult women. In the St Andrew's Church in Legnica, Zuzanna von Zedlitz who died in 1540, holds a heraldic shield in one hand and an apple in the other (Cat. J78). An apple (insignia?) is shown in the hands of a boy of the von Reibnitz family, who died in 1579, depicted on a tombstone from Wierzbice (Cat. J134), on a tombstone of Esaias from Wińsko (Cat. J129), of Johanna Maria von Salisch from Masłów (Cat. J119), of Anna Helena von Zedlitz of Zarzyca (Cat. J96), and Elisabeth Stake (Cat. J70), whose tombstone is located in Jelenia Góra (Stankiewicz 2015: 116). A tombstone of Cordula Margareta von Braun (Cat. J366) who died on 15 August 1664 at the age of 38, is preserved in the Church of the Visitation of the Blessed Virgin Mary in Radziechów. The woman holds a prayer book in her left hand and an apple in her right. Baskets of apples are held in the hands of sisters Margrete and Ellen Rosenkranz (Cat. C23), whose figures are carved on a family gravestone made for their father Holger Rosenkranz and his two wives, dated around 1573, located in the church in Uth, Denmark (*Uth Kirke* 2010: 1067-1068).

In the 16th-17th centuries, children were portrayed with attributes appropriate to them which pointed out their young age and the fact that the models were not yet fully formed. These included toys, animals, flowers, various fruit in the hands or in small baskets. The apple in the hand of the young prince Sigismund Vasa, later king of the Polish-Lithuanian Commonwealth, in the portrait by Johan Baptiste van Uther, is an attribute of a child, but perhaps also of a future ruler. The fruit in the secular portraits alluded to representations of the young Christ. The colour red symbolised blood, fragility and the necessity of protecting the child. The importance of a proper upbringing of the young was emphasised, therefore the portraits occasionally included scenes of animal training, with fruit being given as a reward. Children were often portrayed with cherries, apples, grapes, melons, pears and peaches. Portraits with citrus fruit were meant to highlight wealth and belonging to a prominent family. The fruit shown in the hands and baskets on the gravestones is probably not evangelical or funeral-related symbol, but a repetition of a convention already known from secular art representations.

The nuptials from the *Song of Songs* are perhaps referenced in the gravestone for one-year-old Carolus Zeuch from the Evangelical church in Niedenstein-Wichdorf, Hesse (Cat. H82). The boy died in 1675. He is depicted with a palm branch in his right hand. On his left side grows a tulip flower. Above his head, two angels are holding up a wreath and a crown. Branches weighted with overhanging apples are shown on either side of the main figure (Seib 2007: 152).

Apples have been consumed by humans since at least the Mesolithic period. The native wild forest apple tree, the European crab apple (*Malus sylvestris*), grows in temperate climate zones. The fruit of wild apple trees has been harvested for centuries. The development of fruit-growing in the early Middle Ages in Central Europe is linked to the arrival of monks from Western Europe. From the Middle Ages onwards, the domestic apple tree (*Malus sylvestris do-*

mestica) was cultivated on Polish territory (Lityńska-Zając and Wasylikowa 2005: 203). Both species were mentioned by Marcin of Urzędów. Among the domestic apple trees, he listed, depending on the taste of the fruit, sweet, sour, tart, intermediate and wine varieties (Marcin of Urzędów 1595: 357).

Modern naturalists considered fruit a hardly nutritious food which is either inert or harmful to the body. Marcin of Urzędów argued that apples are not healthy for people with imbalance of humours. Apples should be served at the end of a meal, as they irritate the stomach (Marcin of Urzędów 1595: 357).

According to another naturalist, Stefan Falimirz, sour apples contribute to the proliferation of phlegm, leading to fever, cold stomach, coughing and overproduction of saliva. The nearly ripe, tart fruit is of a dry and cold nature which is associated with the earth element. They are healthy in specific instances (for a 'hot stomach'), but eating them can cause bloating, dryness or ulceration of the lungs (Falimirz 1534: List. 23, Cap. 49). According to Polish folk medicine, raw apples may have been a remedy for heartburn which is probably linked to their alleged cooling properties, recognised earlier by Renaissance naturalists (Paluch 1989: 144).

In Europe, folkloric customs for weddings, betrothal ceremonies and also related to love magic are known, in which apples played an important role (Forstner 1990: 166). In Antiquity, apples represented fertility. Most likely, however, it was the fruit of the pomegranate (*Malum punicum*), and not the apple, that was ascribed aphrodisiac properties.

In popular culture, apples are associated with St Blaise's Day (3rd of February). On this day, the fruit was sacred and eaten to prevent sore throats and toothaches. Dried, ordained apples were kept for medicinal purposes. In eastern Poland, a decoction of boiled apple tree roots and bark was drunk to induce menstruation and miscarriage (Paluch 1989: 144).

Other fruit discovered in the graves included plums and cherries. Remains of edible fruit were found in the coffin of several-year-old Weighard von Promnitz (Cat. J254) who died in 1646 and was buried in the crypt of All Saints' Church in Pszczyna. The pillow and mattress from the boy's coffin contained hop cones and conifer shavings, while buckwheat, cherry seeds, plum seeds, and acorns were identified in the coffin filling beneath the body (Botor 2012; Stankiewicz 2015: 101-102).

Cherry or bird cherry seeds were also discovered in the grave of Antonina Skórzewska (Cat. J17) buried in a private crypt in Łabiszyn in the 1st half of the 19th century (Kochman 2012: 31). Cherry or bird cherry has been identified in burials in the crypts of the Holy Trinity Church in Byszewo. In the burial of Bishop Peder Winstrup in Lund (Cat. N11) the remains of a common cherry (*Prunus cerasus*) were found.

Cherries (*Cerasus*) have been cultivated in Europe since Antiquity. In Poland, the beginnings of cultivation date back to the early Middle Ages. The seeds of sour cherries and sweet/bird cherries are hardly distinguishable from each other in archaeological material. The cherry trees occur wild in deciduous and coniferous forests of the temperate zone (Lityńska-Zając and Wasylikowa 2005: 135-136).

In his *Polish Herbarium*, Marcin of Urzędów, following Pliny the Elder, stated that sour cherries came in white and black varieties. White sour cherries were said to stimulate the stools while consuming of red cherries had the opposite effect. Following Dioscorides and Serapion, who linked the red of the fruit to blood, the author of the *Herbarium* writes that red sour cherries "make the sex beautiful" and stimulate blood production. White cherries are sweet and watery. Consumed before the main meal, they soothe the stomach and relieve dryness in the throat. Red cherries which are characterised by a sour taste, dry out the stomach, so it is healthier to eat them after a meal (Marcin of Urzędów 1595: 332). According to Leonard Fuchs, both plums and cherries are harmful for the stomach (Fuchs 2016: 226, 239).

In Polish folk medicine, a decoction of properly extracted cherry bark was drunk to induce menstruation and miscarriage or to stop discharge. To accelerate menstruation, the bark was scraped downwards while discharge was stopped by drinking an infusion of bark scraped upwards (Paluch 1989: 159).

The domestic plum (*Prunus domestica*) has been known in Central Europe since the Roman period. On Polish soil, its cultivation began in the early Middle Ages (Ba-

dura 2011: 163). There is also wild plum (*Prunus spinosa*) which grows in temperate climate zones. Plum trees are expansive, often going wild and spreading from cultivation (Lityńska-Zając and Wasylikowa 2005: 203). During the Middle Ages, not only the cultivation of plum and cherry trees, but also small-scale home orcharding became widespread in the Polish lands.

Plums, as other fruit, were not appreciated by modern naturalists. Marcin of Urzędów wrote that "they provide little food; they disturb the stomach." They were thought to be cold and moist by nature. Consumption of the fruit of the domestic plum can result in laxity, understood as bodily humours regulation, which is why it was formerly seen as somewhat useful in the treatment of cholera fever. Decoctions of the leaves could be used to relieve pimples in the throat, and a concoction of the resin was supposed to treat lichen (Marcin of Urzędów 1595: 375).

Acorns were sometimes eaten as an additive to flour. They also served as fodder for animals (Badura 2011: Tab. 25). Oak bark and galasses were used to prepare black dye. Besides economic exploitation, acorns were formerly used for divination. The mighty oak trees were probably considered sacred by the Slavs. A sign that oak trees have been worshipped in the past is the custom of hanging shrines and crosses on them and the belief that cutting down an oak tree brings pestilence and misfortune. In many cultures, the axis of the world was imagined in the form of a tree which connected the underground with earthly and heavenly realms. In subsequent folk beliefs, the oak was still considered an exceptional tree that bestowed power. According to Pietro de Crescenzi, Italian author of agricultural handbook, smoke from oak leaves was believed to counteract devilish spirits. Oak was thought to have the ability to purify the air. Oak wood was expected to counteract witchcraft, therefore a pegs made of its wood were placed in graves of people who could turn into wraiths after death. Oak leaves were believed to be used by witches to cast spells. According to early modern herbalists, acorns helped for poisonings. Lichen, frostbite, rheumatism and other skin conditions were formely treated with them (Fischer and Kujawska 2016: 129-132). In folk medicine, acorns or oak leaves decoction were used to heal tuberculosis, teeth and skin disorders. Another method to combat toothache was reciting magic formulas under an oak tree. Carrying sick children over the forked branches of the oak tree guaranteed their recovery. The same procedure was applied to cure epilepsy and cold sores (Paluch 1989: 140).

Twigs and leaves of oak were identified in burials in a church in Częstochowa (Cat. J247) and a bouquet from a coffin in Brandenburg an der Havel (Cat. H41). An acorn was discovered inside a pillow in the burial of a man under the church of St Francis in Kraków (Cat. J38). In addition, fruit of the red raspberry (*Rubus cfr idaeus* L.) was found in the same grave.

In the burial of a young child (Cat. J10) in the Church of the Holy Trinity and the Blessed Virgin Mary in Strzelno from the late 18th century, one whole and six fragments of unripe peach seeds (*Persica vulgaris* L.) were discovered (Sulkowska-Tuszyńska 2007: 47, 2010: 419; Święta-Musznicka 2021: 211).

Peaches have been known in Central and Western Europe since Antiquity. On Polish soil, they have been cultivated since the early Middle Ages (Lityńska-Zając and Wasylikowa 2005: 145). For Marcin of Urzędów, peaches were such common fruits that that he omitted the description of their appearance ('Everyone knows peaches, no need to write them down'). He believed that peaches were not harmful. Following Galen and Avicenna, he recorded that peaches should be eaten at the beginning of a meal, as they stimulate the appetite. Peaches had been considered a 'watery' fruit. For this reason, the author of the *Polish Herbarium* advised that they should be administered to quench thirst in a fever. Peach leaves could be used to prepare a medicine for roundworms (Marcin of Urzędów 1595: 358-359).

On the other hand, Leonard Fuchs believed that peaches quickly decompose in the stomach damaging it and causing abdominal pain. Eaten before or during a meal, they ruin its positive qualities (Fuchs 2016: 229).

Despite numerous objections, fruit and fruit preserves were consumed frequently and featured in recipes, especially in sweet dishes, but also as accompaniments to savoury meals. In written sources, such as pantry reports and larder inventories, home-grown fruit was sometimes omitted. Because of the short shelf life of fruit, it was not transported long distances. Deficiencies in own resources

were made up for by small local trade. In the 18th century, apples, pears and plums were dried for the winter, made into jellies, jams and pickles (Szylar 2012: 273, 274).

Fruit was a common children's food, as shown in paintings from the 16th-17th centuries. According to Szymon Syreniusz, fruit should be used to season dishes for the youngest. In his opinion, the presence of vegetables and fruit in children's diets is advisable, as they make the child grow faster (Żołądź-Strzelczyk 2012: 206-207). Accounts of the Dominican monastery in Warsaw from the 17th--19th centuries reveal that apples, raspberries, plums, and cherries were purchased for the sick (Szymborski 2009: 88), suggesting that in modern times there was no fear of the harmfulness of fruit preached by the ancient theorists and quoted in herbaria.

Lemon and orange played an important role in funeral ceremonies in modern Germany, especially in its central and southern part, but also in Pomerania and Silesia (Neurath-Sippel 2011: 125). In the Protestant towns of Pomerania, lemons were used so commonly at funerals that records of them as a gift for coffin bearers can be found in in anti-luxury regulations issued by the town ccouncils from the 17th century onwards (Kizik 1998: 254).

From the 18th-19th centuries, there are accounts of different variants of the custom of granting citrus fruit to funeral attendees. Lemons were mainly given to those in the procession who were closest to the dead body. The gift was offered not only to the corpse-bearers, but also to the clergy, cantors and churchmen. Lemons in the hands or stuck on special rods were illustrated in prints showing the mourning attire of townspeople and members of confraternities of dead. *Begräbniszitronen* and *Trauerzitronen* are also mentioned in written sources. Purchase of lemons is evidenced by funeral bills. At a burgher funeral, even more than 20 pieces of this fruit were used. Twenty one lemons were purchased for the ceremony of Susanna Maria Löffelholz, who died in 1705 (Neurath-Sippel 2011: 121--131), and twenty-eight for the funeral of a burgher from Frankfurt. Beside lemons, corpse-bearers were sometimes offered sprigs of rosemary and refreshments such as bread, tobacco and alcohol (Kizik 1998: 253-254).

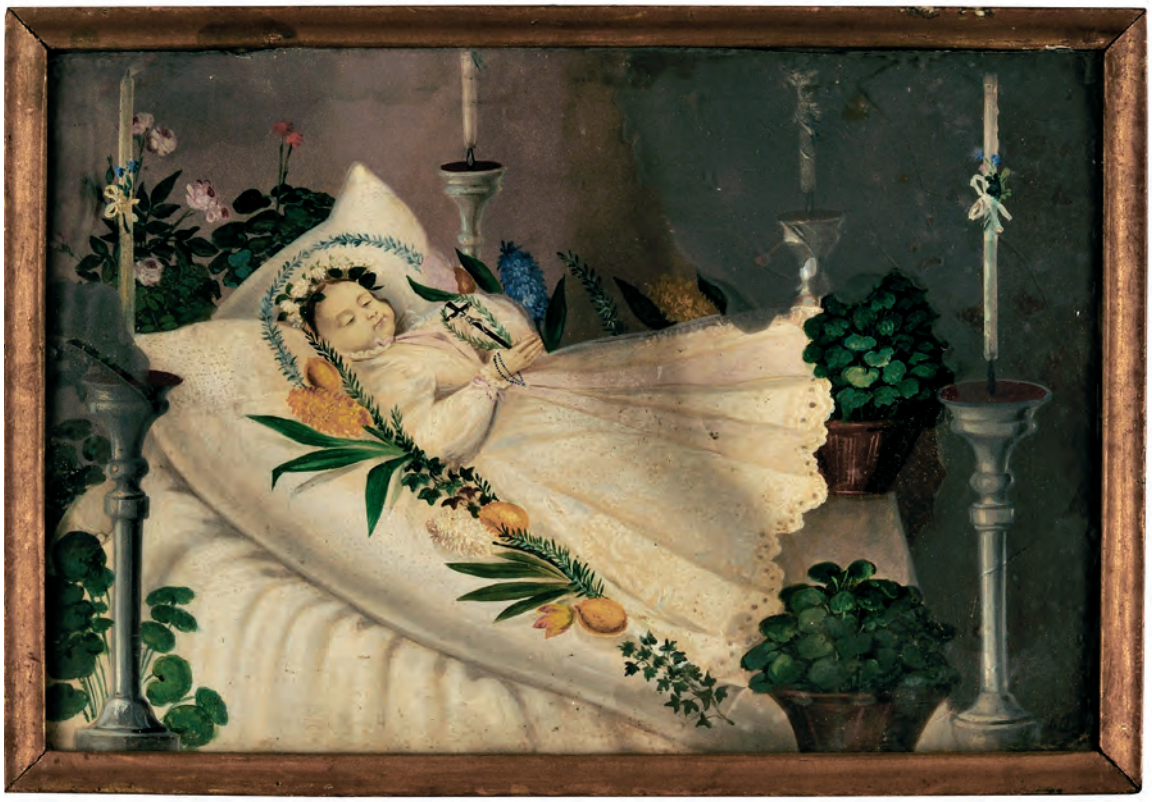

Fig. 88. *Portrait of a deceased girl*, beginning of 20th century, Historisches Museum Regensburg

Citrus fruit was occasionally decorated. In southern Germany, funeral guests were offered oranges with cloves stuck into them. From these, the initials or names of the deceased were formed, along with the dates of death (Stankiewicz 2015: 116). The fruit was thrown into the grave at the end of the ceremony. Hamburg carpenters in the 19th century threw lemons on the lid of a coffin lowered into a pit while listening to the loud rumbling which was supposed to provoke reflection on the futility of human life. Members of the Bremen masons' guild, on the other hand, squeezed a lemon onto the coffin. During this ritual, the pastor uttered the words: „So sauer wie diese Zitrone, so sauer war auch dein Leben. Tschüss Kamerad – auf dieser Welt gibt es für uns kein Wiedersehen" (Hille-Priebe, n.d.). The most recent ethnographic evidence of the use of lemons at funerals (Fig. 88) dates to the second half of the 20th century (Kürzinger 2017: 83; Neurath-Sippel 2011: 126-127).

Citrus fruit was known and possibly cultivated in ancient Rome. The first records of citrus tree cultivation in Europe during the Middle Ages are contained in Arab agricultural treatises from the 10th century. The citron (*Citrus medica*), the ancestor of lemon, may have been cultivated in the Iberian Peninsula from the 7th century, the bitter orange (*Citrus aurantium*) from the 10th century and the lemon tree (*Citrus limon*) from the 10th-11th centuries. The first appearance of citrus in France is dated to the 12th-13th centuries. In the 12th century, the Arabs cultivated also the grapefruit tree (*Citrus maxima*). In the 14th century, they introduced limes (*Citrus aurantifolia*; Ruas *et al.* 2018: 160).

From the 13th century onwards, citrus fruit was first mentioned in European compendia of medicinal raw materials (*simplicia*). This is also when the imported fruit reached the wealthiest people in Western Europe. Images of citrus were circulated in medical books from the 15th century (Ruas *et al.* 2018: 161).

The introduction of citrus fruit into the cuisine of the European elite in the Middle Ages proceeded rather slowly. In medieval French recipes, citrus fruit is extremely rare. Oranges were used more often than lemons. In the 15th century, fresh oranges could be purchased at Parisian markets. The oldest written sources on the cultivation of orange trees in southern France date from the first half of the 15th century.

Northern European medieval written documents, on the other hand, make no mention of citrus fruit in a culinary context (Ruas *et al.* 2018: 164). Lemons were known at the court of King of Poland Władysław Jagiełło and Queen Jadwiga. The royal couple received them as a gift from the burghers of Lviv (Sperka 2012: 66).

In the Middle Ages, citrus fruit symbolised purity and virginity. In Gothic and Renaissance art, flowers and citrus fruit were combined with the image of Mary. They were depicted in the hand of the little Jesus as a symbol of his future Passion. In the paintings of Europe north of the Alps, realistic depictions of citrus fruit in vessels or on tables accompany representations of the Virgin Mary.

The earliest depiction of a lemon in tomb sculpture dates from the 13th century. In the double sepulchral portrait of Count Heinrich von Sayn (Cat. H16) and his daughter, already described above, a girl holds a lemon in one hand and a sprig of rosemary in the other (Neurath-Sippel 2011: 122). The lemon and rosemary became wedding plants in later centuries and were also used at funerals. Perhaps these symbols were intended to accentuate the premature death of Count von Sayn's daughter. Lemons were believed to be imperishable and therefore symbolised virgin purity. As a result of its association with the mythical golden fruit, the lemon became a symbol of immortality in the Middle Ages and, in this case, is perhaps a sign of the eternal life shared by the two people depicted.

The lemon was identified by modern Northern European humanists with the golden apple from the Garden of Hesperides, given to Hera by the goddess Gaia for her wedding with Zeus. Marcin of Urzędów in *Polish Herbal* began his note on the lemon by citing the myth of the immortality-granting fruit stolen by Hercules: "These were the golden apples in the Garden of Hesperides, which the three maidens guarded in the orchard, walled up: and so that no one could enter, a dragon was kept at the door whom Hercules then killed, and plucked the apples, and so multiplied them throughout the world" (Marcin of Urzędów 1595: 337).

In early modern Europe north of the Alps, citrus trees were grown in the private estates of the elite and in gardens

as a botanical curiosity. As a result, they came to be regarded as a symbol of wealth. Lemons were served to guests at ceremonial gatherings, such as the wedding feast of King of Poland Sigismund III Vasa with Anna Habsburg in 1592 (Barwicka-Makula 2012: 178). Citrus fruit appear in exquisite modern recipes, for example in the *Compendium Ferculorum* by Stanisław Czerniecki, written at the Lubomirski court, and in the Radziwiłł family's *Method for a Very Good Preparation of Various Confections*.

The multitude of citrus varieties and hybrids cultivated in the modern period exceeds the number known today. The variety of them is evidenced by printed catalogues of specimens from the most famous botanical collections, some of them accompanied by graphic depictions. At the end of the 17th century orangeries were being created at the estates of the wealthy and in the gardens of the bourgeoisie. Orangeries were also established at some monasteries (Szylar 2012: 273-274). A list of plants cultivated in the garden of Caspar Wilhelm Sculteus, located at the intersection of today's Świdnicka and Piłsudskiego Streets in Wrocław, is kept in the Wrocław University Library. According to a brochure from 1731, as much as 161 species and varieties of citrus were grown there (Jagiełło-Kołaczyk and Brzezowski 2014: 281).

Horticultural manuals included advice on how to grow thermophilic plants in cool climates. In *Jardinier Hollandois* written by Johannes van der Groen, which book published in 1669 was also well-known in modern Wrocław, recommended that orange trees planted in wooden boxes should be moved to a heated cellar in October or early November. They were not to be placed outside again until May (Jagiełło-Kołaczyk and Brzezowski 2014: 34). Special buildings equipped with movable stoves, which were dismantled in summer, were also constructed for citrus cultivation.

A bouquet containing lemons and cloves was found in a child burial in the Admiralty Church in Karlskrona (Cat. N4; Nyberg 2010: 25-26). Citrus tree branches were discovered in burials in Brandenburg an der Havel (Cat. H37, H41).

Finds of citrus remains in latrines and waste pits in cities in the Netherlands and Germany suggest that citrus was consumed at this time and available not only to the wealthy. In Germany, remains of sweet orange or mandarin (*Citrus sinensis*/*Citrus reticulata*), and pomelo or grapefruit (*Citrus maxima*/*Citrus paradisi*) have been found in archaeological materials from the 17th and 19th centuries (Ruas *et al.* 2018: 165). The growing demand for citrus fruit led in the 18th century to the emergence of a group of specialised merchants who traded between Italy, where regions of agriculture oriented mainly towards the cultivation of lemons were taking shape, and Europe north of the Alps. Facilitated access to lemons has been recorded on Polish soil since around the 1730s (Kościelak 2012: 259).

In the modern period lemons were considered a more medicinally valuable fruit than oranges. Initially, they were rarely eaten for pleasure or for their nutritional value. Lemon juice, peel, seeds and leaves were treated as medicinal raw materials. Marcin of Urzędów describes the properties of the tissue of the 'citric apple', emphasising the different nature of each of its elements. Lemon juice was considered cold and drying to a higher degree than the peel. It was suitable as a remedy against fever with chills (Marcin of Urzędów 1595: 337). Also, in Krzysztof Kluk's *Dykcyonarz roślinny* (*Plant Dictionary*), there is information that lemon juice should be administered in cases of fevers and other 'rotten diseases'. Kluk calls lemonade a cooling drink for both the healthy and the sick (Kluk 1805: 137). Lemon peel whose nature is hot and dry, is supposed to stimulate the stomach (Marcin of Urzędów 1595: 337), nourish the heart and refresh (Falimirz 1534: List. 20, Cap. 42). According to the German physician Walther Hermann Ryff, lemon counteracts venom and decay (Neurath-Sippel 2011: 129). A powder of lemon peel and cloves drunk in wine was believed to protect against 'venomous air' (Falimirz 1534: Letter 20, Cap. 42). Lemon leaves and seeds were also used for therapeutic purposes. The seeds, eaten raw, drove away intestinal worms (Marcin of Urzędów 1595: 337). In the 18th century the role of citrus in the prevention of scurvy was also discovered. In the accounts of the Warsaw Dominican monastery from the 17th - 19th century, lemons are listed among the fruit purchased for sick friars (Szymborski 2009: 88).

Lemons in the 18th century were stored in dry rooms, separated by twigs or paper. Lemon preserves: compotes, jellies, syrups, and candied fruit could be found in larders and medicine cabinets. They were additions to savoury dishes and desserts.

Before the end of the 15th century, only bitter and sour oranges were used culinarily in Europe. Sweet orange did not spread until the early modern period. Remains of sweet orange (*Citrus sinensis*) and mandarin (*Citrus reti- culata*) from the 16th - 1st half of the 17th century were discovered in the Vladislav Hall at Prague Castle in Czech Republic (Beneš *et al.* 2012: 108).

Orange was described in Kluk's *Plant Dictionary* as a tasty fruit which also possesses several therapeutic properties. It was recommended to control rot and fevers. Oranges were used to produce medicinal oils. The flowers were dried to make infusions for drinking (Kluk 1805: 135).

Flowered sprigs of bitter orange (*Citrus aurantium*) decorated a wreath laid on the chest of Princess Eleonora Habsburg (Cat. K5) who was buried in the royal crypt in Prague in 1580 (Beneš *et al.* 2012: 107-108). This is the oldest finding of remains of this species in Europe north of the Alps, at the same time also the oldest example of the use of citrus plants in a funeral ceremony. Eleonora's burial took place in March. However, the branches were most likely chosen due to the lack of access to other living plants during the winter. The properties attributed to the orange, its anti-rot effect and the symbolism alluding to purity, may also have influenced the decision to use it for such a purpose. Orange blossoms are also depicted in the portrait of the deceased son of Christopher Sigismund Pac and Clara de Mailly-Laskaris (Cat. I1, Fig. 38).

Orange fruit and twigs were as well shown in posthumous portraits. An orange fruit (?) rests by the head of Princess Antonia of Württemberg (Cat. H6). At the portrait from around 1644 of Bartholomäus II. Viatis (Cat. H17, Fig. 89), a man in a black robe lies on a bed covered with white linen, with his head on a white cushion. He holds a branch in his right hand and an orange fruit in his left (Neurath-Sippel 2011: 121). A peculiar custom was the production of commemorative miniature coffins with a representation of the deceased's body in wax. A miniature wax figure of Tobias Peller von Schoppershof (Cat. H18) in a coffin from 1650 was shown in an exhibition at the Germanisches Nationalmuseum in Munich.[3] The portrayed man holds an orange fruit placed on a white shawl with the fingers of his left hand (Neurath-Sippel 2011: 123). It should be noted that citrus fruit appeared in modern portraits depicting living persons, as an attribute primarily of women and children.

The most significant reason, why citrus fruit was used in funeral ceremonies, was its aroma which alleviated unpleasant olfactory sensations and prevented infection by inhaling the smell of decay. Lemon was depicted in works of Gothic art north of the Alps in scenes of the last anointing and burial, for instance in a sculpture from Munich with a scene of raising of the body of Lazarus from his tomb (Neurath-Sippel 2011: 127). By its scent and colour, associated with the mythological golden apple, lemon was regarded as a means of overcoming the danger threatening the living in the proximity of death. Citrus was also a symbol of virginity, as it was believed to be unbreakable (Malaguzzi 2009: 247).

The more recent burials also contain edible fruit. Nine fragments of walnut (*Juglans regia* L.) kernel were found in the grave of an adult male buried at Thaldorf. The deceased was dressed in miner's attire (Cat. H144; Hellmund 2006: 266).

Walnut has been cultivated in Europe since Iron Age, while in Poland since early Middle Ages (Lityńska-Zając and Wasylikowa 2005: 147). In the modern period it was considered the least nutritious of all nuts (Marcin of Urzędów 1595: 364). It was eaten especially in winter. On Polish territory, local trade in walnuts is evidenced by written sources from the 15th century for Gdańsk (Badura 2011: 178-179). The walnut half symbolised the Holy Trinity, as it is composed of three parts: the pericarp, the shell and the kernel inside. The nut also symbolises the tomb of Jesus Christ. In the Old Testament, Aaron's rod flourished and bore nuts which was explained as a prefiguration of the incarnation of Christ.

According to Stefan Falimirz, nuts are unhealthy for a hot stomach while for a cold one they can be a beneficial food (Falimirz 1534: Letter 19, Cap. 39). Marcin of Urzędów, following Dioscorides, recorded that nuts were hard to digest, but some medical uses could nevertheless be found for them. He provided several recipes for medicines made from walnut intended for a variety of health problems. Walnut was believed to expel round-

[3] *Die Frucht der Verheissung. Zitrusfrüchte in kunst und kultur.* 19.05-11.09.2011

worms, when mixed with rue it neutralised poisons, and could be a treatment for hair loss, discharge and ulcers. To avoid rabies, after a dog or human (!) bite, an ointment made from walnuts, onions and honey had to be applied to the wound. In the case of abdominal pain, pouring of the ashes of nuts roasted with the shell on the navel was recommended. According to Pliny, nuts help with 'yellow disease', whereas they only do harm when they are stale (Marcin of Urzędów 1595: 365). The pericarp and leaves were used in folk medicine for a number of conditions: gastritis, toothache, scrofulosis, dropsy, whooping cough, wounds, heart or skin diseases (Paluch 1989: 152).

Hazelnuts were also considered unhealthy, although applied for beautification. They were used for hair growth and in an eye-colour chaniging ointment (Marcin of Urzędów 1595: 365-366).

The nuts in grave of a man buried in Thaldorf were probably gathered by rodents. Bird cherry or sour cherry remains and horse chestnut tree fruit (*Aesculus* L.) found in the burial of Antonina Skórzewska (Cat. J17) from the 1st half of the 19th century may also have been deposited in the grave by coincidence. Although in the grave fill, a tin plate and animal bones were also identified, the presence of which is puzzling (Kochman 2012: 35).

Horse chestnut remains have, however, been discovered in some older graves. The fruit was found in Wschowa in the former Evangelical church of the Crib of Jesus Christ church at the burial of Zofia Ujejska Radomicka (Cat. J176) who died in 1628 (Kochman 2012: 45). It was also discovered in the lining of the coffin of Lorenz Christoph Schneider buried in Berlin (Cat. H30). A pouch containing horse chestnuts was found within the grave pit of a child buried in the cemetery at the Dominican monastery in Prenzlau (Cat. H46). Chestnut blossoms were placed on the body of provost Mikołaj Ignacy Łukowski (Cat. J9) buried in 1736 at the Norbertine convent in Strzelno (Sulkowska-Tuszyńska 2010: 419).

The horse chestnut (*Aesculus*) has been cultivated in Europe since the 16th century. In 1557, seeds of unknown origin were first brought from Turkey to Prague (Ravazzi and Caudullo 2016: 60). The tree was planted in Europe mainly for ornamental purposes. The medicinal raw materials extracted from the horse chestnut tree were the flowers, bark and seeds. The bark was used to control parasites of the digestive system (Badura 2011: Table 25). Horse chestnut was very rarely used in folk medicine, except for a tincture from it's fruit or bark, which was applied on aching joints (Paluch 1989: 148).

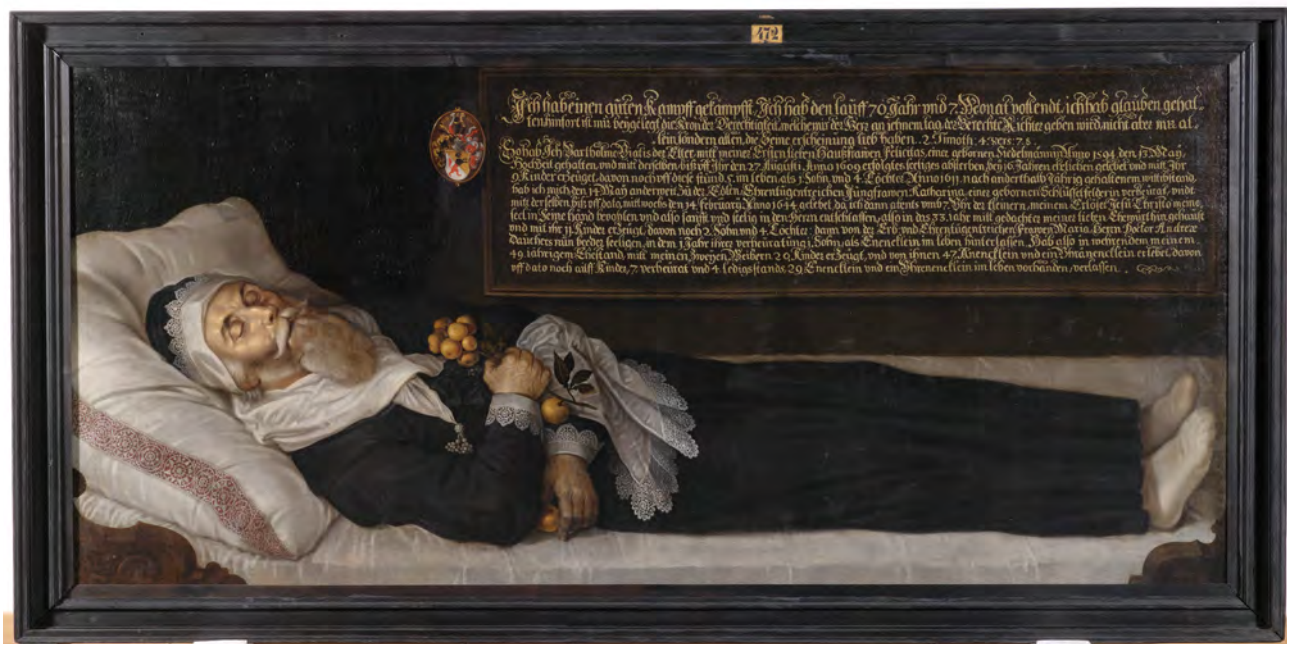

Fig. 89. *Bartholomäus II. Viatis – portrait on a bed of state*, 1644, Nuremberg, Germanisches Nationalmuseum