Handbook for the Inventory of Polish Cemeteries and Tombstones Abroad

Anna Sylwia Czyż
Bartłomiej Gutowski

Handbook for
the Inventory
of Polish Cemeteries
and Tombstones Abroad

Handbook for the Inventory of Polish Cemeteries and Tombstones Abroad

Anna Sylwia Czyż
Bartłomiej Gutowski

Table of contents

Preserving memory

What is a cemetery? 'Cemetery (Latin *coemeterium*; Gr. *koimētérion* – a resting place): an area, usually fenced, where the dead are buried in graves or where ashes are preserved after their cremation' (Encyklopedia PWN). The author of this brief definition does not mention anything other than the utilitarian role of cemeteries. Let us better quote Jacek Kolbuszewski, an outstanding Polish philologist, folklorist and researcher of the history of former eastern territories of the Polish-Lithuanian Commonwealth. He treats necropoli as: 'a cultural text rich in content, allowing for a better understanding of civilisation processes taking place, the build-up of epochs and their transformations in social consciousness'.

Cemeteries reflect social, moral and religious relations prevailing in a given community. This is particularly evidenced by funerary monuments, especially epitaphs and symbols set on them. Recalling the words of French historian Philippe Ariès: 'In its topography, a cemetery is a reflection of the whole of society, just as a map reproduces the landform or a landscape. Eventually, a cemetery is a museum of fine arts'.

From the early Middle Ages, the following were buried in temples: rulers, members of their families, secular and clerical dignitaries, wealthy and merited burghers, founders and patrons; the remaining dead were buried in courtyards and around churches. As churchyards often could not be enlarged, exhumations of human remains became a necessity. Bones were deposited in ossuaries and, when the latter became full, were transferred to burial pits.

Towards the end of the 18th century, burials in the vaults of churches and in adjacent churchyards became increasingly questionable. Nevertheless, the custom of burying the dead in churches or churchyards, which had functioned for centuries, became firmly established in the public consciousness.

Necropoli were closely linked to religion and a consecrated cemetery became a sacred place. People did not want to be buried in an area that did not appear to them as consecrated. Also important was the fact that in the past, only certain residents were buried outside village boundaries. This applied,

for example, to nonbelievers or to the location of Jewish cemeteries. People deprived of the right to a church burial were also buried outside the town, where so-called epidemic cemeteries were also set up for fear of spreading the plague. Burial in out-of-town cemeteries was therefore initially regarded as a form of social degradation.

The creation of non-urban cemeteries coincided with the collapse of the Polish-Lithuanian Commonwealth. The first legal regulations on cemeteries were already issued during the partitions: a Prussian decree by Emperor Frederick II of 1773, a decree by Tsar Alexander I of 13 March 1817 and a court decree by Emperor Joseph II of 23 August 1784. Legislators required necropoli to be established away from human settlements and in dry areas not prone to flooding. The fact that cemeteries began to appear outside cities was due not only to hygienic factors, but also to the desire to commemorate the burial sites of loved ones and to cherish their memory. This was becoming increasingly difficult in view of the lack of space in churchyards and church crypts. At this time, many city-centre cemeteries were closed and the remains of the deceased were moved to new out-of-town necropoli, mass graves or individual graves if one could afford it.

The new necropoli offered an opportunity for a symbolic meeting between the living and the dead, encouraged reflection and private prayer, all while the All-Souls' Day, the Feast of the Dead falling on 2 November, was, according to aforementioned Jacek Kolbuszewski, 'celebrated as a great national family holiday. It is enough to visit a Polish cemetery on that day to grasp the profound meaning of the words that the homeland is the land and the graves'.

In cemeteries, especially those for the inhabitants of larger cities, there were particularly prestigious places marked out: avenues for the distinguished and quarters for the clergy, the military and war victims. Special plots were also designated, e.g. for children and the poor. The layout of a new cemetery as a park-and-garden area was also important. The location of the church, the funerary chapel and columbarium, the layout of paths, the selection of greenery with symbolic significance and the appearance of a bell tower, fence or gate, often bearing a suitable inscription or the founder's name, functioned as a symbolic passage from the world of the living to the world of the dead. The scale of a necropolis and the artistic level of its tombstones can tell us much about the wealth of the local community, the then popular ways of commemorating the dead or local traditions, as well as about the stone, carpentry and foundry workshops whose products were placed on graves. The great development of sepulchral art in Europe came in the 19th century. The cult of the fallen on the battlefield, which is a type of expression of patriotism, was also reflected in the erection of monuments and the creation of burial sites, which became a lasting testimony to national uprisings and wars. Both participants known by name and those unrecognised were commemorated

with inscriptions: N.N., Unknown Soldier, Unknown Defender. War cemeteries and cemeteries of the victims of genocide crimes have become poignant memories of the hecatomb of the great battles fought in the 20th century and of the actions of criminal totalitarian systems.

The change of borders after World War II and related population migrations and resettlements have left many civilian and military cemeteries without permanent care. Necropoli in the former eastern territories of the multinational and multicultural Polish-Lithuanian Commonwealth remained outside its borders. Polish cemeteries and graves are scattered on all continents, and their history relates to the times of both Great Emigrations: the 19th-century and post-Yalta ones, migrations of Poles within the partitioning states during both World Wars and deportations of Polish citizens deep into the Soviet Union...

Time has shown that even the most beautiful necropoli located in former eastern territories, filled with commemorations of great historical and artistic value, fell victim to the heartless policies of the new authorities. Links between the past and present began to blur. The absence of guardians of the cemeteries, who died or were exiled, and an indifferent or hostile attitude of the local population towards testimonies of the presence of the Polish ethnos, resulted in the necropoli becoming what we call 'unwanted heritage', 'rejected' or simply forgotten. Jacek Purchla rightly observes that 'it is a separate category today – especially in Central and Eastern Europe, where political boundaries changed much faster than cultural boundaries – the heritage of the disinherited and the heritage without heirs, the 'product' of the tragedies of the 20th century – the Holocaust and ethnic cleansing', citing as an example not at all the eastern territories, but the post-German heritage of Wroclaw, which underwent a complete population exchange after the war.

Before 1989, which marked the start of the process of political change in Central and Eastern Europe, the possibilities for research on the cultural heritage of the First and the Second Republic of Poland beyond the eastern border were severely limited. Before the collapse of the Soviet Union, it was difficult or impossible to reach sites, objects, libraries or archives located beyond the borders of the contemporary Poland. With the transformation came the time for systematic research related to the area of the contemporary Ukraine, Lithuania, Belarus and Latvia, undertaken in many research centres in Poland. In 1991, research began and its results are still published in successive volumes containing detailed inventories of historical monuments. Volumes from the series *Materiały do Dziejów Sztuki Sakralnej na Ziemiach Wschodnich Dawnej Rzeczypospolitej* (Materials for the History of Sacred Art in Eastern Territories of the Former Polish-Lithuanian Commonwealth), published since 1993 (ed. by Jan K. Ostrowski, publisher: Międzynarodowe Centrum Kultury w Krakowie (International Cultural Centre in Kraków)), include the work of Polish scholars

and students from institutes of art history, who restored the memory of thousands of monuments, many of them entering the academic realm for the first time. Sepulchral art was recorded in the *Materials...* when commemorations were located inside churches or on church grounds.

At the same time, an opportunity arose to give greater care to monuments and historical mementoes located in the territory of successor states of the First and the Second Republic of Poland. Soon, thanks to funds from the Polish state as well as the involvement of national public institutions, non-governmental organisations and church structures, conservation and restoration of many valuable monuments, including sepulchral ones, was launched. One of the largest projects of this type is the systematic conservation of tombstones at the Lychakiv Cemetery in Lviv, which has been carried out since 2008 and is financed by the Polish Ministry of Culture and, since 2018, by the POLONIKA National Institute of Polish Cultural Heritage Abroad. The Institute has undertaken, among other things, a restoration of the largest funerary chapels in this cemetery, starting with the chapel of the Krzyżanowskis and the mausoleum of the Barczewskis.

Since the beginning of the 1990s, inventory work has also been carried out at Polish cemeteries and graves abroad. Much credit is due to the Ministry of Culture, which allocated funds for the inventory and the conservation of cemeteries and sepulchral monuments. In the first instance, work was carried out on necropoli in former eastern territories of the Polish-Lithuanian Commonwealth. These activities took place in cooperation with historians and art historians, conservators, universities and with the participation of non-governmental organisations.

At the same time, academic research projects commenced, which resulted in publications, databases and inventory cards containing descriptions, photographs and information on the state of preservation of objects. Moreover, social activities were initiated, especially among people resettled after the war within the borders of contemporary Poland. Numerous grassroot initiatives emerged to preserve the memory of people whose graves remained outside the country and, due to lack of proper care, were destroyed or disappeared forever. As a result of these initiatives, non-governmental organisations and private individuals collected a great deal of information about Polish graves and cemeteries and found forgotten burial sites and traces of devastated and often desecrated graves. They also made lists of the buried and undertook cleaning, inventory and rescue work, which regretfully was not always carried out professionally.

For many years, the most extensive campaign was launched in Lower Silesia. Named 'Save Grandfather's Grave from Oblivion', its participants are mainly young volunteers – pupils and students. These activities are becoming increasingly professional each year, as organisers attach great importance

to the training of volunteers, who, guided by experts, acquire information on how to clean in old cemeteries in such a way as not to damage historical substance. They broaden their knowledge on how to make an inventory of sepulchral objects, and also learn which preventive conservation work can be carried out by people who are not specialists in this field. It should be emphasised that thanks to such actions, many cemeteries have gained guardians who systematically maintain them in good condition. Such actions increasingly cause previously indifferent residents and local authorities to become involved in caring for forgotten necropoli, treating them as common cultural heritage. Since 2019, there has been an additional opportunity to financially support such initiatives. The POLONIKA Institute has launched a special grant programme 'Volunteering', which makes it possible to raise funds for the training and organisation of volunteer trips.

Our knowledge of the condition and number of cemeteries outside the country and the artistic and historical value of tombstones is constantly growing. However, it should be emphasised that in territories of the former Polish-Lithuanian Commonwealth, cemeteries and graves that have been deprived of constant maintenance continue to disappear irretrievably, the reason being people and natural factors, especially the passage of time. Sadly, necropoli also attract criminals who rob tombstones of sculptural details and metal elements, penetrate crypts in search of valuable finds and desecrate human remains. In many cemeteries, more valuable slabs and stone elements have been lost over the years and reused, for example, by local stonemasons. Cases of tombstone destruction are often the result of hostility towards former residents, but also the result of hooliganism. When a cemetery fence disappears and increasingly lush greenery overgrows old graves, the boundary between sacred and profane becomes blurred. The sight of an abandoned cemetery can be a painful experience.

However, the problem of devastation, robbing and liquidation of forgotten necropoli also affects Poland. The fate of the many abandoned Jewish, German, Lemko and Boyko cemeteries serves as a good example. Fortunately, the idea of rescuing the remains of these necropoli is gradually gaining appreciation. The preservation of older tombstones, deprived of historic features or not subject to the care provided by either the state or conservation services, is additionally not favoured by the law, which in most countries allows for the liquidation of unattended burial sites for which no further use fees have been paid.

We will not be able to protect all tombstones and necropoli located outside the country from destruction or liquidation, but through documentation we can save the memory of the former inhabitants of the eastern territories, as well as of the Poles who decided or were forced to emigrate. We must realise that it is both important and urgent to take systematic action

involving research of sources, inventory work, photographic documentation and publications.

Fieldwork is the basis for these activities, and its results can be the starting point for further research. It is worthwhile for an eyewitness examination and description of sepulchral objects to be carried out in a standardised manner, using guidelines developed by specialists. Standardisation of inventory cards will facilitate the creation of databases and, in the future, a repository for documents prepared for sharing.

The POLONIKA Institute's *Handbook for the Inventory of Polish Cemeteries and Tombstones Abroad* will help to develop substantive competences of people who, due to their interests in research or simply driven by a need of their heart or a desire to know the history of their ancestors and the history of the Polish-Lithuanian Commonwealth, support projects and actions aiming at the preservation of old cemeteries. Its authors are Professor Anna S. Czyż (Cardinal Stefan Wyszyński University, Vytautas Magnus University) and Doctor Bartłomiej Gutowski (Cardinal Stefan Wyszyński University), art historians who for many years have been documenting cemeteries located in the East. Among other things, they jointly conducted an international research grant entitled 'The Rasos Cemetery in Vilnius. Inventory, historical and linguistic research', which has resulted in publications and an extensive catalogue of tombstones and people being made available online. For many years, they have also travelled across Ukraine with their students, documenting Polish cemeteries and graves in Podolia. The results of their research have been systematically published and made available online in successive catalogues. Their Handbook, which we hand over to readers, contains rich illustrative material. It will undoubtedly prove useful in inventory work aimed at protecting and saving such mementoes of the past as old cemeteries.

Foreword

The history of caring for Polish graves scattered over almost the entire world and documenting the burial sites of Poles abroad can be traced back to the 19th century[1]. However, due to the political situation and limited financial and organisational possibilities, proper work in this area was not undertaken until after 1989 in the face of political changes in Central and Eastern Europe[2]. At the same time, recording work and historical studies were carried out in France, Canada, Great Britain, Italy as well as Bosnia and Herzegovina, among other countries. After the Russian troops entered Ukraine in 2022, and earlier due to the intensification of repression in Belarus, the possibility of carrying out work in this area was significantly limited. Since then, we have seen a greater interest in documenting and maintaining cemeteries in Western Europe, but also in the Czech Republic, Romania, Africa and South America, among other places. The majority of activities relate to the inventory and cleaning of cemeteries in eastern territories of the former Polish-Lithuanian Commonwealth. They are undertaken by various academic institutions, associations and foundations, as well as private individuals. Since 1998, the documentation of Polish culture abroad has been the subject of interest of academics, graduates and students at

---

[1] The earliest work relating to the documentation of cemeteries outside the country was Eustachy Marylski's publication *Pomniki i mogiły Polaków na cmentarzach zagranicznych* (Warszawa 1860) (Monuments and Graves of Poles in Foreign Cemeteries (Warsaw 1860)). Another work by Anaton Giller on Polish graves in Irkutsk was published in 1864. In 1884, a Commission of Polish Graves was established in Paris, focusing primarily on taking care of the graves of November insurgents. This task is still continued today by the Society for the Care of Polish Historical Monuments and Graves in France. See Gutowski.

[2] Betlej 2012.

the Institute of Art History of Cardinal Stefan Wyszyński University in Warsaw[3]. These include, above all, inventory work in the necropoli of Podolia, Ternopil and Kyiv (Ukraine) and in the Rasos Cemetery in Vilnius as well as Saint Michael's Cemetery in Riga. Work has also been undertaken in the Czech part of Cieszyn Silesia. The first experience with inventories, the lack of handbooks for carrying them out in historic cemeteries and, above all, the need for a clear typology and unification of descriptions of tombstones and funerary monuments, resulted in the publication in 2008 of a small book entitled *Nekropolie kresowe. Skrypt dla inwentaryzatorów zabytkowych cmentarzy dawnych Kresów Wschodnich* (Borderland Necropoli. Coursebook for Historic Cemeteries of the Former Eastern Borderlands)[4].

This experience, enriched by successive years of work in cemeteries not only in Lithuania and Ukraine[5], but also in the Czech Republic, France, Latvia, Turkey, Great Britain, as well as the still existing need to unify the results of activities undertaken by various centres, inspired us to rework the handbook for inventory workers at historic cemeteries. We set the goal of making the notion more comprehensible and selecting better photographs, as well as enriching typology with new, previously unrecorded tombstone forms. The result was a handbook that was first published in Polish in 2020 and then translated into Ukrainian and Lithuanian. This publication, based on terminology specific to sepulchral art, included diagrams useful in describing tombstones and tombs both of a provincial character and those from larger artistic centres, indicating, as much as possible, typical or atypical forms, primarily for eastern regions of the former Polish-Lithuanian Commonwealth. In 2025, we will publish an expanded version of the handbook including an appendix with additional examples of tombstone descriptions from the largest Polish emigrant communities in France, the United Kingdom and the Czech Republic.

The creation of a unified scheme for the description of cemetery art is quite a challenge, as the inventory is carried out by various research centres or private individuals who act on their own, or sometimes in agreement with relevant associations or foundations[6]. Differences in descriptions and approaches

---

[3] This work was initially carried out in agreement with the „Wspólnota Polska" ('Polish Community') Association and the Ministry of Culture and National Heritage, and now also thanks to the support of the POLONIKA Institute.

[4] Czyż, Gutowski 2008a.

[5] The authors of the publication, together with Katarzyna Chrudzimska-Uhera and Norbert Piwowarczyk, carried out an initial reconnaissance at Polish cemeteries in Chicago, Detroit and Milwaukee, among others. The materials were collected as part of a project to document so-called Polish Cathedrals, conducted under the direction of Professor Jacek Gołębiowski from the John Paul II Catholic University of Lublin.

[6] Inter alia Skowronek 1986; Inscriptions of Polish tombstones in Paris 1986–1994; Śladecki 1993; Brykowski, Czerniawska, Jaroszewicz 1996; Hauser 1998; Rudkowski 1999;

to inventories mainly relate to the fact that they are not always undertaken in a systematic way and are not always dealt with by art historians. We therefore faced the difficult task of creating, on the basis of existing studies, a system that is consistent with them and allows a description of specific forms of sepulchral art.

The tradition of work on terminology allowing a precise description of monuments of funeral art dates back to 1989 at the Cardinal Stefan Wyszyński University in Warsaw (the Academy of Catholic Theology at the time) and the coursebook *Klasyfikacja i typologia nagrobków* (Classification and typology of tombstones) published by Zbigniew Bania and Andrzej K. Olszewski[7]. It was used during the inventory of the Warsaw Powązki cemetery. The framework outlined by these researchers became the basis of our typological and terminological research, alongside significant articles by Andrzej Basista, Andrzej Nowakowski, Paweł Pencakowski, Jan Schubert and Zdzisława Tołłoczko, *Analiza i systematyka architektury grobów cmentarnych* (Analysis and Systematics of Cemetery Tombstone Architecture)[8] and *Architektura grobów cmentarza Rakowickiego w Krakowie* (Architecture of Tombstones of the Rakowicki Cemetery in Kraków)[9]. We also made use of the second edition of *Słownik terminologiczny sztuk pięknych* (Terminological Dictionary of Fine Arts)[10] as well as instructions for compiling records of movable monuments, architecture and cemeteries available on the website of the National Heritage Institute[11]. Similar studies on Jewish cemeteries have been undertaken by the Lublin centre[12]. On the other hand, in 2011, Karolina

Marcisz, Rudka 1999; Biernat, Górzyński 1999; Bajsarowicz, Morawiecki 1999-2004; Lewkowska, Lewkowski, Walczak 2000; Roguski 2000; Grodziska 2001; Drelicharz 2004; Grodziska 2004; Hauser 2006; Grodziska 2007; Lewkowska, Lewkowski, Walczak 2007; Lewkowska, Lewkowski, Walczak 2008; Dacka-Górzyńska, Górzyński, Ugniewski 2008; Pałasz-Rutkowska 2010; Skrzypczak, Skrzypczak 2010; Dacka-Górzyńska, Górzyński 2012 ; Patlewicz, Tomczyk 2024; Chytry 2013; Skłodowski 2013; Zaworonko-Olejniczak, Szkopek, 2016; Kukia 2015; Patlewicz, Tomczyk 2017; Chudzio, Solarz 2020; Biernat, Górzyński 2021. Mention can also be made of work by individuals such as Urszula Olbromska or organisations such as the Fundacja Dziedzictwa Kulturowego (Cultural Heritage Foundation), Armenian Foundation, Chrześcijańsko-Demokratyczny Związek Polaków w Winnicy (Christian Democratic Union of Poles in Winnica) and many others.

7   Bania, Olszewski 1989.

8   Basista, Nowakowski, Pencakowski, Schubert, Tołłoczko 1986.

9   Basista, Nowakowski, Pencakowski, Schubert, Tołłoczko 1987. An attempt at a typology of tombstones and chapels was also made by: Dominikowski 2014, pp. 87–94 and Wiraszka 2017–2019.

10   Dictionary 1997.

11   Maczubski 1989; https://www.nid.pl/pl/Dla_specjalistow/Badania_i_dokumentacja/ zabytkinieruchome/instrukcjewytycznezalecenia.

12   Klimowicz, Sygowski, Tarajko, Trzciński 2018.

Grodziska wrote a text on the problem of cemetery documentation[13]. Finally, the subject issues have been addressed in various foreign publications[14].

Understandably, the above-mentioned publications were not the first attempts made at addressing the specific issue of cemetery inventories. Pioneering in this respect were activities undertaken in the 1970s and 1980s by the Ministry of Culture and Arts, where initial efforts were made in the then Board of Museums and Monuments Protection to create a framework for the care of necropoli, primarily associated with records, i.e. the creation of a cemetery card, but also with defining conservation guidelines and administrative standards. The aftermath of these activities included a three-part post-conference publication, hardly available today, published by the Ministry of Culture and Arts, the PAX Association and the United Economic Teams[15]. It is noteworthy that in 1981, the Second Congress discussed the need to 'standardise the vocabulary as soon as possible [...] with particular attention to its precision and lapidarity'[16]. This was also the motto that accompanied our work.

The publications mentioned above were important to us. Nevertheless, our own experience gained during the preparation of cemetery and tombstone record cards from the territory of the former Ternopil Province (partly published in catalogue form[17]) and the online database for inventoried cemeteries that has been built since 2013 proved crucial in our work[18]. Knowledge and experience gained during many years of documentation work were enriched by conclusions drawn from

---

13   Grodziska 2011.

14   They differ somewhat in nature from this publication as they rather constitute an attempted typology of objects and description of their symbolism, e.g. Keister 2004 or Sinder 2017, or issues related to the search for genealogical information in cemeteries – DeBartolo Carmack 2002 or related to certain elements of documentation – Guffnet 2013. A separate group consists of publications devoted to the protection of cemeteries, providing not only information about basic maintenance, but also about cemetery documentation, including Illinois Historic 2008; Cemeteries Handbook 2024; Prince George's 2010; Strangstad 2013; Trippe-Dillon 2014.

15   The sessions assumed the character of conservation conventions. They were organised in Halin on: 15–17 April 1980, 16–17 November 1981, 7–9 April 1983, 2–5 May 1984 and 16–19 May 1985. The materials were compiled by Elżbieta Baniukiewicz from the Ministry of Culture and Art, and later from the Board for the Protection and Conservation of Palace and Garden Complexes, as well as by Hanna Spychajowa and Tadeusz Swat from the PAX Association. See also Śladecki 2000, pp. 703–705, where it is reported that the author developed his own methodology for conducting the inventory. Unfortunately, it remains unavailable in the circulation of scholarly publications.

16   Convention I–III, p. 8 (II).

17   Czyż, Gutowski, Janowczyk 2004; Czyż, Gutowski, Skrodzka, Vyšata, Zdzieborska 2007; Czyż, Gutowski, 2009; Czyż, Gutowski 2016; Czyż, Gutowski 2017.

18   http://cmentarznarossie.uksw.edu.pl; http://cmentarzetarnopolskie.uksw.edu.pl.

printed catalogues of cemeteries abroad that were published by other authors[19]. They were also combined with study visits to cemeteries in Europe and North America.

The handbook is composed of two parts. The first, theoretical one, presents the principles of describing a work of art and the types of tombstones and funerary monuments, also in the context of their stylistic transformations and dating problems, the decorative motifs characteristic of sepulchral art and the materials from which monuments were made. Also presented in this part are elements of historic cemeteries that should be considered during documentation work. The second part of the handbook addresses good practices, i.e. advice related to the preparation of work and principles of cemetery inventories. These reflect a certain ideal state, which of course should be modified depending on the situation, including, among other things, financial aspects. In this part, the reader will find a discussion of record cards and instructions on how to complete them, and will also learn about the cards we prepared for the cemetery inventories.

These two parts of the handbook are complemented by photographs of exemplary objects[20], as well as drawings by Mateusz Gryzło, whose task was to create an objective image of a given type of monument or decorative motif. They are accompanied by model inventory descriptions, taking into account a variety of cases, ready to be used during the work.

The index will allow the reader to navigate efficiently among the types and varieties of tombstones classified in this handbook. It also takes account of the ornamentation and iconographic themes referred to in the text. The bibliography contains a list of articles and books that may be of use in inventory work.

By publishing the English version of the handbook, we hope not only to increase interest in documentation of Polish heritage abroad in non-Polish speakers, but also to stimulate discussion and the sharing of experiences in the field of documentation and monument recording. At the same time, we emphasise that the description rules we have presented in the handbook refer to documentation standards developed in Poland and differ from rules applied in other countries.

* * *

As mentioned above, this handbook is a significantly expanded and supplemented version of the coursebook published in 2008. The draft version of

---

[19] To date, several volumes of catalogues of Polish tombstones have been published in such countries as Belarus, France, Georgia, Japan, Lithuania, Ukraine, Great Britain.

[20] Unless otherwise indicated, the photographs come from the authors' archive based on projects carried out at the Institute of Art History of Cardinal Stefan Wyszyński University in Warsaw.

the new work was used by students who have been faithfully accompanying us for years in our work in Ukraine and Lithuania. Their presence and commitment is extremely important to us, as they are a valuable addition to the academic meetings held inside University facilities. This second edition contains corrections and additions, which are primarily the result of inventory trips made in 2021-2023 during which we used the handbook. It tackles more thoroughly specific characteristics of Polish tombstones found in Western Europe.

Our special thanks go to Professor Janusz Smaza from the Academy of Fine Arts in Warsaw for his experience and know-how of the materials shared with us, but also for his kind attitude. This part was completed by Doctor Michał Wardzyński from the University of Warsaw. Our gratitude also extends to Andrzej Jagielski from the Geological Museum (Polish Geological Institute) The problem of the inventory of vegetation in cemeteries was consulted and partly elaborated by Doctor Anna Długozima at the Warsaw University of Life Sciences. We would also like to thank Doctor Dorota Zawiejska and Doctor Alicja Sadowska from the Faculty of Geodesy and Cartography, Warsaw University of Technology, for their valuable tips concerning the section devoted to the preparation of cemetery plans, as well as Professor Dariusz Gotlib, for his commentary on differences between a plan and a map. Norbert Piwowarczyk shared his experience in taking documentary photography. He also authored the instructional photographs (ill. 36, 59, 70–75). The model documentary photograph presented in the handbook was taken by Piotr Jamski from the Institute of Art of the Polish Academy of Sciences (ill. 69; together with his team he also took several other photographs), whom we thank for the many years of cooperation. We are also grateful to Doctor Karol Guttmejer from the POLONIKA Institute, who kindly agreed to read the entire handbook and share his experience in inventory-making and his substantive comments.

Above all, however, we wish to thank the first director of the POLONIKA Institute Dorota Janiszewska-Jakubiak and the staff at the POLONIKA Institute for their care and support received in our inventory work, as well as the editors, translators and graphic designers involved in the preparation of the English version of the handbook.

Description and typology of funerary monuments

1. General rules for description

The basic rule for the description of works of art, including historic tombstones and funerary monuments, is the principle **'from the general to the specific'**. It means moving from information defining an object typologically to information on its detail. The second principle concerns the discipline of description, which should be concise. A description must neither contain an analysis of the tombstone or funerary monument nor value-based assessments (e.g. pretty/ugly).

In the case of cemetery tombstones, we assume that they denote the place where a corpse is deposited in a coffin in an earth cavity/burial vault (grave)[1]. In the first sentence of the description according to the 'from the general to the specific' principle, in addition to indicating this fact, it is necessary to carry out a classification of the tombstone (see Part 1.2). Depending on the type of the funerary monument, it may read:

> **'Burial site marked by a cross on** (number of steps, if more than 1) **a pedestal and** (id.) **a base'.** (ill. 1)
>
> **'Burial site marked by an obelisk on** (number of steps, if more than 1) **a pedestal and** (id.) **a base'.**
>
> **'Burial site marked by a cross stylised as a tree trunk on a rock-shaped pedestal and a base'.**
>
> **'Burial site marked by a statue of the Risen Christ on** (id.) **a pedestal and** (id.) **a base'.**

Secondly, it is necessary to describe in detail the finial, which is the most important element because it determines the type of tombstone (in our examples, it will be a cross, an obelisk or a statue) and is usually the dominant

---

1   In isolated and rare cases, cenotaphs can be found, i.e. graves where no one is buried. The description then begins: 'Monument in the form of a cross on a pedestal and a base'.

ILL. 1

Cross on a two-stepped pedestal and a base

element, followed by the form of the pedestal[2] and the base, insofar as they are found in the described tombstone. A key role in tombstones is played by **the inscription**, which was usually placed on the front wall of the pedestal. It is best, for the sake of legibility of the description, **to give information about it at the end**. If there are more inscriptions, they should be numbered, and their location should be indicated.

In cemeteries, we will often encounter a situation where some part of a monument has been destroyed, is chipped off and lying nearby. **If, for example, the cross is missing,** but only the pedestal remains, then the description begins with the statement:

'Burial site **originally** marked by a cross on a pedestal and a base. The cross nonextant'.

If we are not sure what the crowning element looked like, we use the wording:

'Burial site marked by **a nonextant finial** on a pedestal and a base'.

Alternatively, if the situation so requires, we use the following wording:

'Tombstone overturned' and – optionally – 'each of its parts lies separately'. We can also come across the following: 'Burial site marked by **a reconstructed cross** on a pedestal and a base' (ill. 8) or '**Destruction** of tombstone with fragments of cross remaining'.

The scheme of a description after the first introductory sentence is therefore as follows: we start with the finial, moving later to the pedestal and afterward provide information where the inscription is located. The location of the inscription, as well as the decoration of the pedestal/base, is determined by indicating right side, left side or the back[3], orientating the front of the monument in relation to the viewer. The technique of inscription should always be indicated. In the case of tombs made of stone they will be usually made by gouging letters. Nowadays, sandblasting is used (characterised by a few millimetres of gouging in the stone). Traditionally, the inscription is engraved (ill. 2) or forged. Nowadays, in addition to manual forging, computer engraving/CNC milling is also used (it also happens that, for example, the original inscription is made by machine and the subsequent ones are placed directly

ILL. 2
Engraved inscription on a granite monument (irregular stele)

2   Although it is recommended to first describe the elements fulfilling a structural and static role (Bania, Olszewski 1989, p. 1), e.g. a pedestal, the most important symbolic function in the case of cemetery tombstones is given to finials. Moreover, the type of finial is usually the basis for the classification of a tombstone type, hence the description should start from it.

3   A description by world direction, which is sometimes used, increases the likelihood of confusion and is completely illegible to those using inventory cards and tombstone catalogues.

ILL. 3
Tin plaque framed by a geometric braided motif at the corners, with a **cast**, **convex inscription**

ILL. 4
Inscription painted on a shield-like plaque

ILL. 5
Laser inscription on an aluminium plate

ILL. 6
Inscription punched on a tin plate

ILL. 7
Applied inscription

7 a
Letters made of lead

7 b
Letters made of brass

on the tombstone using the manual forging technique). Due to the high risk of error in the correct identification of the technique used, we use the standardised term 'engraved inscription' in the description. In wooden tombstones: cut, engraved, carved, inlaid (letter shapes filled with other wood), on metal substrate (plaques/tables): engraved, but also cast (ill. 3), painted (ill. 4, similarly as on a plastic plaque, where they can also be printed, ill. 5), punched (stamped, ill. 6). Thus, they can be either concavely carved (e.g. in bas-relief) or convexly carved (e.g. high-relief), on the field that was at times polished.

There are also applied letters (ill. 7a–b), made most often from lead or brass (inscription applied with lead), which, due to the technique of execution, is usually recessed flat or made of copper alloy (e.g. brass, less often bronze)[4]. Nowadays, stainless steel is also often used. It also occurred (especially in the second half of the 20th century) that letters were made of plastic and attached to a surface, sometimes painted to imitate a metal casting. The shapes of the letters may have been painted (in such a case, the description should state the colour), gold-plated (note that in the case of gold and silver colours, the inscription may be either painted or gold- or silver-plated, but are also filled in with, for example, tar. This fact should be noted in the state of preservation. It is worth mentioning one more way of creating inscriptions, using a counter-relief (intaglio) technique. Its letters do not protrude above the face and are often polished. In stonemasonry terminology, this type of inscription is referred to as one with enclosed letters or coffered.

4   Incidentally, we note the existence of inscriptions on some tombstones that have the character of historical memorials. These are sometimes initials, dates or other information usually referring to times of war. The presence of engraved inscriptions (usually made carelessly, in a hurry) should be noted in the monument card and photographed.

Inscriptions are recorded according to rules set out in the *Corpus inscriptionum Poloniae series*[5], which have been modified to suit the needs of 19th and the 20th century epigraphy in the publication of *Powązki Cemetery in Warsaw and the Polish Cemetery in Zhytomyr*[6]. We do not correct spelling or grammatical errors, except for separable or joined spelling. We do not specify the type of writing. Its character is reflected in the transcription, so depending on the writing, we use minuscule and majuscule. We only make a note of a text that is handwritten or where the writing is in italics or capitals. The absence of one or more letters is indicated by a system of dots within square brackets [...]; the absence of one letter is indicated by [.]; the absence of two letters [..], and three or more letters by [...], also if they form one or more words in a verse. If one verse is missing, we mark it with [-] and from two missing verses we insert [=]. We indicate the reconstruction of a missing letter by square brackets, e.g. Rom[u]ald. If we are not sure of our reconstruction, we indicate this fact as follows: [K?]awiński. We do not give full-word equivalents of abbreviations. A change of line is indicated by a right slash (/) separated by spaces, and at the end of the inscription we place two slashes and a full stop (//.).

Inscriptions in languages other than Polish should be referred to according to the original notation. Transliteration should also be used, e.g. for Cyrillic names (unlike transcription, transliteration does not reproduce the sound of a word but is a 'translation' of a transcription according to strictly defined rules).

TRANSLITERATION TABLE FOR THE CYRILLIC ALPHABET BASED ON PN-ISO 9: 2000 STANDARD[7]

а А	a A	б Б	b B	в В	v V	г Г	g G
д Д	d D	ђ Ђ	đ Đ	ѓ Ѓ	ǵ Ǵ	e E	e E
ё Ё	ë Ë	є Є	ê Ê	ж Ж	ž Ž	з З	z Z
ѕ Ѕ	ẑ Ẑ	и И	i I	і І	ì Ì	ї Ї	ï Ï
j J	ǰ J̌	й Й	j J	к К	k K	л Л	l L
љ Љ	l̂ L̂	м М	m M	н Н	n N	њ Њ	n̂ N̂
о О	o O	п П	p P	р Р	r R	с С	s S
т Т	t T	ћ Ћ	ć Ć	ќ Ќ	ḱ Ḱ	у У	u U
ў Ў	ŭ Ŭ	ф Ф	f F	x X	h H	ц Ц	c C

5   Corpus 1975, pp. 34–35.
6   Andrzej and Barbara Biernat 1980, pp. 29–33; Rudkowski 1999, p. 31.
7   Transliteration tables for other alphabets can be found on the website: https://centrum.nukat.edu.pl/pl/warsztat/transliteracja.

ч Ч	č Č	џ Џ	ĝ Ĝ	ш Ш	š Š	щ Щ	ŝ Ŝ
ъ Ъ	″	ы Ы	y Y	ьЬ	′	э Э	è È
ю Ю	û Û	я Я	â Â				

If **the artist's signature** is found, it should be given in exactly the same notation as on the tombstone, indicating the technique used analogically to the tombstone inscription[8]. If it is a bound monogram or geometric mark, it must be reproduced accurately. The signature must be photographed separately.

When **a coat of arms** appears on a tombstone (ill. 66), it is sufficient to give its name. When its identification is impossible or its shape differs from forms published in armorials, it should be described according to the principles of heraldry, based on publications by, for example, Juliusz Ostrowski, Stanisław Chrząński and Otto Titan von Hefner[9].

Of course, other publications may also be helpful, particularly Tadeusz Gajl's *Herby szlacheckie Rzeczypospolitej Obojga Narodów* (Coats of Arms of the Polish-Lithuanian Commonwealth)[10].

Similar attention should be given to orders. Of the more important Polish ones, the Order of the White Eagle, the Order of Saint Stanislaus and the Virtuti Militari Order are represented, but the Habsburg Order of the Star Cross also appears on tombstones[11].

It is rare to find preserved **photographs** on monuments. They were typically taken on porcelain and are usually oval in shape (ill. 33, pl. XXII.VI), less often quadrilateral. It is recommended to describe the appearance and attire of the person depicted on a photograph. Both coats of arms and photographs should be additionally photographed and included in the documentation of a given tombstone. Sometimes, instead of a photograph, there is a 'holy image' located on a rather deep panel at times covered with glass, which should also be included in the description.

The sculptural decoration of a monument most frequently assumes the form of a relief, usually flat (bas-relief, ill. 27, pl. XXII.I) or convex (high relief, ill. 28a, pl. XXII.II). A tombstone may also have metal elements with either a decorative and symbolic function, e.g. a small figure of crucified Christ, or

---

8   Experience indicates that it will most often be engraved or forged, as it is mainly found on stone monuments.

9   Chrząński 1909; Hefner 1863; Ostrowski 1897.

10   Andrzej and Barbara Biernat 1980, pp. 33–36; Boniecki 1899–1913, Gajl 2003; Niesiecki 1839–1842, Żychliński 1879–1908.

11   The following books may be helpful: Sejda 1932; Stela 2010–2015.

a functional one, e.g. candlestick or hook for hanging wreaths[12]. These elements should also be included in the description. Finally, information on a fence, if present, should be provided.

INDUSTRY TERMINOLOGY

Terminology used in inventory descriptions is not the same as that used in the Polish stonemasonry industry. Knowledge of the latter is not necessary, but can be useful to avoid terminological misunderstandings. Therefore, it is worth knowing basic terms such as inscription headstone (also called the head), which is placed on a pedestal and is the equivalent of a plaque. The plate covering the tomb is called the main slab or ledger stone, less often the top slab. There is also the term kerb or frame/upright frame, which is a vertical structural element forming the side walls of a tombstone (usually with decorative cladding) on which the ledger stone is placed. Another term used is cladding/lining, also called the lying frame, which is the floor surrounding a tombstone. The base or foundation is the concrete form in the ground that stabilises the tombstone.

STONE PROCESSING AND STONE TEXTURE

The traditional stone processing technique is splitting. Nowadays, stone cutting is also widely used. During an inventory, we do not specify the detailed techniques of tombstone making, but rather the final texture of the stone resulting from the treatment of its surface. This is achieved either with the use of impact techniques or by abrasion (nowadays also flaming). Usually, the aim is to achieve either a smooth (glossy) or rough or raw surface effect, thus creating the impression of a natural stone. Polishing is used to achieve a smooth surface, whereas a rough surface is obtained either by stone abrasion techniques (e.g. sandblasting and grinding) or impact techniques such as graining, the most commonly used method, or sandblasting, which is one of the modern methods.

Less common are chiselled (regular or irregular), point-chiselled or tooth-chiselled textures. The texture can also be furrowed, incised/cut/sawn. The effect of rough processing or slab breaks is achieved by splitting (split texture), hewing (hewn texture) or striking (struck texture).

Textures differ in the techniques used to achieve them and in their visual effect. Despite efforts to standardise terminology (e.g. standard BN-64/6740-02), different terms are used in stonemasonry.

---

[12]   Rarely, but there are occasions when an inscription is made on contemporary plastic using stickers. In such cases, the statement should read: 'Sticker inscription'.

Textures achieved by impact methods:

» Split texture gives the impression of a natural, raw look. It is achieved by wedging (dividing) the stone without any visible tool marks. Roughly split stone (raw split) gives the impression of natural breaks. This technique is used, for example, for steles, where the edges remain roughly split, and for cubes used as paving around a tombstone or in the construction of its frame.

» Struck texture is obtained by manually shaping the stone using such tools as hammers or chisels. This method allows for the creation of regular and smooth surfaces, while maintaining a certain degree of roughness and naturalness. It is characterised by irregular, relatively long cuts and protrusions of varying depths (up to approx. 20 mm), and has clear traces of the tools used.

» Hewn texture (appears in different varieties), in contrast to split texture, creates a clearly flat surface, but it is also more precisely processed than struck texture. The texture of cuts is multidirectional from fine to medium.

» Grained texture (hammered – coarse, medium or fine) is characterised by a rough surface created by alternating regular concave and convex areas.

» Point-chiselled (spiked) texture is a surface obtained by processing with point chisels, i.e. tools with blades of a triangular or other specific shape. This technique allows for the creation of more or less regular grooves and indentations. Unlike graining (and sandblasting), it is less regular in nature.

» Chiselled/irregularly chiselled texture (ranging from finely to coarsely chiselled) is characterised by irregular occurrence of various types of notches, grooves and furrows.

» Tooth-chiselled texture (coarse, medium or fine) is characterised by shallow grooves separated by rough (unprocessed) stone.

» Furrowed (fluted) texture, like tooth-chiselled texture, creates the surface of the stone (or other material) which is characterised by regular furrows or grooves. These furrows can be shallow or deeper, depending on the processing technique and the desired end result. The furrowed texture can be achieved by various methods, including machine cutting tools or special chisels. Depending on the method and tool used, the furrows can be more or less regular, dense or sparse, narrow or wide. Unlike tooth-chiselled texture, the stone is machined between the cuts.

» Incised (Krakow) texture is characterised by a surface of regular or irregular incisions (e.g. in herringbone shape), which create a specific, often decorative texture. The incisions can be of different depths,

widths and directions, depending on the tools and techniques used and the desired end result. The surface of the stone is worked by incising, which involves making regular or irregular incisions in the surface. These can be made with various tools such as chisels or machine cutting (sometimes a distinction is made between a sawn texture, which produces smooth and regular cuts, and a cut texture). Regardless of the technique used, the surface is characterised by clear incisions that create a specific texture. The incisions can be of varying depths and widths.

Abrasive finishes:

» sandblasted texture obtained by spraying is characterised by very fine roughness (less than 1 mm, even reaching 0.1 mm), while to some extent similar fine-grained texture has indentations from approx. 6 mm to 3 mm,

» ground texture can have different degrees of finish, but in general the surface roughness is perceptible, and small scratches may also appear while maintaining its even structure,

» polished texture (semi-polished, mirror polished) ensures the highest degree of stone smoothness and brings out the natural shine. The most precise polishing is called mirror polishing.

Other stone finishing methods

» flamed texture creating the effect of an uneven and rough structure, an effect similar to polishing but the stone is clearly tarnished.

2. Types of tombstones and their finials, pedestal and base, decorative elements

ILL. 8
Cross (partially reconstructed) on a pedestal

A tombstone is a permanent structure commemorating a burial site in an architectural and plastic form. In principle, one can distinguish between the following types of tombstones: free-standing (ill. 8), wall-mounted (standing against a wall) and ledger stones (ill. 27). Another type of grave marking is a heap of earth. At its head, is always a vertical element – usually a wooden, concrete or metal cross. In cemeteries, we most often come across monuments, the type of which is determined by their finial or architectural form:

» cross (ill. 8),
» obelisk (ill. 14),
» column (ill. 15),
» urn (ill. 16),
» statue (ill. 17),
» stele (ill. 18),
» sarcophagus (ill. 20)/stone coffin,
» aedicula (ill. 21),
» cippus (ill. 22),
» small chapel (ill. 23–24),
» ledger stone (ill. 27).

These forms appear in various variants with interchangeably treated elements. A separate form is a grave marked by a pedestal alone in the form of a boulder (ill. 19) or a cuboid (pl. XVII.I–XVII.III). The above list is not of a closed nature. The multiplicity of forms means that we will come across tombstones, which go beyond the accepted scheme. In the USA and Canada, small plaques

(markers) placed directly in the ground (flat markers, lawn style markers or marker graves) are also popular. They are usually made of granite or copper alloy (bronze), most often in a rectangular or almost rectangular shape. The second form is the so-called bevel markers with a gentle angle of inclination of the upper surface and slant markers, low forms clearly protruding with a front surface placed at an acute angle, clearly lower than vertical headstones, not exceeding a height of approx. 40 cm. These forms have a polished front surface and are usually placed on a concrete foundation or base. Another form similar to the stele is the companion upright, which has a low, vertical slab usually on a base. Another form currently used is that of a bench tombstone (various terms are used: bench monument, bench tombstone, bench gravestone, bench marker, cemetery bench, memorial bench). Sometimes different types are distinguished, such as Park Bench, Arm Bench or Pedestal Bench. There are also winged tombstones (plinth wing) resembling a two-part stele or a stele with a clearance in the middle section.

2.1. Cross

The most popular element of a tombstone structure in Christian cemeteries is the cross – a sign of faith in the resurrection on the Day of Judgement. On tombstones with inscriptions in Polish, the most common are simple crosses – **Latin** (ill. 8), less often **Greek** (pl. I.I). In Ukraine, one can find crosses devoid of decoration resembling **cavalier** crosses (*croix pattée*), most often with straight arm ends (pl. I.II). They appeared in cemeteries from the end of the 18th century to the mid-19th century. However, it should be noted that the first ones are much older and date back to the Cossack culture. Other crosses include those **with two** (Caravaca cross, Saint Benedict's cross[1], pl. I.III) or **three transverse arms** (pl. I.IV), as well as **Orthodox crosses** (pl. I.V) (pl. I.V).

Cross with arms ending in a trifoliate shape

A popular type of tombstone finial in Eastern Europe is a cross with arms ending in a trifoliate shape (ill. 9). It was placed not only on Greek Catholic,

ILL. 9

Cross with arms ending in a stylised trifoliate shape with a schematic rosette, on a pedestal

---

[1]   A cross of the patriarchal type. Its shape refers to the 4th-century Jerusalem relic of the Holy Cross tree, which has been kept since the 13th century at Santa Cruz de Caravaca in Spain. It was believed that the power of the relics from Santa Cruz de Caravaca saved participants of the Council of Trent from the plague in 1547. The Caravaca cross is sometimes referred to as the pestilent cross. Kopeć 2000, pp. 93–98, 101–102, 108–114.

ILL. 10

Cross passing through faults into a vertical slab

ILL. 11

Cross stylised as a tree trunk on a rock-shaped pedestal on a base

but also Roman Catholic graves. This form poses some problems. In many cases, it is difficult to speak of a trifoliate design due to its extreme over-stylisation. In such cases, the rounded shoulders must be described as covered with symmetrical half-round mouldings (pl. IV.IV). If the trifoliate-shaped motif is still visible, but significantly transformed, the statement can read: 'stylised' (pl. IV.III).

In the case of trifoliate-shaped crosses, there can also be an additional widening downwards of the lower arm, which is enclosed by half-round mouldings, as well as an excavation of the face and a groove (ill. 9, pl. IV.I). At the intersection of the arms, there is often a relief with the figure of crucified Christ and above Him, the titulus (a plate usually in the form of a flag, with the Saviour's guilt written according to the biblical precept, in three languages at Pilate's command) or, less frequently, grape clusters (the Eucharistic and Passion symbol). Below this at times is a depiction of a skull with tibial bones – an echo of Adam's tomb located at Golgotha[2]. In more ornate crosses, the arms may be additionally accentuated, usually with simplified rosettes.

Sometimes a relief featuring the Virgin Mary appears at the intersection of the arms of the cross. This is not only an expression of Marian devotion, but also an indication of Mary's participation in the salvation and suffering of Christ (compassio and corredemptio). In such cases, the Mother of God is also the patroness of good death and Porta Coeli – the gate of heaven[3]. The oldest trifoliate-shaped crosses found in the cemeteries of Podolia and Ternopil originate from the end of the 18th century. Their formal evolution is evident. At the turn of the 18th and the 19th centuries, they were made of poorly worked stone, usually granite. The half-round mouldings enclosing their lower arm are more often than not positioned asymmetrically. The pedestals on which they are founded are irregular in shape, usually polyhedral. Crosses built before **circa 1850** are considerably larger and more massive than those from the second half of the 19th century. **After circa 1850** there is a noticeable reduction in scale with a concomitant over-stylisation, especially of the trifoliate motif, sometimes reduced to the form of half-round mouldings. Tombstones with trifoliate-shaped crosses created in the 20th century are characterised by greater care and progressive simplification.

Cross on a vertical slab

Although most crosses are placed on a pedestal, a specific variety can be distinguished, i.e. a cross on a vertical slab (ill. 10). Most frequently, both elements are made of a single block about 5–10 cm deep. Usually, the crosses have

2   Kobielus 2000, pp. 93–98, 101–102, 108–114.
3   Białostocki 1982, pp. 166–167.

arms with trifoliate-shaped endings, which pass into a vertical slab by means of a profile or a fault (pl. V.I–V.II). Tombstones of this type are usually devoid of decoration. The only elements they feature are the monogram IHS (Iesus Hominum Salvator, i.e. Jesus the Saviour of Man), the Christogram XP (Chi Rho, i.e. the first letters of the Greek name of Christ 'ΧΡΙΣΤΟΣ'), the letters A and Ω (the first and last letters of the Greek alphabet) denoting the omnipotence of God[4] (pl. XXIII.XII) or an engraved smaller cross. Sometimes, there is also a monogram of Mary's name (pl. XXIII.XIV). The inscription is engraved directly on the entire surface of the cross and the vertical slab. These tombstones were quite popular in the 19th century, especially in provincial areas.

Cross stylised as a tree trunk on a pedestal in the form of rocks (a pile of stones, beams arranged alternately, imitating rocks)

From the second half of the 19th century, it was relatively common to find crosses imitating a tree and placed on a pedestal in the form of **rocks** (ill. 11, pl. VI.I–VI.II) or **wooden beams arranged alternately**. The rocks transformed over time (early 20th century) into a simple pedestal with only outlined cracks and a stack of beams arranged alternately into a pedestal with graphically marked motifs intended to imitate wood. At the same time, the last quarter of the 19th century produced examples of pedestals in the form of rocks with imitation of cave dripstone. Such productions, for example, at the Rasos Cemetery in Vilnius, are monumental and highly naturalistic. Introduced in the first quarter of the 20th century, there were also pedestals in the form of **a pile of stones**.

In this type of tombstone, the inscription plaque usually takes the form of an unfolded scroll (pl. XIX.XI), possibly an armorial bearing (pl. XIX.X). It may also be placed diagonally or in the form of an open book. Sometimes, it is accompanied by a relief anchor, flowers or draped fabric. Occasionally, the scroll-shaped inscription plaque is held by a flat-carved angel or a weeper. The cross is usually decorated with similarly shaped oak or ivy leaves, grape clusters or lily flowers expressing faith in the victory of life over death and participation in the eternal banquet held in heaven. A mourning pall or wreath may be draped over their shoulders. The memorial may be accompanied by a statue of a weeper, an angel or a child (if the tombstone commemorates the deceased as a child).

ILL. 12

Felled tree trunk on a pedestal

---

4   Their symbolism refers to the verses of the Apocalypse, in which God is represented as the one who is not only the Creator, but also the completion of the history of the universe. The letters A and Ω in the context of deep theological content appeared in Christian art in the 4th century. They are still being used today. Cynka, Kłoniecki 1989, pp. 1–2.

There are also extant tombstones in which both the cross and the pedestal imitate a natural tree with felled branches (pl. VI.III). In this type of monument, we deal with the integrity of both elements. The inscription is then placed at the front on the circular area of one of the felled branches. Alternatively, it may be a plaque in the shape of an armorial bearing. A variation of such tombstone is a pedestal in the form of rocks (or another form, e.g. rectangular), bearing a felled tree which functions as a finial (pl. VI.IV). Occasionally, the two elements are closely bound, imitating a natural tree growing out of the ground with clearly marked roots. Another version imitates a broken tree trunk. Such tombstones were more common around 1900 and are particularly characteristic of Lithuanian and northern Belarusian areas, among others (ill. 12, 43). Around the same time, pedestals assuming the form of rocks (less frequently, beams arranged alternately) were used for statues.

The origins of the cross represented as a tree trunk are not clear. On one hand, it can be traced back to medieval images described as crux florida (flowering cross) or arbor crucis (tree of the cross). The cross thus depicted was understood as the tree of life[5]. Also important was the custom, which has been preserved in many regions of Europe to this day, of decorating crosses inside churches and at crossroads with flowers. On the other hand, the motif of a tree trunk without any plant ornaments, but with clearly cut branches, can be associated with images of family trees. In contrast, the symbol of death with its biblical origins is unambiguous in the case of the finial formed as a felled tree.

Shaping and decoration of the arms of a cross

The arms of a cross are sometimes **chamfered** (when the edges are not cut all the way through, pl. II.XI) and may have **cut edges**. They do not always have a quadrilateral cross-section and instead may occur **in an octagonal cross-section** (pl. II.IX–II.X). There are also various **ends of the arms of a cross**, e.g. trifoliate-shaped (pl. IV.I–IV.IV), rhomboidal (pl. II.II), circular, shaped like a curtain arch (pl. II.I), or a segmented arch (pl. II.IV).

They may be decorated with **caps with nodes** (pl. II.VII), or bordered with a groove, and their lower arm may enclose **half-round mouldings** (ill. 9). The latter elements are particularly common in crosses with trifoliate-shaped arm ends, as described above. Notches in the form of teeth can also be found. The face of a cross, especially from the fourth quarter of the 19th century and in the course of the 20th century, can be brought out by repeating the shape of a cross. From circa 1900 onwards, the face is sometimes **grained** (pl. II.XII) or incised in herringbone.

---

5   Kobielus 2000, pp. 78–80.

Hung over the arms of a cross is a decoration in the form of a high-relief **floral/leaf wreath** or **ribbon** (a form typical mainly of the 19th century, ill. 11), or a mourning pall. **The figure of Christ** often appears at the intersection of the cross arms. If the figure corresponds with the background and is made of the same material as the cross itself, **the type of relief** (convex, flat, concave, pl. XXII.I–XXII.III) should be specified. At times, **a metal image of Christ** is mounted on a stone cross. In such a case, we refer to it as a statue, indicating the type of material from which it was made (e.g. cast iron, zinc). The Saviour is often encompassed **by a halo** and **the titulus** is placed above. There may also be an engraved **inscription IHS**, usually framed by a wreath. Sometimes the inscription is stretched across the entire length of the transverse arm. Occasionally, the monogram is engraved in Cyrillic alphabet: **ІНЦІ**[6]. Below the figure of Christ may be **a skull with tibia bones** (ill. 9).

On occasion, **an image of the Sun and Moon** is depicted on the transverse arm. These are meant to indicate the glory of the cross, understood as the throne of the lord and ruler of the Cosmos. Moreover, through their properties as celestial bodies, the Sun and Moon symbolised a part of the Cosmos, the elements of fire and air. This fact served to emphasise that the work of redemption was accompanied by the entire Cosmos, purified by Christ's sacrifice[7].

At the intersection of the arms of a cross is at times a smaller cross carved or made in relief (ill. 10). Alternatively, it may be a bas-relief of **a burning heart** or **a chalice with the Host** and books tied with a stole, which are usually found on tombstones of priests. On the cross, we can also find grape clusters and oak leaves, a palm leaf (pl. XXIV.VIII), or an olive branch (pl. XXIV.IX) made in relief of various depth.

The described decorative motifs may also appear on tombstones with other types of finials or on pedestals.

Small pedestal

Quite often, crosses had their own base, which we refer to as **a small pedestal** for distinction. It is usually not high, and its very simple form was reduced to a recumbent cuboid or cube (pl. III.I). However, there are tombstones

---

[6]   Tombstones were usually made in series, so a workshop could also purchase one that already had the initial inscription made in a language other than Polish. Mixing languages in one tombstone inscription (e.g. Lithuanian/Polish, Polish/Ukrainian, English/Polish) also reflects multiculturalism.

[7]   Kobielus 2000, pp. 81–98. Of course, the makers and commissioners of crosses with this type of decoration were not always aware of their deep symbolism dating back to early Christianity. Inventory workers, however, should be aware of this fact.

wherein small pedestals are profiled (pl. III.II) or framed by volutes or may take the form of acanthus leaves (acanthus cup, pl. III.III). The small pedestal on the front may have various decorative motifs in relief, which should be noted. Alternatively, a part of the inscription would be located here. In such cases, as soon as the small pedestal is described, the wording should be given, or it should be numbered and indicated in the space provided on the inventory card.

Cast-iron and other metal crosses and their decoration

Cast iron began to be used in sepulchral art in the former Polish-Lithuanian Commonwealth in the 1820s–1830s. This was in keeping with general trends in the creation of architectural detail and construction in this material. In cemeteries of the Vilnius region, the earliest examples date to this period. In the Podolia and Ternopil regions, on the other hand, the first cast-iron decorations date from the 1840s.

The most common are cast-iron crosses (ill. 13), usually **openwork** with **floral** and sometimes **geometric motifs**, often with **a medallion framed by** a laurel or ivy **wreath** (pl. VII.II), below which are **statues** set on a profiled ledge. These are usually personifications of theological virtues: Faith (a cahlice, a cross, ill. 13), Hope (an anchor, a sheaf of grain), Love/Mercy (children). The cross may also be accompanied by statues of Saint John and the Virgin Mary, with Mary Magdalene kneeling in the middle illustrating the biblical scene of the Crucifixion (pl. VII.II). In the lower part of cast-iron crosses often features **a small chapel** (ill. 13, 58), usually of neo-Gothic forms, and in it, allegorical statues, figures of putti/angels, Thanatos or Mary[8].

If the arms of a cross are not openwork, they are typically entwined with **ivy, acanthus** or other stylised **vegetal flagellum**, emphasising the belief in eternal life. The arms may be finished with caps, neo-Gothic rosettes, floral forms including acanthus and palmette (plates VII.IV–VII.V).

Undoubtedly, most of these productions are serial ones, cast according to patterns from a catalogue. This is evidenced by the identical copies found in various mutually distant cemeteries in Central and Eastern Europe. Cast-iron crosses in the shape discussed above disappear around 1915. At the same time, there are cases of the arms of cast-iron crosses being framed by s- and c-scrolls as well as spirals.

One type of cast-iron cross is an ornamental cross with deep symbolic content set on rocks entwined by Ouroboros (a serpent swallowing its tail – a symbol of death and rebirth derived from Egypt), decorated with poppy

ILL. 13
Cast-iron cross
on a two-stepped pedestal

8   Vyšata 2005.

heads (symbol of death) and a skull with tibia bones (Adam's tomb)[9] from which a leaf scroll grows out. A medallion, incorporated into the entire composition, usually constitutes the inscription field (pl. VII.III).

'Tubular crosses' are definitely simple forms, either buried directly in the ground and filled with concrete or set on modest low pedestals. Sometimes they are just two pipes with visible rings profiled inside. They may have been made of iron, but also of steel or even twisted cast-iron pipes. Very often their arms are ended with an openwork triple circle (pl. VII.VI). Examples of tombstones with tubular crosses mainly appear from the **1920s and 1930s**. Some of them attempted to give a more imposing form by being framed by s-scrolls or rays (pl. VII.VII).

Wooden crosses

It is very rare to find wooden crosses in cemeteries, of which there were once undoubtedly many more. The oldest ones date back to the 1920s and 1930s. As material, wood is cheap in Central and Eastern Europe but not durable. In addition, there is, even today, the practice of replacing wooden crosses with more ornate and durable stone monuments.

In the northeastern lands of the Second Republic of Poland, more often than in Podolia, wooden crosses were decorated with canopies structurally based on the transverse arm and the upper part of the vertical one. They were made of wood or metal decorated with serrated cut-outs on the edges. The canopies usually have a circular or horseshoe cross-section, although they can also be triangular.

It is quite rare to find figures of Christ on wooden crosses. These may be wood-carved, although more often they are metal figures of crucified Christ. Inscription plaques on wooden crosses are small and made of metal. We also come across carved or painted inscriptions on the arms of wooden crosses, which are generally poorly legible.

2.2. Obelisk/pyramid

A motif readily used in sepulchral art from the 16th century onwards is obelisks, which were given the symbolic significance of eternity, the everlasting memory of the deceased, as well as of his triumph and glory (ill. 14). Although tombstones from the 16th century, where the obelisk is the main component

ILL. 14
Obelisk on a two-stepped pedestal and base

---

9 Zinkow 2009, p. 142; Kobielus 2000, pp. 93–98. Incidentally, Egyptian motifs (capitals in the form of papyrus leaves, images of scarabs and deities) also appeared on 19th-century stone tombstones.

of the monument structure, are known in the Polish-Lithuanian Common-wealth, throughout the modern period it more often constituted an additional decorative element[10]. A change occurred at the end of the 18th century, when obelisks also appeared in cemeteries.

Obelisks **from the late 18th century** and **the first half of the 19th century** are usually not high. However, the closer we get to the 20th century, the greater their dimensions. In the first half of the 19th century, a distinct group is made of obelisks founded on four spheres[11], placed on high pedestals (pl. VIII.I). **Circa the mid-19th century** saw the appearance of obelisks, whose proportions bring them closer to **pyramids**, which is why they are described as such (pl. VIII.V). They are also known from the first third of the 20th century. At the same time, the nearer we get to the end of the 19th century, the more often we come across obelisks with irregular profusely sculptured forms, framed, for example, by slabs ending in variously carved arches or bands with floral decoration (pl. VIII.II–VIII.IV). However, an absolutely unique obelisk can be found in Ternopil, its edges cut in such a way that it resembles a tree[12]. The same cemetery is also home to obelisks covered with palm leaves. Likewise, a rare example of an obelisk is one with a semicircular niche holding an urn or a bust of the deceased.

In the first half of the 19th century, relief depictions of urns (pl. VIII.I), Ouroboros (pl. VIII.III) and laurel wreaths appeared on obelisks, symbolically indicating life crowned with a reward in heaven. Later, the decoration takes the form of palm leaves in bas-relief, which in Christianity signify immortality and glory[13].

Poppy heads have an opposite meaning, i.e. that of vanitas. An inscription was very often placed below this decoration. Classic obelisks had a pyramid-shaped (pyramidal) top. In the 19th century, especially in sepulchral art, gabled or flat-topped forms began to appear. In the absence of a terminological distinction between these forms, we also refer to them as obelisks. Occasionally, obelisks are topped with a small stone or cast-iron cross, as well as an urn (pl. VIII.III). In this context it is important to make sure not to confuse a high pedestal step, tapering upwards, with an obelisk. Proportions are the key, as in the case of an obelisk they are significantly stretched in relation to the pedestal on which it sits.

---

10   Miziołek 1994.
11   They were sometimes replaced by turtles, as well as figures of fantasy animals such as griffins.
12   Czyż 2017, pp. 125–126.
13   Kobielus 2000, pp. 195, 202.

2.3. Column

Since antiquity, the column has not only acted as an architectural support, but as a secular monument. It has also stood for and commemorated human deeds (e.g. Sigismund's column in Warsaw erected in the 1740s). In contrast, column tombstones were popularised in the early **19th century** by the German architect Karl Friedrich Schinkel. In the 20th century, column tombstones became rare. They most often marked the burial sites of the nobility, less frequently of clerks and intellectuals (ill. 15).

On tombstones, the order of columns does not always agree with the antic order (pl. XXIII.IX). Sometimes a column is fluted and additionally entwined with a wreath or grapevine. It may have a clearly distinct base. There may be an inscription directly on the shaft or on a plaque attached to it (pl. IX.IV). Sometimes the column is broken, symbolising a discontinued life (ill. 15).

A variation of this type of tombstone is the replacement of the column with a pillar (pl. IX. IV). Occasionally, a statue is placed on a column (pl. IX.II–IX.III) or a pillar. Sometimes urns were placed on them, or were crowned with a cross.
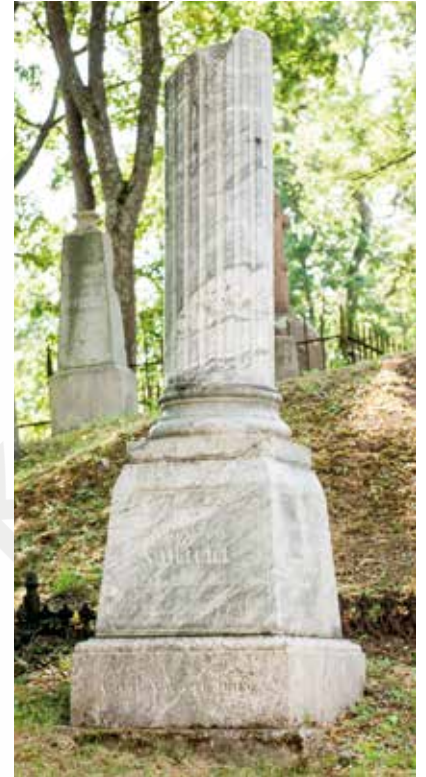
ILL. 15
Broken column
on a two-stepped pedestal and base

2.4. Urn

Urns, set on a pedestal adopting classicist architectural forms, are found in European cemeteries from the late 18th century onwards (ill. 16). They are often covered with a pall in bas-relief (pl. X.I). Another decorative motif is a superimposed relief garland or wreath. The shapes of urns refer to ancient forms, hence there is a need to compare them to the typological inventory of ancient Greek vases and vessels[14].

Tombstones with urns were widespread **around the mid-19th century**. Urns were at times placed on columns/pillars or in aediculae.

They could also be accompanied by statues of weepers/mourners (ill. 47, pl. X.III). At the same time, it should be noted that apart from urns referring to ancient forms were also urns resembling repoussé Baroque vessels (vases, pl. X.II).

ILL. 16
Urn on a pedestal

14   See e.g. Słownik 1997.

2.5. Statue

Monuments with statues of saints (ill. 17), or of the Virgin Mary sometimes depicted as Immaculately Conceived (Immaculata) or in the Rosary type, are quite numerous. One can also find a representation of the Risen Christ, Ecce Homo or that with a burning heart. Very often, especially on children's tombstones, are figures of angels, but not as a rule. In the first half of the 19th century, statues of woeepers or mourners dressed in antique costumes were eagerly used[15] (ill. 47). This role could also be played by putti, which, unlike angels, have no sacred significance. Classical tombstones with figures of geniuses (angels) of death (Thanatos), who guide souls into the afterlife[16], date back to the same period. The aforementioned figures linked to ancient beliefs in the beyond may have been complemented by motifs such as an urn, a column or a sarcophagus.

As far as statues of saints are concerned, we usually, but not always, deal with patron saints of the dead. There are also tombstones topped with a sculptural group such as, e.g. the Holy Family or the Crucifixion group. Some monuments with statues are shielded by a metal canopy[17].

While crosses can stand on small pedestals, statues are usually placed directly on their own base in the form of a slab. This is a result of carving technology on one hand, and a concern for greater stability on the other. The base of a statue should be described separately if it features decoration or when it takes a different form, e.g. of rocks or clouds. Sometimes the artist placed his signature in this very place on the front, which should be necessarily noted in the description.

In the case of statues, **they should be specified** already in the first sentence of the description. This is followed by composition (contrapposto, frontal or other view, pl. XXII.IV–XXII.VII), gestures of the statues (e.g. hands folded in a prayer gesture, arms crossed on the chest (ill. 58), hand pointing to the heart – pl. XXII.XI, a gesture of blessing – pl. XXII.IX), attributes and attire. The vestments of saints, Popes (pl. XXII.VIII) or bishops (pl. XXII.IX–XXII.X) should be

15   Let us mention here a rare statue, also found in Ukraine, of the personification of a particular land or geographical area, which could express despair for a deceased person of merit for a particular region. The statue would be dressed in antique costume and a corona muralis (crown in the type of a fortified wall) would be placed on his/her head. See tombstones by Anton Schimser in memory of Franz von Hauer (1823–1824, Dominican church in Lviv) and the Ponińskis (1833, cemetery in Kowalówka). Czyż 2010, pp. 85–86.

16   Vyšata 2005; Sopniewska 2012.

17   The canopy as a tombstone form is found in more expensive and larger sepulchral productions. Almost any type of tombstone could be concealed under this architectural construction monumentalising the design. The canopies were not only made of cast iron, but also from stone, often in the neo-Gothic or modernist style.

described in a general way, e.g.: Saint Adalbert – in episcopal attire. It should be noted that at times the attributes of a statue do not allow for unambiguous identification. In such cases, consideration should be given to whether this is the patron saint of the deceased. It can be assumed that if the tombstone of a deceased named Stanislaus is crowned with a statue in episcopal attire without any additional attributes, it is a statue of Saint Stanislaus the Bishop rather than Saint Adalbert.

TABLE OF SAINTS AND THEIR ATTRIBUTES

angel	Matthew the Evangelist, Gregory I (pl. XXII.VIII)
apple	Dorothy (3 apples)
armour	George, Florian, Maurice
arrow	Sebastian, Christina, Idzi, Ursula
Baby Jesus	Anthony of Padua, Joseph, Christopher (seated on the shoulder), Rose from Lima, Stanislaus Kostka, Catherine of Siena
balls	Nicholas the Bishop (3 balls)
beehive	Ambrose, Bernard of Clairvaux, Chrysostom
beggar	Martin of Tours (possibly on horseback)
birds	Blaise, Francis of Assisi
biretta	John Cantius (ill. 17), John of Nepomuk (always with a cross, pl. XXII.XII)
boat	Peter the Apostle
bread	Elizabeth of Hungary (basket of loaves), Mary of Egypt (three loaves), Frances of Rome (basket of loaves), Nicholas of Tolentino (receives them from Mary), Nicholas the Bishop
breasts on a tray	Agatha
bucket	Martha
candle	Mary Magdalene, Lucia of Syracuse
carpentry tools	Joseph

chalice (with the Host)	John the Evangelist, Barbara
child/girl – little Mary	Anne
cross	Thecla, John of Nepomuk, Dorothy, Helena, Philip, John the Baptist, Margaret, Francis of Assisi, John of the Cross, Catherine of Siena, Nicholas the Bishop, Monica, Joseph, Andrew the Apostle (oblique), George, Brigid, Casimir
crossed candles	Blaise
crown of thorns	Catherine of Siena, Rose of Lima
crown	Louis, Wenceslaus, Brigid, Sophia, Casimir (ducal), Stephen, Dorothy, Susanna of Rome, Hedvig of Silesia, Hedvig of Anjou
deceased (emerging from the grave)	Stanislaus the Bishop
deer	Blaise, Hubert
dog	Martin of Tours, Eustace, Roch
donkey	Anthony of Padua
ducal mitre	Casimir, Aloysius Gonzaga
eagle	John the Evangelist, Stanislaus the Bishop
eyes on a tray	Lucia
flowers	Dorothy, Elizabeth of Hungary
fruits	Elizabeth of Hungary, Dorothy
galero	Bonaventure, Jerome
girls (three)	Sophia (virtues: faith, hope, love), Nicholas the Bishop
goose	Martin of Tours
grapes	Francis of Assisi
grid	Lawrence
grill	Lawrence
hammer	Joseph

hatchet	Adalbert the Bishop
head	Dionysius (in hand), John the Baptist (on a tray)
heart	Cajetan, Ignatius of Loyola, Catherine of Siena (with a cross), Augustine (burning, pierced by an arrow or bleeding), Teresa (pierced by an arrow), Francis Xavier (burning)
image	Luke the Evangelist (also an ox)
jug	John Cantius
keys	Peter the Apostle
knife	Bartholomew the Apostle
ladder	Alexius
lamb	Agnes, John the Baptist (in camel's hair)
lamp	Clare
leather (stripped)	Bartholomew the Apostle
lily	Casimir, Aloysius Gonzaga, Joseph, Anthony of Padua (pl. XXII. XI), Archangel Gabriel, Catherine of Siena, Clare, Dorothy
lion	Jerome, Mark the Evangelist, Daniel (lions)
medallion with IHS inscription	Ignatius of Loyola, Bernard of Siena
monstrance	Clare, Thomas Aquinas
musical instrument	Cecilia, David (harp, zither)
nails	Helena (also a cross)
nets	Andrew the Apostle, Peter the Apostle
oar	Adalbert the Bishop
organs	Cecilia
ox	Luke the Evangelist
pincers	Apollonia
pliers	Agatha

religious habit (female)	Rose of Lima, Eudoxia (additionally a cross), Hedvig of Silesia (also a crown)
religious habit (male)	Saint Andrew Bobola, Francis Xavier, Anthony of Padua, Anthony the Hermit, Bernardino of Siena, Francis of Assisi, John of the Cross, Bernard of Clairvaux, Romuald, Albert, Thomas Aquinas, Aloysius Gonzaga, Dominic, Benedict
ring	Catherine of Siena
rooster	Peter the Apostle
Rosary	Dominic, Francis of Assisi, Stanislaus Kostka, Catherine of Siena
rose garland	Cecilia, Rose of Lima, Rosalia from Palermo
rose	Dorothy (usually 3 roses or a basket)
royal insignia	Louis, Wenceslaus, Stephen, Henry II the Pious (Silesian Duke)
royal robes	Hedvig of Anjou, Louis, Wenceslaus, Stephen, Casimir
saw	Simon the Apostle
scales	Archangel Michael
set square/builder's square	Thomas the Apostle
shell	James the Elder
shield	Archangel Michael, Maurice (antique armour)
shovel (spade)	Adam
skull	Mary Magdalene, Francis of Assisi, Rosalia, Aloysius Gonzaga
hermit's outfit	Onufry (beard, lean body), John the Baptist
spear	Archangel Michael, George, Maurice, Longinus
stick/cane	Andrew the Apostle, Andrew Bobola, Joseph (flowering wand)
stigmata	Francis of Assisi, Catherine of Siena, Lucia
stone	Stephen the Martyr, Florian (millstone)

suplice	Aloysius Gonzaga, John of Nepomuk (always with a cross, Plate XXII.XII)
sword	James the Elder, Catherine of Alexandria, Matthew the Evangelist, Michael the Archangel, Paul the Apostle, George, Dorothy, Arcadius, Lucia of Syracuse, Victor, Susanna of Rome (represented as a young girl)
tiara and papal vestments, ferula	Leo the Great, Gregory I, Sylvester
tower	Barbara
unicorn	Justina
veil	Veronica
vessel	Florian (with water, can extinguish flames), Mary Magdalene (fragrances)
vestments of a western rite bishop	Blaise, Augustine, Nicholas, Alexander, Dionysius, Adalbert, Stanislaus
vestments of an eastern rite bishop	Basil, Nicholas
wheel	Catherine of Alexandria
wool comb	Blaise

Representations of the Virgin Mary can be found in various types, among which the most common are the following:

» Our Lady of the Rosary (with rosary in Her hands),
» Immaculata (Our Lady Immaculately Conceived, pl. XI.2) – this type appears in various interpretations most often as a statue of Mary standing on a Globe and Moon, sometimes entwined by a serpent. She is often depicted frontally with Her hands in a gesture of offering (spread at Her sides along Her body) or with Her hands folded in a gesture of prayer. She is also sometimes depicted in strong contrapposto with Her hands folded in a gesture of prayer, Her head turned to the side (the so-called perfect Immaculata). She is usually dressed in a gown with a folded waist and a cloak draped over Her back, with a veil over Her head.
» Our Lady of the Scapular,
» Madonna and Child,
» Immaculate Heart of Mary – burning heart, may be framed by flowers. Frequently, representations refer to popular images, e.g. Our

Lady of Lourdes (popularised at the end of the 19th century), Our Lady as depicted in the apparition of Saint Catherine of Laboure (rays from Her hands), Our Lady of Częstochowa, Our Lady of the Gate of Dawn and others.

Less frequent representations (especially in the form of bas-relief decorations of pedestals) depict, e.g. Mother of Mercy for Purgatorial Souls, Mater Miseriordiae (Our Lady of Mercy spreading Her mantle over people) and Our Lady of Sorrows (with the heart pierced by a sword or the sword pointing towards the heart).

Christ is also depicted in various iconographic representations, including Ecce Homo (scourged, wearing a crown of thorns), Christ as the Man of Sorrows (showing wounds) or Christ with a burning heart embraced by a crown of thorns (the so-called Sacred Heart of Jesus representation popular after the approval of the cult in 1856), Merciful Christ (popular after 1934, with visible rays), the Risen Christ (as long as the blessing gesture is not an element of another type of representation, e.g. the Sacred Heart of Jesus), the Infant Jesus, Pensive Christ (thoughtful, sitting with His head resting on His hand), the Good Shepherd (with a sheep). We rarely find other representations, e.g. Salvator Mundi, Christ at the scourging pillar, Christ of Nazareth of the Ransom of Slaves.

2.6. Stele/boulder as a type of tombstone

It is a type of monument in the form of a slab usually set on a much wider and longer base of several steps (ill. 18). Most often, pedestals were left out due to the slab plan of an elongated rectangle (although there are exceptions, naturally).

The origins of the stele can be traced back to antiquity, when it was popular to decorate a standing headstone with either an image of the deceased or a scene with weepers. This pattern was revisited in **the first half of the 19th century** and the stele was then crowned with a pinnacle with acroterions, decorated on the front with a relief, usually of a secular nature.

On the other hand, in **the 1920s–1930s**, steles were created in the spirit of modernism, made of superimposed blocks and decorated with a medallion with an image of the bust/head of Christ wearing a crown of thorns or Our Lady of Sorrows, with an inscription below (pl. XI.III). At this time, the stele may be accompanied on the left or right by a cross (pl. XI.II), as well as vases. This form of stele has been revisited in contemporary terrazzo tombstones exhibited up to the 1990s. The stele could then take the form of an irregular polygon. In the 1920s–1930s, we also find steles with an inscribed cross with a concave face. Very often, such a stele is integrally connected with a fence,

ILL. 18
Stele framed by simplified fluted pillars on a base

ILL. 19
A boulder with an engraved inscription on the front

which takes the shape of concrete pedestals connected with each other by a low wall (pl. XI.IV). The variety of stele forms is characteristic; they may be placed vertically or horizontally, as well as have a closure.

A separate group are steles made of granite, sketchily worked on commonly available post-glacial stones (ill. 2, pl. XI.V). The front of such a stele is polished, while the other sides are worked irregularly, and the whole may give the impression of sawn boulders. They are characteristic of the 19th century. **Around 1900**, they may have had a semi-circular or a pointed-arch end.

A freestanding **pedestal in the form of rocks/a boulder** should be recalled at this stage (ill. 19). Such tombstones are characteristic of the 19th century. On one hand, they were connected with the search for natural elements in garden arrangements. On the other hand, the sense of familiarity associated with the development of private collections of a patriotic nature, which also included naturalia of all kinds, was of considerable importance. In addition, monuments in the form of boulders were ideally suited for objects created in the spirit of Romantic historicism. In accordance with biblical symbolism, they were interpreted as a sign of eternity, for stone as a hard material transcended the fragility of human existence[18].

Sarcophagus on a separate pedestal covered with a gabled slab

2.7. Sarcophagus/stone coffin

Tombstones resembling sarcophagi (ill. 20), including antique ones, are rare. The latter, popular mainly in **the first half of the 19th century**, were sometimes placed on a base. Their chests, where an inscription usually appears on the longer side, were sometimes decorated with upturned torches symbolising extinguished life (pl. XVI.IX). In Classicist productions, the longer side was often decorated with a figural scene (pl. XII.I) depicting the death of the buried person dressed in an antique costume, or a motif of a passage when Thanatos leads his/her soul to the afterlife or, alternatively, an allegorical scene related to the activities of the deceased.

The lids of sarcophagi were accented with acroterions, sometimes decorated with a mask. The sarcophagi may have been topped with a cross or a bust of the deceased 'covered' with sculpturally elaborate fabric (especially in historicist works) or decorated with wreaths (pl. XII.II). Sometimes, a statue of a weeper/mourner was placed next to them. A pedestal for an obelisk could also take this form.

A tombstone in the shape of a stone coffin (pl. XII.III) constitutes a specific variety of a sarcophagus. Because of the need to distinguish the tombstone

Aedicula framed by two pairs of fluted pillars set on a pedestal supporting a simplified beam with pediment

---

18   Kobielus 2012, p. 21.

ILL. 23
Neo-Gothic cast-iron small chapel on a two-stepped pedestal and a base, covered with a roof with four pinnacles and crowned with a cross

form from the coffin containing the corpse, the word 'coffin' is preceded by the adjective 'stone'. However, this fact does not exclude the possibility that this type of monument would be made, e.g. of cast iron, in which case the description should read 'in the shape of a cast-iron coffin'. Tombstones resembling a coffin lid in a much-simplified form, always accompanied by a cross or a statue on a pedestal, are also known and were erected in **the 1920s–1930s**, e.g. at the Rasos Cemetery in Vilnius. The same cemetery also features bands of this shape (pl. XII.IV). From the same period are freestanding stone coffins with dynamic profiled cross-sections (pl. XII.III).

In some countries, e.g. the USA, local researchers have classified sarcophagi into several types (Barrel Tomb, Bale Tomb, Hip Tomb, Pedestal Tomb, Body Stone). We do not use this terminology in the Polish language.

2.8. Aedicula

This is a type of architectural frame, whose structural elements refer to the composition of ancient orders (ill. 21). Usually, there are two columns, possibly pillars or pilasters holding entablature, and usually also a pediment. The whole structure is set set on a base or a pedestal. The area between the columns or pilasters forms a panel/cavity containing an inscription (pl. XIII.I–XIII.II), but there may also be a niche with a relief, e.g. a portrait bust of the deceased, or an urn with a statue, possibly another motif. This space may also be unenclosed, creating an openwork frame for the sculptural form. This type of tombstone often takes classicist forms, but neo-Baroque, a reduced modernist version and neo-Gothic (rare) may also appear. It may assume an elaborate, e.g. a three-part form, in which the side walls flank the aedicula. Sometimes it is made of a material other than stone, e.g. cast iron. The aedicula evokes the form of a chapel, which, incidentally, is consistent with its Roman etymology. Deriving from a chapel, it constitutes its reduced form. Sometimes these types of chapel aedicula can be confused with each other. However, a tombstone of the aedicula type is a kind of frame, while a chapel is a quasi-architectural form. The term aedicula may also appear in relation to, for example, the framing of a tomb entrance, chapel window or chapel façade.

2.9. Cippus

Occasionally, cippius appear in cemeteries (ill. 22). These are tombstones usually square in plan, tapering upwards and covered with a canopy with pinnacles

ILL. 24
Small chapel with a receding front
wall, framed by Tuscan-style columns
supporting a pediment crowned with
a cross on a small pedestal

ILL. 25
Exedra and a bench with a weeping woman sitting on the left. On the extreme axes are
plaques with inverted torches in bas-relief on the axis with a suspended garland framed
by plaques with relief cast, convex inscriptions

and acroterions. Sometimes the canopy is wider than the pedestal. Usually,
cippi do not have decoration referring to Christian symbolism or it is extremely
modest (pl. XIII.III).

Cippius have an ancient origin. They were revisited during the Enlight-
enment, creating a secular tomb monument on their basis. They have been
known in European sepulchral art since the last quarter of the 18th century.
They appeared in Poland in **the 19th century**.

2.10. Small chapel

This is a small building (non-cubature) marking a grave, which does not have
a strictly liturgical function. Most often, small chapels were given a neo-Gothic
form (ill. 23, pl. XIV.II). There are also small chapels erected on a rectangular plan
closed with semicircles with a withdrawn façade embraced by semi-columns or
columns, pillars or pilasters supporting fragments of a beam and a fronton with
an inscription plaque. Their interiors, which may be accessed by several steps,
contain statues of saints (ill. 24). Sometimes they are covered with roofs. There
are also open small chapels, with short sections of walls (pillars) that support
a canopy.

Other small chapels may imitate the façade of ancient temples. Such chapels are mainly found at larger European necropoli. A variant of small chapels with architectural shapes, particularly characteristic of Lithuanian and Belorussian necropoli, are small chapels in the form of a brick and stone plastered pillar covered with a roof, with simplified entablature or even with a cornice (pl. XIV.I). They were mainly built in the first half of the 19th century.

2.11. Exedra

Tombstones of this type, although rare, are found in cemeteries in Western Europe and North America (ill. 25). They have a semicircular shape, usually an open niche and most often with a stone bench placed along the perimeter, the central and extreme axes of which may be accentuated with small chapels. Sometimes it is a semicircular colonnade providing a frame for a traditional tombstone monument.

Another form is that of **a colonnade**. It may be laid out regularly in a straight line, less frequently in a circular section, or it may break off or even appear damaged. In the middle of the colonnade, we usually find a tombstone. Such forms can be found, among others, in historic Polish necropoli, as well as in cemeteries of Western Europe. A colonnade may also surround a tombstone, creating the form of an open rotunda. This type of monument, originating from ancient Greece, is referred to as monopteros.

2.12. Altar tombstone

This type of tombstone is mainly found in cemeteries of Western Europe and North America (ill. 26). It has the shape of a slab supported by small pedestals (usually four or six). The face of the slab is filled with an inscription and modest decoration. In American literature, sarcophagi in the shape of a simple chest enclosed by a slab are referred to as altar tombs and chest tombs. This terminology is not accepted in the Polish language, and we should not use it to describe this type of structure.

ILL. 26
Altar tombstone with a profiled ledger stone supported by two walls

ILL. 27
Ledger stone of profiled edges

2.13. Ledger stone

Ledger stones marking burial sites may be founded on a base (ill. 27). They are typically decorated with a cross in bas-relief, below or above which is a plaque/ frame with an inscription, or an inscription alone (pl. XV.I). Ledger stones are the earliest implementations found in cemeteries (**the fourth quarter of the 18ᵗʰ century – early 19ᵗʰ century**). They are not always rectangular in shape. They may widen considerably at the head, resembling the shape of coffins. The edges of ledger stones are sometimes decorated with a groove or a profile. Monumental ledger stones could also function as monuments, as exemplified by the mausoleum of Marshal Józef Piłsudski's heart in the Rasos Cemetery in Vilnius (ill. 45).

A variant of such monument is a diagonal ledger stone, which has a greater height at the head, reaching approx. 40–50 cm (pl. XV.II). Such ledger stones were most often created at the turn of **the 19ᵗʰ and the 20ᵗʰ centuries** and **in the 1920s** and **the 1930s**. At the same time, there were ledger stones with a cut-out field for floral plantings, which were given the shape of a cross. In the interwar period, there were also ledger stones reduced to a slab with an inscription and enclosed by a band (pl. XVIII.I).

A separate issue is a ledger stone in the shape of a book – closed or open (pl. XV.III). This type was used to honour people of letters and scientists, but also priests. Such a form symbolically refers to the medieval theme of *Liber*

ILL. 28a
Ledger stone with a vertical element at its head (a cross on a pedestal)

ILL. 28b
A contemporary variation on the ledger stone theme

vitale with the Angel of Justice writing down the good and bad deeds of man to present them to God at the Last Judgement[19].

It is very common to find a simple **ledger stone with a vertical element at its head**, e.g. cross or an obelisk on a pedestal (ill. 28a, pl. XV.IV). The description should then begin with the statement: 'Burial site marked by a ledger stone, at the head of which is a cross on a pedestal'. Sometimes the ledger stone is not integrally connected to the vertical element. In such cases, this fact must be indicated, starting from the latter information, i.e. the description reads as follows: **'Burial site marked by a statue on a two-stepped pedestal and a base, in front of which is a ledger stone'**. Sometimes this situation is associated with a marital burial, when two small ledger stones with an unbound vertical element are placed on the grave (pl. XV.V).

In more elaborate tombstones, two ledger stones (two-slab tombstone) or three ledger stones (three-slab tombstone) placed next to each other are sometimes used instead of one ledger stone. In tombstones created from the first half of the 20th century, the ledger stone is usually placed directly on the ground, on a foundation or a band. There may also be a floor surrounding the tombstone (e.g. in the form of concrete paving stones, concrete screed or stone slabs). In provincial cemeteries, ledger stones with vertical elements are mostly pieces of unhewn stone laid on the grave from the belief that the dead whose graves are not covered with something heavy are capable of leaving them to disturb the living. Due to the poor state of preservation of cemeteries, it may prove problematic to find ledger stones, so special attention should be paid to this fact.

2.14. Pedestal, base and band – freestanding pedestal as a type of tombstone

A pedestal (socle) primarily has a structural function. The finial placed on it assumes a given symbolic meaning. It is usually a cuboidal block, which can taper upwards. It is quite common to find pedestals with several steps, which should be described, starting from the bottom (first step, second step), if they are processed in any way[20]. The stabilising function of pedestals did not prevent them from being decorated, and this was done especially from the mid-19th century onwards. The simplest procedure was bevelling (pl. XVI.I) or profiling of the upper edges (pl. XVI.II–XVI.III), less frequently the lateral edges, as well as tapering of the body upwards. A pedestal could also be covered with a wider or narrower

19   Vyšata 2005, p. 26.
20   A pedestal in the form of rocks or boulders (ill. 19) was discussed above on the occasion of the form of a cross stylised as a tree trunk.

slab, sometimes profiled. It was occasionally covered with a gabled or hipped roof (pl. XVI.VI) and could then (in a modest way) imitate a small chapel. Its side walls would then feature panels or even niches with images of saints, often in half-figure and in bas-relief. Such a pedestal could be framed by semi-columns/pilasters. Additional elements included pinnacles (ill. 14, pl. XVI.VII), as well as acroterions (pl. XVI.VIII). The forms of pedestals imitating small chapels are mainly characteristic of the second half of the 19th century.

Around the mid-19th century, cuboidal pedestals with simplified entablature with Ionic, less frequently Lesbian, cymation became fairly common (pl. XXIII.II). Doric cymation is practically never found. The further we go into the 19th century, the more examples we find of the use of simplified entablature (pl. XXIII.IX) limited to the architrave and the cornice. Another possibility was the abandonment of the architrave in favour of **a frieze**, e.g. rhombic, cubic or floral (e.g. anthemion, pl. XXIII.V). Friezes decorated with papyrus leaves are relatively common. Surprising in this context is the fluidity of architectural and ornamental forms, as artists were rarely interested in their fidelity to classical orders or stylistic purity. The end of the 19th century witnessed the appearance of pedestals, whose upper steps may have taken the shape of volutes (pl. XVI.XI) or imitated Ionic capital (pl. XVI.X).

There are also pedestals of slightly more complex forms with **rectangular** or **semicircular uplift**, usually **framed by flattened pyramids** (pl. XVI.IV–XVI.V). Such pedestals were usually crowned with a cross. These forms are characteristic, above all, of tombstones made in **the first half of the 20th century**, although they were known even earlier. The 'herringbone' decoration should be dated in a similar way. Moreover, ornamental motifs on the pedestals correspond with those on the finial elements.

Rare examples include freestanding pedestals architecturally worked out as a type of tombstone (pl. XVII.I–XVII.III). **An abstract form**, which appeared in the second half of the 20th century as a way to mark a burial site, should also be mentioned (ill. 29). It was located either on the pedestal or on the ledger stone.

Very often, the pedestal is set on **a base** shaped as a recumbent cuboid (ill. 1, 17, 23). On one hand, its role is to isolate the pedestal from the ground and on the other, it increases the height of the tombstone, which is particularly desirable when trying to increase its monumental character. Occasionally, an additional inscription (signature) or decoration is placed on the base, which should be meticulously noted before dealing with the description of the pedestal itself.

At times it can be problematic to distinguish the base from the pedestal. In difficult cases, the integrity of the base with the pedestal should be analysed by juxtaposing it with the socle. The base is usually much wider and lower and may be made of a different material than the pedestal. Isolated examples include multi-stepped bases. When the base is straight, we do not describe it. If,

ILL. 29
An abstract form

for example, its upper edges are chamfered or profiled or if it is grained, this information should be provided before the pedestal description.

Due to the state of preservation of cemeteries, it is not always possible to immediately notice the base, which is sometimes overgrown. Special attention should be paid to this fact.

A similar remark applies to the **concrete** (more rarely stone) **band** (pl. XII.IV, XVIII.I), which is often shattered. It reveals, at least in theory, the size of the grave. It connects with the tombstone at the head and may also form a part of its base or fence (pl. XI.IV). The inside of the band serves as a place for planting flowers. Understandably, the band should be measured and its dimensions given separately.

2.15. Panels and plaques

As mentioned above, the inscription in tombstones was usually placed on the front of the pedestal (ill. 9) on a panel taking a variety of shapes. The panels could function independently by enlivening the pedestal block. They were usually quadrilateral or with corners chamfered into a quarter-circular shape (ill. 13, pl. XIX.VII). If the pedestal was tapered upwards, so was the panel. As this is an obvious fact, it should not be included in the description. The panels were also sometimes finished with various types of arches (pl. XIX.II–XIX.III), sometimes with engraved or

grained triangles or rosettes (ill. 30). Oval panels also occur. Very elaborate two-part forms of various depths and shapes should also be noted (pl. XIX.V).

The same forms may have been used for frames in bas-relief (pl. XIX.IX) or carved frames and plaques bearing inscriptions. Plaques or frames with crossettes are quite common (ill. 30). In the case of 'nature' types of tombstones (e.g. crosses stylised as tree trunks on a pedestal in the form of rocks), the plaques are most often in the form of an unfolded scroll (ill. 19, pl. XIX.XI), an open book or an armorial bearing (ill. 12, pl. XIX.X). In cemeteries, among others, in the USA

ILL. 31
Tombstone enclosed by a fence consisting of cylindrical granite posts with cast-iron urns connected by a cast-iron chain

or Canada, a popular type is the so-called gravemarkers (possibly tombstone markers, grassmarkers, burial markers, flush gravemarkers, flat headstones), i.e. small plaques placed directly in the ground (their standard size is 4 x 24 x 12 inches). A variation of these are plaques placed diagonally. We can describe them as 'a plaque of a gravemarker type placed directly in the ground'.

2.16. Fence

A single tombstone or an entire, usually family, plot could be surrounded by a fence usually made of cast iron, possibly wrought iron (ill. 59), and set on a stone/concrete footing. A gate is situated at the front, less frequently at the side. A bench is sometimes placed by the fence. The fence could be decorative, its bars occasionally twisted, joined with c- and s-scrolls or topped with cones, baskets, motifs of lily, lanceolate leaves or spearheads (pl. XX.I–XX.III).

Another type of fence is made of cast iron or other rods/chains connected by stone/concrete posts set at the corners (ill. 31). These could be cuboidal, or in the case of granite ones, for example, cylindrical or irregular. Less frequently, the fence takes the form of a wall, its face may have been decorated with panels. The cuboidal or cylindrical posts may contain additional elements such as urns or flower vases.

The presence of a fence should be noted and described in each case, including its measurements, the material from which it is made, also the method of its mounting to the ground (e.g. concrete footing, concrete and stone foundation). In the description, it is necessary to state where the entrance is located and whether the corners are accentuated. We also specify the other elements that make up the fence structure, e.g. transverse bars. Furthermore, we indicate decorative elements, e.g. chains, circles, candlesticks, floral and other motifs.

The list of tombstone types presented here captures the most commonly used forms. In different parts of the world, they may have multiple variants due to local traditions. If the documentation is compiled for the needs of national centres, we should stick to the typology used in Poland. However, we may indicate in a description that a tombstone is of a given type, e.g. Bale Tomb. Also appearing at cemeteries may be large or locally occurring types of tombstones omitted in the above list such as a pulpit tombstone (with a diagonal slab, on which a scroll or an open book may rest, together with a cantilever) in the form of a mastaba, pylon or with a cushion motif, and sometimes in the cylindrical form of a round moulding (popular especially at the beginning of the 20th century, for example, in American cemeteries, where it is referred to as a Bolster, with a bullet or with animal motifs, usually of a symbolic nature, e.g. representations of a lamb or a sphinx). In addition, we can also come across, especially popular in the 20th century, individualised forms referring to the past interests of the buried person, e.g. wings of an aeroplane.

3. Types of funerary monuments

A funerary monument is an architectural structure clearly distinguished in scale from a tombstone. A funerary monument is usually built on a rectangular plan, with an open interior used exclusively for the placement of coffins (crypt). The opening is typically covered with a slab containing grave handles or closed with a metal door. It may also be situated on top of the structure and covered with a slab, which, when lifted, gives access to the interior without having to dismantle the above-ground structure, as is usually the case with tombstones. It is customary to also refer to larger tomb structures as funerary monuments, even if they do not have a separate opening leading to their interior. However, during an inventory, even if the tombstones give access to their interior by removal of a slab, we avoid referring to them as funerary monuments due to their scale. Neither do we use the term of funerary monument when referring to several tombstones located on a common burial vault.

Apart from some exceptions, the above-ground part of a funerary monument is non-cubature. The monument has no liturgical function and therefore, no altar. Its below-ground and above-ground parts may be made of different material and not necessarily constitute a unified structure. Nevertheless, it is worth noting that in some situations the distinction between a funerary monument and a tombstone is conventional. An example are the elaborate forms of tombstones that appeared as early as in the 1920s and became popular from the second half of the 20th century. These were constructed, for example, from several tombstone slabs and a vertical element at the head (e.g. in the form of a wall or aedicula) and were set on a high foundation or pedestal. In some cases, there are brick chambers underneath (sometimes covered with earth), while in others there are earth graves. Moreover, these objects can be adjacent to similar ones of different sizes. The use of the term 'tombstone' for some of them and the term 'funerary monument' for others is not justified from the standpoint of uniformity of description. Therefore, we refer to them

ILL. 32
Ground funerary monument on a rectangular plan, covered with a slab topped with a cross on a three-stepped pedestal and a base, with an entrance on the axis

ILL. 33
Funerary monument on
a rectangular plan with
a prominent pedestal, covered
with a slab, its pinnacle crowned
with a cross

ILL. 33a
Design of a **funerary monument**
from 1892 with a two-storey
structure. Collection of the
Dąbrowski family of Żołynia

as tombstones. However, if a burial chamber protrudes significantly above the surface (a height of approx. 100 cm can be assumed) and other formal characteristics of a funerary monument are also met, this term should be used to indicate a clearly distinguishable scale.

In stonemasonry terminology, a distinction is sometimes made between tombstones as structures above earth graves (which are therefore not permanently affixed to the site) and funerary monuments as structures with a brick-built burial chamber. This distinction cannot be verified during inventory work because without invasive work it is often impossible to determine whether there is actually a burial chamber under the tombstone. Even though, for example, family tombstones sometimes bear the inscription 'family funerary monument', it cannot be described as such if the object in question lacks the characteristics of a funerary monument.

There are basically two types of funerary monuments found in cemeteries:
» ground funerary monument (pl. XXI.I),
» proper funerary monument (ill. 33).

A ground funerary monument is largely sunk into the ground but clearly protrudes above the surface. It adopts a rectangular plan, and its walls support a vault (usually a barrel one[1]). On the surface, it is covered with slabs, either at the head or at the front (rarely in the middle), in which there is a vertical element such as an obelisk on a pedestal. Sometimes a fence is placed on the top-most slab of the funerary monument.

A variant of this type of tomb is a structure sunk into the ground, but with an architecturally developed single front elevation, which may resemble

---
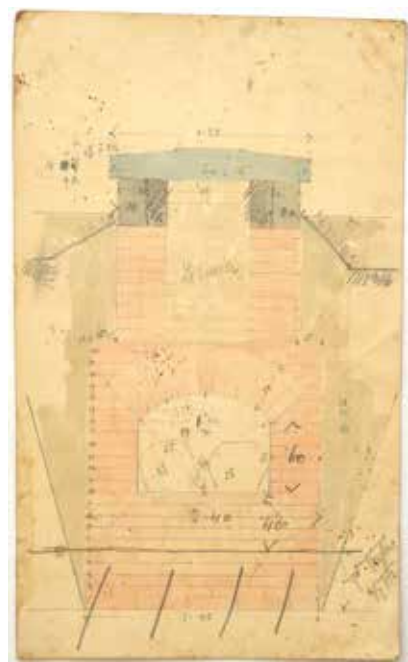
1   It is not always possible to enter or even look inside a tomb, so information about the type of internal covering may not appear in the description.

ILL. 34
Funerary monument
in the form of a cottage

a chapel in its cubic area (pl. XXI.II–XXI.III). Ground funerary monuments are sometimes surrounded by a band/fence, which turns into a wall at the head, sometimes with an uplift topped with a cross (pl. XXI.IV). This type of funerary monument is popular in Lithuania and Belarus.

A proper funerary monument (sometimes referred to as a chest monument) is erected completely above ground. There may be a crypt below it. All four façades are visible, of which the front one is sometimes marked by a pinnacle (ill. 33). If such a structure has cubature dimensions (an adult can stand inside) and a doorway leading to it, it may resemble a chapel. However, the monument has no liturgical function and therefore, no altar.

In larger structures, the interiors may consist of two parts: a vestibule and a proper crypt. In ground funerary monuments, instead of a vestibule, is a staircase leading to the crypt holding coffins. Sometimes, for reasons related to saving the surface area, rails or specially arranged chambers and shelves are placed in funerary monuments to accommodate more coffins inside (pl. XXI.V, ill. 33a).

The façades of funerary monuments and ground monuments with a developed front elevation are usually topped with pinnacles of various forms, e.g. stepped, triangular (pl. XXI.III) or with a concave-convex arch with a cross. They may be framed by urns, vases or obelisks. Sometimes there is a plaque with an inscription in the top field. Plaques are also placed in panels framing the entrance opening. The elevations of tombs are very often faced with rustication or bossage (pl. XXI.II).

Rare are funerary monuments in the form of an ancient **tumulus** (e.g. in Medvedivtsi, the monument linked to the Pieńczykowski family, circa 1810)[2], where a burial crypt is located inside a high mound and the entire monument may be topped with a mourner's statue on a pedestal. Equally rare are funerary monument forms resembling caves.

Also worth mentioning is a type, which constitutes a cross between a tombstone and a funerary monument, i.e. a low **cottage** covered with a gabled roof (ill. 34). Similar structures are known from Lithuanian and Belorussian cemeteries and the oldest ones date back to the 1820s. The cottage form directly alludes to the idea of a funerary monument/tombstone as a 'house of the dead' and a cemetery as a 'city of the dead'. It has its prototype in prints by, among others, Giovanni Battista Piranesi, depicting ancient Roman funerary monuments. Significantly, it was common for the inscription – not only on stone cottages, but on all types of monuments – to begin with the abbreviation **D. O. M.** (Roman invocation: Deo Optimo Maximo, addressed to Jupiter, or an abbreviation of the Roman epitaph invocation: Datur Omnibus Mori – Death awaits us all), in which the dots indicating the abbreviation were dropped, with the resulting word DOM (Polish for HOUSE) denoting 'HOUSE of Eternity' or 'Eternal HOUSE'[3].

2   Czyż 2010, pp. 87–88.
3   Czyż, Gutowski 2019, p. 313.

4. Funerary and cemetery chapels, mausoleums, epitaphs

A funerary chapel is at least a two-storey building (ill. 35). The lower storey contains a crypt. Since an altar is located in the upper storey, the funerary chapel can also fulfil liturgical functions. If there is no altar inside and, through the presence of epitaphs, it only has commemorative functions, then we generally deal with a mausoleum. Another form is a chapel (ill. 36), also known as a catacomb monument, its lower storeys being at least two-level structures intended to house coffins. The catacombs are then accessible from the outside.

A cemetery chapel, on the other hand, generally does not have a crypt and is intended only for rites preceding burial. It can also be used for liturgical purposes of a community, usually in small settlements.

Cemetery chapels, as well as other buildings on necropoli, follow different stylistic conventions. However, they most often adopt historicist forms, including classicist ones, wherein we can find different variants of architectural orders. From around 1900, they also appear in Art Nouveau and modernist versions.

ILL. 35
Neo-Gothic funerary chapel

4.1. Epitaphs

An artistic and architectural form situated in a cemetary chapel or a funerary chapel, an epitaph commemorates the deceased. It does not necessarily have to be associated with a burial site. The main purpose of an epitaph is to commemorate a given person. Three main types of epitaphs have evolved over the centuries:

» **pictorial epitaph**, which contains an allegorical or religious scene,

» **epitaph monument/proper epitaph**, which contains a portrait of the deceased,

» **inscriptional epitaph**, which lacks figural representations and where the entire ornamental decoration is concentrated around the inscription; usually, it is a modest plaque (e.g. marble, ill. 36) with an engraved ornament or framed by columns holding a pediment. This type of epitaph is most commonly found in cemeteries.

It is noteworthy that both a chapel and funerary monument may also contain **a cornerstone plaque** commemorating the construction of the subject building. It must not be confused with an epitaph, especially when its inscription is in Latin.

ILL. 36
(Inscriptional) epitaph

	FUNERARY CHAPEL	FUNERARY MONUMENT	TOMBSTONE	MAUSOLEUM
NUMBER OF STOREYS	Minimum 2	1 or 2	1	Minimum 2
ACCESS TO THE INTERIOR FOR PURPOSES OTHER THAN THE PLACING OF COFFINS	YES	NO	NO	YES
LITURGICAL FUNCTION	YES	NO	NO	NO
SCALE	A cubature construction	Typically, a non-cubature construction, especially in the above-ground section	A non-cubature construction	A cubature construction
ACCESS TO THE INTERIOR WITHOUT HAVING TO DISMANTLE THE ABOVE-GROUND STRUCTURE	YES	Typically, YES	NO	YES

There are some regional differences disrupting this division, e.g. in some Italian funerary chapels, coffins or urns are placed directly in their interior. Consequently, there is no need to erect a two-storey structure.

5. Other cemetery objects

Among cemetery structures, the following deserve to be listed: **ossuary** (place for the collective deposition of bones of the deceased) **catacombs** (a multi-storey structure, usually single-aisle, with niches for the placement of coffins; it could also constitute an element of a larger complex connected with a cemetery chapel and could be framed by arcades, ill. 37), **columbarium** (structure for the placement of urns with ashes, which takes analogous forms, but with smaller niches) **crematorium** (building for the ceremonial burning of corpses), as well as **gravedigger's house** (nowadays most often a cemetery office), **outbuilding** and **a well**. However, these are elements found mainly in the necropoli of large cities (e.g. in Zhytomyr, the Rasos Cemetery and the Bernardine Cemetery in Vilnius).[1]

On the other hand, **fences with cemetery gates** as well as **crosses or votive statues**, and more rarely other forms such as chapels have been preserved in quite large numbers. During a cemetery inventory, special attention should be paid to the former element, and the height and length of the fence and gate should be measured. Votive monuments, in turn, were usually erected on the occasion of founding a cemetery, people's missions or even the abolition of serfdom. Both votive crosses and columns with statues were usually erected at the entrance to a given necropolis. They were sometimes used to mark the

---

[1]   In the course of our work at several hundred cemeteries in the Podolia and Ternopil regions, we did not come across such objects (only sporadic outbuildings can be found). An exception is the Yazlovets catacombs of the Sisters of the Immaculate Conception of the Blessed Virgin Mary, which are located in a monastic garden, and thus perform the function of a private cemetery, i.e. monastic cemetery. Such private catacombs, most often family-owned or associated with a particular monastery, are also found in the Rasos Cemetery. Czyż, Gutowski 2019, pp. 276–279.

Classical **catacombs** (destroyed in the middle)

corners of the original cemetery area. Such objects should be inventoried and recorded in the cemetery card.

There are also **mounds** or artificially built-up hills. They commemorate insurgents of the January Uprising, soldiers of the Polish-Soviet War and Sich Riflemen in Ukraine. Usually topped with crosses, such mounds were not always associated with burial, their past and present purpose being to perpetuate the memory of the fallen. Information about such necropoli elements should be noted in a cemetery card. A similar remark also applies to designated plots, including military ones, as well as plots dedicated for burials of children, victims of disasters and others.

6. Material

Initially, tombstones were mainly made of natural stone and wood. Around the mid-19th century, cast iron became popular. After 1850, artificial stone (concrete) began to appear, strengthened at the end of the 19th century with steel reinforcement (armature), to which we refer as reinforced concrete (ill. 38). It is important to distinguish armature from metal, usually cast iron, lead and, less frequently, wooden mounting posts in monuments made of stone (ill. 39). At the same time, it should be noted that some tombstones are made of concrete/reinforced concrete but faced with slabs of more expensive material e.g. granite (ill. 40). More monumental structures such as small chapels or columns may have been made of masonry (brick, erratic boulders, sandstone) and plastered. Incidentally, it should be mentioned that, although rare, there are also tombstones decorated with ceramic elements (ill. 41).

Nowadays, tombstones are made from an increasingly wide range of materials, including plastics and conglomerates imitating natural stone. This also applies to tombstone plaques. In addition to classic materials, ever more popular are engraving laminates imitating not only metals, but also granite, glass and many other materials (ill. 28b). Laser engravings are most often applied to them, but occasionally also prints (ill. 5). Sometimes, new materials are secondarily used in old monuments.

When describing a tombstone, it is necessary not only to identify the material, but also to specify its colour, possibly indicating its structure (the size and shape of components) and texture (the way in which rock components are arranged), especially if it is the distinguishing element of a monument in a particular cemetery. However, a detailed determination of the stone origin is at times only feasible after taking a sampling for petrographic grinding (invasive methods), using X-ray diffractometry (X-ray phase analysis) or scanning electron microscopy (SEM method and its derivatives). It therefore requires collaboration with specialists from other disciplines – earth sciences and laboratory

ILL. 38
Tombstone armature made of concrete (reinforced concrete)

ILL. 39
Mounting post of a sculpture
made in sandstone

ILL. 40
Concrete tombstone (obelisk on
a two-stepped pedestal) faced
with stone slabs

ILL. 41
Ceramic medallion featuring the image of
Our Lady of the Gate of Dawn

techniques[1]. Due to the high cost of this type of survey, they are not carried out during inventory work. In such cases, it is necessary to determine the material as precisely as possible based on its specific features.

An important clue in determining the type of stone may be knowledge of its locally occurring varieties. Until the end of the 19th century, regionally quarried material was used in the production of most tombstones. However, with the development of means of transportation, raw material began to be imported even from distant locations, making an unambiguous identification more challenging. Thus, at the turn of the 19th and the 20th centuries, cemeteries of the Republic of Poland witnessed an ever-growing use of Swedish stones (including granites and 'black swede', which had already been used earlier, but only for interiors, as they were extremely expensive), Finnish stones, valued Italian granites and, of course, marbles. A field of stone deposits used in the territory of contemporary Belarus, Lithuania or Ukraine, but also in Poland, were stones mined in Volhynia (e.g. pink granites, basalts).

When specifying the colours of a given stone, we do not limit the identification to primary colours, but make use of basic colour names, e.g. black,

1   Studies published in book form can also be helpful, for example: Kozłowski, Żaba, Fediuk 1986; Łydka 1985; Majerowicz, Wierzchołowski 1990; http://bc.pollub. pl/dlibra/publication/5029/edition/4929/content?ref=ds and the portal http:// slownikgeologiczny.wikidot.com.

yellow, pink, red, blue, green or their combination, e.g. brown-blue. We avoid using terms denoting shades, e.g. burgundy, fuchsia, indigo.

6.1. Natural stone

Most often it appears in the form of ground or polished blocks[2] and hewn sculptural forms. Sometimes rough erratic boulders are used to create a monument (ill. 19). This causes many problems with correct identification, partly due to differences in the use of terminology. A typical example of this is the use of the commercial term granite for all types of igneous rock. The nomenclature of building stones is regulated by standards (EN 12670:2019 – Natural stone – Terminology), which also adopts the commercial definition of granite as a compact, easily polished natural stone used in decoration and construction, consisting mainly of minerals with a hardness between 5 and 7 on the Mohs scale, such as quartz and feldspar. This means that it is not incorrect to use the generic name granite in a description, but it should then be indicated that we are using a commercial and not a petrographic term. However, we should strive for greater precision in indicating the material by referring to it as an igneous rock and, if possible, indicating its specific type (e.g. diabase or gabbro) or commercial name (e.g. Absolute Black or Black Swede).

6.1.1. Magmatic rocks

These include granite, basalt, granodiorite, syenite, diorite, gabbro, labradorite and porphyry. They have an open-crystal structure, except for basalt. They are compact and hard, with negligible porosity and absorbability, and are suitable for polishing.

Commercially, most magmatic rocks are now conventionally referred to as granite, a nomenclature often upheld by stonemasons themselves. This is due to both tradition and fashion for granite[3]. This is especially true of dark

ILL. 42
Tombstone made of basalt

---

2   Stone flaming is also popular nowadays, but is not used for marble and limestone, as their structure is altered by heat.

3   It is easier to sell a tombstone described as made from granite than if the stone used is described as diorite or gabbro. Nowadays, when stones from all over the world are readily available on the market and there are even cases of stone colouring (e.g. to obtain a deeper black colour), it is very difficult to correctly identify not only the type of the material used, but also its place of origin. Today, the largest exporters of various types of 'granite' include: China, India, Brazil, Italy, Spain,

rocks, which may in fact be, for example, diabase, granodiorite or gabbro. Light blue larvikite, very rarely found in cemeteries, is also referred to as granite or labradorite. Efforts should be made to identify the actual stone used and, if this is not possible, add a question mark (e.g. gabbro?). Unfortunately, recognising the right type of igneous rock 'by eye' is - especially in the case of dark rocks - highly prone to error, so it is better to use a general term, e.g. igneous rock (or the so-called granite), possibly specifying the probable nature of the stone (e.g. dark grey igneous rock probably diabase) than to give an uncertain name of the stone.

Please note that igneous rocks change their colour significantly when polished. This is due, on the one hand, to the fact that the polishing process changes the texture of the stone's surface, making it smoother, which reflects less light compared to a rough surface, which gives the impression of a darker material. In addition, stones contain minerals that can come to the surface when polished or, conversely, the polishing process can lead to the loss of certain minerals, which can also affect the colour of the stone. Polishing also removes a thin layer of sediment (dirt, impurities) that can scatter light or mask the true colour of the stone.

» Gabbro – dark green or almost black, tarry (ill. 42). In sepulchral art of the 19th and the 20th centuries, it was used to make the facing of obelisks. Gabbro was most often found in a polished version. It is a rock with a high resistance to weathering. It was a popular material among wealthy individuals and was imported among others from Scandinavia and Belgium. Its large reserves are also found in Ukraine (also in the Zhytomyr-Horoshova and Kamienny Bród areas). Its structure is coarse-grained, but there are also medium- and fine-grained varieties[4] (ill. 52.2) similar to diabase (ill. 52.3), but with a slightly different proportion of elements, yet imperceptible macroscopically. Fine-grained gabbro as a raw rock is grey, but with polishing it can attain an almost uniform black appearance, slightly broken by lighter grains. Despite its popularity, this stone is rarely used in sepulchral art. Closely related to gabbro, norite is also used in sepulchral art; when polished, it resembles diabase.

» Granite – white, light and dark grey, pink, red and even brownish red, cherry, greenish and orange, most often polished (ill. 43). Due to its composition, it does not appear in black colours, as the dark mineral content can be as low between ten and twenty percent (ill. 52.6). It is a very weather-resistant

ILL. 43
Tombstone made of granite

ILL. 44
Tombstone made of diabase ('black swede')

South Africa, Belgium, Turkey, Portugal, Norway and Finland. In Europe, stones from Italy, Greece, Spain, Scandinavia, Ukraine, Poland and the Czech Republic are particularly valued. Kupiszak 2020.

4   Fine-grained texture – grains of less than 2 mm; medium-grained texture – grains of 2–5 mm; and coarse-grained texture – grains of more than 5 mm.

ILL. 45
Tombstone pedestal made of basalt

ILL. 45a
Tombstone pedestal made of basalt
(close-up)

rock commonly found in the form of erratics, i.e. erratic boulders (ill. 19), with characteristic-coloured streaks. Poorly worked and unpolished granite was readily used in the production of provincial tombstones until the mid-19th century. It often came from local deposits. Sometimes, for greater effect, both hewn and polished granite was used in the same monument, thus juxtaposing different textural and light-reflecting effects. In cemeteries, fine- to medium-grained varieties without xenoliths (inclusions of other rocks) were the most favoured. Among those popular in the eastern territories of the Polish-Lithuanian Commonwealth were so-called klesovite granites (light brown and slightly pink, fine-grained, sometimes with streaks of quartz veins), rapakivi granite – with characteristic large light-coloured blasts in a dark grey rock body. Mainly quarried in Finland, they were also found in Poland, among other places. Reddish-pink granites, quarried, for example, in the vicinity of Tomashhorod, have been used extensively. So-called **'black swede'** is also referred to as granite. This stone is readily imported and used in cemeteries because of its deep black colour, particularly popular in the 19th century in the circles of wealthy intelligentsia. Contrary to popular belief, however, it is not granite, but diabase (dolerite), with the same mineral composition as basalt, but with a coarser grain (ill. 44). When polished, it produces a deep black effect with punctuated lighter irregular grains discernible at close range (a photographic close-up shows a greater variety of polished rock). Occasionally, the name

ILL. 46
Tombstone made of labradorite

ILL. 46a
Light brown granite in contact with brown labradorite with large blasts. Origin: the vicinity of the Klesiv, Wyry quarry

was also applied to diorite (ill. 52.4) and fine-grained gabbro. Other stones called granite are light grey and sometimes brown granitoids, i.e. plutonic rocks, medium to fine-grained. They are light grey, but brown is also common. Less frequently encountered is granulite and more common is gneiss (ill. 52.16). The latter is a stone with a range of colours from grey through red, shades of green, blue to grey and dark grey. Typically, its texture is directional, and its structure is medium- to coarse-grained.

» Granodiorites belong to plutonic rocks. They are similar to granite, but with slightly different proportions of minerals, so they can be darker in colour. Those found in cemeteries are often dark brown, sometimes giving the impression of black. Their structure is medium to coarse crystalline. Sometimes granodiorites are referred to as syenite, e.g. the popular 'Kosmin syenites'.

» Basalt is an intensely black or greyish black, very hard stone (ill. 45). It can be polished or merely hewn. It is the most common effusive rock, and its largest deposits are ocean floors. In Europe, basalt quarries can be found in Ukraine (e.g. Janowa Dolina in Volhynia) and Germany, and it is also widely quarried in the United States. Its structure varies depending on the lava solidification process. The minerals from which basalt is composed are so fine that it is often impossible to recognise them macroscopically. As a result, basalt may appear to have a uniform (aphanitic) rock structure, which is dark grey or black when polished (ill. 52.1). However, it usually has a fine- to dark-grained structure with even grains. Some of its varieties, when polished, reveal characteristic black spots resembling drops (pyroxenes, possibly amphiboles). Lustrous minerals are not visible in basalt with the exception of quartz basalt. It is relatively easy to confuse basalt with gabbro, but longer-solidified gabbro has more visible minerals, while basalt is fine-grained. Polished basalt tends to tarnish. However, despite its popularity, this material is rarely used in tombstone production.

» Syenite is a stone of various colours with grey-black and dark grey varieties most commonly used in cemeteries, although we can also find pink or greenish varieties (ill. 52.5). It appears as a fine- to medium-grained stone with a more pronounced texture than basalt. Macroscopically, fine-grained structured syenite is very similar to fine-grained gabbro in fine texture, but different from coarse-grained varieties. Used sporadically until the 19th century, it was more common thereafter. It is quarried mainly in Ukraine (with a characteristic greenish colour), Norway, France and Sweden. Large deposits are also found in Russia, Romania, Bulgaria, Switzerland, among others, and outside Europe in the United States, Egypt (from where it derives its name) and Australia. As mentioned above, some granodiorites have been mistakenly referred to as syenite, but the same happened to syenodiorites such as 'syenite from Przedborowa'. In

these cases, even the correct designation of the material can be very difficult. Therefore, when uncertain about the nature of the stone, it is safer to use the designation 'syenite (or possibly syenodiorite or granodiorite)' to avoid misclassification.

» Diorite is a grey, dark grey or black-grey stone with visible luminous flecks of coarse speckled texture. It is one of the less common rocks. Nevertheless, it was used quite often, especially in antiquity, but also later until the 19th century. It is very similar to gabbro and syenite, which is why these rocks are difficult to distinguish macroscopically. Due to its hardness, it is difficult to work with, but very durable. A rock similar to diorite is monzodiorite, which at times is also confused with syenite.

» Labradorite is a variety of anorthosite with a dark brown, dark grey, or dark blue colour giving the impression of a black stone with rainbow reflections (the best known is spectrolite from Finland), coarse-grained (ill. 52.7). Monzonites, e.g. Norwegian, known as labradorite, can also be found. There is also a greenish labradorite imported from quarries near Kyiv, as well as black-grey and reddish from Sweden. In the second half of the 19th century, it was popularly used to make obelisks on pedestals, among other things. Due to its relatively rare occurrence, it was an expensive material, but was desired by clients, not least because of its unique decorative qualities. Viewed from different angles in different lighting, it produces outstanding colour effects. Its characteristic features include iridescent blasts of shimmering blue, or 'peacock eyes'[5] (which are plagioclase crystals, ill. 46). Differentials of anorthosite magmas are charnockities quarried, for example, in Sweden, while rocks from the anthracite group in several variants are found, for example, in Ukraine.

» Monzonite is a common igneous rock named after the mountain range near Trento in Italy. It is a coarse-grained rock that was formerly classified as a type of gabbro. It differs from syenite in that it contains less alkali feldspar and from monzodiorite in that it contains more plagioclase. One of the monzonite varieties is the highly valued larvikite occurring locally in Norway. The previously mentioned syenodiorite is related to monzonite.

» Porphyry is known, among other things, from the sepulchral monuments of ancient Rome and Byzantium erected for the erstwhile elites, as well as from sophisticated works of the Middle Ages and the Renaissance. Due to its price and lack of access to deposits, it was rarely used in 19th-century cemetery art. It now appears more frequently. Italian porphyry was particularly valued. It is typically cherry-coloured[6] and contains larger crystals of quartz

5   Wiszniewska 2009.

6   A particular variety is purple-coloured porphyry, the so-called Imperial Porphyry, which comes from a mountain currently named Jabal Abū Dukhān (Egypt).

ILL. 47
Tombstone made of sandstone

ILL. 48
Tombstone made of limestone

(there are also porphyries devoid of quartz) and feldspar (ill. 52.8). This makes porphyry similar to some varieties of red granite (e.g. Hungarian) for which it has sometimes been substituted in prestigious productions. Unlike granite, which is a deep-sea rock, porphyry, like basalt, is an effusive rock formed by a rapidly progressive process of lava crystallisation. This causes its more uniform structure. In addition to shades of red, porphyry also appears in a dominantly grey colour, but its use in cemetery art is limited.

Particularly in the case of black stones, it can be very difficult to determine correct material. These are usually magmatic rocks such as anorthosite, basalt, diabase, gabbro and diorite. Although they are all called granite, they differ in their chemical composition (also having little or no feldspar). Once they have been polished, the differences between them can be difficult to grasp. Popular black rocks include diabase or 'black swede', which is a stone that is deep black but broken by lighter grains. Another black rock, usually with a fairly uniform fine-grained texture with characteristic black eyes is basalt. Gabbro, which appears in coarse, medium and fine-grained varieties, has also been readily used. In cemeteries, the latter variety is the most common with colours ranging from deep black to grey, making gabbro similar to syenite. This stone, in turn, can also pose a number of difficulties. Its structure is similar not only to gabbro, but also to diorite and granodiorite. Syenites also come in fine-grained varieties and a dark grey colour. Not only magmatic rocks produce deep black. Another example is limestone, which is characterised by a more uniform structure, but is more easily subject to tarnishing processes than volcanic rocks. Quartzite, as well, comes in a black variety with a uniform structure and no visible grains.

6.1.2. Sedimentary rocks

These include sandstone and limestone, which are common throughout Europe, as well as alabaster.

» Sandstone is porous, with a texture of varying degrees of granularity, but rather fine-grained and sometimes visible as layering (it gives the impression of pressed sand, ill. 9). It is fairly easy to work (ill. 47). There are calcareous, siliceous, clayey and quartzitic sandstones with the possibility of polishing. They range in colour from cherry-red and brown, through red, yellow and greenish to light grey and light cream in the mass or in veins. Their texture is medium- to coarse-grained, homogeneous or layered (ill. 52.9–52.10). The latter ones have a low resistance to weathering. For example, in cemeteries of Ukraine, poor-quality red and brown sandstone is obtained from local quarries is most common. In present day

Poland, there are dozens of sandstone mining areas, which vary in local varieties. The same is true for Ukraine, Latvia and Estonia. Some of the most durable are red sandstone found in Podolia and Volhynia and white Szydłowiec sandstone (Tumlin, Wąchock, Suchedniów). Podolia sandstone, particularly popular, was exported (in the form of blocks, but also partially prefabricated monuments) to centres even several hundred kilometres away. Sandstone is a cold rock. Meanwhile, limestone is warm and warms up quickly when touched with a hand.

» Limestone – its structure shows grains (ill. 52.11) but also petrified organic remains (shell and plant fragments). Limestones can be porous (so-called light) or crystalline (so-called compact). Both types are very soft, although they harden with time when exposed to air (ill. 48). Porous limestones are light to dark cream in colour with a fine- to coarse-grained structure and show no weathering resistance. Compacted limestone is much more durable (often referred to as building/technical marble) and is white, yellowish, grey, red or black in colour (e.g. Dębnik) with a wide variety of textures (monochrome, multi-coloured, speckled or veined). It is most often polished, but over time loses its polish, tarnishes and needs to be maintained. It is often used, especially in inscription plaques, because of its decorative qualities and ease of working (compared to much harder marble or granite), as well as its lower price. On the other hand, pelitic limestones (dead limestone, a variety of which is travertine with a characteristic streaky texture – ill. 51.20, limestone tuff), as well as limestone opoka (a siliceous rock containing calcite, which is a transitional form between limestone and flint) are light in colour, light cream, yellowish, light grey. Their structure is mostly homogeneous with the character of a calcite mass. These varieties are difficult to identify, so we use the general term 'limestone', possibly distinguishing the characteristic travertine. Limestone is rarely polished and is most often subjected to sketch-based machining (clear tool marks). It was popular in the 18th and the 19th centuries and was used somewhat less frequently thereafter. Unfortunately, it is easily impacted by outdoor conditions. Crosses were often made of limestone. Its deposits are found, among others, in central Poland (Świętokrzyskie Mountains, Kraków-Częstochowa Upland) and in the Ukrainian region of Zakarpattia. Hard limestone is quarried, among others, in Podolia (near Kamianets-Podilskyi and Skala-Podilska), as well as much softer Miocene limestones, one of the largest deposits of which is located near Kamianets-Podilskyi.

» Alabaster is a finely crystalline variety of gypseous rock, which is one of the more glamorous sculptural materials used since antiquity (ill. 49). However, it is found only sporadically in cemeteries of Central and Eastern Europe due to its poor resistance to weathering. Alabaster was used, among other things, for inscription plaques and applied on some monuments at

ILL. 49
Cross made of alabaster

ILL. 50
Tombstone made of marble

the Lychakiv Cemetery in Lviv, but is known to have been used in the 16th–18th centuries in the art of the Polish-Lithuanian Commonwealth. Alabaster is translucent, see-through, light in colour, ranging from milky through yellowish, honey, light grey, dark grey, olive, olive-brown, while its texture is homogeneous or veined, finely crystalline and compact (ill. 52.12). It is a very soft and easily worked material. In addition to alabaster, harder stromatolite gypsum was also used with clear layering and a dark, generally olive-dark grey colour. Very large and already dormant alabaster deposits are found in Ukraine (Podolia and the vicinity of Lviv) and in South-Eastern Poland (e.g. in Bochnia and Łopuszka Wielka). Stromatolite gypsum is found in Ponidzie (around Wiślica and Chotel Czerwony) and in Podolia. In 19th century Silesia and Greater Poland, light-coloured alabaster from Thuringia and Hesse was occasionally used to decorate cemetery tombstones.

6.1.3. Metamorphic (transformed) rocks

These include marble, serpentinite and quartzite, which were formed from magmatic and sedimentary rocks.

» Marble – a very hard non-porous stone with characteristic veins (streaks, ribbons) and spots resistant to external factors (ill. 50). Its texture can be fine-, medium- or coarse-grained, often layered (ill. 52.13). It has a wide range of colours: from white, light grey, dark grey, yellow, greenish, pink, to brown and black (with veins and spots of very different shapes and sizes). Marble was usually polished. It is a rock that feels very cold when touched and its natural deposits can be found in the Apennine Peninsula, the Pyrenees and Alps, and at some points in the Balkans, Russia and other regions. In cemeteries of Central and Eastern Europe, marble appeared in the 19th and the first half of the 20th century from Laas/Lasa in South Tyrol, Styria and Carinthia (Austrian-Galician circle) and from Bohemian, then Prussian Lower Silesia (Gross Kunzendorf, Saubsdorf, Prieborn). The expensive and difficult-to-process material was replaced by various varieties of coloured limestone or, in most cases, granite and labradorite. It was sometimes imitated in coloured concrete. Black varieties of limestone such as 'Dębnik marble' or 'Kielce marble', as well as 'noir belge marble', were also referred to as marble. When hydrochloric acid (concentration of 3%) is applied to marble, the material reacts by releasing gas (it bubbles up and foam is visible). Light-coloured, fine-grained marble can easily be mistaken for polished limestone, which is often used, for example, in contemporary tombstones in the UK, where it successfully imitates marble.

» Serpentinite – light to dark green, often streaked with or without white patches but of a fibrous character, it is sometimes called 'green marble'

(ill. 52.14). It can also occur in shades of brown and is often encountered in Silesian cemeteries. Quarried in the vicinity of the Ślęża Mountain and the town of Niemcza in the second half of the 19th century, it was sometimes imported to other areas, e.g. Greater Poland, Bohemia and Moravia.

» Quartzite is a transformed or sedimentary rock, depending on the recrystallisation process. It has a light grey, grey-blue, brown or yellow-red colour, a uniform and glassy structure with an uneven fracture surface (ill. 52.15). It is a hard stone highly resistant to weathering. It can be found among others in Lower Silesia from where it was imported in the second half of the 19th century to Lesser Poland and to eastern Galicia.

ILL. 51
Examples of textures of popular polished stones used to make tombstones
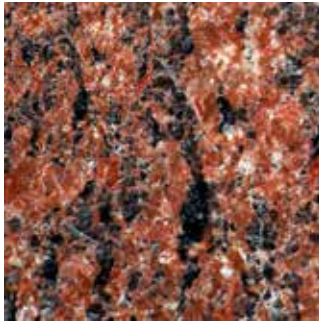
ill. 51.1 Granite

ill. 51.2 Porphyry

ill. 51.3 Gneiss

ill. 51.4 Gneiss
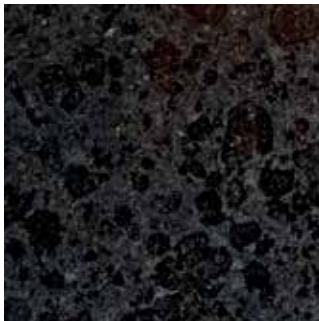
ill. 51.5 Basalt
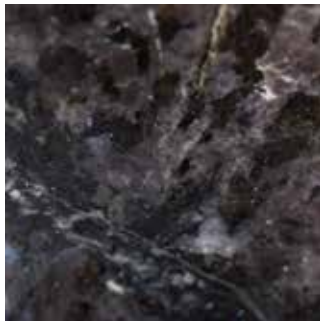
ill. 51.6 Gabbro (coarse-grained)

ill. 51.7 Diabase (dolerite)
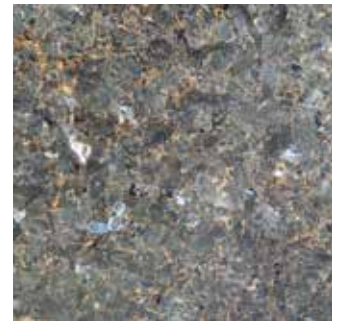
ill. 51.8 Labradorite
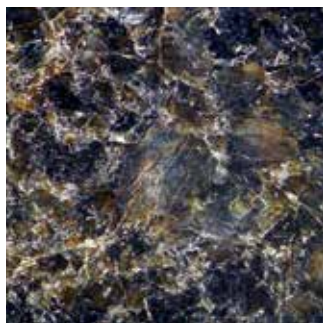
ill. 51.9 Chernokit

ill. 51.10 Granite

ill. 51.11 Granite

ill. 51.12 Gneiss

ill. 51.13 Granodiorite
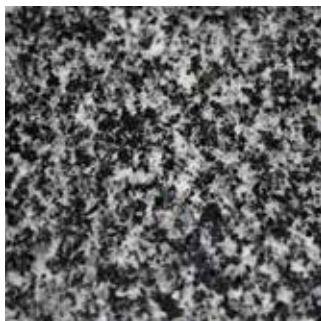
ill. 51.14 Diorite

ill. 51.15 Syenite
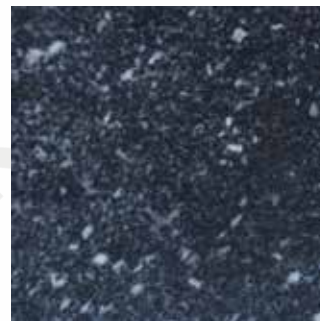
ill. 51.16 Syenodiorite

ill. 51.17 Red sandstone

ill. 51.18 Sandstone

ill. 51.19 Limestone

ill. 51. 20 Travertine

ill. 51. 21 Black quartzite

ill. 51.22 Marble

ill. 51.23 Serpentinite
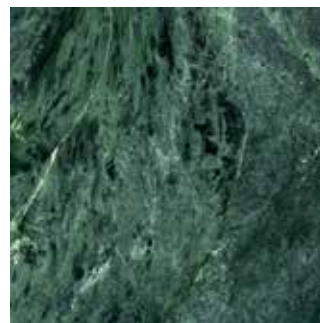
ill. 51.24 Alabaster

ILL. 52
Overview of selected stones used in the creation of tombstones

ill. 52.1 Basalt

ill. 52.2 Gabbro

ill. 52.3 Diabase

ill. 52.4 Diorite

ill. 52.5 Syenite

ill. 52.6 Granite

ill. 52.7 Labradorite

ill. 52.8 Porphyry

ill. 52.9 Sandstone

ill. 52.10 Red sandstone

ill. 52.11 Limestone

ill. 52.12 Alabaster

ill. 52.13 Marble

ill. 52.14 Serpentinite

ill. 52.15 Quartzite (graphite)

ill. 52.16 Gneiss

6.2. Artificial stone

Such material was created by the ancient Romans, who perfected the technology for producing concrete, which had already been known in ancient Egypt, among other places. Today's concrete has the same properties as Roman concrete, although the composition is slightly different. Its variant is ferroconcrete (ill. 38). Another artificial stone found in cemeteries is terrazzo.

» Concrete is formed when cement (a clinker sinter of marl or limestone and clay, ground with gypsum) sets with water (ill. 8). To increase the strength of this material, cement is mixed with aggregate, usually gravel, sand, or expanded clay, before water is added, hence its structure is granular and irregular (ill. 53–54). It found widespread use in the 19th century, due in part to improvements in its properties resulting from the refinement of cement. Used in construction for structural elements, it was also applied for decoration. Concrete was used in cemeteries from the mid-19th century onwards, mostly for bands, but also for crosses and entire tombstones. A durable material, it can be coloured in the mass.

ILL. 53
A tombstone cast in concrete

ILL. 54
Concrete with clearly visible sand grains

» Ferroconcrete (reinforced concrete) – from the late 19th century on-wards, concrete began to be used together with steel bars. This com-bination resulted in the creation of a material that was very strong and also fire-resistant, ideal for structural elements. Ferroconcrete was also used to make tombstones, especially figures and crosses (ill. 38). Metal rods (armature) provided additional ease when creat-ing highly disjoined shapes. We are usually unable to determine the method of construction of a monument, hence we refer to it as con-crete. Ferroconcrete was sometimes used in fences.

» Terrazzo is an artificial stone material consisting of a binder (grey or white cement) and a filler: grit (aggregate from natural stones), gravel, and sand, which gives it a characteristic appearance (ill. 56). Terrazzo is sometimes coloured in the binder. It has polishing properties but can also appear as washed terrazzo. Used since the mid-19th century, it became very common in the architecture of the first half of the 20th century, as it imitated stone, while being much cheaper. It was used to make complex sculptural compositions, also in cemeteries – both as casts on steel structures (armature) and as simple slabs on graves. Carefully produced terrazzo is a durable material.

There can be some problems in distinguishing sandstone from concrete or even limestone or, in some cases, marble (ill. 55). When subjected to outdoor

ILL. 55a
Clearly distinguishable tombstone made of concrete (left) and one made of sandstone

ILL. 55b
Tombstones made of sandstone (left) and concrete (right) with a very similar texture making it difficult to distinguish the material

ILL. 56a
Washed terrazzo
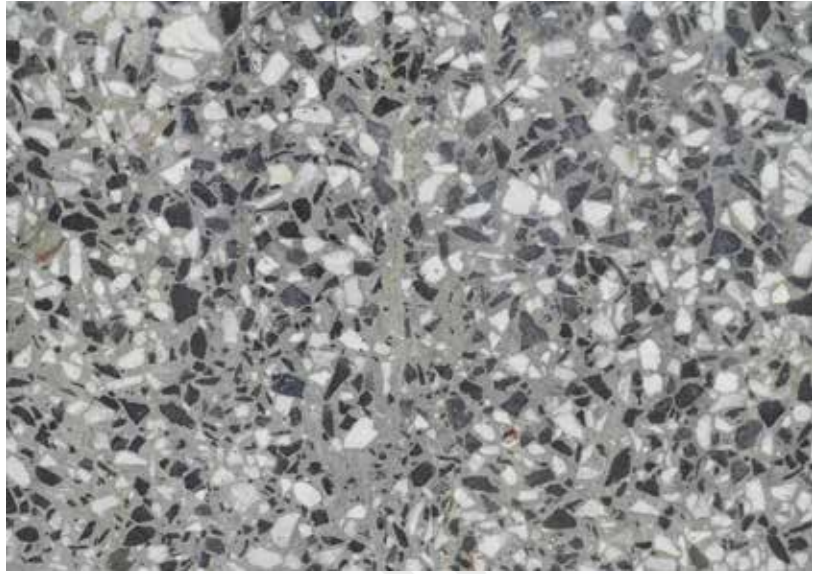
ILL. 56b
Polished terrazzo

conditions over the years, these materials weather, undergo other corrosion processes and grow lichen. As a result, they can look very similar. If we can see distinct uniform jointed blocks of stone, this indicates that we deal with sandstone. The concrete we encounter in cemeteries is also sometimes weaker, not only is it crumbling, but also sand grains become visible. Of course, these differences are not always so pronounced. Particularly nowadays, we can also find high-class concrete of a completely uniform structure.

Stone is subject to various types of damage. It is caused by atmospheric and environmental factors, devastation, as well as lack of care or improper care, e.g. use of improper cleaning or maintenance products. As a result, we can observe fractures, breaks, cavities (including weathering cavities), cracks, fissures, micro-cracks, breaches, scratches, chipping, including mechanical, delamination, flaking, pitting, weathering, as well as disintegration of stone. Polished surfaces can lose their properties and become rough. Joints connecting the individual elements of the monuments may also become chipped.

Appearing on stone planes are biological build-ups (e.g. mosses, lichens, algae, microflora spores, fungi) and atmospheric build-ups (ill. 57), which can weaken the stone structure (as can the vegetation covering the stone), among other things leading to the phenomenon of stone saccharification (sprinkling of calcite crystals). All these elements should be described in as much detail as possible in the tombstone card. Light-coloured, fine-grained marble can easily be mistaken for polished limestone, which is often used, for example, in contemporary tombstones in the UK, where it successfully imitates marble.

ILL. 57
Tombstone (made of sandstone)
deteriorating due to weathering and
lichens

6.3. Metal alloys

Metals became widespread in cemeteries in the early second quarter of the 19th century. This stemmed from the fashion for a modern and relatively inexpensive material from which highly decorative forms could be created[7].

6.3.1. Cast iron

It is highly resistant to corrosion (ill. 58). Tombstones made from this material are usually different forms of crosses, which appeared from the 1830s to the 1940s. (ill. 13). Cast-iron statues in bas-relief (e.g. manufactured by the Warsaw factory of Karol Juliusz Minter), slabs, columns or small chapels are rare (ill. 23). As far as metal decorative detail on stone monuments is concerned, the most common are palm leaves, figures of crucified Christ attached to crosses made of e.g. wood, gorgets or images of the Virgin Mary, as well as grave handles or cast-iron doors of funerary chapels. As material, cast iron was readily used for fences (ill. 31).

Some iron castings are characterised by decorativeness and elaborate ornamentation different from local stone workshop productions, with a repetition

ILL. 58
Cast-iron small chapel

7   See Sakwa 1974.

of forms and sometimes an elaborate iconographic programme. Unlike the artisanal production of locksmith workshops operating mainly in local markets, iron castings were distributed over large areas. Hence, identical objects can be found even in distant centres, e.g. Viennese makers supplied their products both to customers in the Imperial capital and in Galicia, while products of Lviv ironworker workshops can be found mainly in Lviv itself and in nearby centres. In the Congress Kingdom (of Poland), production was concentrated in Warsaw, the Old-Polish Industrial Region and the area around Częstochowa.

In addition to cast iron, steel and other metal alloys were also used, especially in simple productions. These materials served in the manufacture of pipes, rods and c-scrolls. They were used to make crosses, fences and simple decorations. In the case of these elements, it can be difficult to distinguish whether one deals with iron, cast iron, steel or another alloy.

6.3.2. Wrought iron

Wrought iron is most often used for tombstone fences (ill. 59), less often for crosses or other types of tombstones. The production of more decorative designs was usually entrusted to ironworkers in large urban centres. Iron is a material known almost since the dawn of mankind, softer than cast iron, but also more susceptible to corrosion. Thanks to its properties, it allows for

ILL. 59
Wrought iron

fluid, intricate forms, unlike iron casting, which has a more uniform, compact structure. Forged pieces are formed from bent iron slats and rods, often ending in lanceolate shapes. Typical decorative details include diamonds, s- and

c-scrolls, which are not found in cast crosses. The 1920s saw the appearance of crosses made of cast-iron pipes with wrought-iron decorative details welded to them. The best wrought-iron productions display fine forms, often using overstylised floral motifs.

A distinction should also be made between rolled iron, which was used to make pipes, among other things. A cheaper raw material than cast iron, it was sometimes used to manufacture crosses.

6.3.3. Tin and zinc

Other metals or metal alloys were not used in the production of entire tombstones or their larger fragments, but only for cast and chiselled decorative elements or inscription plaques. Tin was a material that served as a complement, including colour, to tombstone composition (ill. 60). Fresh tin sheet is silver in colour, but patinates to a dark grey over the course of several years (ill. 3, 6). Galvanised iron sheets were also used. Tin is characterised by good forgeability and ductility.

Zinc sheets used in the early 19th century were soft and resistant to corrosion. Galvanised sheets, far cheaper to produce, were much harder.

6.3.4. Copper alloys – brass, gunmetal, bronze

Brass, gunmetal (commonly referred to as bronze and sometimes classified as such) and bronze are materials that are easily confused. In the case of brass, we

ILL. 60
Tin plaque

ILL. 61
Bronze grave handle

deal with an alloy of copper and zinc. Proportions of components determine the properties and colour of the alloy (from yellow to reddish). Gunmetal is a combination of copper with tin (11%), zinc and lead (in varying proportions, but up to a few percent). Bronze is an alloy of copper and tin (less frequently of other metals, e.g. aluminium bronze or silicic bronze) in which different proportions are also used (most common today, it is 88% copper and 12% tin).

A more flexible material, brass is more often used to produce intricate forms, its golden shade being also readily used to imitate gold. Bronze is often used for small elements (e.g. grave handles, ill. 61), but also for statues or inscription plaques (ill. 30). Since these types of productions were very expensive, they are encountered almost exclusively in larger centres. As a material, gunmetal displays a high resistance to corrosion.

All copper alloys (especially bronzes) are subject to patination, i.e. a change in colour under the influence of natural conditions, but also to air pollutants, which can make it difficult to identify the material correctly. After initial tarnishing, brass takes on a greenish-brown or brownish-grey colour, the brown getting gradually darker with time, whereby this process is not uniform depending on the material exposure to external conditions. The colour changes are also determined by external factors. Gunmetal takes on a brown-grey, dark-grey (ill. 62) and even anthracite tone (a deep grey shade with a slightly faded character, which distinguishes it from black). Today, aluminium alloys function as a substitute material for bronzes and brasses. In practice, it can be extremely difficult to distinguish between e.g. bronze and brass. Therefore, it is safe to use the term copper alloy (probably bronze or brass).

6.3.5. Lead

A heavy metal, it is practically not used as a raw material on its own for casting, as it is too soft. In tombstone compositions, it served as the basic binder for joining stone elements with wrought iron mandrels (dowels).

ILL. 62
Gunmetal plaque

PLATE I   Types of crosses

1.1
Greek cross
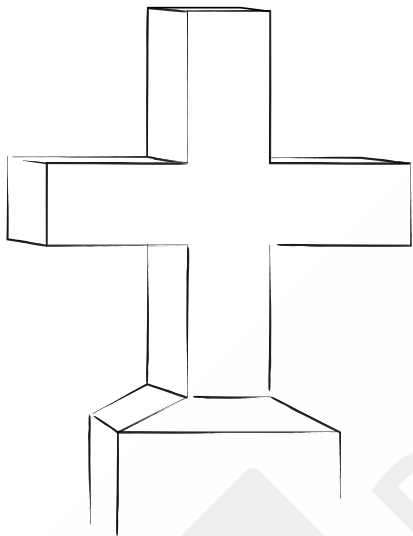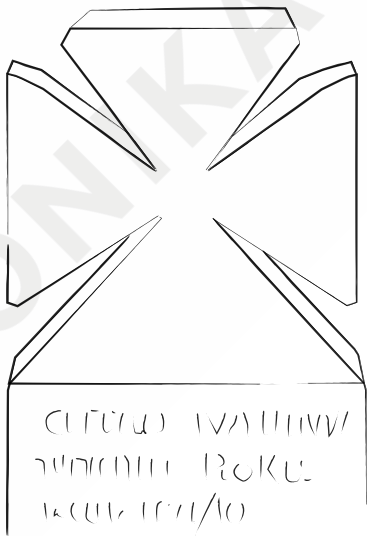
1.11
Chevalier's cross
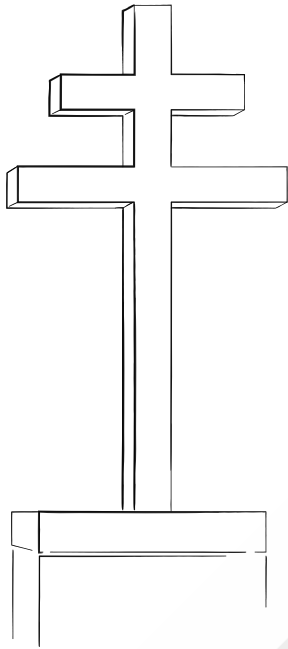
I.III
Caravaca cross
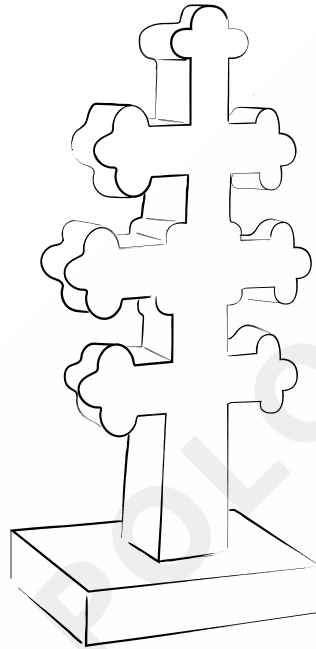
I.IV
Three-armed cross
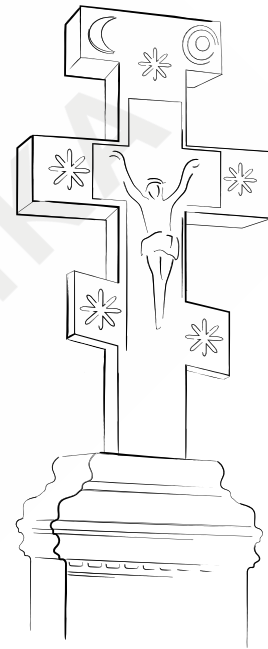
I.V
Orthodox cross

PLATE II

Arms ending and cross decoration
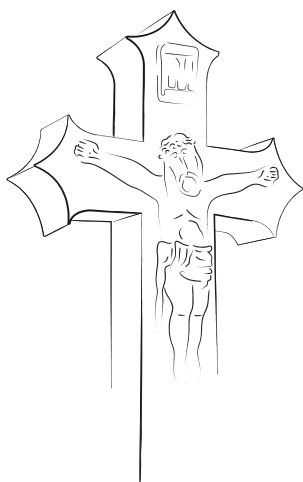
II.I
Cross with arms ending in a carved curtain arch
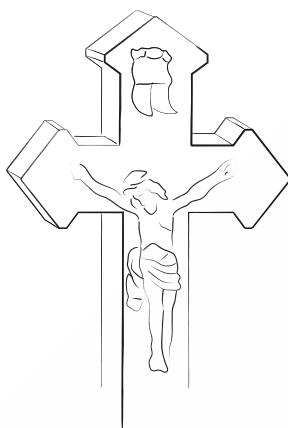
II.II
Cross with diamond-shaped arms ending
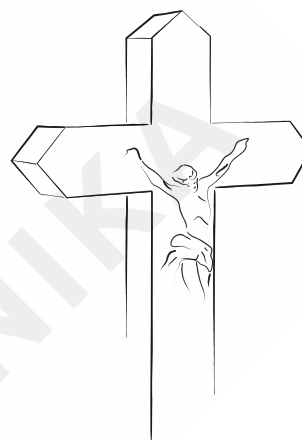
II.III
Cross with gabled arms ending
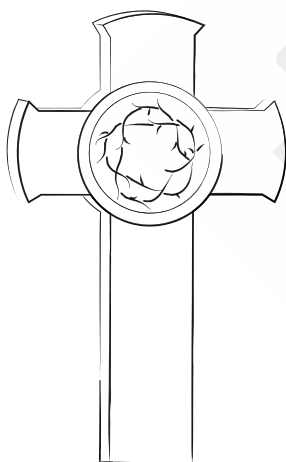
II.IV
Cross with arms ending in a carved segmented arch. At the intersection of the arms is a medallion with a crown of thorns in bas-relief.
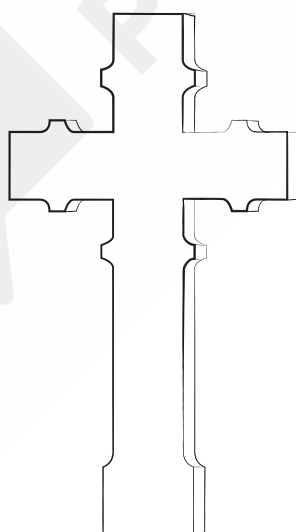
II.V
Cross with appendages
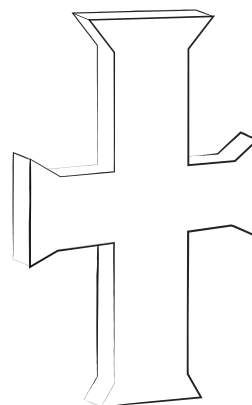
II.VI
Cross with trapezoidal arms ending
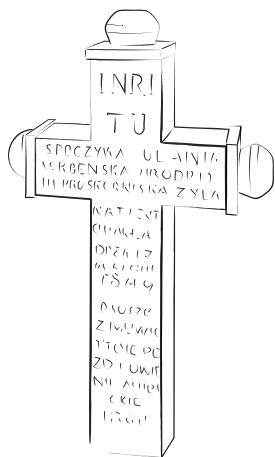
II.VII
Cross with arms ending in caps with nodes. An engraved inscription is on the front
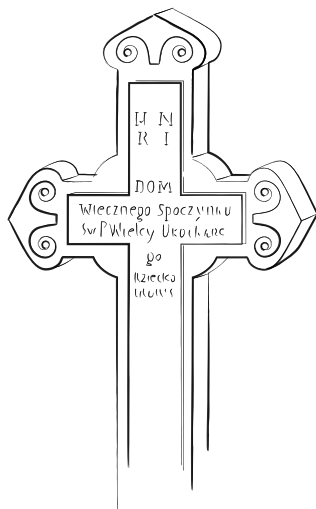
II.VIII
Cross with arms ending in volutes, with a repeated face. An engraved inscription is on the front
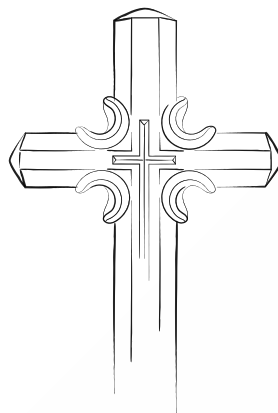
II.IX
Cross with octagonal arms ending in a pyramid, framed by c-scrolls
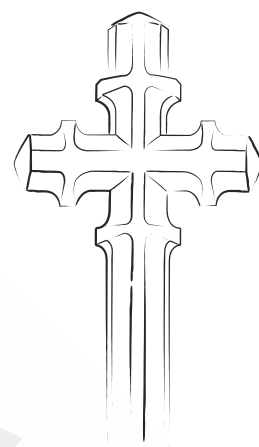
II.X
Cross with octagonal arms ending in a pyramid, framed by rings
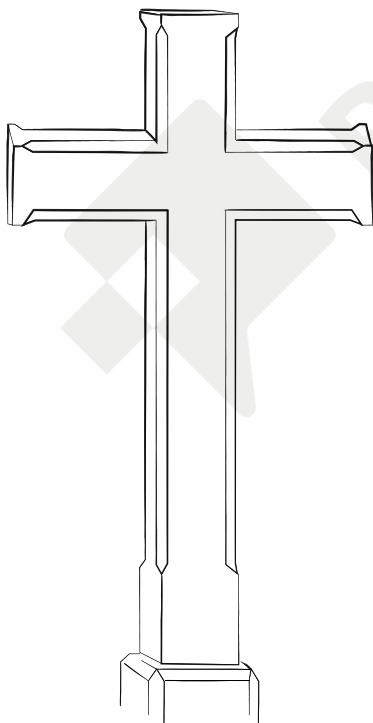
II.XI
Cross with chamfered arms
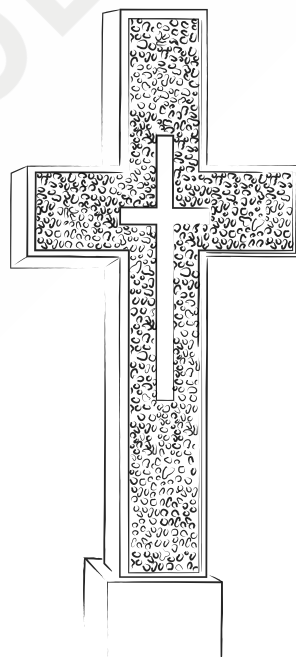
II.XII
Cross with grained face and a smaller engraved cross

PLATE III Small pedestal

III.I
Cross on a small pedestal

Small
pedestal

Pedestal

Small
pedestal

Pedestal

S. O. P.
WITOLD
GR
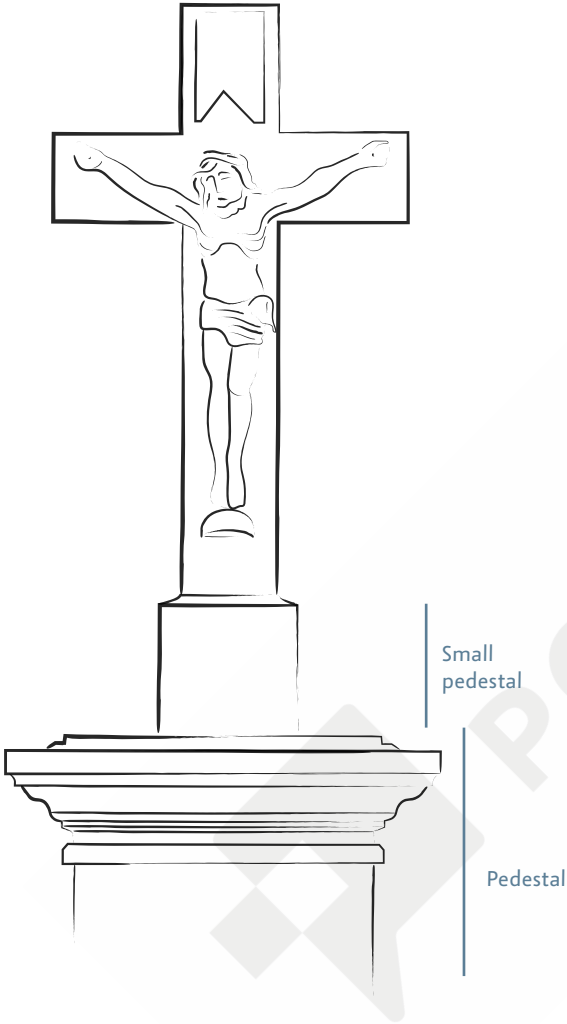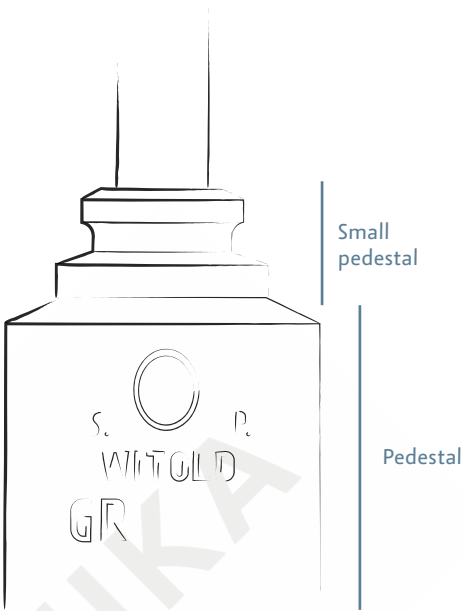
III.II
Cross on a profiled small
pedestal
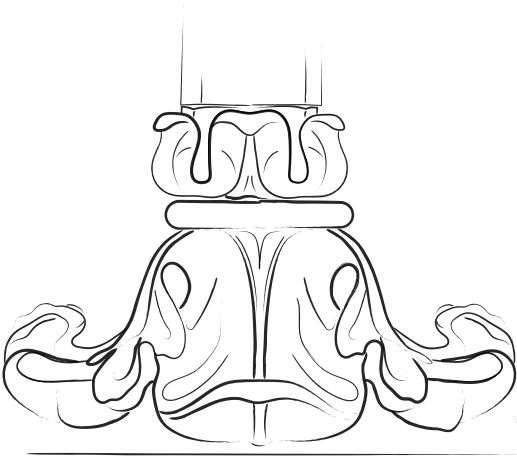
III.III
Small pedestal in the form
of an inverted acanthus cup

PLATE IV # Cross with arms ending in a trifoliate shape

IV.II
Cross with arms ending in a trifoliate shape

IV.III
Cross with arms ending in a stylised trifoliate shape
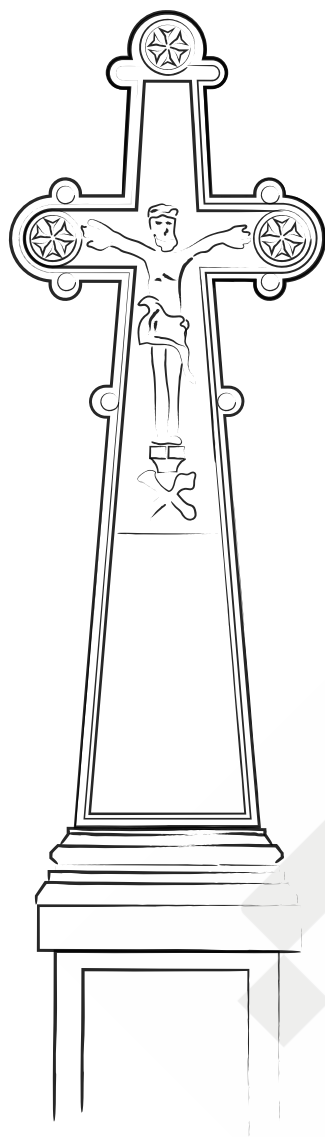
IV.I
Cross with arms ending in a trifoliate shape

Suggested description: Burial site marked by a cross with arms ending in a stylised trifoliate shape with a schematic rosette, on a pedestal. The cross is wider at the lower part, framed by half-round mouldings. Its face is bordered with a groove, its upper part is exposed, with a figure of Christ in bas-relief (the titulus above), below is a skull with tibia bones. The pedestal is covered with a wider profiled panel
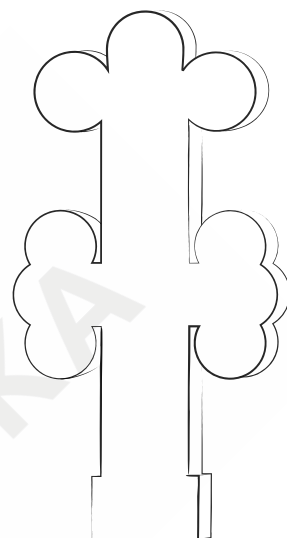
IV.IV
Cross with arms ending in a semicircle, framed by half-round mouldings

PLATE V # Cross on a vertical slab
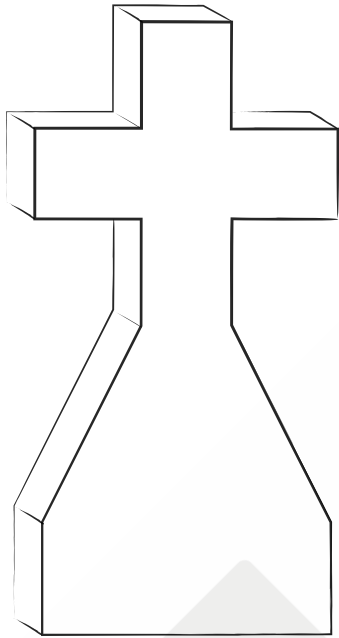
V.I
Greek cross on a vertical slab

Suggested description: Burial site marked by a Greek cross turning into a vertical slab in a gabled passage
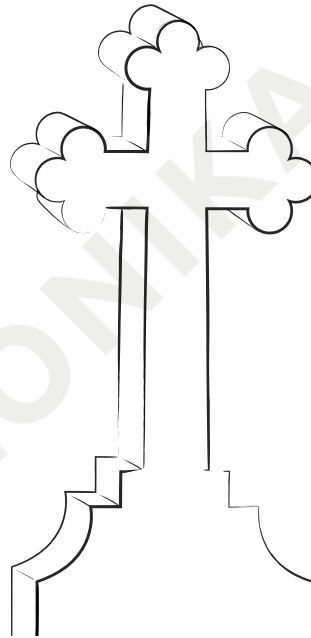
V.II
Cross with arms ending in a trifoliate shape on a vertical slab

Suggested description: Burial site marked by a cross with arms ending in a trifoliate shape turning into a vertical slab in a stepped passage

PLATE VI # Cross stylised as a tree trunk
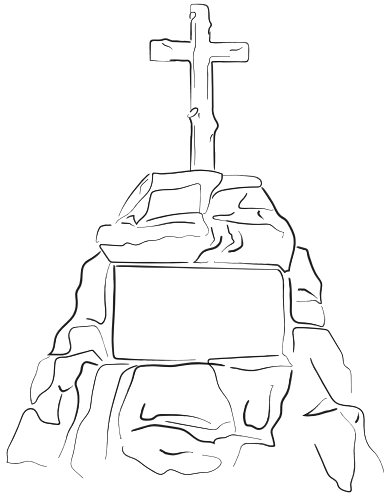
VI.I
Cross stylised as a tree trunk on a rock-shaped pedestal

Suggested description: Burial site marked by a cross stylised as a tree trunk on a rock-shaped pedestal, with a plaque on the front

VI.II
Cross stylised as a tree trunk on a pedestal in the form of schematic rocks

Suggested description: Burial site marked by a cross stylised as a tree trunk on a pedestal in the form of schematic rocks.
On the cross is a lily flower in bas-relief. On the front of the pedestal is a winged angel's head in high-relief, below a plaque in the form of an unfolded scroll with an engraved inscription

VI.III
Cross and pedestal stylised as a tree trunk

Suggested description: Burial site marked by a Cross and pedestal stylised as a tree trunk. On the cross is a figure of Christ in high-relief and the titulus above. On the front of the pedestal is a circular plaque with an engraved inscription

VI.IV
Felled tree trunk

Suggested description: Burial site marked by a felled tree trunk on a cuboidal pedestal. The lower part of the trunk has clearly marked roots, in the upper part is a carved oak wreath with a cross in high-relief. The pedestal has chamfered upper edges. On the front is a stepped panel with segmentally cut corners. An engraved inscription appears in the panel

PLATE VII # Metal cross
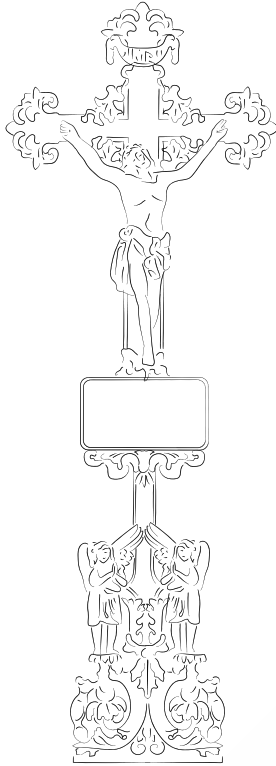
VII.I
Suggested description: Cross with arms
ending in floral motifs on a pedestal
framed by acanthus scroll. At the
intersection of the arms is a figure of
Christ (the titulus above), below is a plaque
and figures of angels
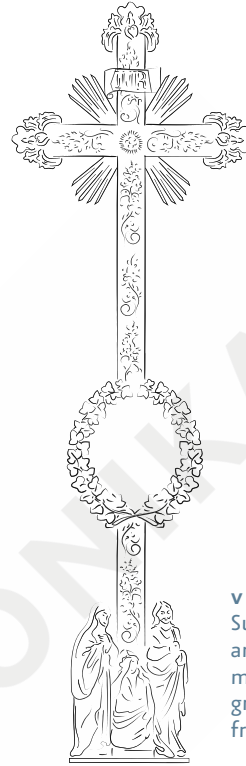
VII.II
Suggested description: Cross with
arms ending in and framed by floral
motifs on a pedestal, with Crucifixion
group. Above is an oval plaque
framed by ivy leaves and the titulus

VII.III
Suggested description: Cross with arms entwined with a vine growing
from a skull placed on rocks with Ouroboros, poppy heads, tibia bones
and an oblique medallion. In the lower part of the cross, on a stem-like
ledge, are statues of the Virgin Mary on the left and Saint John on the
right
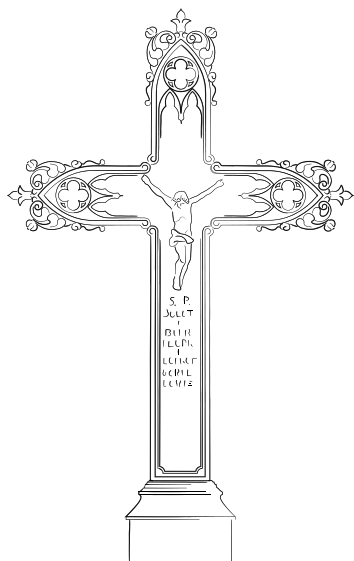
VII.IV
Suggested description: Neo-gotic cross with arms ending in acanthus leaves and openwork tracery with face bordered by a round moulding on a pedestal. At the intersection of the arms is a figure of Christ, below is a cast inscription, convex
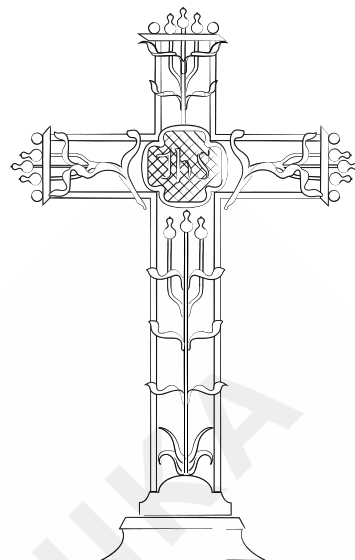
VII.V
Suggested description: Openwork cross with arms filled with and ending in flowers and poppy fruits on a pedestal. At the intersection of the arms is a medallion filled with a grid bearing the inscription IHS
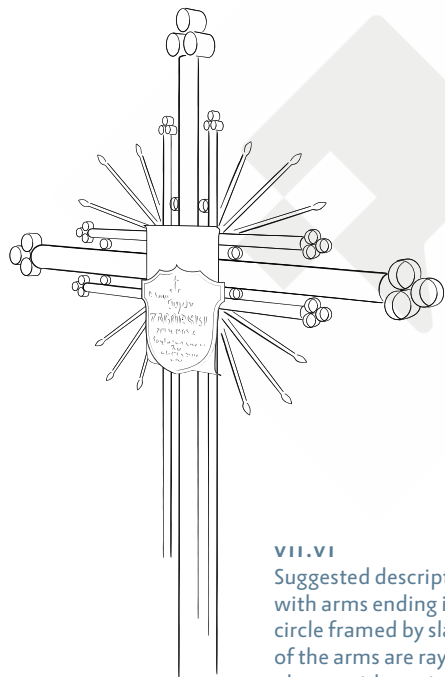
VII.VI
Suggested description: Tubular cross with arms ending in openwork triple circle framed by slats. At the intersection of the arms are rays and a shield-like plaque with a painted inscription
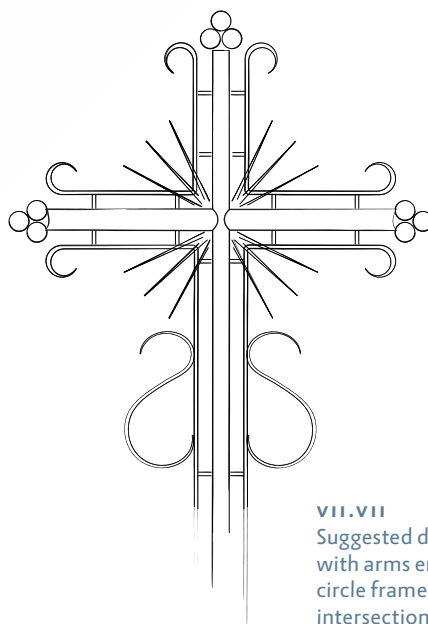
VII.VII
Suggested description: Tubular cross with arms ending in openwork triple circle framed by slats and s-scrolls. At the intersection of the arms are rays

PLATE VIII # Obelisk/Pyramid
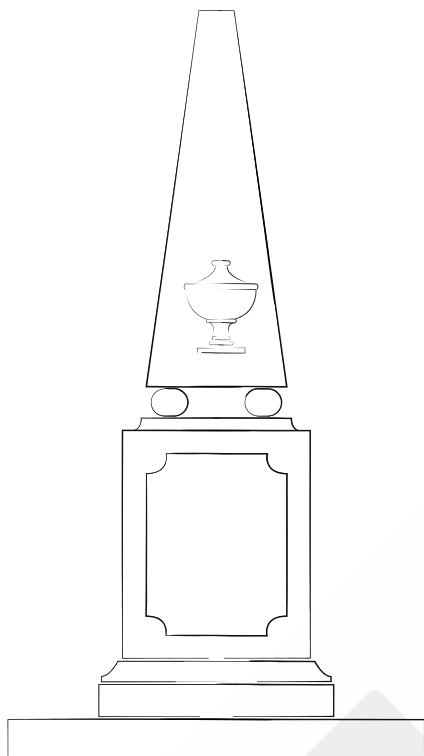
VIII.I

Suggested description: Burial site marked by an obelisk on a two-stepped pedestal and a base. On the obelisk, seated on four balls, on each side is an urn in high-relief with a wide belly. The first step of the pedestal has profiled upper edges. On the second step of the pedestal, on the front, is a panel with quarter-circle chamfered corners

VIII.II

Suggested description: Burial site marked by an obelisk on a two-stepped pedestal and a two-stepped base. On the front of the obelisk is a panel with a cross in bas-relief framed by a wreath of oak leaves fastened by a ribbon.

Steps of the base have chamfered upper edges. The first step of the pedestal has profiled upper edges. On the front is a panel with chamfered corners with an inscription in bas-relief.

The second step of the pedestal is covered with a wider panel (1) with small pinnacles and acroterions. On the front is a panel bearing an inscription in bas-relief (2)
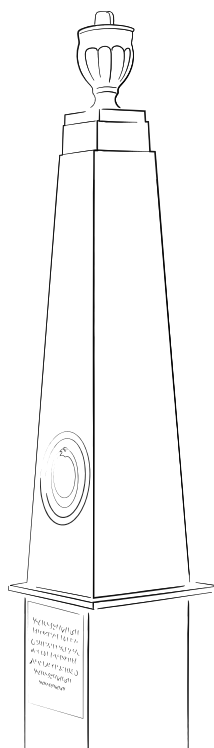
VIII.III

Suggested description: Burial site marked by an obelisk on a pedestal with a bulgy urn. On the front of the obelisk is Ouroboros in bas-relief. The pedestal is covered with a wider profiled panel. On the front is a panel with an engraved inscription
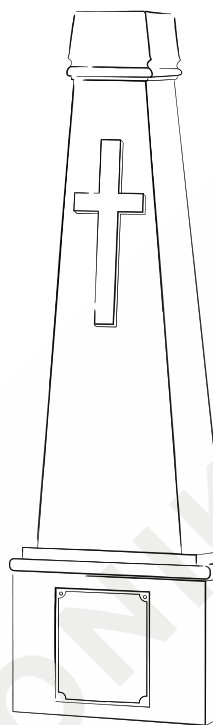
VIII.IV

Suggested description: Burial site marked by an obelisk on a pedestal. In the upper part on the obelisk is a geometrised cornice and on the front a cross in bas-relief. The pedestal has profiled upper edges and a panel on the front
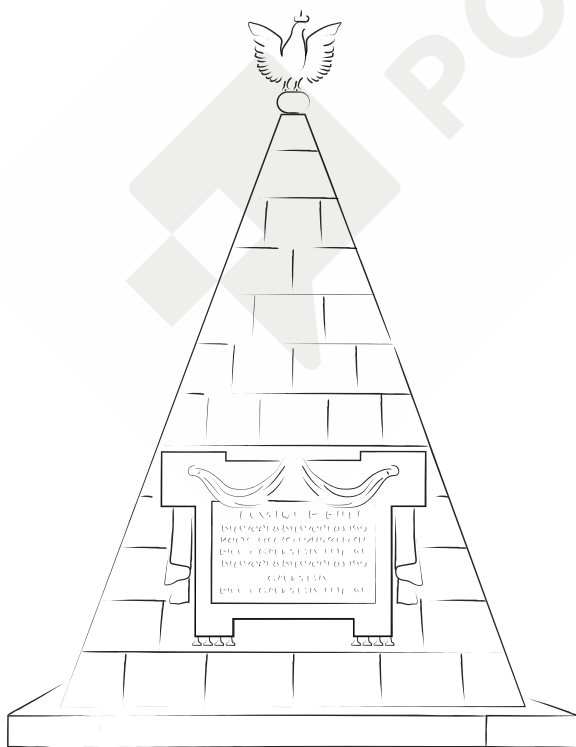
VIII.V

Suggested description: Burial site marked by a pyramid on a pedestal, crowned with a statue of the armorial eagle of the Duchy of Warsaw. Walls of the pyramid are marked with stone blocks. On the front is a plaque with crossettes tied with a ribbon and with an engraved inscription

PLATE IX # Column
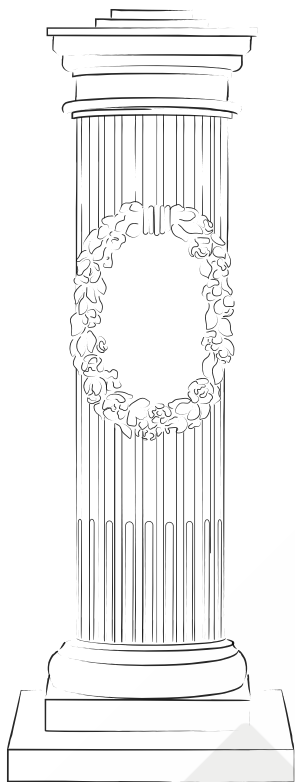
IX.I
Suggested description: Burial site marked by
a fluted column on a pedestal, originally crowned
with a cross. Column sits on its own base and
with a section of cornice. On the shaft is a rose
wreath in high-relief

IX.II
Suggested description: Burial site marked by a statue of Immaculata
on a column and on a pedestal. The statue sits on its own base. Mary
is depicted in contrapposto. She stands barefoot on an earth globe
entwined by a serpent. Hands are folded in a prayer gesture. The
column, with a plain shaft, sits on its own base and with a Corinthian-
style capitol with a section of entablature. The pedestal is covered
with wider panels. On four sides are panels with quarter-circular
chamfered corners
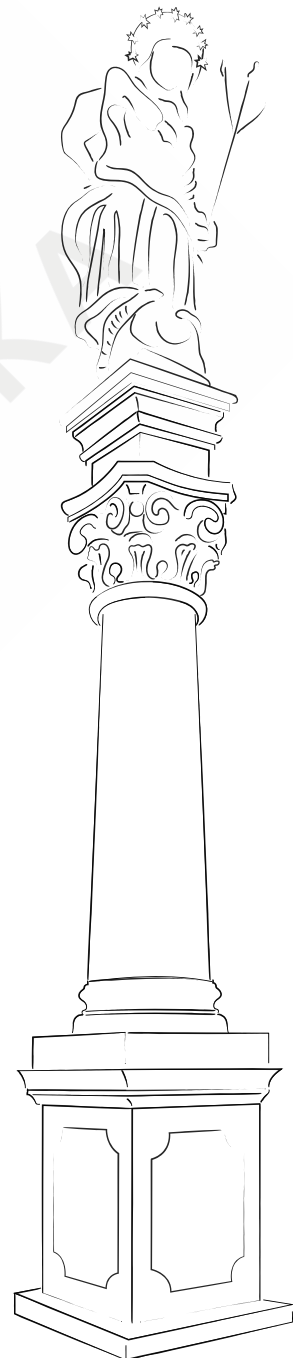
IX.III
Suggested description: Burial site marked by a section of a fluted Ionic column with a figure of a sleeping putto on a pedestal and a two-stepped base. Overhanging the column is a pall, on which the figure is laid. Inscription not preserved

IX.IV
Suggested description: Burial site originally marked by a statue of Immaculata on a pillar and a two-stepped pedestal. The statue has been broken off and lies nearby. The pillar has a smooth shaft, its head resembling Ionic capitals. An engraved inscription is on the front. The steps of the pedestal have profiled upper edges

PLATE X # Urn
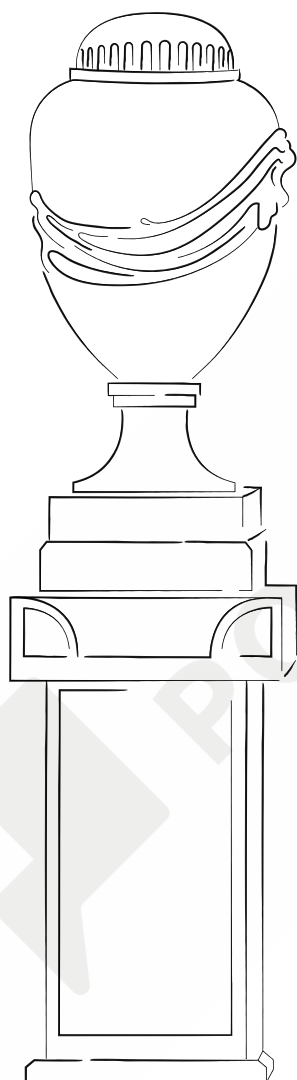
x.1
Suggested description: Burial site marked by an urn on
a pedestal. The urn is decorated with a pall in bas-relief
extending through the handles on a two-stepped small
pedestal and a circular foot. The pedestal has profiled
upper edges covered with a wider panel with acroterions

x.ii
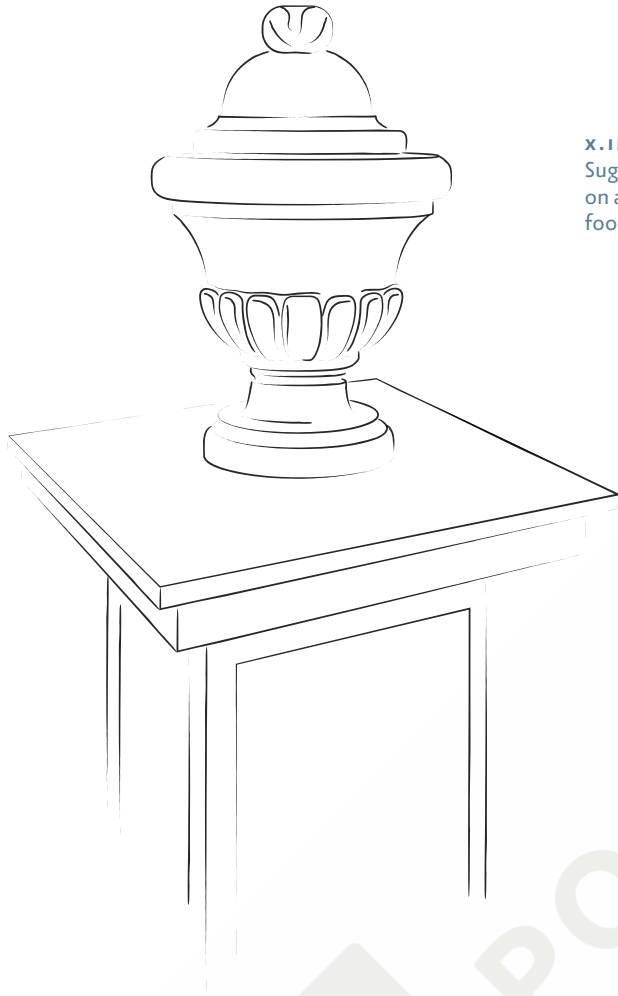
Suggested description: Burial site marked by a bulgy urn with a lid on a pedestal covered with wider panels. The urn sits on a circular foot. Panels are on four sides of the pedestal

x.iii

Suggested description: Burial site marked by a statue of a weeping woman standing next to an urn on a two-stepped pedestal, both elements on a common base. The weeper faces sideways towards the urn, which she embraces with both hands.

Its head bowed, the statue is dressed in heavily creased long robes. The urn is covered with a pall in bas-relief. There is a panel on the first step of the pedestal on the front and a panel on the second step of the pedestal on the front

PLATE XI # Stele

STP
HALI
ORLOWNA
UOLNCHRN
LOHSISZIDIII
IRHAHE
SISIHOI IYCY
IMMIOIIIS IS

SZCIEDILSI-SIID
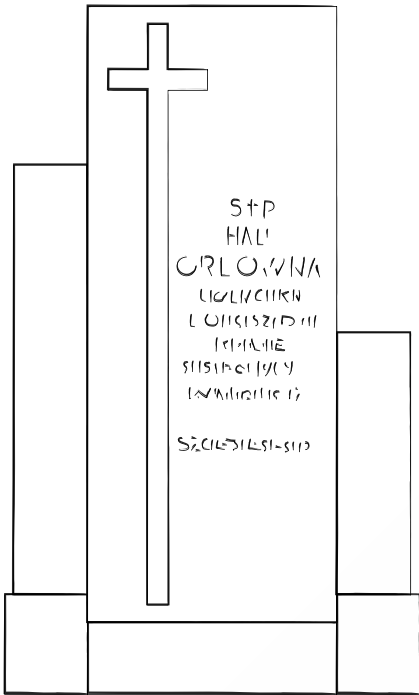
XI.I
Suggested description: Burial site marked by a stele framed by two cuboids of unequal height on a common base. Each part rests on its own pedestal. On the front side of the stele is an engraved cross and an engraved inscription on the right side of the cross

z Lylcrow

EWA
FLIZIKOWSKA

XI.II
Suggested description: Burial site marked by a stele framed on the right by two cuboids of unequal height with an inscribed cross on a common base. Each part rests on its own pedestal. An engraved inscription is on the front of the stele

XI.III

Suggested description: Burial site marked by a stele with inscribed cross on its base. The stele has chamfered corners. At the intersection of the arms of the cross is a medallion featuring Christ's head wearing a crown of thorns in high-relief. Below is a panel and an oval space formerly filled by an nonextant photograph. In the panel is a plaque with engraved inscription
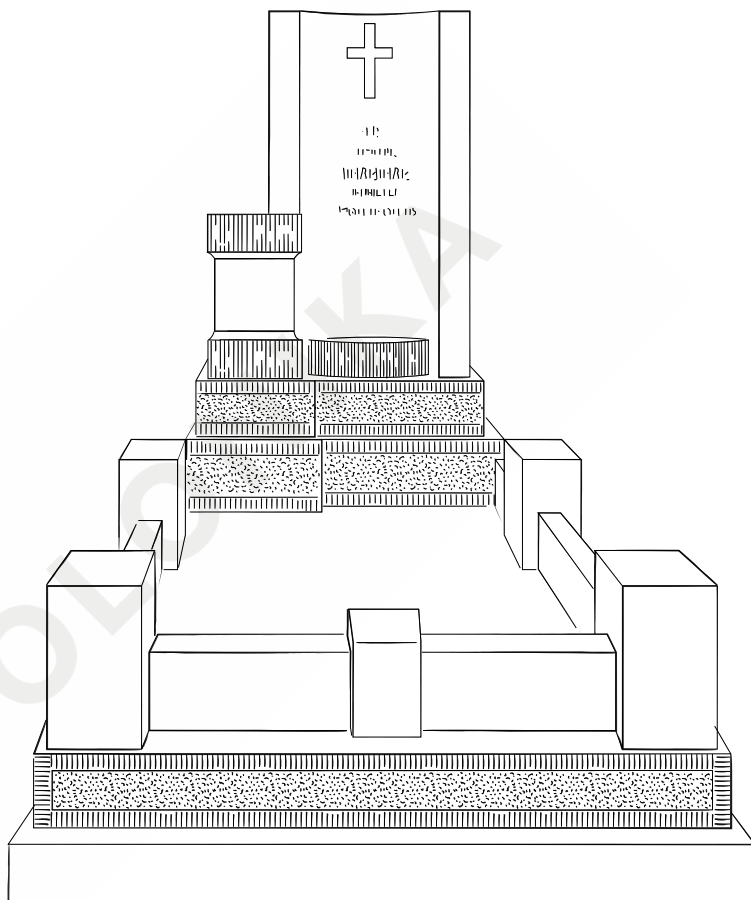
XI.IV

Suggested description: Burial site marked by a stele on a semicircle plan framed on the right by a low pillar on a common base. On the front of the stele is a cross in bas-relief, and an engraved inscription below. The tombstone is enclosed by a low fence composed of a two-stepped band on which are pillars connected by walls

XI.V
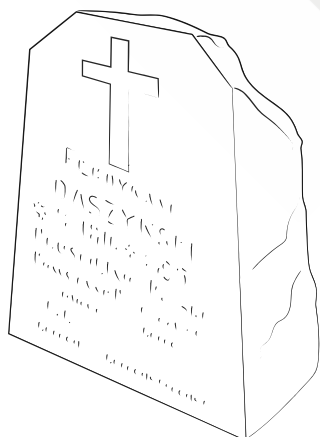
Suggested description: Burial site marked by an irregular stele on which a cross is engraved on the front with an engraved inscription below

PLATE XII # Sarcophagus/stone coffin
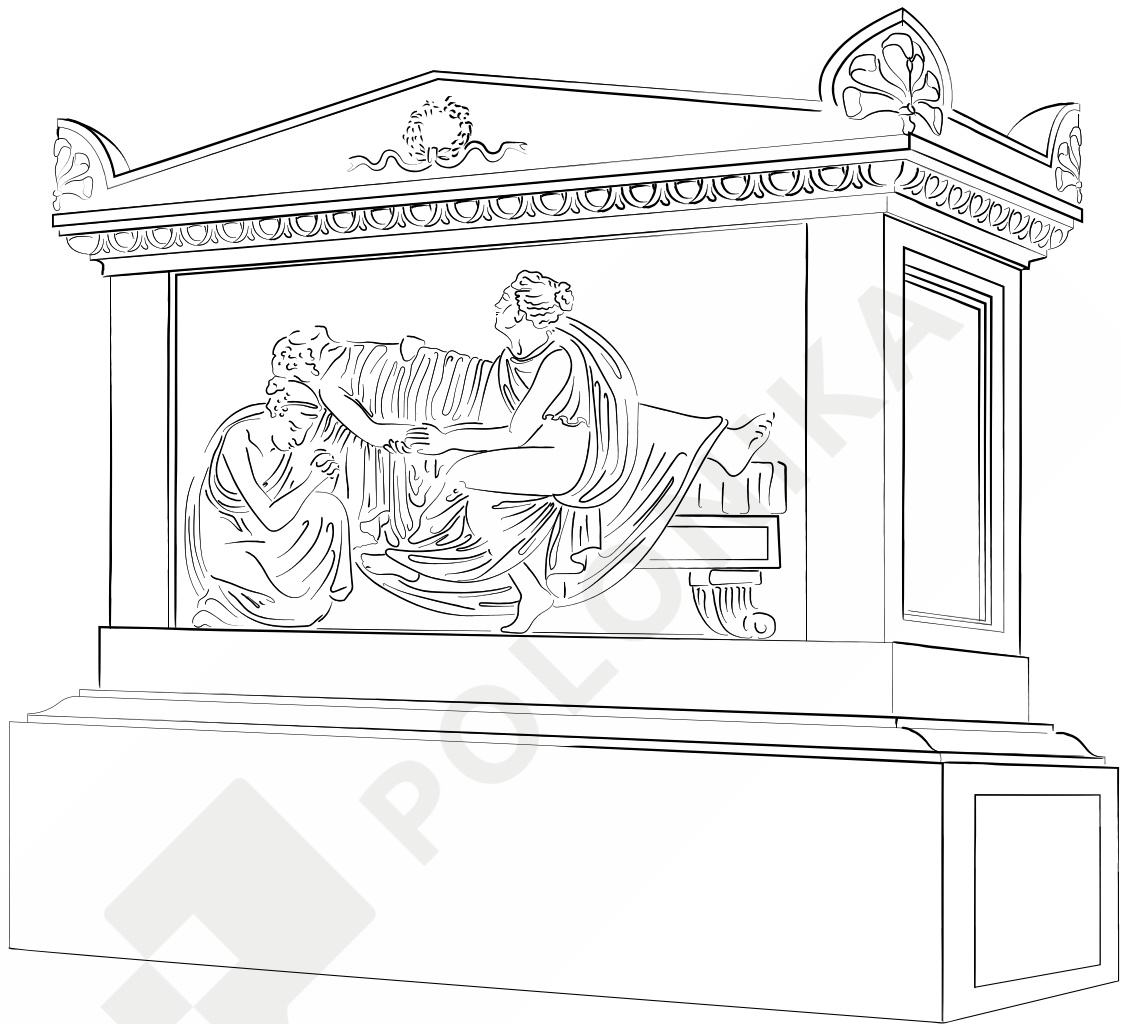
XII.1
Suggested description: Burial site marked by a sarcophagus, its lid framed by acroterions and
pinnacles on a pedestal. The sarcophagus has an isolated pedestal. On the front is a panel with
a death scene in bas-relief. The deceased lies on a Roman-style bed on which a woman squats. To the
left, a young woman kneels by the head of the deceased. The statues are in antique costumes, lavishly
creased and have 'Roman' hairstyles. There is a panel on the right side of the sarcophagus. The
acroterions have a stylised leaf and a laurel wreath in the pinnacle on the front and at the back. The lid
is surrounded by profiles and Ionic cymatium

XII.II

Suggested description: Burial site marked by a sarcophagus on a pedestal. The sarcophagus has a prominent, profiled pedestal. On the lid is a wreath in high-relief, on the right side is a medallion featuring a bust of the deceased in ¾ view. There is an engraved inscription on the front

XII.III

Suggested description: Burial site marked by a stone coffin with a profiled section on a pedestal and a base. The coffin is higher at the head. The base and pedestal have profiled upper edges. There is a plaque with an engraved inscription on the front of the pedestal
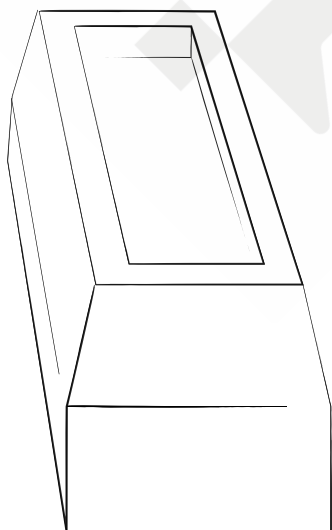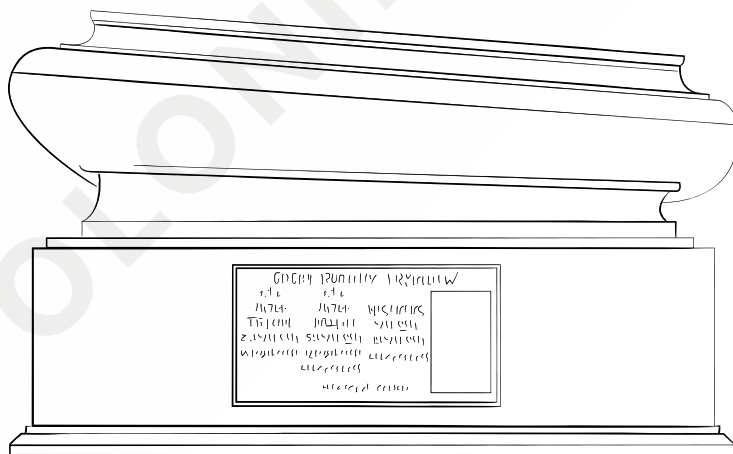
XII.IV

Suggested description: Concrete band in the form of a coffin lid

PLATE XIII # Aedicula and cippus

XIII.II

Suggested description: Burial site marked by a (cast-iron) aedicula built of Tuscan columns supporting a tympanum with a representation of the eye of Providence on a three-stepped pedestal. An arch spans between the columns, below it is a cast, convex inscription. The tympanum is crowned with a cross

XIII.I

Suggested description: Burial site marked by an aedicula made up of columns with stylised floral heads supporting a full arch on a two-stepped pedestal. A floral garland runs along the arch. In the intrados on the front is a medallion depicting Christ's head wearing a crown of thorns in high-relief, while below it is a profiled panel closed with a donkey back arch. In it, a plaque has an engraved inscription

XIII.III

Suggested description: Cippus with walls on four sides closed in a semicircle on a pedestal and base. The upper parts of the walls are framed by a garland in high-relief composed of laurel leaves and winged angel heads at the corners. On the four sides is a chevalier's cross in bas-relief. The pedestal has profiled upper edges

PLATE XIV # Small chapel
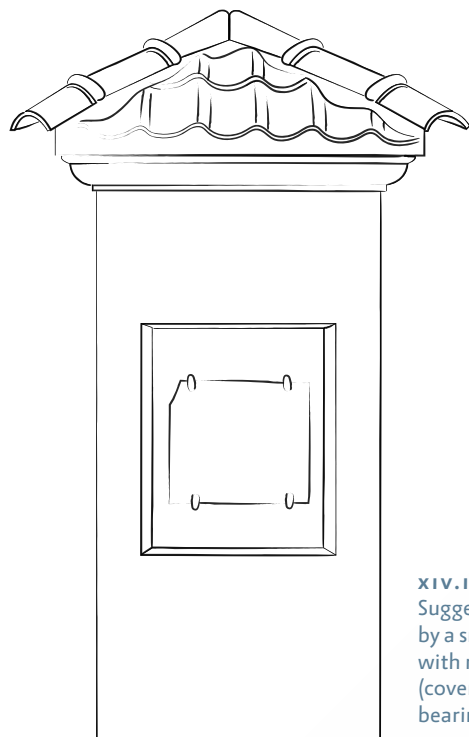
XIV.I
Suggested description: Burial site marked
by a small chapel shaped like a tall pillar
with moulding passing into a hipped roof
(covered with tiles). On the front is a panel
bearing a plaque
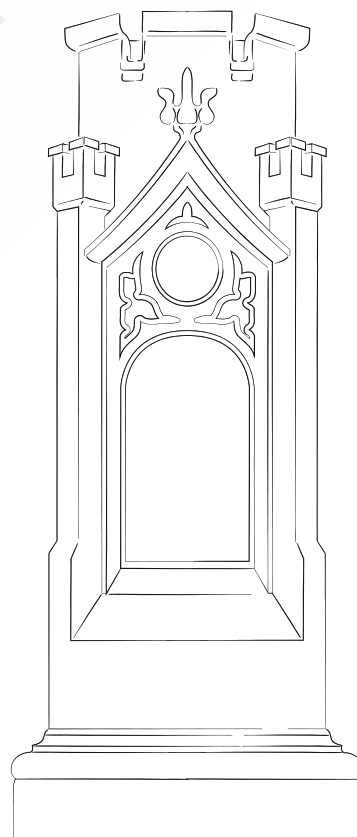
XIV.II
Suggested description: Burial site marked by a small chapel on a pedestal
with profiled upper edges. The small chapel is on an isolated small
pedestal framed on the corners by pillars with schematic capitals; above,
on the axis, is a section of battlement. On the front between the pillars
is a gabled arch crowned with a fleuron. Inscribed in the intrados is
a medallion framed by floral motifs in bas-relief. A profiled panel is below

PLATE XV # Ledger stone
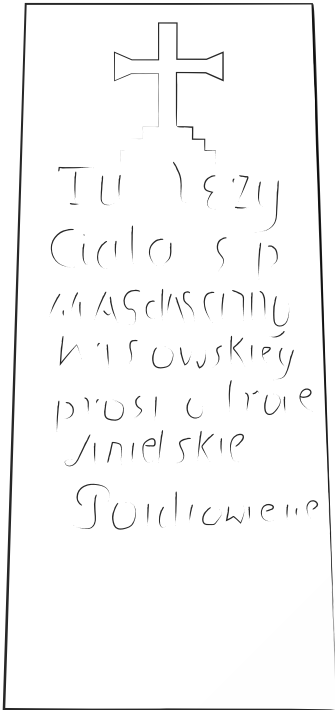
XV.I
Suggested description: Burial site marked by a ledger stone wider at the head. On it is an engraved cross, and below, an engraved inscription
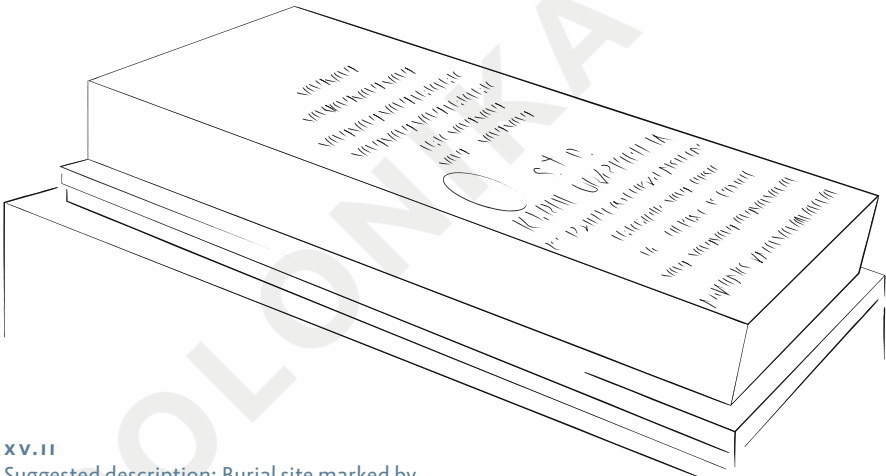
XV.II
Suggested description: Burial site marked by a diagonal ledger stone on a base. On the ledger stone is an empty space formerly filled by an oval photograph and an engraved inscription
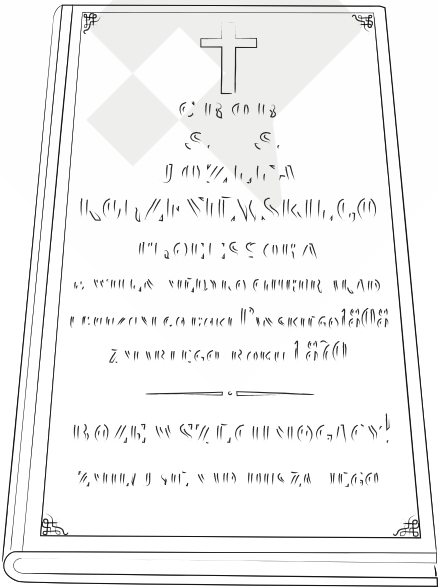
XV.III
Suggested description: Burial site marked by a diagonal ledger stone stylised as a book on a rock-shaped pedestal. There is a cross engraved on the slab, and below is an engraved inscription

XV.IV
Suggested description: Burial site marked by a ledger stone at the head of which is a cross on a pedestal. The cross has arms ending in a stylised trifoliate shape on a pedestal. At the intersection of the arms is a figure of Christ in high-relief, the titulus above, and a skull with tibia bones below.
The pedestal has chamfered upper edges. On the front is a panel with an engraved inscription
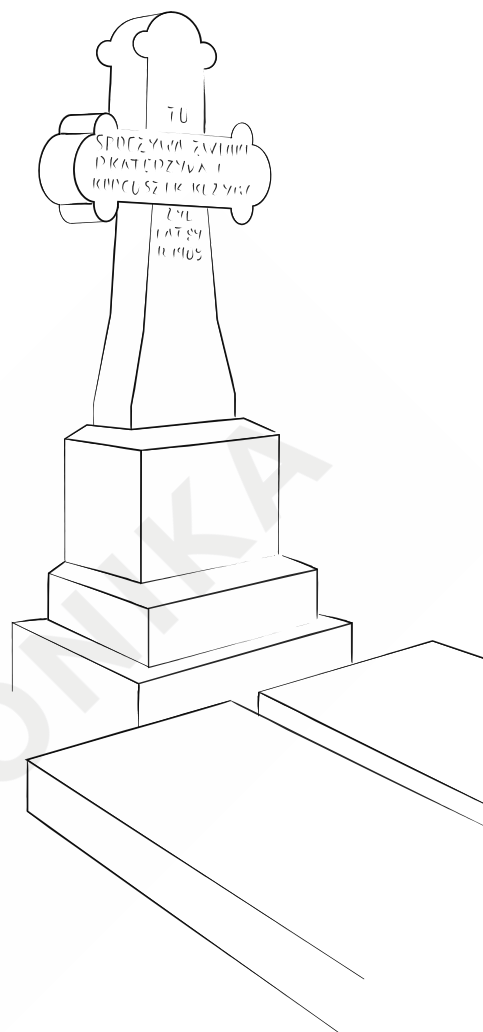
XV.V
Suggested description: Burial site marked by a cross on a two-stepped pedestal and a base in front of which are two ledger stones. The cross, wider at the lower end, has arms ending in a trifoliate shape. There is an engraved inscription on the front. Steps of the pedestal have chamfered upper edges

PLATE XVI

Types of pedestal decoration
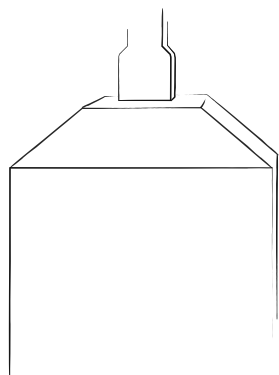
XVI.I
Pedestal with chamfered upper edges
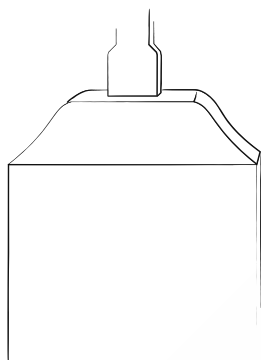
XVI.II
Pedestal with profiled upper edges
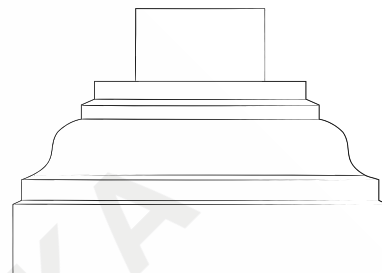
XVI.III
Pedestal with heavily profiled upper edges
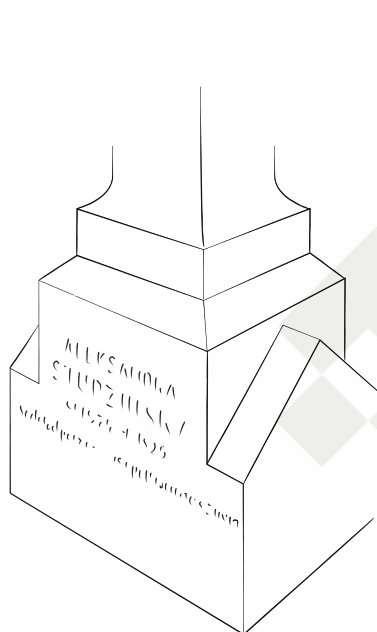
XVI.IV
Pedestal with chamfered upper edges. Sides are framed by gabled panels
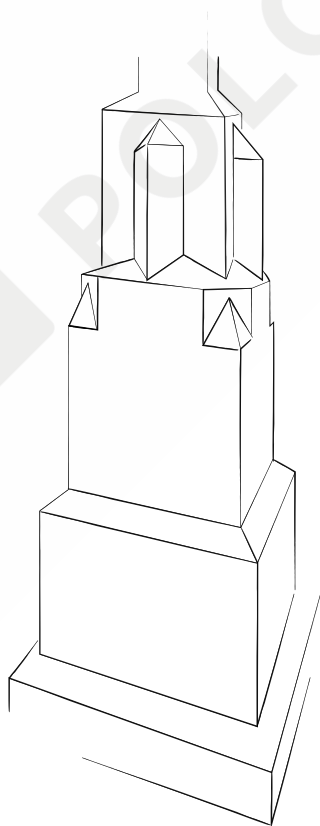
XVI.V
Three-stepped pedestal on a base. Steps with chamfered upper edges. The second step has small pyramids at the corners, the third step is framed at the top with pyramids at the corners

XVI.VI
Two-stepped pedestal. The first step has profiled upper edges. The second step has a simplified entablature covered with a hipped roof with a pinnacle on the front
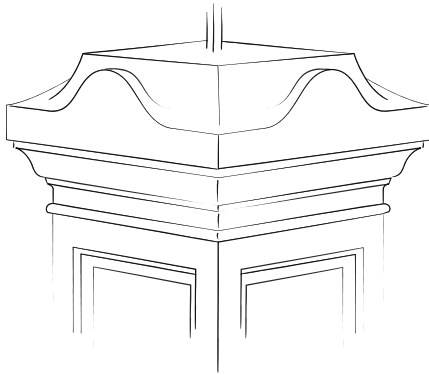
XVI.VII
Pedestal with a simplified entablature covered
with a wider profiled panel with a semi-circular
pinnacle

XVI.VIII
Pedestal covered with a wider profiled panel with
acroterions with male masks and pinnacles

XVI.X
Two-stepped pedestal on a base. The first
step of the pedestal has profiled upper edges.
The second step of the pedestal is covered
with an extended Ionic volute. On the front
are crossed palm branches in high-relief
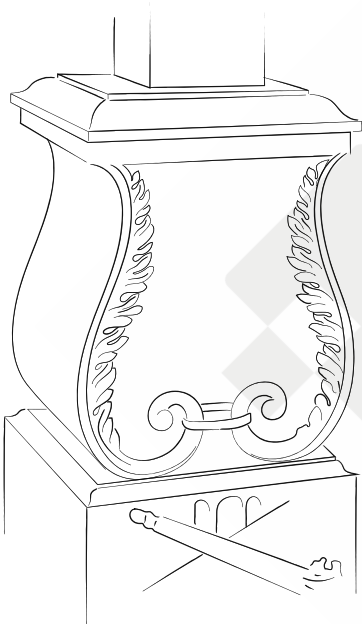
XVI.IX
Two-stepped pedestal. The first step has
profiled upper edges.
On the front are crossed torches in high-
relief. The second step is carved with volutes
decorated with acanthus and covered with
a wider profiled panel
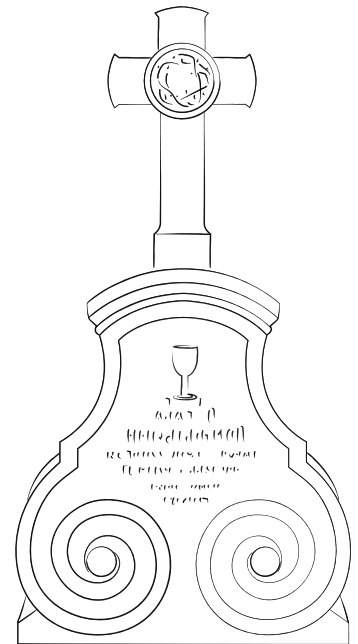
XVI.XI
Pedestal carved with volutes, closed
with a segmented arch. On the front is
a chalice in bas-relief, and an engraved
inscription below

PLATE XVII # Pedestal as a freestanding tombstone

POLOCKA
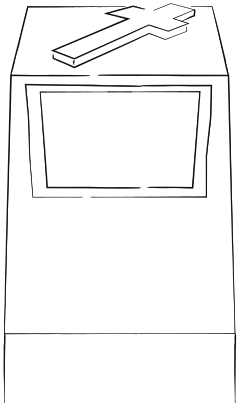
XVII.I
Suggested description: Burial site marked by a pedestal with a cross in bas-relief on top. On the front is a panel with an engraved inscription
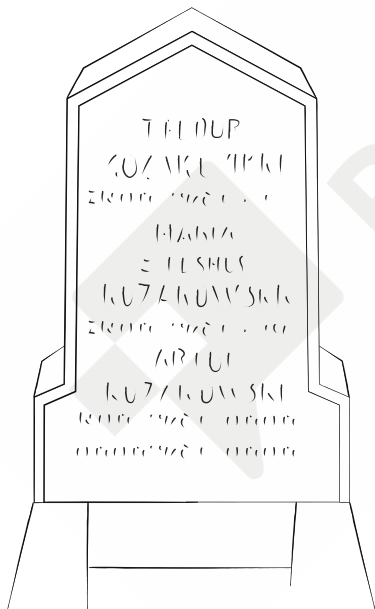
XVII.II
Suggested description: Burial site marked by a pedestal enclosed in a gabled band. The pedestal is wider in the lower part. On the front is an engraved inscription

XVII.III
Suggested description: Burial site marked by a two-stepped pedestal. The first step of the pedestal has profiled upper edges. The second step of the pedestal tapers upwards, its upper part enclosed by a semicircle framed by diagonal sections. On the front is a medallion with the head of Christ wearing a crown of thorns depicted in high-relief. Below is a suspended curtain in high-relief, and even lower, an crossette plaque with an engraved inscription

PLATE XVIII # Band
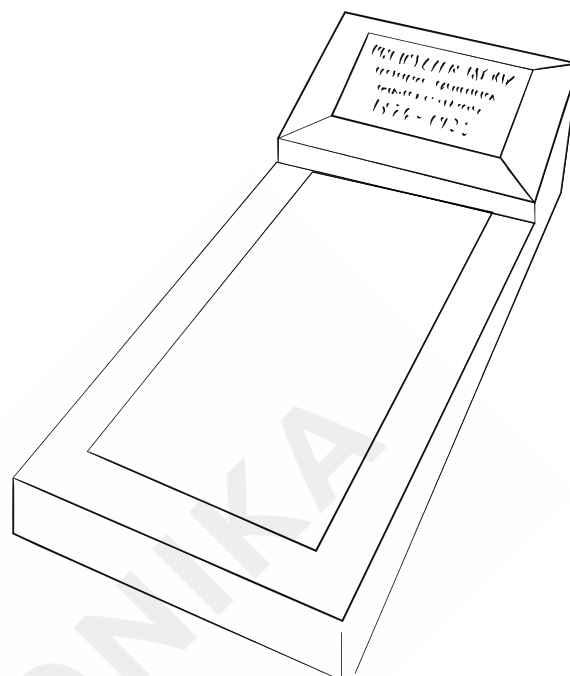
XVIII.I

Suggested description: Burial site marked by a diagonal slab on a foundation in a band. There is an engraved inscription on the plaque
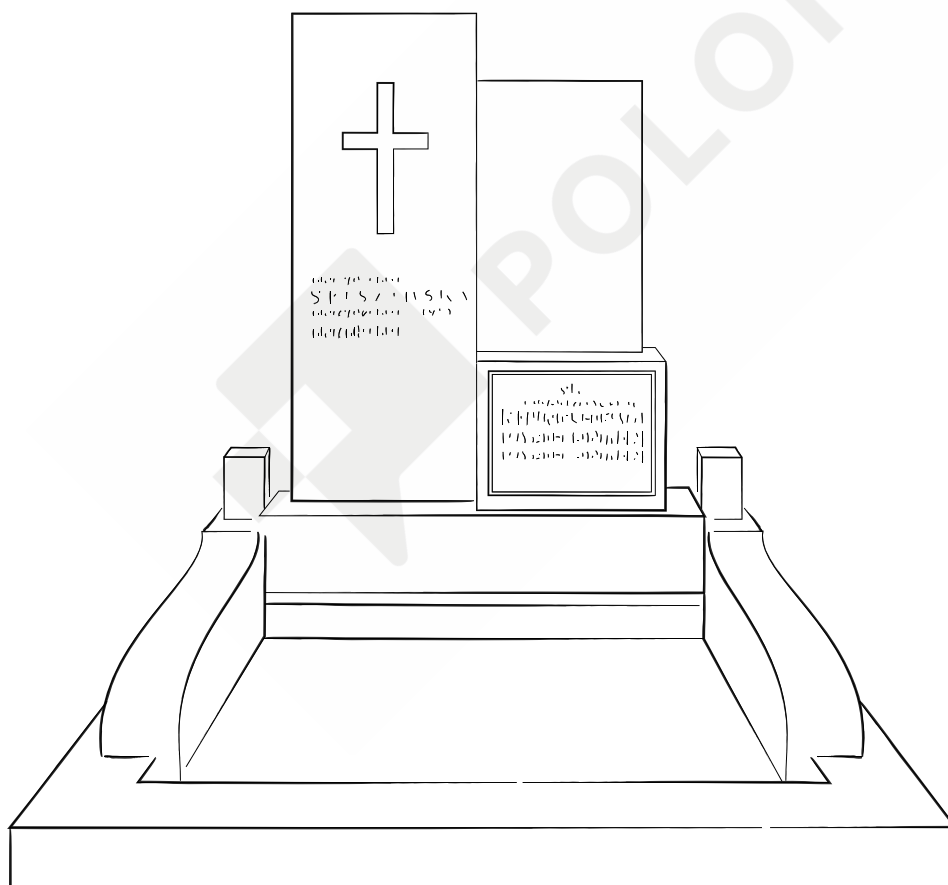
XVIII.II

Suggested description: Burial site marked by a two-part stele on a base in a band with low fence walls on the sides. The stele is lower on the right, its bottom part featuring an avant-corps on the front, where there is a plaque with an engraved inscription (1). The left side is higher. There is an engraved cross on the front with an engraved inscription below (2)

PLATE XIX # Panels and plaques
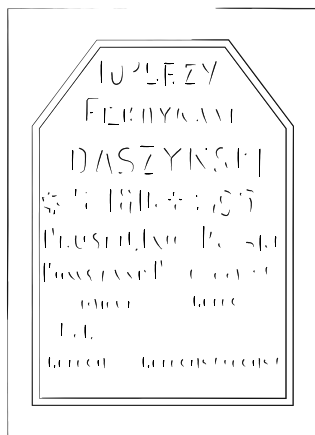
XIX.I
Panel with chamfered upper corners
in which is an engraved inscription
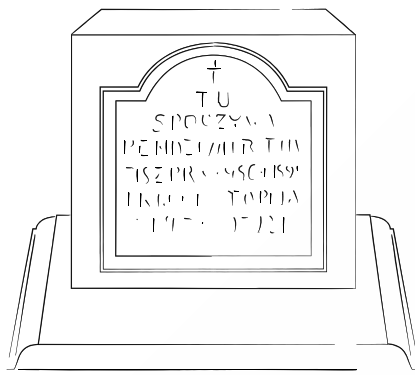
XIX.II
Profiled panel closed with an
overhanging segmented arch in which
is an inscription (engraved)
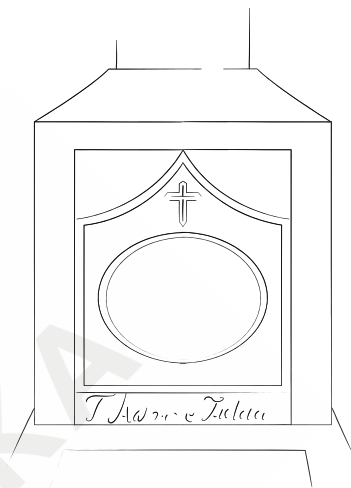
XIX.III
Profiled panel closed with a curtain
arch; in the panel is a cast-iron plaque
with an illegible inscription, below an
engraved signature

XIX.IV
Stepped panel with an uplift with
sharply pointed corners; in its
upper part is an oak branch and an
inscription (engraved) below
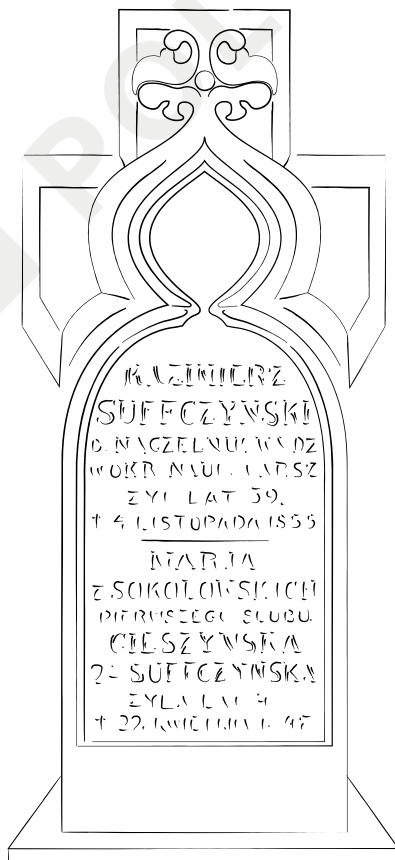
XIX.V
Two-piece panel crowned with
a fleuron. In it are profiled frames;
the lower one, reaching up to 2/3 of
its height, is closed with a full arch
passing into the upper one, closed
with a donkey back arch; there is an
engraved inscription in the lower
frame

XIX.VI
Panel with rounded corners with a low uplift; there is an inscription (in high-relief) in the panel
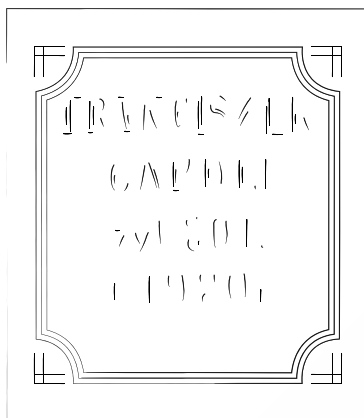
XIX.VII
Panel with quarter-circle chamfered corners in which there is an inscription (engraved)
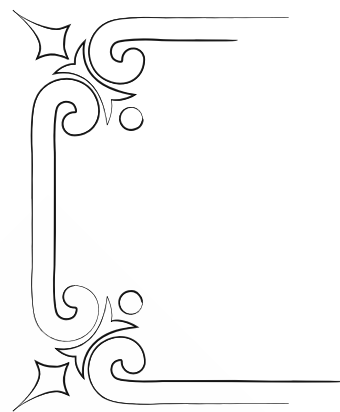
XIX.VIII
Panel with volute corners decorated with a stylised flower with an nonextant inscription

XIX.IX
Frame arranged in slats with an uplift; there is an inscription (engraved) in the frame
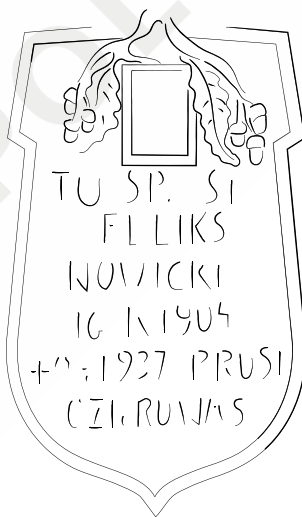
XIX.X
Plaque in the form of an armorial bearing, where, in the upper part, is an empty space formerly filled by a nonextant photograph framed by a bas-relief oak branch; there is an inscription (engraved) below
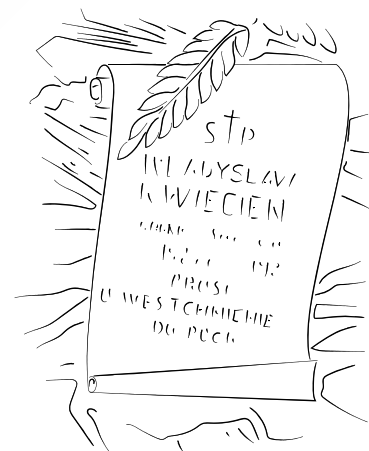
XIX.XI
Plaque in the form of an unfolded scroll framed at the top by a bas-relief olive branch; there is an inscription (engraved) below

PLATE XX # Fence
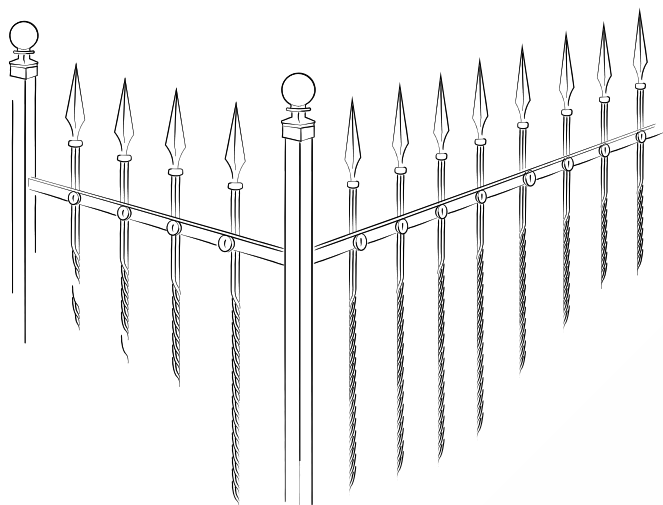
XX.I
Suggested description: Fence (on a foundation), consisting of twisted bars ending in spearheads (alternating spearheads and lily motif) joined by a slat (two slats). At the corners are posts crowned with spheres (with shafts and baskets). (Wicket on the front axis)
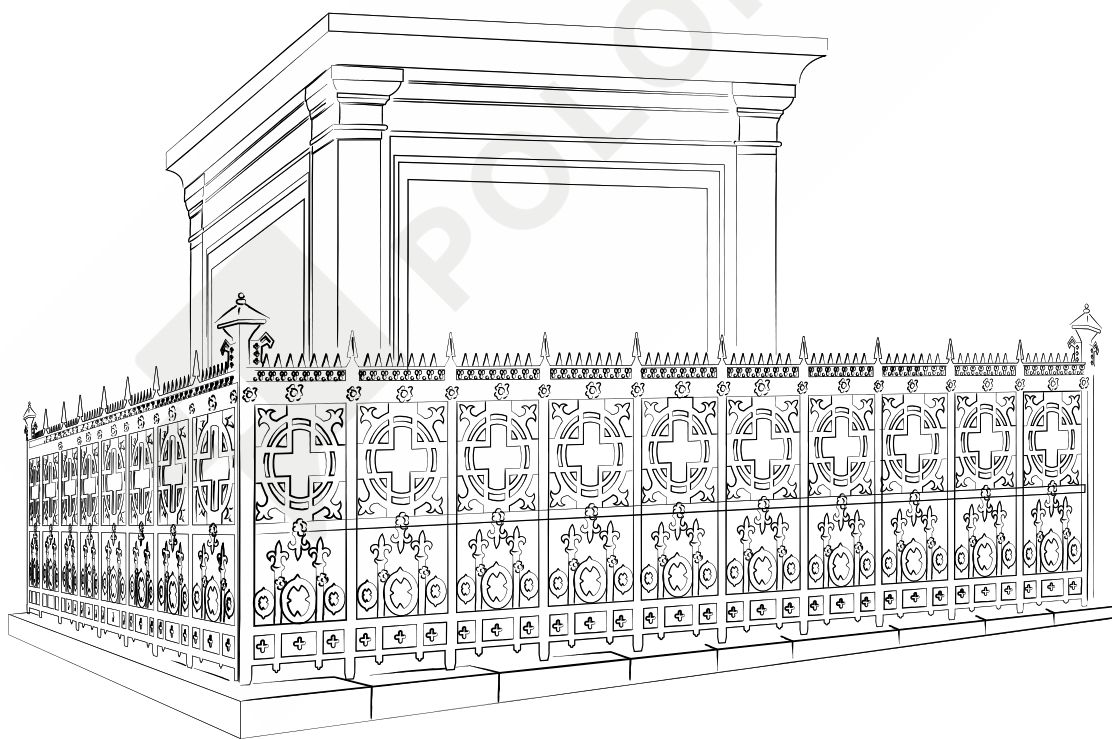
XX.II
Suggested description: Wrought iron fence on a foundation and sandstone blocks consisting of motifs of Greek crosses inscribed in circles, openwork rosettes and solid rosettes connected by slats. Vertical slats are crowned with spearheads, the corner ones wider, with geometric vases
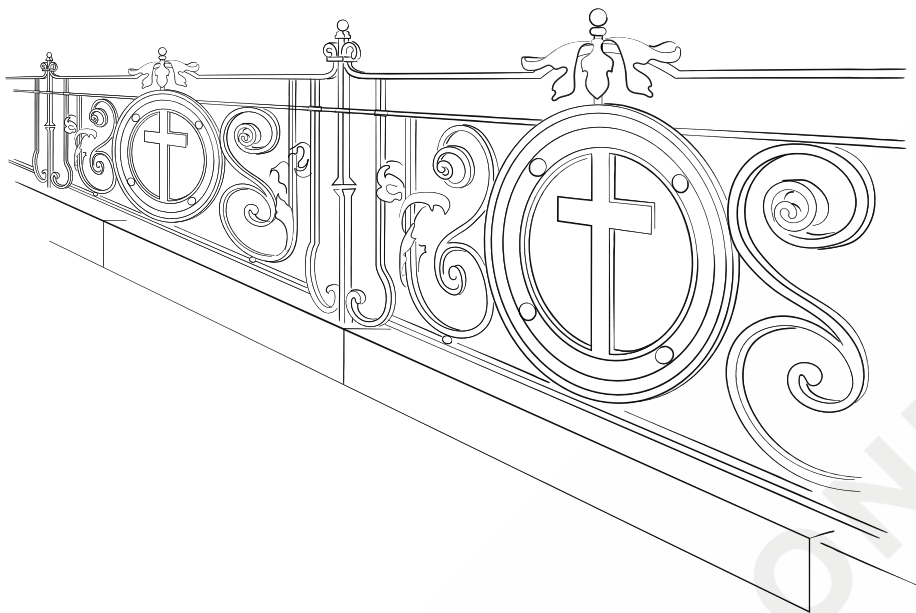
xx.iii
Suggested description: Fence on
a (high) foundation consisting of
crosses inscribed in circles, above
which are leaf motifs connected by
s- and c-scrolls
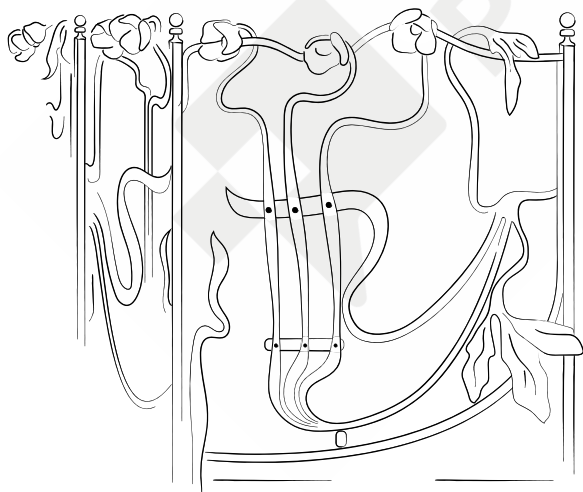
xx.iv
Suggested description: Fence with
freely curved slats ending in poppy
flower heads

PLATE XXI # Funerary monument
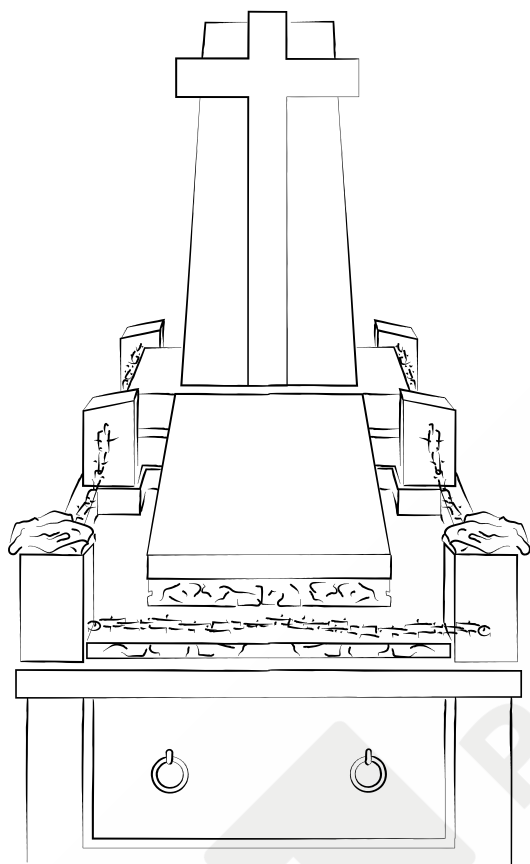
XXI.I

Suggested description: Funerary monument built on a rectangular plan covered with a slab, at the head of which is a stele with an inscribed cross and an oblique tombstone (with an engraved inscription). On the front, the entrance is closed with a slab with cast-iron grave handles. There are pillars on the monument connected by a wrought iron chain
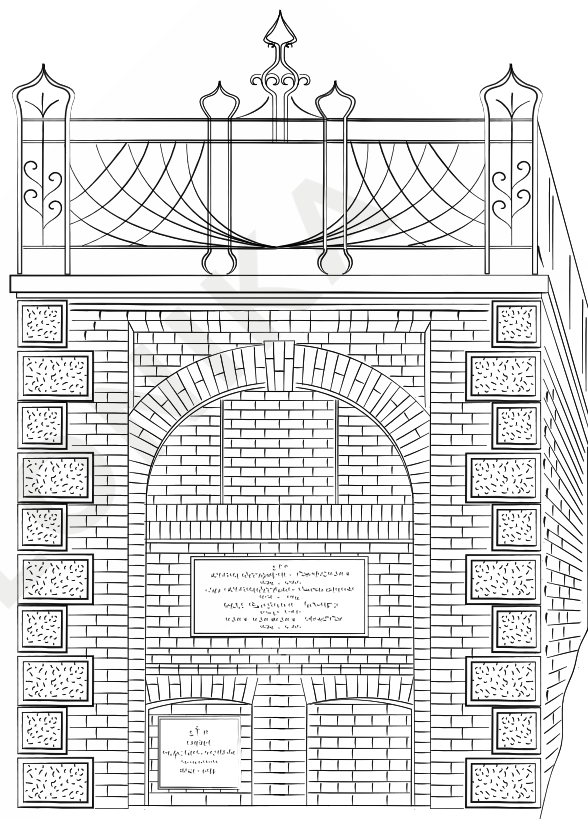
XXI.II

Suggested description: Ground funerary monument built on a rectangular plan with an elaborate brick façade framed by rustication at the corners. There is a full arch carved in brick on the façade. The intrados features a field for the plaques; below is a plaque (with an engraved inscription) and two panels, the right one with a plaque (with an engraved inscription). The monument is covered by a flat roof on which is a cast-iron fence consisting of arched bars joined by vertical and horizontal slats
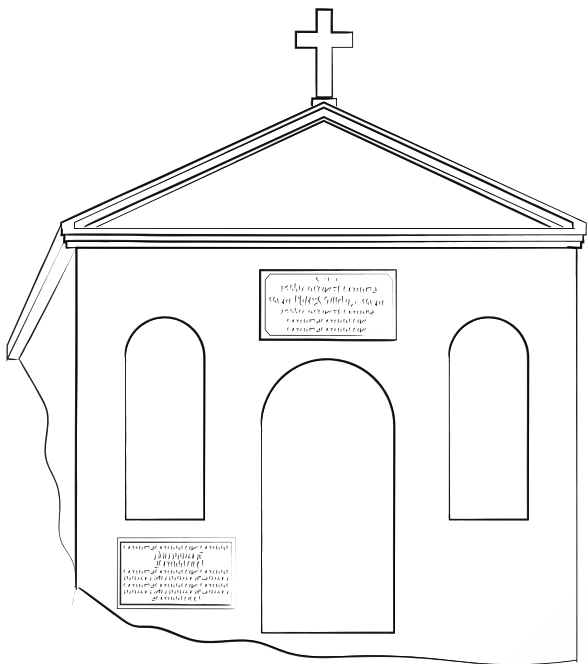
XXI.III
Suggested description: Ground funerary monument built on
a rectangular plan, with a developed façade covered by a gabled
roof with a gable crowned with a cross.
There are two niches in the façade; under the left one is
a plaque with an engraved inscription. On the axis, the entrance
is closed with a semicircle, above it is a plaque (with an
engraved inscription)
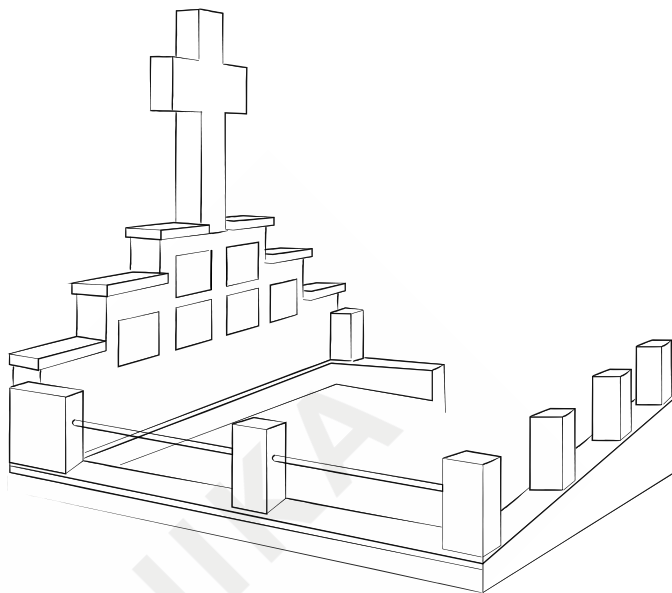
XXI.IV
Suggested description: Ground funerary monument built on
a rectangular plan with a wall crowned with a cross, passing
into a fence consisting of posts connected by a cast-iron bar.
The wall is stepped. On the front of the wall are plaques with
inscriptions
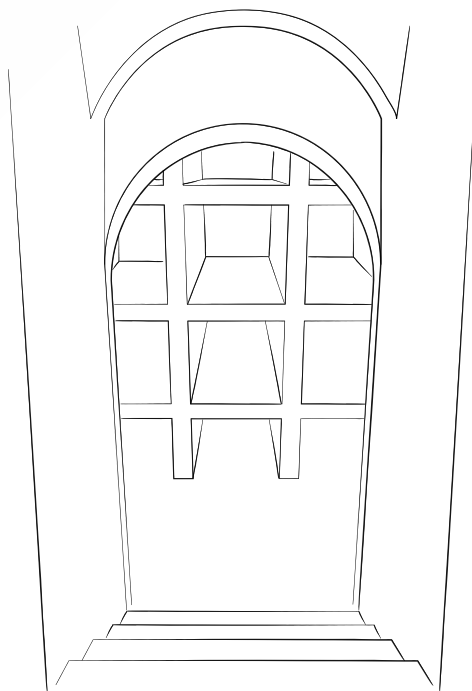
XXI.V
Suggested description: On the axis is
a shallow staircase leading to the burial
chamber, where there are coffins on
three-row shelves

PLATE XXII # Types of relief and figure depictions

A RELIEF ALWAYS HAS A BACKGROUND

XXII.I
Flat relief (bas-relief): skull with tibia bones, scythe and a winged hourglass

XXII.III
Concave relief (intaglio): figure of Christ

XXII.II
Convex relief (high-relief): floral wreath tied with a ribbon, within it is an engraved inscription

XXII.IV
Bust, straight-on view (en face)

XXII.V
Half-figure, saint shown in profile

XXII.VI
Bust, figure facing ¾ to the left

XXII.VII
Contrapposto – mourner's
statue clearly leaning on
left leg, hips and shoulders
slightly rotated

PLATE XXII # Figure attire

XXII.VIII
Suggested description: Statue of Saint Gregory I in papal vestments (contrapposto – figure clearly leaning on right leg, left leg bent at knee, hips and shoulders turned) with ferula (papal cross) in the left hand and blessing with the right hand. At his side, a figure of an angel (attribute of the saint)

XXII.IX
Suggested description: Figure in contrapposto, wearing vestments of a western rite (Roman Catholic) bishop with a mitre and a pastoral in his left hand, his right hand in a gesture of blessing. The lack of an unambiguous attribute makes it impossible to identify the figure

XXII.X
Suggested description: Statue in a frontal view wearing vestments of an eastern rite bishop with a mitre and a book in the left hand. The absence of an unambiguous attribute makes it impossible to identify the represented figure

XXII.XI
Suggested description: Figure of Saint Anthony of Padua (in a frontal view and contrapposto) in habit, with a lily flower in the left hand, while the right hand points to the heart

XXII.XII
Suggested description: Statue of Saint John of Nepomuk in pronounced contrapposto, dressed as a canon

Pattern of description of a tombstone with a statue

GENERAL DESCRIPTION:
Who is depicted, are there any other statues/objects, what is the relationship between them, identification of the pedestal and base. What is the statue depiction: contrapposto, kneeling, frontal, in profile, facing ¾

GESTURES:
Hands folded in prayer (prayer gesture), crossed on chest, hand (both, right or left) pointing upwards, and held objects

OVERALL DESCRIPTION OF THE ATTIRE:
Characteristic elements (lace, hems) as well as physiognomic details (appearance of hair, whether barefoot)

NOTE: THE DESCRIPTION ORDER AND ITS DETAIL MUST BE ADAPTED TO THE SPECIFIC CHARACTER OF THE DESCRIBED CASE.

SUGGESTED DESCRIPTION:
Burial site marked by a figure of an angel embracing a cross stylised as a tree trunk on a rock-shaped pedestal and base. The angel is depicted in contrapposto, with its left leg resting on a stone, in its lowered right hand a palm branch is held and in its left hand a rose wreath. The cross is entwined with ivy leaves. The figure is dressed in a long robe fastened over the right shoulder and tied at the waist, and in a lavishly creased cloak. Its hair is long and pinned at the sides; he is barefoot. On the rocks, there are ears of cereal in bas-relief and engraved inscriptions

PLATE XXIII

Ornament, decorative-and-symbolic orders and motifs
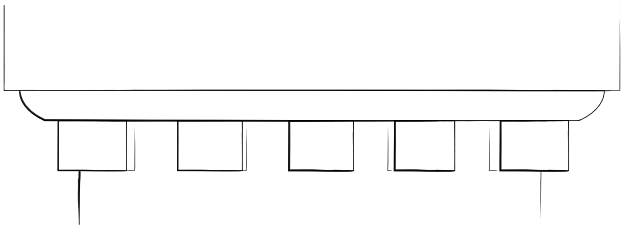
XXIII.I
Suspended tooth frieze (dentil)

XXIII.II
Doric cymatium

Ionic cymatium (egg-and-dart)
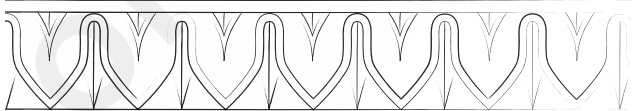
Lesbian cymatium
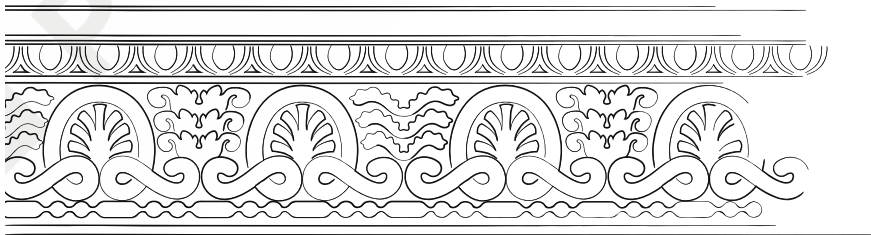
XXIII.III
Astragal

XXIII.V
Anthemion (alternating palmette and acanthus leaves arrangement), below the astragal (pearls divided by a round mouldings), with Lesbian cymatium above
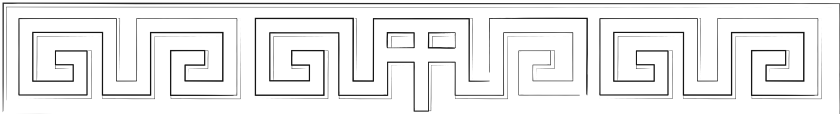
XXIII.VI
Meander
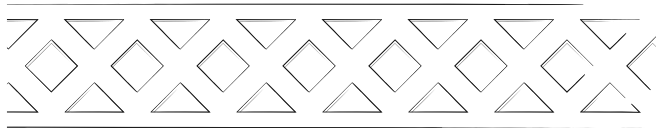
XXIII.IV
Campanula
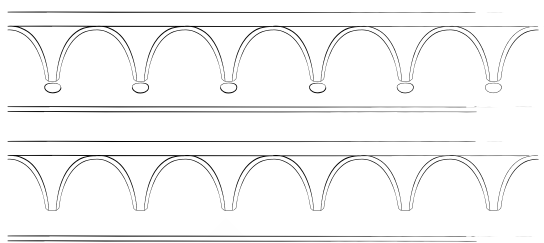
XXIII.VII
Grid

XXIII.VIII
Arcaded frieze

XXIII.IX
Orders: Tuscan, Doric, Ionic, Corinthian

XXIII.X
Medallion in a scroll frame with Christ's head wearing a crown of thorns depicted in bas-relief
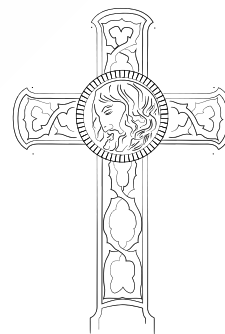
XXIII.XI
Cross decorated with an ornament formed from a dry stem (branchwork)
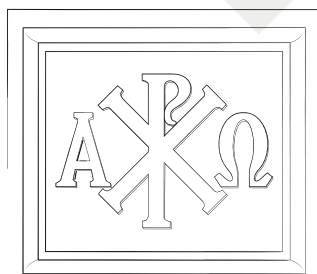
XXIII.XII
Monogram of Christ XP and the letters AΩ
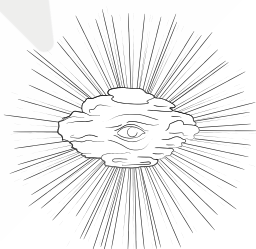
XXIII.XIII
Eye of Providence (may be framed by a triangle)

XXIII.XIV
Monogram of Mary
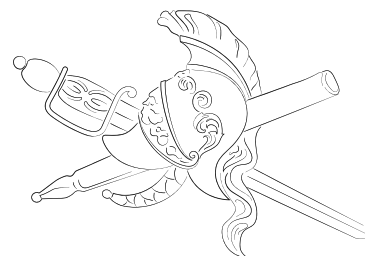
XXIII.XV
Panoply

PLATE XXIV # Plant and animal motifs

XXIV.I
Laurel overhanging in high-relief,
suspended from a simplified cornice

XXIV.II
Rose garland (festoon curtain) in high-
relief, suspended on ribbons with tassels

XXIV.III
Rosette

XXIV.IV
Shell

XXIV.V
Wreath of poppy flowers

XXIV.VI
Poppy fruit (poppy heads)

xxiv.vii
Wreath of bay leaves

xxiv.viii
Palm leaf

xxiv.ix
Olive branch

xxiv.x
Oak leaves with acorns

xxiv.xi
Grapevine

PLATE XXIV

XXIV.XII
Thistles

XXIV.XIII
Lily flower

XXIV.XIV
Leaves and lily-of-the-valley flowers

XXIV.XV
Fern leaves

XXIV.XVI
Ears of cereal

XXIV.XVIA
Wreath of immortelles

XXIV.XVII
Acanthus leaves

XXIV.XVIII
Bucranium

XXIV.XIX
Griffin

XXIV.XX
Pelican feeding its young

XXIV.XXI
Ouroboros (snake swallowing its tail)
capturing a butterfly

XXIV.XXII
Moth larva

XXIV.XXIII
Moth

XXIV.XXIV
Dragonfly

PLATE XXV

Tombstones – suggested description (supplement)

XXV.I
Burial site marked by a plaque placed directly on the ground (so-called flat marker) with a motif of a cross enclosed by a frame at the top and an engraved inscription

XXV.II
Right-hand side
Burial site marked by an inscription plaque placed on a gently sloping pedestal and a base (so-called bevel marker). Cast inscription, the inscription plaque enclosed by a frame

Left-hand side
Burial site marked with an inscription plaque placed on a sharply chamfered pedestal and a base (so-called slant marker). Cast inscription, the plaque enclosed by a frame

XXV.III
Burial site marked by a low, horizontal stele placed on a base (so-called **companion upright** type). On the top front of the plaque is the inscription SNIEGOWSKI, below on the axis is a cross and on the sides are small panels, on both sides with an engraved inscription. The sides are framed by lily flowers. The plaque and upper surface of the base are polished and the sides are hewn. Burial site marked by a round moulding on a base (so-called Bolster type) with an inscription engraved on the round moulding. The base has chamfered, polished upper edges and hewn side

XXV.IV
Burial site marked by a round moulding on a base (so-called Bolster type) with an inscription engraved on the round moulding. The base has chamfered, polished upper edges and hewn side walls. The round moulding is polished and hewn on the sides

XXV.V
Burial site marked by a tombstone in the form of a bench (so-called **bench tombstone** type) on a base with a bench with a simple seat and supports

xxv.vi

Burial site marked by an aedicula placed on a pedestal and a base. The aedicula is built of pillars set on a common base at the front with an adjacent pentagonal jardiniere supporting a lintel and a finial enclosed by a segmental arch, in the centre of which from the front is a ceramic medallion with a convex head of Christ wearing a crown of thorns, shown en face. Between the pillars is a plaque* with an engraved inscription; letters of different sizes, filled in with white paint. A plaque with an engraved inscription is attached to the pedestal with brass rivets; letters filled in with white paint. All elements are made of polished stone

*In another version, for example, the plaque can have an avant-corps at the bottom

xxv.vii

Funerary monument built on a roughly square plan. At the head of the monument on top is a structure resembling an aedicula consisting of two pairs of pillars supporting a hexagonal finial. The pillars support a plaque with an engraved inscription, its letters are filled in with white paint.

The outer pillars are cuboid and placed on a square base. The inner pillars are set back, have cube-shaped capitals with inward-chamfered corners and are placed on a common, slightly protruding base. Their inner edges are chamfered. Between the capitals is a lintel and in the field of the finial is a pediment enclosed by a segmental arch with a plaque. Attached to it is a cast of the head of Christ wearing a crown of thorns made of copper alloy. The head is shown in profile from the left, inscribed in an isosceles cross with a halo.

The aedicula rests on its own base. Below the inscription is a plaque, a pentagonal jardiniere adjacent to the aedicula. On the outer pillars are glassed metal wall lights attached from the front. On the front, in the finial field, is an engraved inscription with letters filled in with white paint.

The funerary monument is covered with three ledger stones of which the middle one is double in size and raised in relation to the others on a base. All stone elements are polished. On the base of the pillar on the right, in the upper right corner, is the signature of the stonemason's workshop

xxv.viii

Burial site marked by a stele on its own base enclosed by two lower cuboids. The entire structure is placed on a common base. There is an engraved inscription on the front of the stele. The stele and cuboids are polished

Ledger stones often have the following surface:
– bulging (or slightly bulging),
– with chamfered corners.
Sometimes the middle ledger stone (less often the side) can be double in size and raised in relation to the others.
Ledger stones may bear inscription plaques (usually placed diagonally). A ledger stone with a hipped upper surface is rare

Burial site marked by a stele preceded by three ledger stones of which the middle one is double in size and placed on a foundation and a frame clad in polished slabs. The stele of irregular shape is hewn with a polished surface on the front on which is an engraved inscription with gilded letters. On its right side is an engraved eagle from the Polish coat of arms. Polished ledger stones, the middle one with an engraved cross, are placed on a base clad in polished slabs. On the left side of the slabs is an engraved inscription with grave numbers on the front left and right side. The stele is enclosed by low socles and on the right side the name of the stonemason is engraved in gold letters. A space for flowers in front of the tombstone is enclosed by a band

Burial site marked by a stele on a two-stepped pedestal preceded by two slightly bulging ledger stones on a common base. The stele is framed on the sides by cuboids – a lower one on the right and a higher one on the left, with a cross engraved on the front of the latter cuboid. On the front of the stele is a polished inscription plaque with a palm leaf engraved at the top and an inscription below

Glass inscription plaque, black coloured glass, concave inscription

xxv.xiii
Burial site marked by an obelisk on a two-stepped pedestal and a base. The obelisk is gabled with an engraved cross on the front and an oval porcelain photograph of a man's bust below on the right, as well as an engraved inscription further down. The base is cuboid. The first step of the pedestal has chamfered upper edges and the second step has moulded upper edges with an engraved inscription on the front. Both the obelisk and pedestal are polished

xxv.xiv
Burial site marked by a stele on a base and a pedestal. The stele is framed on the sides by lower posts tapering upwards and placed on their own bases. The pillars support a finial enclosed by a segmental arch supported in the middle by a stele. In the field of the finial is a marble plaque with a convexly-carved head of Christ with freely flowing hair and wearing a crown of thorns. The stele bulges downwards. On it is an engraved inscription and at the top a small panel with a grained surface containing the engraved inscription FAMILIE //., below is an inscription engraved in Art Deco style with letters of varying heights. Halfway up, it is separated by an ornamental band with geometric decorative motifs. Both the stele and the posts flanking it are supported by their own common rectangular base protruding from the face with a signature of the stonemason's workshop in the lower right corner. The pedestal widens at the base, transitioning at the front into a three-sided jardiniere

xxv.xv
Burial site marked by a cross on a high small-pedestal and a pedestal. The cross has arms ending in highly stylised trifoliate-shaped motifs forming ring shapes at the corners. On the front of the cross is an inscription made of applied lead letters. The front of the small-pedestal is decorated with an engraved frame and a ribbon with an inscription also made of applied lead letters. The pedestal has profiled upper edges

xxv.xvi

Burial site marked by a sarcophagus crowned with an urn and placed on a high pedestal. The sarcophagus is covered with a wider slab on feet with walls widening upwards and decorated with profiling. In the upper part are suspended stone rings, two on the longer sides and one on the shorter side. Above the sarcophagus is a form of a high finial supporting the urn. The finial is in the form of a semicircular roof placed directly on the profiled base. The urn rests on its own base situated on a foot with a narrowing in the middle section. On the four sides are vices. A belly is decorated with fluting with a lid. There is a two-stepped pedestal. The first step has profiled upper edges. The second step of the pedestal is high with simplified entablature enclosed by a two-stepped slab forming the base of the sarcophagus. On the sides, plaques are enclosed by a profiled framing. In the entablature is a diamond frieze interrupted on the longer sides by a panel framed by crossettes and decorated with guttas at the bottom with a profiled panel in the middle containing a plaque. Decorative circular motifs appear in the upper corners. On the shorter sides are double corbels/cantilevers with fluting and guttas

xxv.xvii

Burial site marked by a stele crowned with a cross on a two-stepped pedestal and a two-stepped base. The isosceles cross has arms ending in a stylised trifoliate shape with an arched widening lower part. The stele has a profiled finial in the form of an overhanging full arch. In the front field is a panel with profiled edges, enclosed at the top by an overhanging full arch containing an engraved inscription with letters of different sizes filled in with black paint. Both steps of the base are cuboid. The pedestal has chamfered upper edges with an inscription filled in with black paint on the front. The stone is polished

xxv.xviii

Burial site marked by an aedicula crowned with a cross on a two-stepped pedestal and a two-stepped base. The isosceles cross has arms ending in a stylised trifoliate shape widening at the base. The aedicula is framed by spiral columns with bases and capitals alluding to the Tuscan order. In the front field is a panel enclosed by a segmental arch containing an engraved inscription with letters of different sizes filled in with black paint. The finial is enclosed by a concave-convex arch. In its field is a ceramic medallion with a convex head of Christ wearing a crown of thorns depicted en face. The base has chamfered upper edges and a cuboid pedestal with an engraved inscription on the front; the letters were originally filled in with black paint. The stone is polished

xxv.xix

Burial site marked by a ledger stone on a base and a strip foundation. The ledger stone is framed on four sides by polished L-shaped elements. These elements give the impression of a clasp fastening the ledger stone on the sides. The slab is polished with a cross on the left side and the emblem of the 'Polska Walcząca' (Polish underground) at its base in a high rim with an inscription. On the right side of the cross is an inscription made of convex letters across the entire ledger stone

XXV.XX

Funerary monument on a rectangular plan, at the head of which is a figure of Christ on a pedestal enclosed by slabs on the sides. Attached to the front of the pedestal is a low lectern on which an open book and a stole are placed with jardinieres on each side. The whole structure is preceded by a ledger stone on its own base. A figure of Christ stands on its own base with a burning heart on His chest. Christ is dressed in long robes and a cloak with corrugated folds. His arms are stretched out in front of Him (the hand of His left arm is missing). At the top of the pedestal is an inscription engraved in capital letters. Below is a relief representation of a chalice with the Host, the inscription IHS (a cross inscribed in the letter H) and a halo. On the sides are relief representations of angels in profile standing on rocks or kneeling, with their hands folded in a gesture of prayer. The frames of the slabs on the sides of the pedestal, the base of the ledger stone and its sides, as well as the sides of the slab crowning the pedestal are all decorated with grooves. On the ledger stone is a mounting of grave handles made of copper alloy (bronze?). In front of the plot is a small stone bench. The plot is enclosed by a fence, its outer posts higher than the others flanking the slabs located on each side of the pedestal. The rest of the fence consists of 6 posts with stylised flames arranged on a square plan and covered with a wider slab. The posts are connected with a metal chain

XXV.XXI

Chapel built on a roughly square plan. A simple two-stepped staircase leads up to the façade. The construction is set on a low pedestal. The walls are slightly sloped and separated by a cornice. The chapel is covered by a steep gabled roof with a gabled pinnacle at the front and back. The façade has a pointed-arch portal framed by grapevine leaves which enclose alternating shells, decorative isosceles crosses and rosettes. All corners are framed by pillars protruding significantly from the façade, with pinnacles and spires in the upper part. The fifth pinnacle is on the ridgepole at the front. Elevations, except the front one, are separated by a cornice, the side ones smooth at the bottom, with a row of five narrow pointed-arch windows (replaced by blind windows in the outermost axes) of a trifoliate-shaped design at the top, the back elevation being smooth. The front and side elevations are finished with an entablature with a decorative frieze in the form of square panels decorated with a quadrifoliate motif in which an isosceles cross is inscribed. Its arms are also stylised as a cross motif with

a quadrifoliate panel on the central axis at the front and rectangular panels for inscription plaques with a trifoliate-shaped arch on the sides. The crowning cornice is framed from below by a repeated geometric ornamental pattern. The back elevation lacks decorative elements and is only divided into cornices. A gabled pinnacle is cut off at the top with plant decorations on the sides. In the gable field is a rosette with an inscribed eight-leaved frame topped with a count's coronet. Inside is decoration referring to heraldic symbols: on the left is a two-and-a-half-arm cross (the emblem of the Pilawa coat of arms), and on the right is one-half of an escutcheon featuring an image of an eagle. Below is an inscription plaque inscribed in an elongated frame decorated on the sides with a trifoliate-shaped arch with an engraved inscription (capital letters filled with gold paint in a decorative font). In the upper part of the pinnacle is a relief representation of an angel depicted frontally in semi-figure holding a ribbon with an inscription. In the pinnacles flanking the gable on the front side are niches in the shape of a trifoliate arch with representations of virtues: on the left, Faith with the inscription LA FOI //. under it in a separate rectangular panel; on the right, Hope with an analogous inscription LA ESPERANCE //. A pinnacle above the gable has a similar depiction of LA CARITAS //. – Charity. Spandrels of the portal arch curves are decorated with a motif composed of rosettes. There are garlands in the form of isosceles crosses suspended on decorative brackets from the pillars at the front and on the sides (only on the pillar at the front). Above the side elevations are two sets of four plant-shaped gargoyles on the edge of the roof with triangular decorative shapes in between. Metal doors have two strips of openwork clearances enclosed by a trifoliate form separated by a strip of quadrifoliate-shaped clearances. In the lower part are rectangular panels with quadrifoliate-shaped clearances.

Inside is a preserved altar made of white marble with a statue of the Virgin Mary above it in a pointed-arch panel decorated with a trifoliate shape and framed by a row of half-columns. The walls are covered with ornamental motifs painted in gold and blue

PART 2 Good practices

1. What is permitted and what is not

When carrying out documentation work, it is necessary to behave in accordance with applicable laws and customs (e.g. when entering a Jewish cemetery[1], men must remember to wear headgear). Regulations for the protection of cemeteries and individual graves stem from laws adopted in each country. They also provide basic protection for historic buildings. It is important to bear this in mind and, where possible, take steps to give legal protection to important tombstones or, for that matter, entire cemetery layouts. In the case of war cemeteries, the matter is simplified by the fact that their protection is based on international regulations. However, such regulations do not exist for civilian cemeteries. Although there are no separate laws on the protection of cemeteries in adopted legal systems, the obligation to care for them arises from individual regulations[2]. In some situations, separate legal provisions also

[1]   On the documentation of Jewish cemeteries: Klimowicz, Sygowski, Tarajko, Trzcinski 2018.

[2]   Is worth mentioning Polish laws at this point, which may differ from those in other countries, yet set a certain general pattern for the protection of cemeteries primarily in Europe. In Polish law, there is the Act of 31 January 1959 on cemeteries and burying the dead, together with subsequent amendments (Journal of Laws 1959 no. 11 item 62). The current law imposes, inter alia, 20-year protection of a grave (this term is extended by 20 years from the date when 'any person objects to it and pays a fee'), and 40-year protection of a cemetery (from the date of the last burial). However, article 7 paragraph 5 indicates that 'it is forbidden to use graves for reburial that have historical memorial value (due to their historic character or the persons buried in them or the events to which they relate) or artistic value'. Of particular significance for the protection of historic graves and complexes is the Act of 23 July 2003 on the protection and care of historical monuments (Journal of Laws 2003, no. 162, item 1568), where objects entered in the movable monument register, the Heritage Treasures List or recognised as historical monuments or located in a cultural park are legally protected and where it

apply, e.g. on the protection of personal data (meanwhile, provisions related to the GDPR do not apply to deceased persons) or copyright.

These can cause real problems for those carrying out documentation work (e.g. the prohibition or restriction on taking photographs in cemeteries in Italy[3]). It is also important to bear in mind regulations governing certain rules of behaviour in cemeteries.

Therefore, already at the planning stage of work, it is necessary to become familiar with the specificities of the subject region and, if necessary, apply for relevant permits. Even if these are not directly required by law – especially in larger centres – it is a good idea to obtain relevant permits for documentation work. There may be a need to excavate a fragment of a tombstone, undertake activities related to the reading of inscriptions (often involving their cleaning) and others, which cause non-standard behaviour. Thus, such activities may be forbidden by the cemetery administration and in extreme cases, even expose their performers to administrative or criminal liability.

When approaching owners of cemeteries, it is a good idea to do so in cooperation with local Polish organisations and in consultation with authorities.

Documentation practice shows that in the case of small cemeteries, especially in the former Polish-Lithuanian Commonwealth, it is not necessary to obtain relevant permits in advance. The work is more likely to be met with

is necessary to provide them with due care. Protection may also be provided by a local development plan (but this will apply to entire cemetery complexes rather than individual tombstones). Article 6 paragraph 1 point 1 f. of this Act states that historic cemeteries, regardless of their state of preservation, are subject to special protection and care. What is more, historic monuments should be given movable monument record cards, prepared in accordance with a legally binding template, and then entered in the monument register. However, the creation of a record card alone is not equivalent to the protection of an object as a historic monument, as exemplified by, for example, by Warsaw Powązki Cemetery, where there are over 3,000 record cards, yet individual tombstones are not entered in the register. Another form of legal protection of tombstones can be the overall protection of a historic cemetery complex entered in the immovable monument register. The protection of cemeteries is then the responsibility of their owner. In practice, this is most often a religious community (religious cemeteries), municipal government (municipal cemeteries) or the State Treasury. On the legal protection of cemeteries, see: Affek-Bujalska 1994 (although the publication discusses the legal context of the 1990s, it provides comprehensive, fundamental information on the legal order in this matter); Mikołajczyk 2017 (the study mainly concerns war cemeteries).

3   Despite the universality of the prohibition, this provision is not fully enshrined in law. Nevertheless, in practice, it is respected in many Italian cemeteries, including historic ones. Sometimes the cemetery staff draws attention to the ban on photography and even demands that photographs be deleted.

approval and understanding of residents or with their kind indifference. Of course, there are exceptional situations when, for example, this is not possible for political reasons (this was the case, for example, in the USSR during its existence). It is important to bear in mind that the acceptance of conducted activities, especially when they leave visible traces, even of a non-permanent nature (e.g. covering an inscription with chalk), is lower in the case of monuments located in the immediate vicinity of active churches, especially when they are cared for by the local community (e.g. painted or whitewashed).

It is difficult to indicate universal rules for planning and reporting of work carried out in different regions of the world. Even at the first stage of organisation, it is therefore a good idea to initiate contact with people with experience of working in the area. It should be remembered that inventory is not invasive by nature and can, of course, be combined with conservation or restoration work. However, the latter activities require different tasks. It should be emphasised that conservation protection of monuments, including tombstones, is carried out only by experts[4]. It is also necessary to distinguish between conservation work aimed at safeguarding and preserving the state of a monument and restoration work consisting of the restoration of its artistic values.

It is absolutely unacceptable to take any objects or parts of objects from cemeteries. This also applies to objects without the formal status of a monument, but which may be treated as such. The rule must be that, apart from rubbish, nothing may be taken from a cemetery.

Another legal issue is the question of copyright in documentation. It is advisable to obtain all necessary permissions to make the photographs and descriptions available, so that the material can be disseminated without infringing material copyright law (see appendix). In particular, if documentation is prepared in teams and publicly funded, care should be taken to ensure that it can be further used in public, which means obtaining all necessary consents from its authors. In this context, documentation should also be clearly identified as to its authorship. It should also be made clear by the commissioners, in consultation with the inventory contractors, who will use the collected material and for what purpose.

When working in a cemetery, it is important to remember that this is a place of remembrance. The way in which respect is shown for the dead varies from one culture to another, hence different standards of behaviour apply. Special restrictions apply to Jewish cemeteries, as indicated above, because in Jewish culture a cemetery is literally treated as a space of the dead, an unclean

---

[4]   Again, let Polish law be the point of reference. Article 36 paragraph 1 of the aforementioned Act states that work on a monument requires the conservator's consent, and if we deal with a form of designed greenery, this also applies to the cutting of trees and shrubs. In addition, conservation and restoration work must be managed by a person with appropriate education and professional practice (article 37a paragraph 1)..

place. In Christian culture, a cemetery also remains a space of the dead, as is strongly emphasised in folk culture. But at the same time, it is a park of memory, a place of emotion and reflection, and consequently, there are fewer restrictions concerning rules of behaviour. Nevertheless, when carrying out inventory work, one should remember to respect the place and the people who are there. Any ceremony taking place, especially a funeral, must not be disturbed. When items are removed from a tombstone to be photographed, they need to be replaced afterwards. In the case of a tombstone under care, any traces of chalk or other materials used to read the inscription and to mark the tombstone for the inventory must also be removed.

2. Scope of work

Leaving aside the issue of day-to-day activities at cemeteries and work carried out by conservation services or commissioned by cemetery owners, the following types of work are usually carried out:

- » cleaning,
- » documentation, including inventories,
- » popularisation and education,
- » scientific work.

Ideally, an inventory should be preceded by cleaning up the cemetery and only then should scientific and conservation work be undertaken, followed by popularisation- and education-related activities. In practice, of course, this model is difficult to follow. It should be remembered that in objects considered to be of historic nature, cleaning should be carried out under the supervision of experts, or at least consulted with them, because, for example, cutting vegetation on slopes may accelerate the process of landslides, whereas cutting down trees may lead to the growth of bushes and other plants bursting the grave. Tombstones should not be washed with pressure washers, as they can permanently damage objects and are also environmentally unfriendly due to their water consumption. Repainting inscriptions can also do more harm than good. Usually, cleaning work has the desired visual effect, but this is short-lived and in the long term may prove more harmful than helpful. It is therefore necessary to act consciously with a focus on efficiency rather than impression.

The basis of documentation work is the inventory, which should be created in cooperation with experts. Only seemingly is it a simple task to carry out an inventory of a cemetery, while simply listing and photographing tombstones is of little use. Full documentation should include the following:

- » library search (finding publications on the cemetery and the region),
- » archival research (finding archives relating to the cemetery – metric books; in the case of larger complexes, old cemetery plans, designs of individual buildings, etc. may be uncovered; it is worth checking whether the cemetery can be found on old maps, whether and how its layout has changed),
- » an inventory of the entire complex and individual objects, including: a description of the object with enumeration of individual elements, reading and listing of all inscriptions, taking of documentary photographs,
- » creation of a cemetery card and cards of individual tombstones/ graves/chapels,
- » environmental interviews.

At the preparatory stage, consideration should be given to own objectives (scientific, popularisation- or education-related) and usefulness of the work for other institutions, individuals, including genealogical research. Collected information can be considered in historical research, especially of a local nature, research in art history, ethnography, linguistics, literary studies, epigraphy, religious studies or sociology, as well as other sciences. Results can be applied to the planning of activities of conservation services or other institutions involved in the protection of cultural heritage. Hence the rationale for a comprehensive inventory and the application of standards that are as unified as possible.

Above all, the purpose of the work should be clearly specified with consideration of the achievements of other teams. The inventory should be complete. It is necessary to make the documentation as comprehensive as possible, taking into account the full ensemble of objects. The designation of its nature usually results from specifics of the area. In the case of cemeteries located outside the country, in the lands of the former Polish-Lithuanian Commonwealth, work may:

- » include all surviving monuments, but this is exceptional when the aim is to compile a monograph of a particular cemetery complex,
- » concern a select group of objects, e.g. tombstones with inscriptions in Polish or in the Latin alphabet.

This last criterion leads to certain inaccuracies, as tombstones associated with Polish culture cannot be limited to linguistic matters alone. However, it makes it possible to distinguish a certain set of objects quite clearly associated with it. It is true that, for example, anonymous monuments of artistic value are omitted, but linking them to Polish culture automatically is an abuse. Nevertheless, all important and interesting objects for which no separate cards have been created should be included in the general description of a cemetery (cemetery card).

3. How are cemeteries found?

In general, during work carried out in lands of the First and Second Republic of Poland, practice made it possible to develop a scheme for documenting monuments with inscriptions in the Latin alphabet preceding 1945. Although these criteria are not unarguable, they allow for a precise framework to be set. In the case of documentation collected in other areas, it is necessary to familiarise oneself with the scope and nature of the inventory already carried out, and to reflect on the needs and purpose of ongoing work. This will allow the appropriate group of sites to be identified, e.g. based on linguistic criteria.

Before carrying out inventory work, it should be verified whether any research has already been done on the site in question. This matter can be consulted with the Ministry of Culture and National Heritage or the National Institute of Polish Cultural Heritage Abroad POLONIKA. Internet and library searches should also be conducted. Next, it is necessary to select a site for the intended work, checking whether documentation groups are already active within its boundaries. For instance, such comprehensive work is planned in the former Ternopil Province, and it is also being carried out on the Polish-Ukrainian border near Lviv. The vast majority of large cemeteries in the former Polish-Lithuanian Commonwealth have already been documented, so the focus should be on smaller cemeteries. It is important, when choosing the area of work, to act in a systematic way, e.g. only in one district.

Before leaving, the location of cemeteries should be preliminarily determined. For areas of the Second Republic of Poland, pre-war maps of the so-called WiG (Military Geographical Institute) will be helpful, especially for areas where they were made on a scale of 1:10 000, thus allowing precise location of cemeteries (ill. 63). Regretfully, cemeteries are not always visible on the most popular maps at a scale of 1:25 000. Older maps can also be used. For most areas of the world, we can find contemporary as well as historical maps (e.g. at https://www.oldmapsonline.org).

One should bear in mind, however, that not all necropoli are marked on pre-war maps, e.g. cemeteries created in the 1930s or small burial sites located, for example, by Catholic or Orthodox churches. The results of a search should therefore be correlated with satellite maps. Historical aerial photographs may also be helpful.

Most public services such as Google Maps or Bing Maps provide sufficient visibility to locate most cemeteries. Unfortunately, it is difficult to see small or heavily overgrown ones on them. Information should therefore always be verified on site by finding out the number of cemeteries in a given village. Usually, only one is preserved. However, even small ones exist in about 10% of towns and there may be two cemeteries, or even three in individual cases. In large urban centres there may be as many as a dozen or more.

ILL. 63
An example of a pre-war map, the so-called WiG, on a scale of 1:10,000, with a marked cemetery

4. Carrying out work

The first problem is choosing the right time. It all depends on the region, of course. One must always plan work on the assumption that about 10% of the time will coincide with bad weather or difficulties with transport, etc. This can partially be offset , first of all, by checking average temperatures and the amplitude of rainfall over a given period. For example, the month in which more rain can be expected in our region is July, while high temperatures in June can slow down the pace of work. Winter months, when there is no snow, may facilitate good exposure of heavily overgrown cemeteries, but low temperatures and unpredictable precipitation can make inventories impossible. When planning clean-up work, it is also advisable to take account of bird breeding periods. Good time slots for work are the second half of April, May, as well as the second half of August, September and the first half of October.

Inventory work should ideally be implemented in teams of two or three people; one-person teams are not recommended. A cemetery should be divided into sectors (only in the case of very small cemeteries with a handful of tombstones can the cemetery be searched by means of an extended line). Each documented tombstone should be marked so that it is certain when the site is being verified that work has already been completed. It is a good idea to give tombstones consecutive numbers. After taking documentation photographs numbers can be marked in chalk on monuments (after marking, an additional photo can be taken so that the monument can be easily found later).

It should be borne in mind that some tombstones may be invisible, overgrown or buried, so the entire area should be thoroughly checked. Ground penetrating radars, for example, can be used as an aid, but the cost of work using such equipment is usually inadequate to the results. Larger elements, such as a finial, are usually well legible even after superficial cleaning of a tombstone. Details and, above all, inscriptions require a more thorough cleaning

and at times also treatments to increase legibility, but these measures should not be permanent. To this end, mosses and lichens should be removed from the monument. When doing so, it should be checked if there are signatures or other visible features. Sometimes fragments of the tombstone need to be unearthed. Equipment that can be helpful for this work includes spades, axes, saws, as well as secateurs or shears. In addition, scrapers are useful for removing moss. It is also worth having protective gloves. Bristle brushes and scrub brushes, etc. are useful for cleaning tombstones. Wire brushes are not recommended. When using brushes, soft ones should first be used, making sure at all times that the cleaning does not lead to damage or scratches. Hard brushes must not be used for monuments made of sedimentary rock, especially if the tombstone has just been unearthed. It has stood in the ground in poor but stable conditions, i.e. in increased humidity. Its surface is soft and can only be cleaned with fine brushes once it has dried completely.

A variety of techniques can be used to read the inscription both on site and in post-processing of a photograph. To bring out the inscription, we can:
- » pour water on the inscription field,
- » take readings from different angles, shading or illumination of the inscription, e.g. with a torch,
- » make the field of the inscription dull with soil (can be spread with a cloth over the surface), vegetation or by using chalk,
- » apply the frottage technique.

In case of legibility problems, a series of photographs should be taken (preferably using the RAW format, ill. 73a–73d) from several angles and in different lighting, also using the frottage or water pouring technique. Then, in computer processing, attempts can be made to authenticate the inscription, e.g. by using negative filters or by changing the white balance, colour temperature, etc.

In addition, a tape measure, preferably a 3-metre steel tape measure, is necessary for inventory work (however, centimetre- and inch-graduated measures should be avoided as they can easily lead to mistakes). For measuring high objects, a laser rangefinder (ill. 83), bolt-on ranging poles or a folding measure (3 m, ill. 83) can be used. A steel measuring tape roulette (so-called rolling measure, ill. 83) 30 m or longer can also prove handy (it is used to measure architectural objects and to make a cemetery plan).

Each participant should also have a notebook for note-taking, preferably with a clip pad. It is a good idea to print out the inventory cards with boxes to be filled in, as this will help to avoid omitting some elements of the description. The cards in each cemetery should be numbered, clearly indicating which cemetery they concern (this is particularly important if working on a dozen or more cemeteries during an expedition).

Participants should wear clothing that protects against scratches from bushes or insect bites and shoes that protect against stepping on sharp protruding objects, but also against moisture (thus, e.g. reinforced work shoes with a special puncture-protecting metal insole are much better than rubber boots). Working in cemeteries is relatively safe, but it is important to remember that they are often in isolated locations. Cemeteries may be littered with rubbish, including sharp objects, e.g. broken glass, or there may be remains of tombstones, pits, wires sticking out of the ground, etc. Occasionally, cemeteries are used by drug addicts who leave unsecured syringes. Natural hazards should also be avoided, e.g. noxious plants (a typical example is Sosnowsky's hogweed) or plants that cause injury or discomfort (e.g. thorns, nettles, etc.). Ticks count among the threats that should be avoided by the use of clothing that covers the body tightly and repellents containing DEET (check the percentage of DEET content, which varies from 1.7% to as much as 50% in various preparations available to the public; particularly in the case of those with high concentrations, it is necessary to read the labels carefully to learn about their harmfulness). Ant nests are also quite common, as are bee nests (to which particular attention should be paid especially by those with a diagnosed allergy, which should be communicated in advance to the person in charge of work) as well as wasp nests. Animals (e.g. foxes) may also take up residence in cemeteries, particularly in rural areas, but usually they are not a direct threat to humans, and noise accompanying ongoing work effectively deters them.

If the local community is not made aware of the work, it may take an interest in ongoing activities and possibly even adopt a negative attitude, which in extreme cases can take aggressive forms. However, these situations are exceptional and extremely rare.

When going to a cemetery, especially if it is located far from a major centre, a group must have a properly equipped first aid kit, which should include:
- » wound disinfectant (not hydrogen peroxide),
- » a soothing agent for bites and irritations (according to current research, calcium has no such function),
- » sterile swabs,
- » bandages (elastic and knitted),
- » dressing plasters,
- » dressing strip,
- » adhesive wound dressing,
- » saline (NaCl),
- » tick pincers,
- » rubber bands,
- » tweezers,
- » rounded scissors,
- » gloves.

Other useful objects are:
» needles (sterile),
» safety pins,
» triangular sling,
» thermal blanket,
» resuscitation mask,
» painkillers/anti-inflammatories (available over-the-counter),
» gel for treating bruises,
» diarrhoea blocker/active carbon.

No medical treatment should be performed on another person, including the administration of medication. The person who is ill must do this him/herself. If necessary to save a life, pre-medical rescue measures should be taken, but not medical treatment. If expedition participants include minors, the applicable procedure should carefully be read for administering medication to, for example, chronically ill persons, and necessary consents for this purpose should be obtained. The possibility to make telephone calls should be ensured with knowledge of emergency numbers (bearing in mind that the number 112 does not function everywhere). If in a country whose language we do not speak, it is a good idea to prepare a mini-glossary beforehand to make it easier to call for help in an emergency situation. All these safety measures will probably never be needed, as cemeteries are usually safe places.

If work is carried out in an epidemiological emergency, recommendations of local authorities should be strictly followed, while checking that access to the cemetery is open and what protection measures are required.

All expedition participants should have medical insurance (sometimes also referred to as health insurance; it is important that the terms of insurance indicate coverage for treatment of sudden illness, accidents, exacerbation of chronic illnesses, as well as rescue). At the time of the emergence of pandemic, some countries such as Ukraine required explicit provision for medical rather than travel insurance, not always including medical or quarantine costs. This is particularly relevant outside the European Union, where medical reimbursement cannot be relied upon. Everyone should be requested to provide information on their state of health and, in the case of illnesses that may lead to sudden deterioration of wellbeing, the course of action to be taken in such a situation. All personal and health-related data must be protected in accordance with the law. The organiser's storage of data must comply with the GDPR and be based on the organisation's established procedures. It must also be remembered that data should not be kept longer than necessary.

5. Types of record cards and how to fill them out

In Poland three types of record cards are used for the inventory of historic necropoli according to guidelines of the National Heritage Institute (NID). The most important one, which is created for each monument described, is the movable monument record card (ill. 64). The second one, i.e. the immovable monument record card (ill. 67), is used for descriptions of chapels and funerary cubature monuments. The third one is the cemetery card (ill. 68).

Various centres sometimes create their own documentation cards adapted to the needs of work carried out in cemeteries. The form created by a team from the Institute of Art History of Cardinal Stefan Wyszyński University in Warsaw (UKSW) is supplemented with a separate field dedicated to inscriptions, with an option to indicate the type of language, as well as the following boxes: tombstone type, location (taking into account, inter alia, the sector), along with additional boxes for entering the dimensions or component materials of a given funerary monument (ill. 65). For a profiled card, the standards of procedure are exactly the same as for record cards, which are open access and can be obtained from the NID website in editable form. The same site provides detailed instructions on completing the cards[1], including their printing on 180–240 g/m² paper.

---

[1] https://www.nid.pl/pl/Dla_specjalistow/Badania_i_dokumentacja/ zabytki-ruchome/instrukcjewytycznezalecenia. Similar standards also apply in other countries. For card examples, see Illinois Historic 2008; Cemeteries Handbook 2024; Prince George's 2010; Trippe-Dillon 2014.

MOVABLE MONUMENT RECORD CARD

3. Location

1. Name

2. Material, technique

9. Style

10. Time of construction

11. Author, school, workshop

12. Dimensions

13. Number of objects

4. Address and place of storage

(a./pl./g./svoris)

14. Photograph

15. Description (marks, signatures, inscriptions)

5. Administrative affiliation

Province

County

Municipality

6. Owner and his/her address

7. Forms of protection

8. Record card made by (author, date and signature)

(Author, date and signature)

ILL. 64

NID Movable monument record card – front side

PHOTO NUMBERS ....

HEIGHT | WIDTH | DEPTH. | DIMENSIONS OF OTHER COMPONENTS

TIME OF CREATION ....

SIGNATURE ....

LOCALITY

CEMETERY SECTOR

STYLE ☐classicism ☐neo-Gothic ☐secession ☐contemporary modernism

FINIAL MATERIAL ☐SANDSTONE ☐LIMESTONE ☐CONCRETE ☐GRANITE ☐LABRADORITE ☐ MARBLE ☐TERRAZZO ☐WROUGHT IRON ☐BRONZE ☐CAST IRON☐OTHER

Record card made on (date)

MATERIALS OF HEADSTONE/LEDGER STONE, BASE, PEDESTAL ☐SANDSTONE ☐LIMESTONE ☐CONCRETE ☐GRANITE ☐LABRADORITE ☐ MARBLE ☐TERRAZZO ☐WROUGHT IRON ☐BRONZE ☐CAST IRON ☐OTHER

INSCRIPTION PLAQUE MATERIAL ☐SANDSTONE ☐LIMESTONE ☐GRANITE ☐LABRADORITE ☐MARBLE IMITATION ☐CONCRETE ☐TERRAZZO ☐WROUGHT IRON ☐BRONZE ☐CAST IRON ☐OTHER

OTHER MATERIAL ....

DETAILED MATERIAL DESCRIPTION (stone colour, nature of the material treatment) ....

INSCRIPTION ....
....
....
....
....
....
....

☐CROSS ☐OBELISK ☐FIGURE ☐COFFIN ☐SLAB ☐BAND ☐STELE ☐COLUMN ☐AEDICULA ☐CIPPUS ☐FUNERARY MONUMENT ☐SARCOPHAGUS ☐OTHER

DETAILED DESCRIPTION ....
....
....
....
....
....
....
....

STATE OF PRESERVATION ☐ destroyed ☐ fragmentation of the structure ☐ nonextant finial numerous cavities ☐ cracks ☐ cavities ☐ mosses ☐ lichens ☐ secondary paint coats ☐ corrosion ☐ obliteration of inscription ☐ nonextant inscription plaque ☐ nonextant photograph

COMMENTS ....
....
....

SECONDARY ELEMENTS

MISSING TOMBSTONE ELEMENTS

VISIBLE MAINTENANCE

GROUP | CARD NO.

INSTITUTE OF ART HISTORY CARDINAL STEFAN WYSZYŃSKI UNIVERSITY IN WARSAW
TOMBSTONE INVENTORY CARD

ILL. 65

Tombstone card used in inventories undertaken by the Institute of Art History of Cardinal Stefan Wyszyński University in Warsaw

5.1. Movable monument record card

It is designed to record works of art, artistic craftsmanship and applied arts, including objects constituting architectural furnishings and decoration (e.g. altars, wall paintings, ill. 64).

A movable monument record card is also used to inventory monuments that are not fully works of art but are of historical or scientific value and are testimonies of material culture (e.g. products of folk handicrafts, militaria, mementoes associated with eminent persons). Also considered as 'movable monuments' are non-cubature buildings and so-called small architecture, i.e. immovable civil structures permanently connected to the ground, being an element of land development or interior decoration. Small architecture includes tombstones and non-cubature funerary monuments.

The inventory card is created for each object separately, even if, for example, there are five tombstones in a family plot surrounded by a fence. All boxes designated for the inventory must be filled in. If any boxes cannot be filled in, for example, due to missing data, a dash should be entered in the box.

When setting up an inventory card for a tombstone, several boxes may cause problems. **Box no. 1 (Name)**, i.e. designation of the object, should contain information pertaining to who the monument commemorates, e.g.: 'Tombstone of Sylwia Morszczuk' or "Tombstone of Rafał Majewski". In the case of monuments commemorating more than one person, an attempt should be made to include all the names mentioned, naturally using common sense. If a tombstone commemorates several members of a given family, then a general designation will suffice, e.g. 'Tombstone of the Rozwadowski family' or 'Tombstone of the Zasimowicz and Baliński families'. If dealing with an anonymous grave, we write: 'Tombstone of N.N.'[2].

It is important that in Box no. 1, unlike in the case of inscriptions, the names be written in their correct contemporary wording. **All clear misspellings** of the surname are corrected (alternatively, a different wording of the surname in brackets is quoted). All additional information is omitted, e.g. maiden name, diminutives, etc. In the case of Cyrillic surnames, transliteration should be used (as opposed to transcription, transliteration does not reproduce the sound of a word but is a 'transposition' of spelling according to strictly defined rules). Recently, however, it has become increasingly common to provide the original spelling. A compromise solution may be to provide the transliteration and, in brackets, the original spelling. Boxes no. 3-5 (location) can sometimes be problematic, especially when the name of a town or city in another country has to be provided. The main question that arises is in which language the name should be written. When documenting Polish heritage for the purposes of Polish institutions, the rules in force in Poland

2   N.N. is an abbreviation for the Latin words: non notus, meaning unknown.

should be followed. As a rule, if there is a Polish name, it should be given (in brackets, giving the name in its original form, which is important because sometimes the names of places differ significantly. In the case of a non-Latin alphabet, transliteration should be used). The correctness of the Polish name can be verified in the standards developed by the Commission for the Standardisation of Geographical Names beyond the Borders of the Republic of Poland (https://www.gov.pl/web/ksng), and above all in the Official List of Polish Geographical Names in the World and the Official List of Names of Countries and Dependent Territories. The Commission also prepares guidelines that can be helpful during work, e.g. rules of Latinisation. In doubtful cases, one can also ask the Commission a specific question. However, the prepared list does not include all localities. If there is no Polish name in the list, but it appears historically, its use is allowed.

Box no. 9 (Style) is by far more problematic. Most historic monuments found in cemeteries date from the second half of the 19th century and the first third of the 20th century. Less common are tombstones from the first half of the 19th century, and complete exceptions include those from the fourth quarter of the 18th century. While in art, the start of the 19th century (up until the 1920s) is the time of Classicism (ill. 16–17, 21–22, 31, 37), and later decades of the century are characterised by historicism (in cemeteries it will mostly be neo-Gothic – ill. 23, 35, less frequently neo-Baroque – ill. 24), in ca. 1900, Art Nouveau enjoyed popularity and from the 1920s, Modernism became dominant (ill. 45, 75). However, this will be primarily the case in large art centres. The Art Nouveau style is practically unheard of in provincial cemeteries, except for a single motif of ivy leaves sometimes entwined with cast-iron crosses, or fence rods arranged in Art Nouveau shapes (pl. XX.IV). Moreover, it must not be forgotten that 19th- and 20th-century historicism was characterised by a free approach to styles. In one tombstone, for example, a neo-Gothic canopy and a classicising sarcophagus form can be found. Modernism in sepulchral art tends to manifest itself in a general tendency to reduce decoration and to move towards simpler, blocky forms. Classicism, on the other hand, the earliest of the aforementioned styles, survived in cemeteries of the former eastern provinces of the Republic of Poland in a tarnished form even until the 1860s.

Moreover, tombstones made by local artists are often characterised by the absence of any formal features ascribed to specific trends. Of course, some of the most general tendencies are preserved, but they are far from the purity of stylistic varieties. It is difficult to describe such monuments using art history terminology. The remarkable persistence of certain motifs should also be noted. Some, slightly modified, have been popular for more than 150 years. Consequently, style should only be noted where it can be precisely defined. This will be easy in relation to classical, neo-Gothic, Art Nouveau and modernist works. In other cases, where there is uncertainty, it is better to leave Box no. 9 out by inserting a dash.

Time of construction (Box no. 10) – if no information is given in the inscription, it should be assumed that the funerary monument was erected later in the same year or several years after the death of the deceased person. If the inscription is not satisfactorily preserved or simply does not include the year of burial, precise dating based on style analysis is not possible in many cases, as noted above. There are, of course, certain characteristics discussed with specific tombstone types that help with dating. It should also be remembered that a greater richness of form in provincial sepulchral art does not appear until the late 19th century. From this time onwards, tombstones with much more elaborate stonework were also created. Another factor helpful in dating is lettering, although, many tombstones regretfully have inscriptions in 'handwriting' made by people with a very low level of education. In terms of tombstone dating, it is also important to compare their forms, wherever possible, with other dated monuments in a given cemetery or in surrounding areas.

A more serious problem arises in the case of funerary monuments that commemorate several deceased persons. In such cases, the year of the last burial is most often adopted. This applies, of course, when the form of the monument agrees with the date of death of the last person commemorated. There are also completely exceptional situations, where damaged monuments were replaced by new ones or more modest ones were substituted by monuments more in keeping with the family's wealth. Thus, it occurs that even though burial took place, for example, in the 1880s, the tombstone was made in the 1930s in the spirit of modernism. Burial sites from the 1920s and 1930s marked with contemporary monuments created after 2000 have also been found. Sometimes a tombstone is original, but a new inscription plaque has been placed on it. Understandably, this fact should be noted in the record card.

If the described tombstone is the work of a local artist who did not leave his signature on it, then the statement: 'local' is entered in **Box no. 11 (Author, school, workshop)**. In cases where no signature can be found, but the monument goes far beyond the modest tombstones located in a given cemetery in terms of form and material, it should be assumed that it was imported from a larger centre, e.g. Lviv, Ivano-Frankivsk, Buchach or Ternopil for Podolia, or from Vilnius, Kaunas, Šiauliai or Hrodna for Lithuania and parts of Belarus. In this case, 'import' is entered in Box no. 5, unless, of course, the tombstone maker can be identified.

As for **Dimensions (Box no. 12)**, the largest values measured in centimetres are entered. If we deal with a fragmented form or even with a statue on a pedestal, it is worth entering the dimensions of the individual or most important parts in **Box no. 21 (Comments)**. In the case of a tombstone whose integral parts have collapsed, the vertically preserved element is measured. The dimensions of other parts are entered in Box no. 21. If the tombstone has toppled, each part is measured separately, recording the dimensions in the 'Comments' box. The total dimensions with the 'ca' annotation are entered in Box no. 12.

ILL. 66
Dimensioning of tombstones: funerary monument, ledger stone with a vertical element, ledger stone

If we deal with a vertical element in a concrete band, the dimensions of the vertical element and band should be indicated in Box no. 12, as they represent the entire tombstone structure. The dimensions of the band and vertical element should be entered separately in Box no. 21. The same applies to the ledger stone and the vertical element (ill. 66). If elements of a tombstone are located away from each other because of damage not to the tombstone itself but to its composition, the total dimension should be entered in Box no. 12, taking into account the distances between the individual elements.

In case of a grave plot (which should be distinguished from a cemetery plot, i.e. a sector of the cemetery or part thereof that is usually defined by the layout of the paths), which constitutes a single or double grave, or less often a larger area enclosed by a frame (this should be distinguished from a band, which surrounds the tombstone and is part of a single structure) or fence, separate cards are made for each tombstone. However, in Box no. 21, graves in the joint plot are indicated. Here, additional photographs can also be placed or the description of a tombstone from Box no. 15 be continued, together with information that could be obtained, e.g. from the inhabitants of a given location. In Box no. 12, we enter the dimensions of individual tombstones, and in Box no. 21, the dimensions of the entire plot.

As far as **the state of preservation** is concerned **(Box no. 17)**, it is necessary to note the state of degradation, i.e. all kinds of deficiencies, detachments, but also the presence of mosses or lichens (ill. 8, 21, 34, 57), secondary paint coats, corrosion of metal elements (ill. 23), chemical layers, signs of weathering, tilting of the tombstone (e.g. under its own weight), chipping as well as cracks, breaks or loss or overturning of parts of the structure, obliteration or loss of inscriptions (or part thereof) or other decorative elements, obliteration of polish, drips.

Examples of description:

The overall condition of the tombstone is poor. The finial (cross) is fallen over and broken, with large material loss. The slab has chips and material loss, especially on the edges. The tombstone has partially tilted under its own weight. The condition of the tombstone is affected by its location directly under a tree, which leads to the structure being broken up by roots and numerous layers and discolourations of biological origin..

5.2. Immovable monument record card

It is created for all kinds of chapels, cubature funerary monuments, catacombs and other cubature cemetery elements (ill. 67). This type of card is supplemented with a box intended for a building plan. The principles of architectural description and drafting of plans are discussed below.

IMMOVABLE MONUMENT RECORD CARD
ENTERED IN THE MONUMENT REGISTER

3. Locality

1. Name

2. Time of construction

4. Address

Plot registration No.
Land and mortgage register No

11. Graphic materials

5. Administrative affiliation

Province

County

Municipality

6. Geographical coordinates

7. Former locality names

8. Owner and his/her address

9. User and his/her address

10. Forms of protection

12. History

13. Description

14. Cubature area

15. Usable area

16. Primary purpose

17. Present use

18. State of preservation

19. Existing threats, most urgent conservation demands

20. Archive files (type of file, number and place of storage)

21. Comments

22. Notations of inspections, information on changes (dates, names of persons filling in the information)

23. Bibliography

24. Record card made by (author, date and signature)

text

plans, drawings

25. Iconographic sources (type, place of storage)

photographs

26. Attachments

ILL. 67
NID immovable monument record card

5.3. Cemetery card

A cemetery card should be created even in the case of a completely destroyed necropolis, describing everything that can be identified from the destruction, the layout of the site or tree cover (ill. 68). The latter feature is useful in describing any necropolis. In the 18th and the 19th centuries, especially on the estates

1. Locality	**CEMETERY CARD**		**No.**
2. Administrative affiliation Province County Municipality	7. Name /possible former name/	14. Oldest existing tombstone /date	15. Graves of historical importance or of persons of particular merit
3. Address	8. Cemetery former: new: /after 1945/	16. Existing documentation and where it is stored Present plan	
4. Geographical coordinates	9. Time of construction		
5. Former locality names	10. Religious affiliation present: former:	Former plan	
6. /In/active possible basis for closure	11. Surface area in ha total vacant:		
12. Cemetery location		17. Other archive material	
13. User's comments		18. Bibliography	

Template NID 2011

21. **Elements of the cemetery**	Extant or not	Number of items						26. Nature of cemetery layout
		Until the 18th c.	First half of the 19th c.	Second half of the 19th c.	First half of the 20th c. (until 1945)	Second half of the 20th c.	21st c. (date)	
Fence								27. Legibility of cemetery layout overall -
Gate/s/								
Cemetery church								of plots -
Chapel/-s/ mausoleum								
Tombstones freestanding								of tombstones and graves -
Tombstones wall-mounted								
Tombstones slabs								
Graves								28. General state of preservation of the cemetery /tombstones/
Other elements								
22. Forms of protection								
								29. Present threats
23. **Old trees**	Number		Ø trunk in cm		Health condition			30. Conclusions regarding activities cleaning –
								renovation –
								conservation –
								31. Conclusions regarding necessary documentation of individual tombstones –
								of cemetery inventory –
								of historical study –
24. Registered natural monuments, possible lanes								possible project documentation –
25. General state of preservation of cemetery greenery			32. Comments				33. Record card made by (author, date and signature)	

of wealthy landowners, gardeners were brought in to create cemeteries or the designed area was at least planted with trees.

In addition, the way old trees are placed within a cemetery can indicate the successive stages of expansion in a given necropolis and help identify its oldest section. One must be able to recognise basic tree species (e.g. lime tree, chestnut, ash tree, thuja, oak; **Box no. 23**).

Box no. 10 (religious affiliation present and former) in the cemetery card can prove problematic. Cemeteries presently are generally non-denominational but may equally well belong to religious associations. In this part of Europe, there was a time when rural cemeteries and cemeteries in small towns would typically be Roman Catholic, Greek Catholic or Orthodox. Multi-faith cemeteries were also common. If necropoli were set up at the back of a church or an orthodox church, this may well suggest the religion practiced by the persons buried therein. However, it should be borne in mind that people from mixed marriages or the local gentry may have had a different religion than the majority of the community. Precise demarcation is not entirely certain, especially given that Uniates in the Russian partition were forced to convert to the Orthodox faith. In the interwar period, for example, Ukrainians in turn would resume their membership of the Uniate Orthodox Church.

In principle, the matter is clear only in the case of **Jewish cemeteries**, most of which have not survived to the present day. They were located separately outside city perimeters. If a Jewish cemetery is found in the course of determining the location of a Christian cemetery, it is worth entering this information together with a relevant photograph in the cemetery card. A similar remark applies to any additional information that can be collected during an expedition to the locality. This may include information about a church, historic Orthodox church, palace, manor house or the history of a settlement.

In **Box no. 12 (cemetery location)**, the location of the necropolis should be described, taking into account topographical conditions, and its relationship to the urban or rural area. This description should include information on the location of the cemetery in relation to the historical centre of the village (e.g. market square, church/Orthodox church, palace/manor house) and distances to them, taking into account main roads and cardinal directions.

A separate issue is the **names of cemeteries (Box no. 7)**, as in literature, including professional literature, there are many alternative ways of writing names. The problem mainly concerns municipal cemeteries, which have their own customary or official names, e.g. Kyiv's Baikove cemetery (named after its founder) is sometimes referred to as Bajkowy (Fable) cemetery, which is erroneous.

The rules of spelling are codified by rule 82 of the *Wielki słownik ortograficzny PWN* (Great Spelling Dictionary, Polish Scientific Publishers PWN). Unfortunately, there are many exceptions to accepted rules, some of which result

from codification of the Council for the Polish Language, whereas some are simply a matter of custom. According to the spelling rules , which will be valid in Polish until the end of 2025, the word 'cemetery' is a generic (common) name and not a proper name. Therefore, the word 'cemetery' is written in lower case and its name in upper case. Hence, the correct notation is **Baikove cemetery** (similar to, for example, street names – Wiejska Street). It is now accepted that even some cemetery names customarily capitalised should not be spelled with capital initials. When both parts of a name are made up of common words, e.g. **Barnardine cemetery** (in Vilnius), the name should be written in lower case. Hence the correct notation is **military cemetery**[3]. It is not necessary to put cemetery names in inverted commas or in italics.

A separate problem is the writing of texts in alphabets other than Latin. All sepulchral inscriptions and signatures are quoted in their original form. In the case of place names (localities), as long as are Polish equivalents, they should be used, while at the same time providing the original and current name in brackets **(Boxes no. 1, 2, 5)**. It should be noted whether two localities with the same name appear in a given area and if so, it should be specified (e.g. by indicating the county or location) which of the localities is the focus of work. If there is no Polish name for a given locality, a transcription is used.

[3]   However, writing the word 'cemetery' in capital letters is becoming increasingly common as it is considered a part of the name. It can be expected that capitalising both elements will become a rule in the future. In 2024, the Council for the Polish Language introduced changes to the so-called conventional spelling rules for the names of public spaces, introducing the spelling with a capital letter at the beginning of a word, including a cemetery name. The correct spelling would therefore be Baikove Cemetery or Rasos Cemetery. Cemetery names in English, but also in French, Spanish, German and Italian, are capitalised, e.g. Highgate Cemetery. In Czech, the word cemetery is written with a lowercase letter, e.g. Krčský hřbitov. Current standards are codified on the basis of the 48th meeting of the Commission for the Standardisation of Geographical Names beyond Polish Borders, held on 24 February 2010, and findings of the 2011 Commission on Religious Language.

6. Documentary photography

Photographs should be taken with equipment that provides correct exposure in a variety of lighting conditions and allows the capture of details. The right results depend on both the camera and the lens. Therefore, even the best smartphones are not always suitable for documentation in all conditions. Moreover, these types of cameras often correct limitations of the lens with their software. This works quite well in everyday situations, but entails image distortion, which should be avoided in documentary photography. The optimal situation requires the use of several lenses (although when working in the field, it is advisable to limit their change due to the possibility, quite frequent in fact, of soiling the sensor), the use of a tripod, which should be a basic accessory, illumination of photographed objects with a flash lamp or a photographic reflector, and the use of a colour sampler (ill. 69). Especially the latter should be used when photo-shooting highly valuable objects. In other cases, simpler measures will suffice.

For each object the following should be taken:

» photograph from the front before cleaning (possibly other shots as well),

» photograph from the front after cleaning the tombstone (if possible, vegetation, lichen and impermanent decorative elements such as flowers, candles, etc. should be carefully removed),

» photographs of important elements, e.g. finials, fences,

» photographs of details, including coats of arms or headstone photographs,

» photographs of all inscriptions (including signatures); in the case of inscriptions that are difficult to read, a series of secondary

ILL. 69
Example of documentary photography professionally taken by the team of Piotr Jamski from the IS PAN (Institute of Art of the Polish Academy of Sciences)

photographs (different angles, different lighting) can be taken to correct the reading of the inscription,

» photograph of the tombstone in the context of neighbouring objects,

» photographs from different sides and perspectives in the case of artistically interesting objects.

Moreover, additional photographs should be taken of the entire complex, architectural elements, trees and other characteristic objects for the created cemetery card.

When taking documentary photographs, shortcuts in perspective should be avoided. If a given tombstone has prominent vertical structural or decorative elements, shots taken from above are unacceptable. Especially the use of a wide-angle lens will distort the actual shape of the tombstone. We should therefore take the photograph by positioning ourselves in front of the photographed object.

If the space around the object allows it, lenses with a long focal length (more than 70 mm) should be used to reproduce tombstone proportions most accurately (ill. 70a–b). It should be remembered, however, that the use of lenses with longer focal lengths requires a shorter exposure time to avoid a blurred photograph. The solution is to increase the sensitivity of the used sensor, which is only acceptable up to a certain level, or to use a tripod and take the photograph with a self-timer. This is the best option, enabling full control over exposure conditions (time, aperture, sensitivity) and ensuring a stable frame.

70a

70b

ILL. 70

Differences in the use of lenses with different focal lengths, photo by N. Piwowarczyk. 70a – if it is possible to move away from the object while photographing, it is worth using lenses with a longer focal length for better representation of the tombstone proportions. 70b – photo-shooting from a close-up is often dictated by a lack of space around the photographed subject; such photography is not a mistake, but distorted proportions will be visible in the picture, especially if it is clearly spatial – this effect occurs to a small extent when photographing relatively flat objects at a 90° angle

71a   71b

ILL. 71
Effect of photographing tombstones with shiny surfaces against the sun, photo by N. Piwowarczyk. 71a – when the polished surface reflects light, created differences in illumination are so strong that the photograph is partly illegible. 71b – the optimal situation is to wait until the sun has moved in the sky until there are no more reflections on the surface; if waiting is not an option, a flash lamp should be used. The flash will not cancel out differences in lighting, because the sun shines too strong a light and shiny surfaces reflect it to a great extent; yet, this allows for some passages to be extracted and be easier to read later on

As low a sensitivity as possible (ISO 100) should be used to avoid noise and image distortion. The maximum ISO value that can be safely used depends on the quality of the sensor, but usually it should not exceed ISO 400. Above all, however, using a long enough exposure time and a tripod is a better solution than increasing sensitivity.

It is a good idea to avoid, as far as conditions allow, photo-shooting against light, especially when the sun appears in the frame (ill. 71a–b).

72a

72b

72c
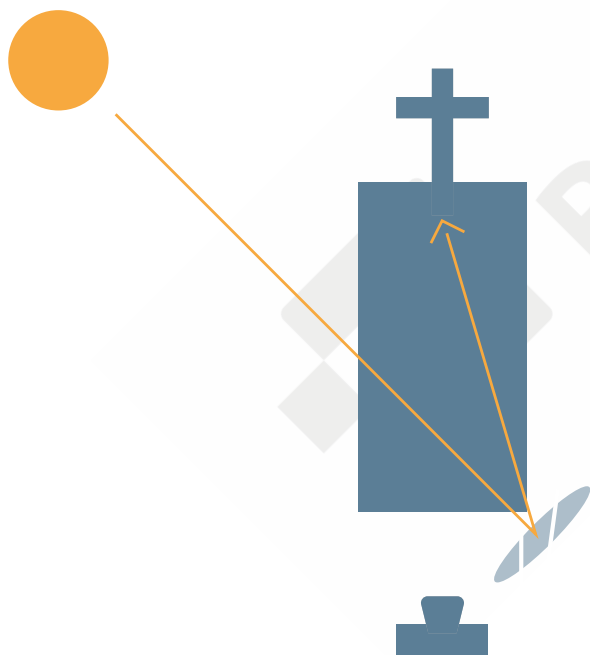
72d

72e

ILL. 72
Halation effect and the use of a photographic reflector, photo by N. Piwowarczyk. 72a – sunlight causes the effect (to a varying degree) of brightening and softening the image, which can occur when a ray of light falls on even a small part of the objective lens (the sun does not have to be visible in the frame). 72b – the solution to the above problem is to shield the lens from direct sunlight, which can be done even with one's own hand, making sure to keep it out of the frame. Differences are clearly visible in the viewfinder/camera screen. 72c – the underexposure effects that occur when photo-shooting against light can be compensated for either by increasing the exposure or by using a photographic reflector that reflects natural sunlight and, when properly set, illuminates the object (set-up diagram ill. 72d). 72e – using a flash lamp is an alternative

In this case, such a position should be taken as to hide the sun behind a natural obstacle such as a tree. Sometimes it may be necessary to change the location of the photo-shoot, which means abandoning the 'straight' frame, but at least we can avoid taking a photograph in which very little can be seen. If such actions are not taken, light creates a halation effect (ill. 72a–e). This occurs even when the sun is not visible in the frame, but it is still in front of us, and its light partly falls onto the objective lens. It results in an overall brightening of the image and a significant drop in contrast, i.e. a blurred photograph. It is therefore a good idea to use lens hoods or to shade the lens from the sun, e.g. with an umbrella.

Once this unfavourable effect is eliminated, but photo-shooting is still against the sunlight, there may be significant differences in the lighting of different parts of the frame, and the tombstone itself will probably remain in shadow. Therefore, a flash lamp can be used, but it should neither be aimed directly at the object nor set too high (ill. 73a–f). The use of in-built flash lamps that are integral elements of cameras is not recommended. They provide direct light which 'flattens' the subject. This will be particularly noticeable when photographing inscriptions carved in stone. Often with this method of illumination, inscriptions (especially shallow, slightly obliterated) can be completely illegible. Therefore, it is best to use a flash lamp as a stand-alone accessory connected to the camera via a special cable or a radio transmitter + receiver set. Both these types of connections can be purchased at affordable prices. This fix allows the flash lamp to be positioned slightly to the side at an angle of 45–60 degrees to the photographed object, which will emphasise and authenticate any irregularities.

Another solution is the photographic reflector, i.e. a set of portable screens used to reflect light and to direct it onto the photographed object. Professional reflectors are foldable and easy to transport. Above all, apart from the white surface (which reflects the diffused light), they also have a silver surface which gives a very strong lighting effect (some reflectors also have a gold layer, but we do not use them due to the warm colour of the reflected light). We position the reflector in such a way as to get the spot of light from the source (sun or flash lamp) directed at the photographed object.

The use of tools for illuminating tombstones is justified not only when photo-shooting against light, but also when the object is partly shaded, which may result in significant differences in lighting rendering some parts of the tombstone illegible (too dark or overexposed, ill. 74a–c). Illumination is also advisable in such cases, although a reflector will be useless for most shaded objects. The best solution is the use of a flash lamp. Even if light from the flash is not dominant in the photograph, its use is primarily intended to soften differences in lighting of individual fragments, so that the photographed object is entirely legible.

73a

73b

73c

73d

73e

73f

ILL. 73
Flash lamp setting angles for photographing reliefs (usually inscriptions), photo by N. Piwowarczyk. 73a – it is usually optimal to photo-shoot fragments of tombstones with engraved inscriptions when they are illuminated by natural diffused light (in the shade or in cloudy weather). 73b – photo-shooting such inscriptions with a flash lamp mounted on the camera works well when the inscriptions are clear, but this flash setting always somewhat flattens the image. 73c – moving the flash lamp away from the camera will cause its light to accentuate bumps and sometimes enable us to discern and read blurred lettering. 73d – example of an old inscription, poorly visible in natural light. 73e – for this shot, the lamp was positioned on the left of the camera; this use of the lamp is the most common, though it does not always produce satisfactory results. 73f – positioning the lamp at some distance above the camera produces the best result for discerning and reading the faint inscription

74 a   74 b   74 c

ILL. 74

Photo-shooting a tombstone with some of its parts exposed to direct sunlight and others remaining in the shade, photo by N. Piwowarczyk. 74a – an optimal situation is to photo-shoot a tombstone when it is entirely in the shade. All its parts are evenly lit, so there is no danger of overexposure. 74b – the tombstone is partly in the shade; setting the exposure to the shaded sections results in overexposure of areas where light falls. Conversely, setting the exposure to illuminated sections will result in other sections being possibly too dark. 74c – the use of a flash lamp helps compensate for differences in lighting

When photo-shooting tombstones against light (also in other cases), spot metering should be used to give the photographed object a more correct exposition at the expense of a several EV (Exposure Value) brighter background.

Making use of convenient digital photography, it is also a good idea to experiment with different exposure times to achieve the best possible result.

Regardless of the abundant post-production possibilities offered by digital photography, post-processing in graphic programmes should be limited. This not always being possible, it is a good idea to use the RAW format, which allows for the most precise effects of file modification. Its greatest advantage is the ability to correct white balance, which is not always possible when working in the field. When lacking experience in photography, it is best to use the automatic setting and modify it only when there is a clear colouration in the photographs. Occasionally with automatic white balance, the camera fails to switch to the new surrounding conditions immediately after change of location. As a result, the first several photographs in the new location may show colouration (e.g. blue if moving from a brightly lit space to a shaded one). To

75a   **75b**   **75c**

ILL. 75
Using a grey board, photo by N. Piwowarczyk. 75a – when photo-shooting objects made from materials of different colours, a grey board can be used to accurately determine the white balance and a correct reproduction of colours. White balance can be set in the camera; a precise setting of this parameter is made at the file processing stage, so it is a good idea to save files in the RAW format. The board shown here (ill. 75b) additionally allows to check whether the photograph has a correct exposure. After taking a model photograph with the board, a second one should be taken without it (ill. 75c)

ensure the most accurate colour rendition, it is advisable when working in a cemetery to take photographs using a grey board, i.e. a sampler that contains grey-scale fields (ill. 75a–c). This allows the white balance to be set accurately in digital processing, thus, colours in the finished photographs to be reproduced in a precise way. It is also possible to obtain a template with colour fields (ill. 69), however, in practice this does not apply to the documentation of tombstones and its use in the processing stage requires appropriate skills.

Objects such as decorative elements unrelated to the tombstone (e.g. sculptures found in the cemetery, which have been transferred from the local church, inscription plaques lying loose) should be photographed against a background that is as neutral as possible.

Documentary photography should not be confused with artistic photography, where the decisive factor is visual subjectivity. Such photographs can complement work and are useful, for example, in popularisation projects, but they are not intended for proper documentation of an object.

It should be remembered that a photograph's metric (EXIF) records information on photograph specification, including the time it was taken (therefore,

it is necessary to ensure that the date and time are correctly set in the camera), also providing information on the photograph authorship, etc. If the camera is equipped with a GPS module (working with the module switched on significantly affects the battery status), data on the exact location of the photograph can also be saved in the EXIF file.

Before going into the field, it is advisable to practice by photo-shooting at least a dozen objects in cemeteries close to home, taking advantage of different weather conditions, photo-shooting against light, etc.

Taking photographs of polished tombstones (especially those made of dark rock) can be problematic because the elements of the monument and the photographer are reflected in the stone. A solution to this may be to use a curtain (with a hole cut out for the lens) made of black cloth that absorbs light. The material should be long enough, approx. 4-5 m, to cover the photographed object from the front.

Can smartphones be used to carry out documentary work?

Yes, they can. In fact, many people use them nowadays. Is it the best solution though? The answer is not that simple. If we have advanced equipment and skills, it is better to put them to use. However, if we do not have such equipment, we use the tools that are available to us. Having no experience in using advanced cameras, one will often get better quality photographs with a smartphone than with a SLR camera. This does not change the fact that smartphones have limitations that we should take into account, e.g. problems with natural colour reproduction, poorer capturing of details in low light, image distortion, limitations related to the depth of field and shorter battery life.

Sometimes, smartphones can be used as additional photo-shooting equipment, e.g. when lacking a wide-angle lens. The popular 0.6 zoom works relatively well. Smartphones also provide preview geolocation of objects (usually accurate to within a few metres; these modules are typically unavailable in older SLRs, and sometimes they are also available as accessories). Their advantages include faster operation, higher convenience and even the ability to take photographs in hard-to-reach places.

It is important to remember that regardless of the type of camera used, the EXIF parameters (metadata saved with the photograph) must be set correctly, in particular the information about who took the photograph and the geolocation (if available). In Appendix, we present the standards of documentary photography recommended by the POLONIKA Institute.

7. Cemetery plan

If the object of documentation is an entire cemetery, a cemetery plan should be made[1]. In the case of documentation of individual sectors, it is necessary to make their plan by including their location within the entire cemetery complex. When documentation focuses on individual tombstones, it suffices to indicate their approximate location without a precise plan of the entire cemetery complex. Such a minimalist approach is particularly justified for small cemeteries or complexes comprising individual monuments.

[1]   In studies on cemeteries, use of the terms plan and map may be encountered. In geodesy, the term 'map' refers to the inventory of reality in a spatial context. It is associated with a certain scale and cartographic representation and enables metric measurements (distance, surface area). A plan, on the other hand, rather refers to future configuration of space and in this case objects are often marked in the Cartesian system without their cartographic representation. A plan is sometimes treated as a drawing lacking advanced geodetic spatial reference systems. In contrast, a slightly different division can still be found in cartographic literature, where the term 'plan' constitutes a more detailed representation of the terrain (at a scale larger than 1:10,000), while a map represents terrain at a smaller scale and thus, its larger areas. This division is not clear-cut. Very detailed maps (e.g. at scales of 1:10,000 and larger) are often called maps rather than plans. In modern cartography, this division is being abandoned, and a map is treated much more generally as a specific model of reality representing the location and selected features of objects and phenomena in relation to, for example, the surface of the Earth. For the sake of simplicity, we can assume that simple graphic representations of a cemetery in the local coordinate system are usually referred to as plans, whereas representations made according to cartographic rules (generalisation, spatial reference system, cartographic mapping) are called cemetery maps.

First of all, the objectives of drawing a plan are important. There are basically two objectives, namely the ease of finding a tombstone (e.g. by the family, cleaning services or conservationists) and the scientific objective related to a comparison of different complexes, determination of the time of monument creation in each sector, and the oldest locations. When inventorying small rural cemeteries in particular, the workload associated with a precise location of graves is inadequate when compared to the results. Most often, a general marking of the location of graves will suffice (this can be done on satellite maps).

Cemetery complexes comprising 50 funerary monuments or more can be divided into sectors and then the location of the monuments can be determined according to this division. In the case of larger cemeteries, it makes sense to create detailed plans, also with division into sectors, which should take account of natural divisions of the terrain, while in larger necropoli individual sectors can be divided into 'sub-sectors' of no more than approx. 50 tombstones. Existing paths and landmarks within the necropolis must be taken into account where possible.

When drawing a cemetery map, aerial photographs can be used or, if this is not possible, satellite images which allow reconstruction of cemetery outlines[2]. Very High Resolution (VHR) satellite imagery or archival aerial photographs are very useful for mapping. Satellite images are usually available commercially (unfortunately, at high prices)[3].

Original (raw) aerial photographs have foreshortenings and require further processing to convert the image from a centroid projection to an orthogonal projection, i.e. to produce an orthophoto map; such maps are also made available on a non-commercial basis, e.g. via geoportals[4].

They have a correctly mapped ground surface (terrain topography – Digital Terrain Model), with distortion of vertical elements protruding above the terrain (e.g. buildings, trees, etc.); when viewed, characteristic 'falling objects' are seen. This effect does not appear in the so-called true ortho. However, producing such a product requires appropriate processing with the use of specialised photogrammetric software. On true ortho, both the Digital Terrain Model and elements above the terrain are processed to the orthogonal projection (e.g. walls of buildings are not visible on such processed images).

---

2   Kurczyński 2014.

3   These are taken, inter alia, from commercial satellites such as WorldView, from which images are offered by Digital Globe (http://www.digitalglobe.com); they are currently considered to be the most accurate publicly available satellite images.

4   Geoportals of Belarus – http://map.nca.by/map.html, Lithuania – https://www.geoportal.lt/map, Ukraine – https://map.geoportalua.com/emaps/, Latvia – https://geo-latvija.lv/geo/#.

Using an orthophoto map, if vector data on the land and building register (e.g. from Database of Topographic Objects) is read and these two products are superimposed, an orthoimage of the terrain with visible ground-level buildings will be obtained, which will be 'tilted' on the orthoimage.

Drone imagery can also be ordered in place of aerial photographs. Developed orthoimages or true orthoimages are a cartometric product with geolocalisation, i.e. they display the characteristics of a map (have a scale) and a photograph (texture is visible). They can be used as a base (map) for vectorising the outline of a cemetery or its selected elements. In the absence of photographs, it would be necessary to carry out a drone flight and develop a photogrammetric orthophoto map using appropriate software. Properly developed[5], they enable the drawing of a precise plan with a point system or a system reflecting the shape of objects (ill. 77). The latter solution, naturally, gives a more accurate picture of the necropolis, but it is time-consuming and requires corrections during the field search (sometimes even a number of searches – a fact, which should be considered before organising the work). In the case of heavily overgrown cemeteries, photographs will be of little use.

Cemetery measurement

If an orthophoto map of the cemetery is not available, a plan based on direct measurements taken in the field can be made. Taking such measurements can also be helpful, for example, when some objects are obscured by tree crowns and cannot be located precisely. Therefore, in addition to using new technologies, knowledge of traditional surveying techniques can be of significant help. In this case, the first thing to do is to establish a geodetic control grid, which will be used to determine the mutual positioning of individual objects. A geodetic control grid can be established using, for example, characteristic elements of a fence (if any) and the general layout of the cemetery reconstructed on their basis. In the case of irregularly shaped cemeteries and those with difficult access, this is a time-consuming task. Next, dimensioning of the plan should be carried out, allowing for the marking of individual tombstones.

Work can start by measuring all sides (perimeters) of the cemetery and angles. If this is not possible, a single perimeter should be established from which the subsequent measuring axes will be drawn. With the general layout of the cemetery in mind, the measurement axis should be set, but in the case of larger complexes it is possible to set several axes (e.g. every 10 m), which will facilitate greater accuracy of determination in the face of measurement-related errors.

---

5   Preparation of maps and plans based on aerial and satellite images is the task of photogrammetry.

ILL. 76
Fragment of a cemetery plan
with a representation of the
shape of graves and the spatial
layout (visualisation excluding
sector boundaries)

Measuring the angle using an
optical square

**THE RIGHT ANGLE IS DETERMINED,
IMAGES OF THE POLES ARE ALIGNED**

C

Image of pole A

Image of pole B

Image of pole C

A

B

OPTICAL SQUARE WINDOW

C

Image of pole A

Image of pole B

Image of pole C

A

B

**THE RIGHT ANGLE IS NOT DETERMINED,
THE IMAGE OF POLE C IS NOT ALIGNED
WITH THE IMAGES OF POLES AND A AND B**
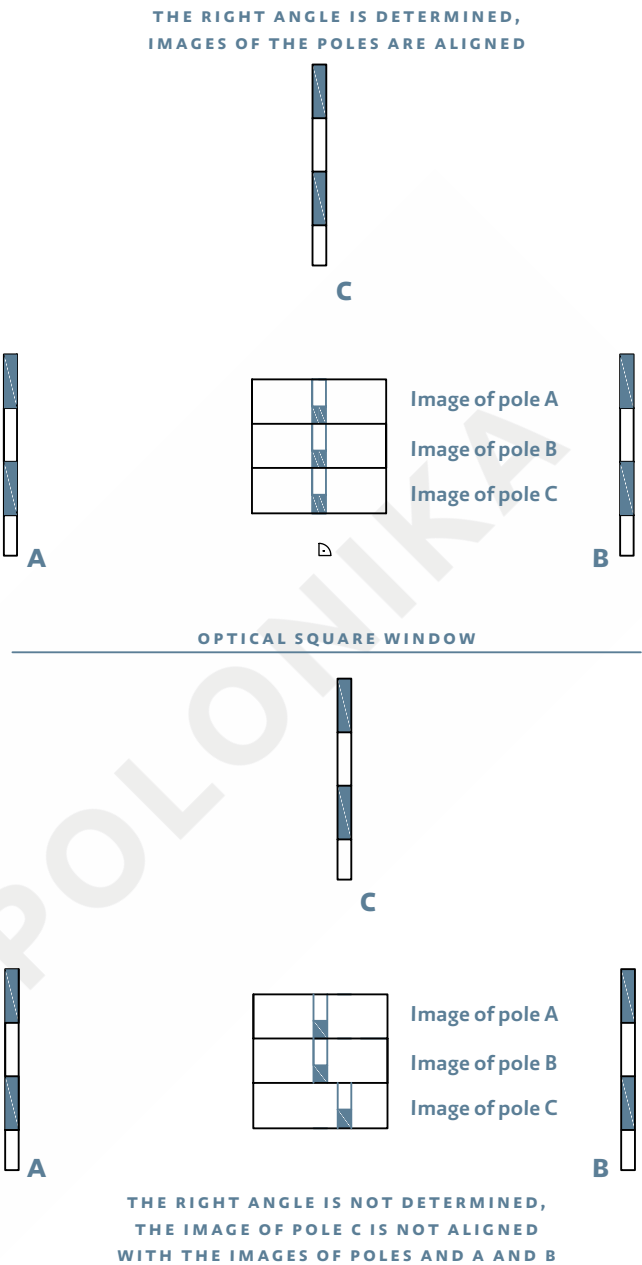
The measurement axis should be established from a point which can be clearly identified, perpendicular to the cemetery boundary. An exception to this rule is when clear dividing lines exist, e.g. a distinct path running at an angle other than at right angles to the cemetery perimeters if its course can accurately be determined on the underlay map. This can then be used as the axis. Once the measuring axis has been determined, either a surveying tape is rolled along it or – in the case of longer axes – successive points are marked in a straight line (e.g. at 5 m intervals) with surveying poles, i.e. the axis is traversed (if no poles are available, they can be replaced by canes). A point (A) is then marked on the axis opposite the central point of the tombstone (in the case of point marking). From point A, the distance (at right angles to the axis) to the tombstone (point B) is measured. Two measurements are recorded, i.e. the distance from the point marked on the axis to the tombstone (A-B) and the distance of this point from the beginning of the axis. If more than one measuring axis exists, the results of the measurement can be compared to the results obtained with relation to the next axis. If possible, distance measurements are taken with a laser rangefinder (for longer distances, the rangefinder is placed on a tripod; ill. 83.1) or with a measuring wheel, preferably made of steel (ill. 83.2)[6].

A key element of making a measurement is to determine the exact right angle from the measuring axis. A tool that can be helpful in this case is the optical square (ill. 83.8) with poles. To determine the right angle, the poles are placed on the measuring axis, with the optical square between them so that it is as straight as possible in front of the measured tombstone point. When done correctly, the images of the poles on the measuring axis as seen through the windows (prisms) of the optical square become vertically aligned. We then move along the axis in such a way that the third pole (C) located at the central point of the tombstone becomes visible in the window (clearance) as an extension of the other two poles (ill. 77-78). Another instrument that can be used is an angle finder (analogue or digital, ill. 83.6)[7]. In the absence of appropriate equipment, the right angle can be determined on the basis of the Pythagorean theorem ($A^2+B^2=C^2$, ill. 79). To this end:

6   In geodesy, a measuring wheel (ill. 83.2) differs from a surveying tape (ill. 83.4) in that the former is rolled e.g. in a case and has a scale labelled every 1 cm (while surveying tape has handles on two sides, the distances, usually 1 metre apart, are marked with metal plates, and it also has regularly spaced holes).

7   The problem with the use of an angle finder arises from its short arms; determining the axis with their help is prone to error. The greatest accuracy can be achieved with an electronic total station, i.e. an optical angle-measuring instrument that offers the greatest speed and precision; unfortunately, the high price of the device is a barrier. A cheaper device is the theodolite (ill. 83.9), which also allows angles to be measured, but does not allow height differences to be bridged.

DISTANCE 1
4 METRES

DISTANCE 3
3 METRES

DISTANCE 2
5 METRES

TOMBSTONE

DISTANCE 2
5 METRES

DISTANCE 3
3 METRES

C   DISTANCE 1   A   CEMETERY
4 METRES   measuring axis
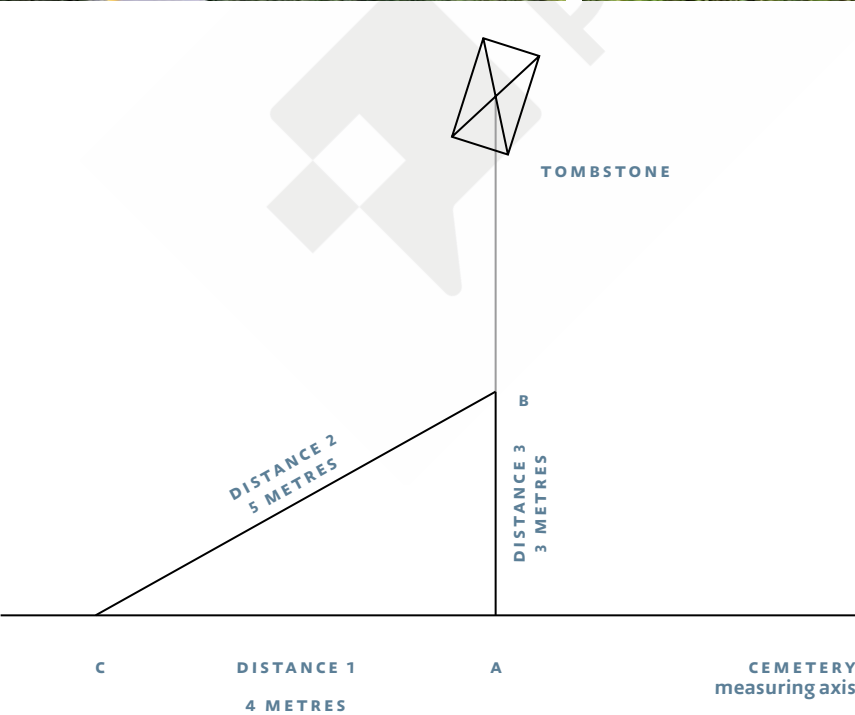
ILL. 79
Determination of a right angle
based on the Pythagorean
theorem

» on our cemetery measuring axis, we determine ('guess') a point (A), which should be straight in front of the measured tombstone point and which, in our opinion, constitutes the apex of a right angle between the axis and the direction to the measured tombstone point,
» we measure off a distance of 3 m from point (A) in the direction of the tombstone central point, thus determining point B),
» in turn, we measure a distance of 4 m along the axis (also from point A) and mark its end as point (C),
» we attach a string or a tape to the cane placed at point (C),
» we measure a distance of 5 m on the string or the tape and, keeping it taut, check if this marks the distance to point (B).

If the answer is yes, there is a right angle between segments (A)–(B) and (A)–(C). If the answer is no, the entire process must be repeated, correcting the position of point (A) at the beginning. With this method, we can use other distances (e.g. shorter ones) that satisfy the Pythagorean theorem. As is evident, this method is time-consuming and prone to the risk of a large measurement error. It should only be used as an emergency solution, instead using more suitable measurement equipment.

An additional challenge is the unevenness of terrain, which distorts measurement results[8]. However, unless a detailed geodetic survey is carried out and appropriate equipment (total station) is available, we are bound to bridge the difference in height by placing the tape horizontally (either by raising one end of the tape above the ground surface or by step-measuring the distance). Understandably, such measurement methods result in larger errors[9].

Objects marked on cemetery plan

A model cemetery plan should include all tombstones (or all documented objects) marked with points or with a reflection of the shape, together with

---

8   More on this subject has been written by, among others, Stefan Ziemnicki in his book *Melioracje rolne i elementy miernictwa (Agricultural Land Reclamation and Surveying Elements)*, especially in the first part *Elementy miernictwa* (Surveying Elements), where he addressed the issue of section measurements and discussed the determination of height differences or measurements while avoiding obstacles. Naturally, this publication does not include possibilities associated with digital surveying. Ziemnicki 1976.

9   A summary presentation of selected aspects of cemetery plan drawing cannot replace reliable cartographic knowledge. Before starting to draw cemetery plans, it is worth supplementing basic knowledge with the help of subject literature, e.g. Przewłocki 2004; Kosiński 2012. If possible, especially when drawing plans of larger cemeteries, it is worth initiating cooperation with land surveyors.
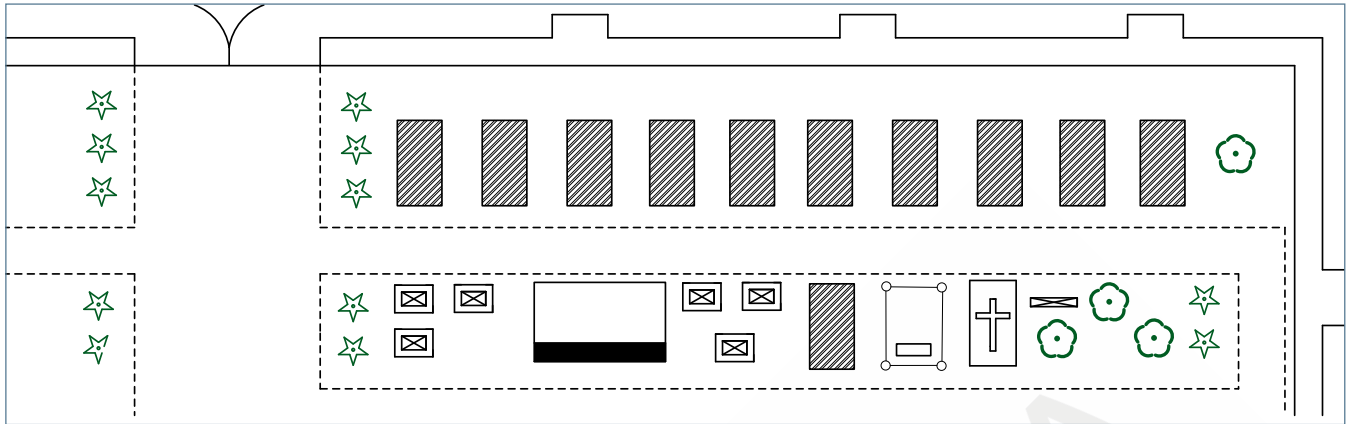
ILL. 80
Fragment of a cemetery plan using geodetic symbols
and the author's own markings of funerary monuments

the layout of cemetery paths, architectural objects, fencing with gates and wicket gates, old trees, wells and possibly other characteristic elements (ill. 80).

When making a cemetery plan, a legend should be included with a description of all symbols used, a scale with a linear scale bar, indication of north as well as the date of completion and details of the plan authorship.

Digitalisation of cemetery plan

Once the cemetery plan has been sketched in the field, the drawing should be transferred to an electronic version. For this purpose, GIS[10] or CAD software can be used (in addition to expensive commercial software, there are free equivalents, usually less sophisticated, but sufficient for in-plane design – 2D).

It is advisable to draw up a plan using layers for various types of objects, time of construction, etc. This will allow for a multi-faceted analysis of the collected material. Plans can also be created in advanced graphic software, especially that which enables vector graphics such as CorelDraw or GIMP. However, limited scaling capabilities will be a problem when working with advanced raster graphics software such as Photoshop or Affinity. There are also separate software products for drawing cemetery plans (sometimes including numerous additional tools such as a set of geodetic symbols), but these are relatively expensive, as are specialist surveying programmes. When deciding on which system to use, it is important to take into account its specific features. In graphic software, it will be problematic to maintain a correct drawing scale

10   E.g. using freely licensed and open-source software QGIS.

and a proper representation of objects. The use of layers is limited, and objects cannot be assigned attributes (i.e. they are not directly linked to a database). If not making simple schematic plans, a CAD or GIS system should be selected. The difference between the two is significant. Admittedly, it is possible to convert CAD files to GIS files, but this is a tedious and difficult process. CAD systems are used to create technical and schematic drawings (but with very high precision). The resulting drawings have no geographical reference or attributes. They are vectored graphics that can be freely scaled and layers can be used, but their application is limited (either by dedicated software or by printing separate layers). CAD is useful if primarily wishing to obtain a graphical representation of the cemetery. Its advantage is that it allows a great deal of freedom to create drawings, while maintaining a high degree of precision. In the case of GIS, we are not dealing with a drawing, but with a database that enables the visualisation of described objects. Each object can be associated with its exact location (e.g. based on a GPS reading), a detailed description (e.g. dimensions, inscription, etc.), and a photograph. This enables a variety of relationships between objects to be explored. Taking full advantage of the possibilities offered by GIS systems is regretfully time-consuming and requires adequate preparation for work with the software. In the case of GIS, for example, it makes sense to geolocate tombstones using a precise (geodetic) GPS. Smartphone GPS receivers or those in tourist navigators are not suitable for this task, as they are not very accurate and are overly susceptible to interference. GPS geodetic receivers should be used for this purpose. Most often, these are RTK sets (a controller and a receiver, ill. 83.10), but presently more and more accurate results can also be obtained with GNSS RTK geodetic receivers integrated in a GPS antenna. However, this type of equipment is expensive, and its operation requires adequate training. A budget solution could be subscription-based equipment where the user has to purchase an RTK antenna, and the receiver function can be performed by their phone. Subscription plans allow for a precision of up to 1 cm (under optimal conditions), although an accuracy of less than 50 cm is sufficient for a precise location of tombstones. A subscription model also has the advantage that access can be purchased only for the duration of the work.

A separate issue is the order of tombstone numbering. First of all, the adopted order must maintain consistency between the plan and the catalogue. There are two methods of numbering: the first uses a chronological arrangement, while the second a topographical one. Nowadays, when it is possible to make separate layers of plans, the chronological layout, which permits us to organise the material (e.g. it can indicate the location of the oldest part of the cemetery), is no longer of high importance. It is undoubtedly easier to navigate when using the topographical layout. It should be remembered that in the case of large cemeteries with several thousand objects, any renumbering (even if
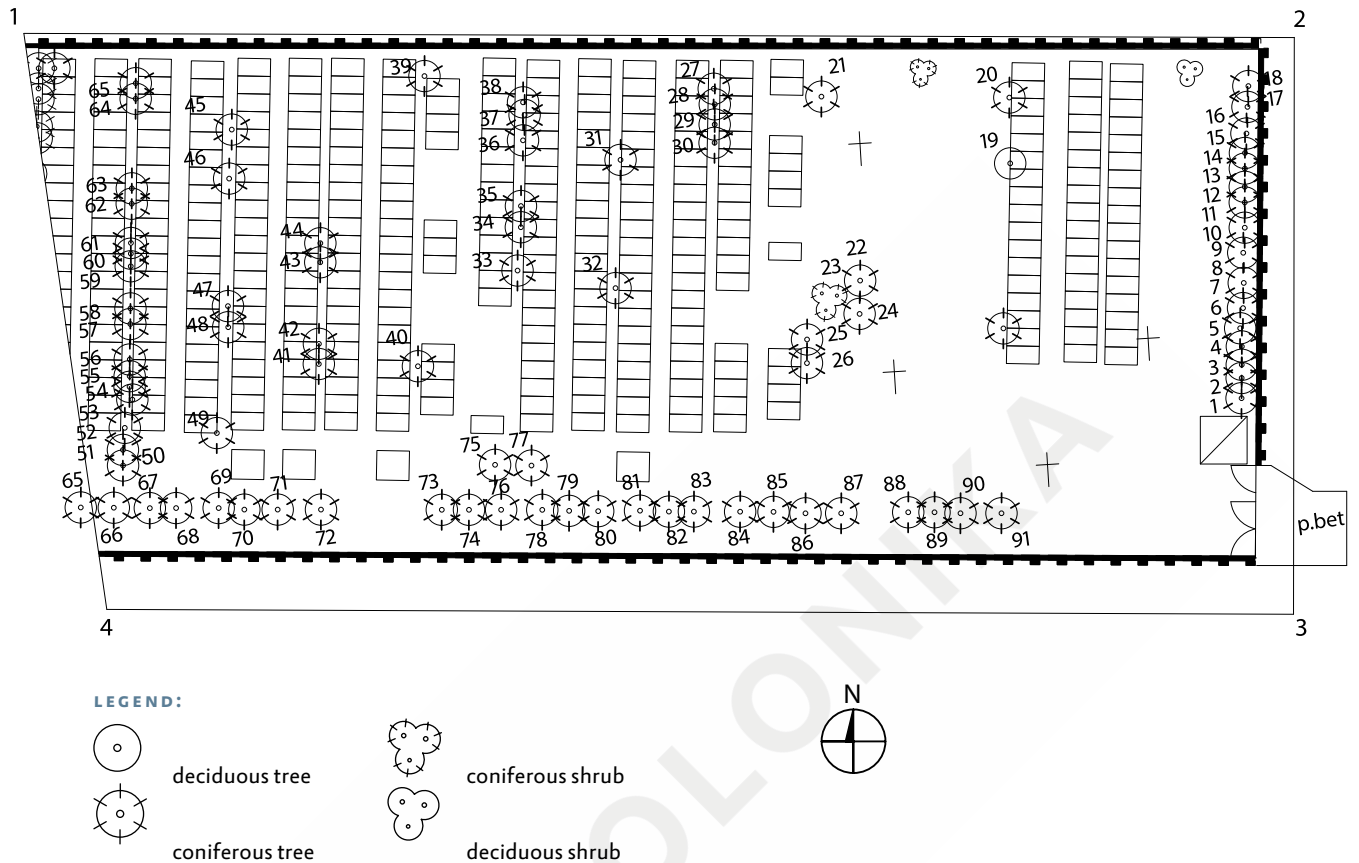
divided into sectors) is extremely labour-intensive and may lead to errors. At the same time, by using discontinuous numbering, the effect of visualising the chronological order will not be achieved anyhow.

When preparing a plan of a necropolis, vegetation present in the cemetery plot and its location on the plan must be correctly identified (this is the so-called vegetation inventory, ill. 81). Above all, it is important to identify surviving old trees with the identification of species (so-called dendrological inventory). As far as possible, the age of the trees should be determined and whether they are remnants of a planned layout or are self-sown.

There are many different species of trees in cemeteries: lime trees, beeches, ash trees, thuyas, hornbeams, maples and spruces are common, while ginkgo trees, chestnuts, pines, yews, birches and others are less frequent. The more precisely individual species can be identified, the better. This can, of course, be

facilitated by tree atlases, especially those which take into account the flora of a particular region[11]. In the context of tree identification, it is also worth consulting the publication by Jakub Dolatowski and Włodzimierz Senet entitled *Dendrologia* (Dendrology), which is a compendium of dendrological knowledge published in many editions, including a supplementary one in 2020[12]. Vascular plant identification keys and guides to identifying plant communities will also prove useful. In addition, there are applications available to help learn about basic plant species, particularly helpful for those with no botanical background[13]. When in doubt, however, it may be necessary to seek the assistance of specialists in planting green areas.

Collected material can be the starting point for a more advanced analysis of cemetery vegetation in a given region. When starting work, use should be made of guidelines recommended by the General Conservator of Historical Monuments for the inventory of vegetation in parks, gardens and other forms of designed greenery entered in the register of historical monuments[14]. Selecting the scope of the inventory (vegetation inventory/dendrological inventory) and the degree of its detail (detailed/general/mixed inventory) depend on the objective of research, the nature of a cemetery and the context in which a given necropolis is set (whether we want to make a technical-and-natural documentation of the object, whether our study is to provide the basis for planned conservation work, or whether damage to our object from a natural disaster makes it necessary to document its state of preservation; increasingly, cemetery resources are also being valorised to determine their potential, attractiveness and inclusion in cultural- or nature-and-cultural trails, the development of so-called tanatotourism).

A general inventory consists of determining the number of trees or shrubs present in a cemetery or estimating the area (in m²) of a given plant taxon. Inventory tables should be drawn separately for trees and shrubs.

---

11 E.g. Godet 1997; Godet 2002, where keys can be found for the recognition of some 260 species.
12 Dolatowski, Senet 2020.
13 *E.g. Flora Incognita*, created by Technische Universität Ilmenau, *or Czyj to liść (Whose leaf is that)* – an application with a smaller plant database created by the State Forests, or paid applications such as *Picture This*.
14 Recommendations can be found on the National Heritage Institute website: https://www.nid.pl/upload/iblock/218/2183e49260035a54af70f1760b7e52e7.pdf.

TABLE OF GENERAL TREE/SHRUB INVENTORY

Item no.	Species name in Polish	Latin name	Number of units	% share

A detailed inventory includes the collection of data on vegetation (mainly trees and shrubs) such as: species name, Latin name, trunk circumference measured at 130 cm above ground level, crown diameter, tree height, health condition, age, possible recommendations (if the inventory constitutes a stage preceding the preparation of project recommendations for conservation work). It is also worth including guidelines in the table for the legal protection of exceptional tree specimens (due to their natural values, but also in terms of the role they play in the composition of a cemetery).

TABLE OF DETAILED TREE/SHRUB INVENTORY

Item No.	Species name	Latin name	Trunk circum-ference [cm]	Height [m]	Crown diameter [m]	Health condition	Other/ comments	Recommen-dations
						Good/average/bad Dead or dying tree	Collision with tombstone	E.g. felling, requires sanitary pruning

Regardless of the nature and level of detail, an inventory is carried out according to the following assumptions:
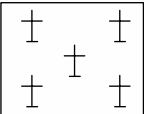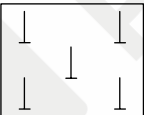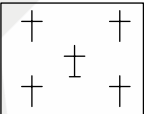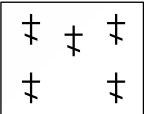
» the inventory should include a textual part providing information on the author of the research, the object, its location, surface, the research objective, the date of its execution, and iconographic and cartographic material used

» a key element of the textual part of the inventory is the inventory table (made in the course of a detailed or mixed inventory; if the spatial composition of the cemetery is largely transformed, the area is covered with self-sown plants and individual specimens or groups of trees or shrubs cannot be distinguished, a general inventory is then undertaken without an inventory table)

» the inventory table is complemented by photographical documentation of cemetery vegetation (photographs should be numbered and the point where they were taken should be marked on the map)

» the inventory should include a graphic part, i.e. a map on which the identified specimens are plotted; record numbers of specimens on the map should be consistent with numbering used in the inventory table (ill. 81).
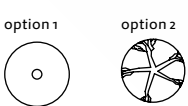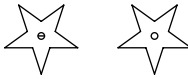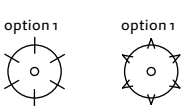
When documenting vegetation, it is worth realising its role in the development or composition of a cemetery (highlighting the axis/main cemetery path, entrance to the cemetery or the boundaries of an object, decorative/ornamental character, etc.). Therefore, when carrying out an inventory, the presence of not only trees and shrubs should be noted, but also of perennial and climbing plants, which picturesquely grow over fences, cemetery gates, trees, and also provide decoration to grave fields.
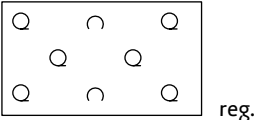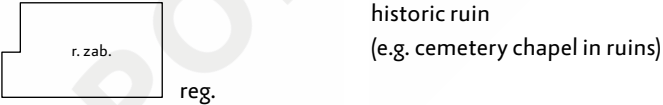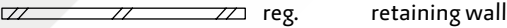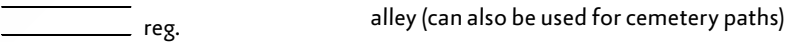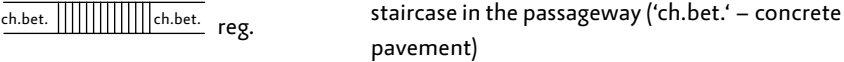
If the cemetery site is extensive, densely vegetated and a detailed inventory appears to be an overwhelming undertaking, yet we still wish to have knowledge of its vegetation, it is worth considering the possibility of structuring the vegetation, i.e. classifying it into several categories, e.g.: dense tall vegetation, tree rows, hedge vegetation, turf, shrubs and low trees.
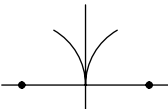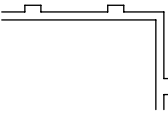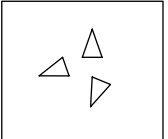
If less detailed maps are made, there is no clearly codified system of marking cemetery objects. When preparing a plan, consideration should be given to the location of all graves with their numbers, tree stand, technical infrastructure, paths, fencing, gate. As a model, basic geodetic signs complying with the Regulation of the Minister of Administration and Digitisation of 2 November 2015 on the database of topographic objects and the maser map can be adopted. This regulation upkeeps signs used in the past (ill. 82). Where it is reasonable to distinguish objects in more detail, e.g. according to the types of tombstones (crosses, steles, statues…), one's own extended set of symbols should be introduced. Each map must be accompanied by a legend including a description of the symbols used with all the objects, a scale with a linear scale bar and an indication of north.

ILL. 82

EXAMPLES OF GEODETIC SYMBOLS USED IN THE MAKING OF A CEMETERY PLAN

reg.
(‹reg› - symbol in accordance with principles of geodetic designations used in Poland)

municipal cemetery

reg.

cemetery of a different order

reg.

Catholic cemetery

Orthodox cemetery

reg.

monument (neither the regulation nor the K1 surveying instruction distinguishes funerary monuments)

funerary monument destruction

	funerary monument	
	plot with a vertical element	
	vertical element	
	stele	
	variants of horizontal tombstones (e.g. tombstone, sarcophagus)	
	plot with pillars at the corners	plot framed by a band with pillars at the corners and on the axis
	band	
	plot	
reg.	deciduous tree (with measured position)	deciduous tree (with unmeasured position)
option 1 option 2	deciduous tree for species one – option 1	deciduous tree for species two – option 2
reg.	coniferous tree (with measured position)	coniferous tree (with unmeasured position)
option 1 option 1	coniferous tree for species one – option 1	coniferous tree for species two – option 2

reg.	tree area
	shrub area
	coniferous shrub
	deciduous shrub
	indication of north
reg.	construction
r. zab. reg.	historic ruin (e.g. cemetery chapel in ruins)
reg.	historic wall
reg.	retaining wall
	contemporary wall
	wall destruction
	reinforced embankment
reg.	alley (can also be used for cemetery paths)
ch.bet. ch.bet. reg.	staircase in the passageway ('ch.bet.' – concrete pavement)

reg.	gate
reg.	permanent fence
reg.	pile of stones (or lapidarium)

Symbols complying with the regulation are marked with the word 'regulation' ('reg.' for short), while the remaining symbols are the author's own proposals. All symbols in the dwg format (for CAD drawings) are available free of charge at: **cmentarzetarnopolskie. sztuka.edu.pl**

Marking cemeteries on digital maps

Regardless of cemetery plans, precise marking of objects on online maps is valuable. It should be remembered that the location of such small objects as tombstones may not fully correspond to the GPS data. Moreover, there may also be differences between individual maps. As a result, despite the correctly downloaded data, an indication on the map may differ from the actual location of the tombstone. Consequently, a user who relies on the map to quickly reach the tombstone may be directed to a slightly different location, which will create an impression of inaccuracy. When viewing the location with the help of e.g. a satellite photograph, the user may see the object, for example, outside the cemetery or in the middle of a cemetery path, which may give a wrong impression. Therefore, when using maps, it is a good idea to verify the actual location of an object using satellite photographs (for many areas, they make it possible to see individual tombstones).

ILL. 83
MEASURING EQUIPMENT

83.1 Rangefinder

83.2 Measuring wheel

83.3 Rolled tape measure

83.4 Surveying tape or classic geodetic tape. Decimetre divisions are marked with holes, e.g. every 0.5 m is a rivet, and every 1 m is a metal plate marking full metres. The tape comes with a special handle for easy transport and winding. Today, this equipment has been almost completely replaced by modern measuring methods.
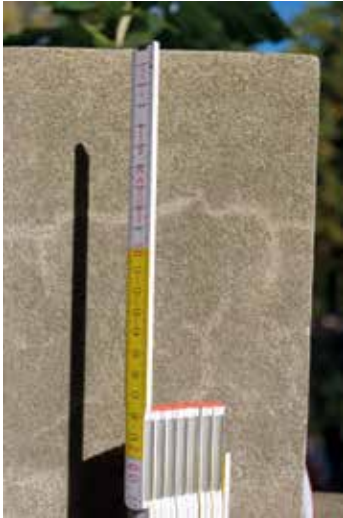
83.5 Folding ruler

83.6 Digital angle finder

83.7 Inclinometre

83.8 Optical square

83.9 Theodolite

83.10 RTK set (controller and receiver) (two-piece version composed of controller and receiver, or integrated)

83.11 Geodetic tablet

8. Plan and description
of architectural objects

When creating a card for an architectural object (ill. 67), e.g. a funerary chapel or a cemetery chapel, the object description must be made including its plan, i.e. a drawing of the building layout[1], as well as completion of remaining boxes in the inventory card, photographs of the entire object, including all its visible elevations and significant details outside and inside **(Box no. 11 and the appendix)**. An exception to this is if the cemetery is located on church grounds. In such case, the church is not part of the cemetery setting and no separate architectural card for it is made (as part of the cemetery documentation), but only a note on the cemetery card that it is a churchyard. Documentation for an inventory card differs from an architectural and building inventory prepared, for example, for conservation work. It does not have to include, for example, detail drawings of architectural decoration.

1   As a side comment, the general principle should be added of inventorying architecture in the context of determining its location. Orientation and situation plans are used for this purpose. An orientation plan may be a reproduction of a map on a scale of 1:5.000 to 1:25.000 (while retaining copyright). Alternatively, it should be produced in such a way that it is easy to find the building. It is not required to mark it with a scale and the indication of north, but the plan is oriented, and this should be borne in mind. A situation plan is made at a scale of 1:250, 1:500 or 1:1.000 showing the building in the context of surrounding buildings and greenery. Suitable plans can be found in surveying departments. The situation plan should have a linear scale, a description of individual buildings (at least in the area covered by the documentation), and a north marking. They can also be drawn up independently or, as in the case of an orientation plan, available maps can be used.

The prepared description of the architecture (Box no. 13) must be systematised, like the description of a tombstone. The principle 'from the general to the specific' and 'from the bottom upwards' also applies here. The description starts with identification of the type, location and position of the building in question in relation to the north-south axis. It should then be specified whether it is a stone or wooden structure (the latter are rarely found in cemeteries). If possible, construction should be specified, e.g. timber-frame, reinforced masonry, and the materials from which it is made, e.g. regular/broken sandstone or limestone blocks, bricks – most frequently full bricks, hollow bricks, screen bricks, clinker bricks – decorative bricks with parched surface. In case of a significant degree of burning, cherry-red or overburnt bricks should additionally be specified, the latter being particularly decorative due to partial vitrification; it can also be indicated whether it is a machine-made brick. If dealing with unplastered brickwork, we can also define the weft, e.g. head brick, carriage brick. In the case of plastered buildings, however, this may not be possible, in which case this element is omitted with the statement: 'brick chapel, plastered'. It is also necessary to specify whether the object is on a pedestal (e.g. stone, high, etc.). The colour scheme should be described and, if the wall is faced, indication of its material.

The second step in the description is to characterise the plan of the building. In the case of funerary and cemetery chapels and catacombs, this will usually be a rectangular plan. Other possibilities may also appear, e.g. chapel on the plan of a Greek cross, circle or octagon. Next, the way in which the building is enclosed is indicated (generally, this will be the part where the altar is located), as long as it is separated in the plan of the chapel, e.g. semicircular, trilateral. Elements that will usually appear, 'breaking up' the plan, are annexes or outbuildings, especially at large chapels. They may have served as a utility room, vestry, entrance to a crypt, etc. We describe them by orienting them to the four points of the compass, e.g.: 'to the north, a quadrilateral annex containing the entrance to the crypt', 'to the west, a narrower chancel closed trilaterally'.

The mass is then characterised, indicating any differences in height between the body and other rooms. At this point, the layout of the roof is specified (distinguishing individual rooms if they are covered with a separately shaped roof), e.g. gable (double-pitched), multi-pitched (frequent in the case of, for example, the chancel), pulpit (most often seen in annexes, also called mono-pitched or single-pitched), hipped (its variant is the envelope roof – with all slopes equal), and in the case of towers, it will often be a pyramidal roof. On the roof, it was almost obligatory to include a signature with a bell, which should be noted by specifying its position (in the middle, front, back). There may also be a cupola, e.g. ribbed, on pendentives, founded on a drum, which is crowned with a lantern. It is obligatory to characterise the roof covering and roof truss structure. Most often it will be sheet metal, roofing felt, ceramic tiles, e.g. plain, Dutch and overlapping, tile (roofs are one of the more

frequently renovated elements, so it is not uncommon to find contemporary materials).

The next point is a description of the façade (calling it a pediment is erroneous). First of all, the number of storeys and axes are specified (the number of axes may vary from storey to storey; in the case of catacombs, it will always be a multi-axis building, and in the case of a chapel it will usually be a single or tri-axis building). Details of the façade are then described, pointing out the elements that divide it, e.g. lesenes, pilasters, semi-columns, columns, pillars. Quite often, a compositional extension of vertical divisions can be encountered, which of course should be indicated, e.g. 'above the pilasters and the roof line, pedestals with statues of saints placed on them'. These vertical elements may support a full or simplified entablature. Cornices are also among the typical parts of the horizontal division of a façade.

The description should specify openings, starting with the entrance, characterising its shape and how it is framed. The entrance opening may be simple, but also, for example, with a stepped frame, with crossettes, or even with an elaborate form of a portal or portal house framed by columns with a fronton (pinnacle) with acroterions and volutes. Similarly, the shape and framing of windows is described, such as: 'aedicula frame'. In the case of sepulchral chapels and tombs, information on vents should also be given.

Finally, significant details of the façade as well as inscriptions or coats of arms therein are addressed. The next step is to characterise other façades according to the same scheme. If the building has a dome or tower, a description of its external form is the next point.

Having described the external form of the building, its interior is then addressed. We begin by indicating the general division, if any, such as nave, chancel and porch. Each section is then described, indicating the number of bays (if more than one), the type of vaults, e.g. cradle, cross, star, conch, or characterisation of the ceiling. Elements that divide the interior are then indicated, e.g. pilasters/columns (they delimit the bays), and give information on the elements they support (complete/simplified entablature). If different parts of the building have common features, e.g. entablature, vault type, they are described jointly. Then, a description of individual architectural details is made (omitting furnishing elements for which separate cards are assumed; however, their existence may be informed). It is necessary to note the type of floor or flooring (e.g. sandstone slabs, concrete screed, ceramic tiles) and, if present, the construction of stairs leading to the matroneum (whether they have, for example, rests), the material and form of doors and windows. It is also necessary to provide information on decorative and symbolic elements, e.g. crosses, weathervanes, flags made of metal.

A description of an elaborate funerary chapel may thus read as follows: 'A two-storey chapel situated in the north-western part of the cemetery,

erected on an east-western axis, of brick, plastered, on a high stone pedestal, in the side walls of which are ventilation openings. The building is rectangular in plan with a shallow chancel closed with a semicircle to which a vestry is attached on the southern side and a low annex to the north, hiding the entrance to the crypt. The body of the chapel is higher than the other rooms, covered with a gabled roof, the chancel with a multi-pitched roof, and the other rooms with a pent roof, ceramic tile. The building has a three-axial, single-storey façade framed by Tuscan pilasters on high bases, closed with a triangular pinnacle in whose field a relief of the Gozdawa coat of arms is convexly carved. On the axis is a crossette-shaped portal with a single-leaf wooden door, above it an oval window, and on the sides are windows closed with a full arch (alternatively: semicircular), branched to the inside. The pinnacle is framed by pedestals with carvings, surmounted by a cast-iron cross. Other façades have analogous articulation of the walls, in the body with Tuscan pilasters set in pairs, between them windows in profiled frames arched to the interior. The façades, apart from the elevations, and annexes, are surrounded by an arcaded frieze.

The single-nave two-bay chapel is covered with a barrel vault with cantilevered transverse arches. The chancel is covered with a conch, and the vestry and porch rooms with a ceiling. The floor laid in ceramic tiles is decorated with leaf scrolls. There is a wood-carved architectural altar with a statue of Saint Barbara. A stone epitaph is under each window. In the vestry is a window branched to the inside. In the annex is a steep five-step staircase leading to a crypt situated under the body of the chapel. In it, five coffins are stacked on cast-iron double rails circling the interior'.

Another key field is the state of preservation **(Box no. 18)**. When filling it in, attention should be paid to the structural elements and components of the building, including decoration and furnishings. The presence, for example, of steel reinforcements or secondary brick buttresses should also be noted.

As mentioned, the documentation should also include a plan (horizontal projection of the building outline) of the building **(Box no. 11 and appendix)**. This element in former architectural cards was primarily limited to the ground projection and possibly the remaining floors (in the case of secular architecture). Nowadays, it is increasingly more elaborate and consists of detailed architectural plans, sections, as well as exaggerations of the façade, elevations, etc. The compilation of such detailed data obviously involves time, a team of people and requires appropriate skills. In documentation compiled for the sake of, for example, conservation purposes, this is a must, but in the case of general cemetery inventory documentation, we can limit ourselves only to the ground projection of the building[2].

---

[2]   Once the decision has been made to conserve a building, full documentation will be carried out.

There are many different techniques to measure architecture. The classic one is 'manual' surveying. Another method is tachymetry using specialised optical rangefinders. Some devices allow the direct reproduction of measurement results in electronic form. In recent years, documentation techniques using so-called point clouds obtained from laser scanning have become veryceptionally important. The latter two methods allow faster work in the case of complex documentation. They also ensure greater accuracy of measurement but require the use of expensive equipment and the ability to produce the documentation itself (e.g. appropriate selection of scanning points) and, above all, to process it. Small handheld scanners are not suitable for scanning architectural objects.

For field work in cemeteries, it is usually necessary to limit oneself to the classic method of measurement. Its main disadvantages are:
  » significantly longer measuring time,
  » the ease with which inexperienced people can make mistakes, especially with detailed drawing.

The greatest advantage, however, is thorough familiarisation with the object, which is important when compiling a description.

Measurements are taken using the following:
  » rangefinder (laser or ultrasound, ill. 83.1); the most advanced ones have cameras, which is especially useful for measuring distant points, e.g. the height of an object,
  » rolled tape measure (ill. 83.3, solidly made, in the first accuracy class, preferably 5-metre long, steel, without both units in inches and centimetres due to the ease of a writing error),
  » measuring wheel (ill. 83.2), preferably 30-metre long, made of steel (worth having if the rangefinder fails for some reason).

Useful devices include also:
  » digital angle finders (ill. 83.6, for documentation purposes there is rather no reason to use theodolites – ill. 83.9, these are relatively expensive devices which, in addition to measuring angles, allow, among other things, the determination of straight lines, plumb lines, pitch calculation; undoubtedly, using them allows the height of a building to be calculated enables accurately),
  » tripod for a rangefinder,
  » notebook (A3 lub A4).

String or tape measures to mark out lines and angles, as well as ranging poles, can also be helpful.

How is a building measured? The simplest way is to capture all its elements as accurately as possible. First of all, a so-called reference level is established, which should be set so that no point is below this line. This will serve as the 'reference point' for the measurements. It is taken along the contour of the wall at a height of approximately 1 m from the ground, unless the situation requires finding a point at a different height. Measurements are taken in the following order:

» external dimensioning,
» internal dimensioning,
» checking for correct dimensions and completions.

If possible, the projection should be verified with the actual situation after it has been drawn up.

Measurement starts with the creation of a matrix of four points surrounding the building (i.e. four points are determined around the building at right angles). Then, using the rectangular measurement method (for how to determine right angles, see the section on cemetery plans), characteristic points of the object, e.g. corners, wall folds or corners of openings are measured, i.e. all elements to be included in the later drawing. In the case of small objects (or when lacking equipment to determine right angles) with an uncomplicated layout and when only wanting to obtain the general outline of a building block, individual walls can only be measured. In such a case, the first step is to measure the overall length of the section (e.g. of the side elevation), and then determine the individual dimensions, e.g. of the entrance openings, windows, folds, etc.). It is not advisable to determine the overall length of a wall as the sum of the lengths of its elements. It is assumed that for the purposes of simplified documentation, projections of other storeys, sections and elevation outlines are omitted. Only measured elements are plotted on the plan.

A simplified vertical projection of a building should be made at a scale of 1:100, 1:200 or 1:400 (in the case of small objects, scale of 1:20, 1:50). Places of numerous folds, which are poorly visible on the drawing, may additionally be included at a different scale (even 1:1).

When drawing the projection of a building, it is necessary to consider variations in the thickness of walls and width of openings (this is done by measuring the thickness of walls at window or entrance openings), stairs (their direction) and other elements.

Measuring rooms inside a building is a separate issue. The measurement of individual walls of a building suffices for a simplified floor plan. It is only suitable for determining the general layout of a room and has the advantage of being quick to measure. The preparation of a detailed floor plan is based on the principle of determining and measuring the triangles into which the room is divided (the triangle is the only figure that can be unerringly modelled on the floor plan). It should be borne in mind that such measurements are time-consuming and

that their correct execution requires relevant knowledge and experience as well as appropriate equipment[3]. It should be made at a scale of 1:20 or 1:50. In addition to horizontal projections of all storeys, an orientation sketch, drawings of vertical sections and staircases, drawings of elevations and detail drawings, e.g. rib cross-section, are made. All drawn elements must be dimensioned in detail.

On the drawing depicting a simplified projection of an object, walls should be marked in accordance with the principles of graphical marking of building materials specified by architectural-construction drawing standards (PN-B-01030:2000 formerly PN-70/B-01030). It is necessary to remember proper marking of window openings (on the simplified projection it is not required to indicate the directions of an opening). In the interior, the types of vaults should be marked, and in the case of ceilings the axes of beams with distinction of sub-beams. We should also indicate the purpose of rooms if this is not apparent from the layout (e.g. unnecessary for the chancel or the nave). Next to the drawing, the height of the building (to the ridgepole or cornice, or preferably both; it is assumed that the height of the building is measured from the threshold of the main entrance) or its individual parts should be indicated. On the drawing, permanent fixtures and fittings such as radiators are omitted for documentation purposes. It must include a linear scale and the indication of north.

When making documentation, the actual state is reproduced, thus also objects created later than the original body of the building.

In practice, if distinguishable, they can be applied on individual layers (if the drawing is made in a 2D (CAD) plane design programme or any other programme that allows the handling of layers).

It is a good idea to take measurements in teams of three – one person places the object on the plan to be drawn and two measure it. It is convenient to sketch in the field on A3-size millimetre sheets, and if possible, immediately in the programme in which the plan is drawn, e.g. AutoCAD (using, for example, a geodetic tablet). Please note that the final drawing should be presented without a millimetre scale.

The fact that a building exists must be indicated on the cemetery plan.

3   For those wishing to familiarise themselves with the detailed principles of preparing a full architectural-construction inventory, reference is made to literature on the subject: Przewłocki 2002, pp. 251–281; Brykowska 2003; Miśniakiewicz, Skowroński 2006, pp. 9-59. When making a projection of an object, principles of graphic designations and other requirements specified by the architectural-construction drawing standards should be observed (Graphic designations on architectural-construction drawings. Standard PN-70/B-01025 – replaced by: PN-EN ISO 4157-1:2001, PN-EN ISO 4157-2:2001, PN-B-01025:2004; Construction drawing. Principles of dimensioning on architectural-construction drawings Standard PN-B-01029:2000; Graphical indications of building materials Standard PN-B-01030:2000 formerly PN-70/B-01030).

9. What to do with amassed documentation?

Another important issue is what to do with the produced documentation. Most such works are deposited with the Ministry of Culture and National Heritage, but for legal reasons (copyright) are not accessible. Nevertheless, for continuity, a copy of the documentation should be handed over there. At present, however, the onus is on the docent to preserve and disseminate documentation. This can take the form of either printed catalogues or material available online (ill. 84). The first solution is expensive, involves more work and the distribution of catalogues is limited. It is much more efficient to publish results online. In principle, this can be twofold, analogous to a book publication, but in digital form (e.g. PDF). The downside of such a solution is limited searchability, especially the cross-referencing of search results (e.g. search for all tombstones created between 1800 and 1850 that have an inscription written in Latin). The second solution is a catalogue in the form of a database. Information found there can be searched by combining different types of criteria. At present, this seems to be the most adequate form, but its downside is the strong dependence on technology. Results may not be available after several years. It makes sense, therefore, to always make a digital copy of them and pass them on, by prior arrangement, to institutions involved in documenting heritage in the area. This may be the Department of Cultural Heritage Abroad and War Losses of the Ministry of Culture and National Heritage, the POLONIKA Institute or other public entity.

10. Online catalogue of Polonica

In 2023, the POLONIKA Institute launched an online service CATALOGUE OF POLONICA. DATABASE OF POLISH HERITAGE (www.baza.polonika.pl/en), which includes a catalogue of cemeteries and tombstones located abroad.

The catalogue is intended to contain the outcome of all documentation work carried out outside the country and held by the state, social organisations as well as private individuals. The information contained therein will, in principle, coincide with information included in documentation cards (see section 2.5), with adaptation to the specifics of cemeteries and the online database. Users will receive detailed training and instructions before entering data. They will also have prompts next to individual fields to solve problems quickly. In difficult situations, they will be able to consult the catalogue's editors.

From 2022, all organisations carrying out documentation work on cemeteries from programmes of the Minister of Culture and National Heritage will be required to make the results of their work available on the site. It will be published after substantive approval.

The catalogue will include information on the following:

» type of object (cemetery, tombstone, architectural object, cemetery/war quarters),

» identification of the buried person (name, surname, year of birth, year of death, function held, profession),

» location of the tombstone (country, region, town, cemetery, geolocation data),

» description of the monument (material, creator, time of creation, content of inscription, inventory description, state of preservation),

» additional materials: photographs, plans etc.

In addition, project managers will be able to indicate objects which, in their opinion, should undergo conservation work or which are of particular significance to Polish cultural heritage.
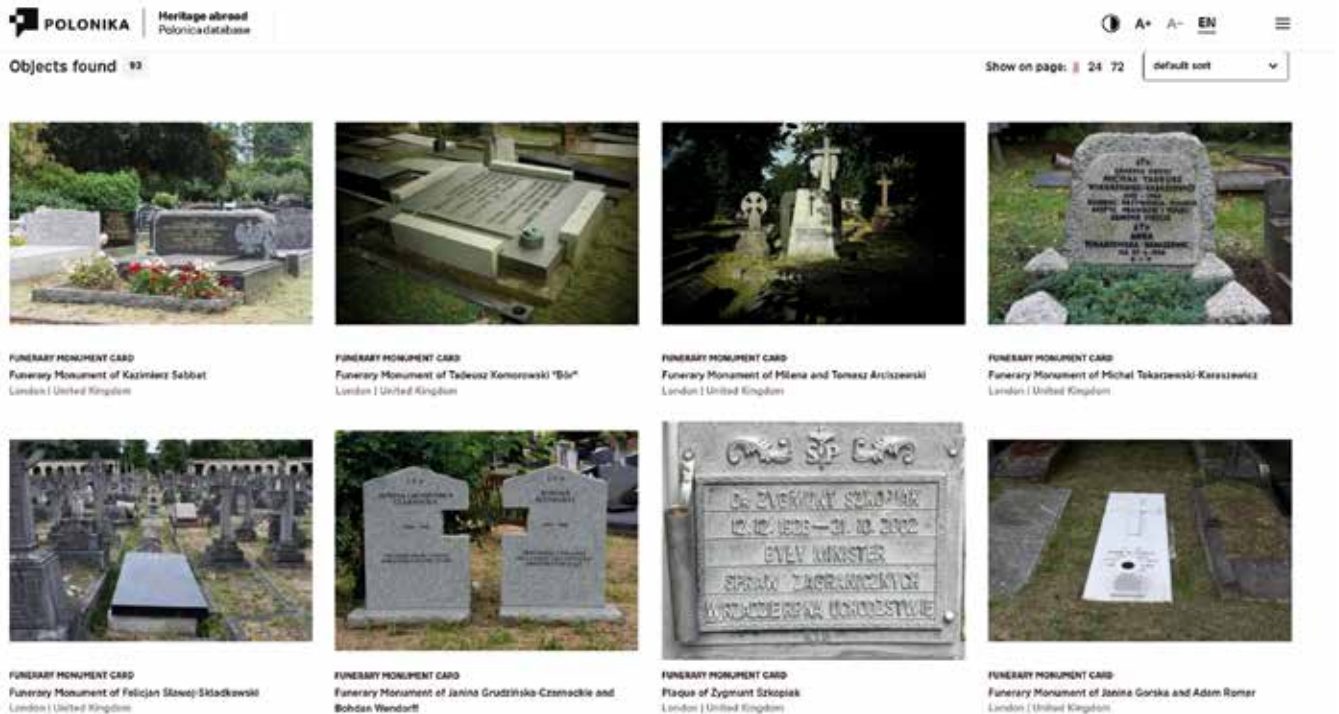
The user will be able to search in a multifaceted way for information on buried persons as well as preserved tombstones, funerary monuments, cemeteries, chapels and other objects.

Full resource searches will be available to logged-in users – site editors and, in the future, researchers. A selection of search functionality will be available to the public (including the ability to search for a buried person's data).

Results are to be available both in text form and displayed on a map. In the case of tombstones, the database is to ultimately lead to the location (based on geolocation data) of individual objects. This information will appear as it is completed.

Experience gained from working on the portal led to the completion of documentation standards and rules. The POLONIKA Institute adopted them as binding for work that it financed or co-financed. The need to include tombstones created after 1945 in documentation work has become essential in light of practice. Due to the scale and repetitiveness of tombstone forms, the rule has been adopted that record cards or simplified record cards are to be made for monuments created before 1945, while only a record is to be kept (optionally) for monuments created after 1945, with the exception of monuments of particular artistic or historical value for which full documentation should be made. At the same time, to maintain uniformity with previous work, it has been decided that in the case of monuments created after 1945, if commemorating people who died before that date, full record cards should also be made (any deviation from this rule should be indicated in a project description).

Complete documentation should include:

» record cards for funerary monuments (created before 1945 and selected ones after 1945) with inscriptions in Polish or those wherein it has been determined that Poles are buried (simplified cards may also be used),
» record cards of other objects located in cemeteries related to Polish cultural heritage,
» a record of tombstones created after 1945 (optional),
» a documentation card of the cemetery (optionally a simplified record card),
» a project card with information about project contractors, adopted documentation rules, work completion time, work financing, and a concise description of work carried out.

The documentation must be provided in the form of editable electronic record cards and attached photographic documentation.

A change from previous standards is the acceptance of simplified documentation, which is made when, for example, there is a large number of typical objects without special artistic or historical value or contractors do not have the knowledge and skills to produce full documentation (this particularly applies to voluntary work). Simplified documentation is then treated as preceding full documentation (e.g. documentation with simplified cards is carried out by volunteers, and then professional documentation is created for selected objects).

As a rule, however, full or simplified documentation is not made for tombstones created after 1945, unless there are additional reasons for doing so.

Documentation intended to meet the needs of the POLONIKA Institute is prepared for graves and cemeteries other than war graves. They are defined by the War Graves and Cemeteries Act of 28 March 1933, as amended.

1. War graves within the meaning of the Act are graves and resting places of:

1) those who died in the fight for the independence and unification of Poland,

2) military personnel who died or passed away as a result of military operations, regardless of nationality,

3) sisters of mercy and all those who died or passed away as a result of military operations while performing duties in any military formation,

4) prisoners of war and internees,

5) refugees from 1915,

6) military and civilian persons, regardless of nationality, who lost their lives as a result of repression by German or Soviet occupying forces from 1 September 1939,

7) victims of German and Soviet camps, including the burial sites of their ashes,

8) persons who lost their lives while fighting against the imposed totalitarian system or as a result of totalitarian repression or ethnic cleansing from 8 November 1917 to 31 July 1990.

2. Family graves, even if they contain remains of the persons mentioned in paragraph 1, are not war graves.

3. War cemeteries within the meaning of this Act are cemeteries intended for the burial of remains of the persons mentioned in paragraph 1.

Documentation of war graves and cemeteries must be submitted to the Department of Cultural Heritage Abroad and Memorial Sites of the Ministry of Culture and National Heritage. Rules governing its disclosure are agreed with representatives of the Ministry.

The list should include basic information in the form of a table (**note that one tombstone, regardless of the number of people buried in it, is considered a single entry**):

» serial number,
» surname and first name of the buried person(s),
» year of birth,
» year of death,
» biographical information (optional),
» inscription text,
» location (GPS data or number on the attached map),
» photograph.

Specifications have also been made for the list of tombstones, which apply to monuments created after 1945. When preparing the list, it should be indicated whether it covers all or selected tombstones. If it covers selected tombstones, information on the location of the documentation on remaining tombstones should be provided. The list can also include those tombstones for which full documentation has been prepared, indicating (in the 'other information' box) that full documentation has been prepared for a given tombstone.

The documentation must be submitted in a PDF file and in an editable file (doc, docx, rtf). The recommended format is A3 landscape.

Furthermore, it is assumed that different types of documentation can be produced for one cemetery, e.g. full (type I) for selected objects, simplified (type II) for standard ones, and a list of tombstones with photographs (type III) for those created after 1945.

In the case of people who do not speak Polish or do not speak it proficiently, it is recommended to draft documentation in English or another language (upon consultation with representatives of the POLONIKA Institute). If documentation is provided in the form of record cards, all information in the card should be filled in, if available.

Artificial Intelligence (AI) in documentation work

Artificial Intelligence (AI) can be used as a supporting tool in the documentation of cemeteries and tombstones, but its application must be of an auxiliary nature and subject to verification by the person creating the documentation. The following comments refer to publicly available systems. The development of separate models based on training can significantly improve results in each of the areas described below.

Application of AI and other electronic systems

1. Reading inscriptions

Using AI to analyse photographs of tombstones and read inscriptions can significantly speed up the documentation process and reduce the risk of errors. Each reading must be verified against the inscription. AI achieves very good results for legible and moderately legible inscriptions, often eliminating human errors and producing a better transcription quality than manual reading. Reading instructions should state that:
  » the text should not be automatically corrected (e.g. correction of typos, translation),
  » uncertain passages should be clearly marked for verification.

The entire transcription must be checked manually, regardless of the quality of the AI reading. Unfortunately, AI will not be very helpful for illegible inscriptions. It can potentially be useful for indicating optional content of illegible parts of the inscription. However, such hints can be misleading and necessary critical thinking is required when accepting them.

2. Photograph editing

Photographs should not be subjected to AI processing, with the exception of automatic image rotation correction. Any interference with an image can lead to the loss or distortion of important details, which is undesirable in historical documentation.

3. Object descriptions

AI is not able to create correct descriptions of tombstones on its own, but can be helpful in their preparation. A properly developed instruction (indicating the terms and descriptive schemes used) facilitates preliminary descriptions. The advantage of AI is the use of uniform description rules, which ensures consistency in documentation. However, even with detailed instructions, the level of errors in naming (e.g. incorrect identification of architectural elements, incorrect terms) is approximately 50%. For simple objects, accuracy can reach 90%. However, descriptions generated by AI require careful correction.

Currently (March 2025), the use of AI for creating descriptions, taking into account the time needed for developing instructions and proofreading, does not lead to a real reduction in work load or improvement in its quality. There is a risk of errors being overlooked, especially by those less experienced in creating descriptions.

4. Searching, comparing and cataloguing information

AI can be helpful in:

» searching for correlations between the forms of tombstones, inscriptions and architectural details; the ability to identify non-obvious correlations is particularly valuable,
» creating lists (e.g. of people buried in a given necropolis),
» linguistic analysis of inscriptions and identification of stylistic and historical patterns,
» integrating data from different sources, e.g. comparing entries in parish registers and cemetery lists.

5. Map creation

AI can also be helpful in automating the process of creating maps based on satellite imagery. However, verification is always necessary in this case as well.

6. Identification of plants and materials

AI algorithms (especially in closed systems that limit the algorithms to plant recognition) allow for a high level of plant identification. In the case of materials (e.g. the stone used to make a tombstone), we usually achieve at best

satisfactory results and at this stage the use of AI in this area does not seem very helpful (inability to record the actual structure of the material or light reflection, inaccuracy of photographs, variable lighting conditions, contamination, lack of precise training patterns). It should be emphasised that developing a model based on a large and precisely labelled number of images, taking into account photograph metadata or using models based on multispectral image analysis (e.g. in infrared) would significantly improve the results.

However, a search for information using AI requires special caution due to the so-called AI hallucination effect (generation of false or distorted data). Every piece of information obtained must be carefully verified to ensure its reliability. It should be emphasised that a properly trained AI system should be able to achieve a high degree of precision in its description, but this task requires a lot of work in training the AI and constant monitoring of the process.

Bibliography

III Convention – *I–III Zjazd Konserwatorski – Halin. Ochrona zabytkowych cmentarzy*, Warszawa 1980–1983 (ts NID).

IV Convention – *IV Zjazd Konserwatorski – Halin. Ochrona zabytkowych cmentarzy*, Warszawa 1984 (ts NID).

V Convention – *Ochrona zabytkowych cmentarzy. Zjazd konserwatorski – Halin V*, Warszawa 1985 (ts NID).

Affek-Bujalska 1994 – B. Affek-Bujalska, *Podstawy prawne ochrony cmentarzy*, in: *Ochrona cmentarzy zabytkowych. Materiały szkoleniowe pracowników Państwowej Służby Ochrony Zabytków oraz materiały z konferencji Organizacja lapidariów cmentarnych Żagań–Kożuchów 20–23 czerwca 1993*, ed. W. Puget, Warszawa 1994, pp. 27–32.

Bajsarowicz, Morawiecki 1999–2004 – *Inscriptiones funebres in confinio Poloniae et Ucrainae repertae. Inskrypcje nagrobne pogranicza polsko-ukraińskiego*, ed. J. Bajsarowicz, L. Morawiecki, Rzeszów 1999–2004.

Bania, Olszewski 1989 – Z. Bania, A.K. Olszewski, *Klasyfikacja i typologia nagrobków*, Warszawa 1989 (ts NID).

Basista, Nowakowski, Pencakowski, Schubert, Tołłoczko 1986 – A. Basista, A. Nowakowski, P. Pencakowski, J. Schubert, Z. Tołłoczko, *Analiza i systematyka architektury grobów cmentarnych*, „Teka Komisji Urbanistyki i Architektury" 1986, vol. 20, pp. 91–100.

Basista, Nowakowski, Pencakowski, Schubert, Tołłoczko 1987 – A. Basista, A. Nowakowski, P. Pencakowski, J. Schubert, Z. Tołłoczko, *Analiza grobów cmentarza Rakowickiego w Krakowie*, „Teka Komisji Urbanistyki i Architektury" 1987, vol. 21, pp. 103–112.

Betlej 2012 – A. Betlej, *Badania nad dziedzictwem artystycznym ziem wschodnich Rzeczypospolitej (po r. 1945)*, „Rocznik Historii Sztuki" 2012, vol. 37, pp. 83–91.

Biegała, Jozefiak 2024 – B. Biegała, S. Jozefiak, *Groby i cmentarze wojenne. Przepisy, ewidencja, finansowanie*, Poznań 2024.

Białostocki 1982 – J. Białostocki, *Drzwi śmierci – antyczny symbol grobowy i jego tradycja*, in: J. Białostocki, *Symbole i obrazy w świecie sztuki*, vol. 1, Warszawa 1982, pp. 158–186.

Biernat, Górzyński 1999 – *Polacy pochowani na cmentarzu Montmartre oraz Saint-Vincent i Batignolles w Paryżu*, ed. A. Biernat, S. Górzyński, Warszawa 1999.

Biernat, Górzyński 2021 – A. Biernat, S. Gorzyński, *Cmentarz Champeaux w Montmorency. Groby polskie*, Warszawa, Bellerive-sur-Allier 2021.

Biernat 1980 – A. and B. Biernat, *Cmentarz powązkowski w Warszawie. Materiały inwentaryzacyjne*, vol. 1, Warszawa 1980.

Boniecki 1899–1913 – A. Boniecki, *Herbarz polski: wiadomości historyczno-genealogiczne o rodach szlacheckich*, vols 1–16, Warszawa 1899–1913.

Brykowska 2003 – M. Brykowska, *Metody pomiarów i badań zabytków architektury*, Warszawa 2003.

Brykowski, Czerniawska, Jaroszewicz 1996 – R. Brykowski, T. Czerniawska, A. Jaroszewicz, *Rzymsko-katolicki cmentarz kalwaryjski w Mińsku na Białorusi*, Warszawa 1996 (Supplement: Warszawa 2000).

Cemeteries Handbook 2024 – *Cemeteries Handbook. Te Pukapuka Urupā*, Marlborough 2024.

Chrząński 1909 – *Tablica odmian herbowych Chrząńskiego*, ed. J. Ostrowski, Warszawa 1909.

Chudzio, Solarz 2020 – H. Chudzio, M. Solarz, *Zmarli Polacy w drodze do Ojczyzny. Polskie cmentarze w Afryce*, Kraków 2020.

Chytry 2013 – Cz. Chytry, *Polski cmentarz w Równem*, Janów Lubelski 2013.

Cmentarz Bernardyński 2013 – *Cmentarz Bernardyński w Wilnie 1810–2010*, Wilno 2013.

Cmentarz historyczny 2024 – *Cmentarz historyczny. Poradnik dla opiekunów*, ed. M. Bogdanowska, D. Sikora, Warszawa 2024.

Corpus 1975 – *Corpus inscriptionum Poloniae*, vol. 1, *Województwo kieleckie*, no. 1, *Miasto Kielce i powiat kielecki*, foreword and commentary B. Trelińska, ed. J. Szymański, Kielce 1975.

Cynka, Kłonecki 1989 – M. Cynka, F. Kłonecki, *A i Ω*, in: *Encyklopedia katolicka KUL*, vol. 1, Lublin 1989, cols 1–2.

Czyż 2010 – A.S. Czyż, *Klasycyzm na cmentarzach Tarnopolszczyzny*, in: *Sztuka cmentarzy XIX i XX wieku*, ed. A.S. Czyż, B. Gutowski, Warszawa 2010, pp. 83–98.

Czyż 2017 – A.S. Czyż, *Klasycystyczne nagrobki na cmentarzach dawnego powiatu tarnopolskiego*, in: *Cmentarze dawnego powiatu tarnopolskiego. Kaplice, grobowce*

i nagrobki z inskrypcjami zapisanymi w alfabecie łacińskim (1800–1945), ed. A.S. Czyż, B. Gutowski, vol. 1, Warszawa 2017, pp. 99–136.

Czyż, Gutowski 2008a – A.S. Czyż, B. Gutowski, *Nekropolie kresowe. Skrypt dla inwentaryzatorów zabytkowych cmentarzy dawnych Kresów Wschodnich*, Warszawa 2008.

Czyż, Gutowski 2008b – A.S. Czyż, B. Gutowski, *Prace inwentaryzacyjne na cmentarzach Kresów Wschodnich – założenia metodologiczne*, „Ochrona Zabytków” 2008, no. 1, vol. 61, pp. 21–30.

Czyż, Gutowski 2009 – A.S. Czyż, B. Gutowski, *Cmentarz miejski w Buczaczu*, Warszawa 2009.

Czyż, Gutowski 2013 – A.S. Czyż, B. Gutowski, *Wielokulturowa Rossa – problematyka i perspektywy badawcze*, in: *Stan badań nad wielokulturowym dziedzictwem dawnej Rzeczypospolitej*, ed. W. Walczak, Ł. Łopatecki, vol. 5, Białystok 2013, pp. 415–428.

Czyż, Gutowski 2016 – *Cmentarze dawnego powiatu zaleszczyckiego. Kaplice, grobowce i nagrobki z inskrypcjami zapisanymi w alfabecie łacińskim (1790–1945)*, ed. A.S. Czyż, B. Gutowski, Warszawa 2016.

Czyż, Gutowski 2017–2019 – *Cmentarze dawnego powiatu tarnopolskiego. Kaplice, grobowce i nagrobki z inskrypcjami zapisanymi w alfabecie* łacińskim *(1800–1945)*, ed. A.S. Czyż, B. Gutowski, vol. 1, Warszawa 2017; vol. 2, Kraków 2019.

Czyż, Gutowski 2019 – *Cmentarz Na Rossie w Wilnie. Historia, sztuka, przyroda*, ed. A.S. Czyż, B. Gutowski, Warszawa 2019.

Czyż, Gutowski, Janowczyk 2004 – A.S. Czyż, B. Gutowski, P. Janowczyk, *Cmentarze powiatu borszczowskiego*, Warszawa 2004.

Czyż, Gutowski, Skrodzka, Vyšata, Zdzieborska 2007 – A.S. Czyż, B. Gutowski, A. Skrodzka, K. Vyšata, A. Zdzieborska, *Cmentarze powiatu czortkowskiego*, Warszawa 2008.

Dacka-Górzyńska, Górzyński, Ugniewski 2008 – I.M. Dacka-Górzyńska, S. Górzyński, P. Ugniewski, *Polacy pochowani na cmentarzu w Montrésor*, Warszawa 2008.

Dacka-Górzyńska, Górzyński 2012 – I.M. Dacka-Górzyńska, S. Górzyński, *Polacy pochowani na cmentarzach Nicei i Mentony*, Warszawa 2012.

DeBartolo Carmack 2002 – S. DeBartolo Carmack, *Your Guide to Cemetery Research*, Cincinnati 2002.

Dolatowski, Senet 2020 – J. Dolatowski, W. Senet, *Dendrologia*, Warszawa 2020.

Dominikowski 2004 – J. Dominikowski, *Nekropolia Łodzi Wielkoprzemysłowej. Cmentarz Stary przy ulicy ogrodowej – dzieje i sztuka 1854–1945*, Łódź 2004.

Drelicharz 2004 – *Inskrypcje polskich grobów na cmentarzach Podola*, ed. W. Drelicharz, vol. 1, Kraków 2004.

Gajl 2003 – T. Gajl, *Polskie rody szlacheckie i ich herby*, Białystok 2003.

Godet 1997 – J.D. Godet, *Drzewa i krzewy – rozpoznawanie gatunków*, transl. A. and S. Kłosowski, Warszawa 1997.

Godet 2002 – J.D. Godet, *Przewodnik do rozpoznawania drzew i krzewów*, transl. H. Terpińska-Ostrowska, Warszawa [2002].

Goffinet 2013 – P. Goffinet, *Mapping & Documenting Cemeteries*, Lexington 2007 (second edition 2013).

Grodziska 1995 – K. Grodziska, *Polskie groby na cmentarzach Londynu*, vol. 1, Kraków 1995.

Grodziska 2001 – K. Grodziska, *Polskie groby na cmentarzach Londynu*, vol. 2, Kraków 2001.

Grodziska 2004 – K. Grodziska, *Polskie groby na cmentarzach północnej Walii*, Kraków 2004.

Grodziska 2007 – K. Grodziska, A. Suchcitz, „*Zostanie po nich nikły ślad…*". *Polskie groby na cmentarzach w Laxton Hall, Pitsford Hall, Fawley Court i Henley-on-Thames*, Kraków 2007.

Grodziska 2011 – K. Grodziska, *O niełatwej sztuce opisywania cmentarzy*, in: 50/20. *Szkice i eseje na dwudziestolecie Międzynarodowego Centrum Kultury*, ed. J. Purchla, Kraków 2011, pp. 300–331.

Hauser 1998 – Z. Hauser, *Podróże po cmentarzach Ukrainy – dawnej Małopolski Wschodniej*, vol. 1, *Województwo stanisławowskie*, Kraków 1998.

Hauser 2006 – Z. Hauser, *Podróże po cmentarzach Ukrainy – dawnej Małopolski Wschodniej*, vol. 2, *Województwo tarnopolskie*, Kraków 2006.

Hefner 1863 – O.T. von Hefner, *Neues Wappenbuch des blühenden Adels im Königreiche Galizien*, München 1863.

Illinois Historic 2008 – *Illinois Historic Cemetery Preservation Handbook. A Guide to Basic Preservation*, Springfield 2008 (https://dnr.illinois.gov/content/dam/soi/en/web/dnr/naturalresources/cultural/documents/ilhistoriccemeterypreservation-handbook.pdf).

Inskrypcje 1986–1994 – *Inskrypcje grobów polskich w Paryżu*, Warszawa 1986, 1991, 1992, 1994.

Keister 2004 – D. Keister, *Stories in Stone. A Field Guide to Cemetery Symbolism and Iconography*, Salt Lake City 2004.

Klimowicz, Sygowski, Tarajko, Trzciński 2018 – T. Klimowicz, P. Sygowski, M. Tarajko, A. Trzciński, *Ogrody pamięci. Cmentarze żydowskie*, Lublin 2018.

Kobielus 2000 – S. Kobielus, *Krzyż Chrystusa. Od znaku i figury do symbolu i metafory*, Warszawa 2000.

Kobielus 2012 – S. Kobielus, *Lapidarium christianum. Symbolika drogich kamieni: wczesne chrześcijaństwo i średniowiecze*, Kraków 2012.

Kopeć 2000 – J. Kopeć, *Karawaka*, in: *Encyklopedia katolicka KUL*, vol. 8, Lublin 2000, col. 779.

Kosiński 2012 – W. Kosiński, *Geodezja*, Warszawa 2012.

Kozłowski, Żaba, Fediuk 1986 – K. Kozłowski, J. Żaba, F. Fediuk, *Petrologia skał metamorficznych*, Katowice 1986.

Kukia 2015 – *Kukia. Zapomniane dziedzictwo polskie w Gruzji*, ed. O. Solarz, Nowica 2015.

Kupiszak 2020 – K. Kupiszak, *Kamienie budowalne w Polsce*, Portal of the Polish Geological Institute, http://kamieniebudowlane.pgi.gov.pl/index.php?show=4 [access 4 October 2020].

Kurczyński 2014 – Z. Kurczyński, *Fotogrametria*, Warszawa 2014.

Lewkowska, Lewkowski, Walczak 2000 – A. Lewkowska, J. Lewkowski, W. Walczak, *Zabytkowe cmentarze na Kresach Wschodnich Drugiej Rzeczypospolitej. Województwo Poleskie na obszarze Republiki Białoruś*, Warszawa 2000.

Lewkowska, Lewkowski, Walczak 2007 – A. Lewkowska, J. Lewkowski, W. Walczak, *Zabytkowe cmentarze na Kresach Wschodnich Drugiej Rzeczypospolitej. Województwo wileńskie na obszarze republiki Białorusi*, Warszawa 2007.

Lewkowska, Lewkowski, Walczak 2008 – A. Lewkowska, J. Lewkowski, W. Walczak, *Województwo nowogródzkie*, Warszawa 2008.

Łydka 1985 – K. Łydka, *Petrologia skał osadowych*, Warszawa 1985.

Maczubski 1989 – T. Maczubski, *Zasady inwentaryzacji krajoznawczej cmentarzy*, Warszawa 1989.

Majerowicz, Wierzchołowski 1990 – A. Majerowicz, B. Wierzchołowski, *Petrologia skał magmowych*, Warszawa 1990.

Marcisz, Rudka 1999 – B. Marcisz, Sz. Rudka, *Krzemienieckie nekropolie. Cmentarz Polski oraz polskie zabytki sztuki nagrobnej w Krzemieńcu*, Warszawa 1999.

Mikołajczyk 2017 – J. Mikołajczyk, *Ochrona grobów i cmentarzy wojennych w Polsce*, Kraków 2017.

Miziołek 1994 – J. Miziołek, *Obeliski Rzymu i Krakowa w 2 połowie XVI w.*, „Barok" 1994, no. 2, yr 1, pp. 153–176.

Miśniakiewicz, Skowroński 2006 – E. Miśniakiewicz, W. Skowroński, *Rysunek techniczny budowlany*, Warszawa 2006.

Niesiecki 1839–1842 – *Herbarz polski Kaspra Niesieckiego powiększony dodatkami z późniejszych autorów, rękopisów, dowodów urzędowych i wydany przez Jana Nep. Bobrowicza*, vols 1–10, Lipsk 1839–1842.

Ostrowski 1897 – J. Ostrowski, *Księga herbowa rodów polskich*, Warszawa 1897.

Pałasz-Rutkowska 2010 – *W poszukiwaniu polskich grobów w Japonii*, ed. E. Pałasz-Rutkowska, Warszawa 2010.

Patlewicz, Tomczyk 2017 – B. Patlewicz, R. Tomczyk, *Cmentarz Janowski we Lwowie. Polskie dziedzictwo narodowe*, Szczecin 2017.

Patlewicz, Tomczyk 2024 – B. Patlewicz, R. Tomczyk, *Cmentarze na przedmieściach Lwowa*, vols 1–2, Szczecin 2024.

Prince George's County – *Maryland Cemetery preservation manual*, Riverdale 2010 (https://www.pgplanning.org/resource_library/prince-georges-county-maryland-cemetery-preservation-manual).

Przewłocki 2004 – S. Przewłocki, *Geodezja dla kierunków niegeodezyjnych*, Warszawa 2004.

Roguski 2000 – P. Roguski, *Cmentarz Polski w Dreźnie. Pomniki i groby polskie na starym cmentarzu katolickim (Alter Katholischer Friedhof) w Dreźnie*, Katowice 2000.

Rudkowski 1999 – *Cmentarz polski w Żytomierzu. Materiały inwentaryzacyjne wykonane przez Katedrę Architektury i Ochrony Budowli Zabytkowych Politechniki Świętokrzyskiej*, ed. T.M. Rudkowski, Warszawa 1999.

Ryka, Maliszewska 1991 – W. Ryka, A. Maliszewska, *Słownik petrograficzny*, Warszawa 1991.

Sakwa 1974 – W. Sakwa, *Żeliwo*, Katowice 1974.

Sejda 1932 – K. Sejda, *Ordery, odznaczenia i medale Rzeczypospolitej Polskiej*, Warszawa 1932.

Skłodowski 2013 – J. Skłodowski, *Cmentarze na Żmudzi. Polskie ślady przeszłości obojga narodów*, Warszawa 2013.

Sinder 2017 – T. Sinder, *Understanding cemetery symbols. A Field Guide for Historic Graveyards*, [s.l.] 2017.

Skowronek 1986 – *Cmentarz Polski w Montmorency*, ed. J. Skowronek, Warszawa 1986.

Skrzypczak, Skrzypczak 2010 – *Polski cmentarz w Zbarażu. Inskrypcje nagrobne*, ed. A. Skrzypczak, I. Skrzypczak, Rzeszów 2010.

Słownik 1997 – *Słownik terminologiczny sztuk pięknych. Wydanie drugie poprawione*, Warszawa 1997.

Sopniewska 2012 – N. Sopniewska, *Motyw płaczki w dziewiętnastowiecznej rzeźbie powązkowskiej*, „Artifex" 2012, no. 14, pp. 22–29.

Stela 2010–2015 – W. Stela, *Polskie ordery i odznaczenia*, vols 1–4, Warszawa 2010–2015.

Sulik 2006 – A.F. Sulik, *Cmentarz Polski w Kowlu. Część dwuwyznaniowego cmentarza rzymskokatolickiego i prawosławnego*, Poznań 2006.

Śladecki 1993 – D. Śladecki, *Cmentarze na Białorusi. Stan zachowania i inwentaryzacja*, in: *Ochrona wspólnego dziedzictwa kulturowego*, ed. J. Kowalczyka, Warszawa 1993, pp. 194–214.

Śladecki 2000 – D. Śladecki, *Zagadnienie inwentaryzacji cmentarzy jednowyznaniowych i wielowyznaniowych na Białorusi i Ukrainie*, in: *Sztuka ziem wschodnich Rzeczypospolitej XVI-XVII w.*, ed. J. Lileyko, Lublin 2000, pp. 701–712.

Trippe-Dillon 2014 – T. Trippe-Dillon, *Grave Concerns. A Preservation Manual for Historic Cemeteries*, Arkansas 2014.

Vyšata 2005 – K. Vyšata, *Motyw anioła w rzeźbie nagrobnej cmentarza powązkowskiego*, „Artifex" 2005, no. 7, pp. 25–28.

Wiraszka 2017–2019 – M. Wiraszka, *Kaplice i mauzolea na cmentarzach Warszawy w XIX i pierwszej połowie XX wieku, Dzieła i ich twórcy*, Warszawa 2017–2019.

Wiszniewska 2009 – J.B. Wiszniewska, *Anortozyt – kamień nie tylko księżycowy*, „Nowy Kamieniarz" 2009, no. 47, pp. 82–88.

Zaworonko-Olejniczak, Szkopek 2016 – H. Zaworonko-Olejniczak, M. Szkopek, *Cmentarze Paryskie Bagneux i Saint-Ouen*, Poznań 2016.

Ziemnicki 1970 – S. Ziemnicki, *Melioracje rolne i elementy miernictwa*, Warszawa 1976.

Zinkow 2009 – L. Zinkow, *Imhotep i pawie pióra. Z dziejów inspiracji egipskich w architekturze polskiej*, Kraków 2009.

Żychliński 1879–1908 – T. Żychliński, *Złota księga szlachty polskiej*, vols 1–31, Poznań 1879–1908.

WEBLIOGRAPHY

NID (Narodowy Instytut Dziedzictwa, National Institute of Heritage) – instructions and record cards available in an editable version

https://www.nid.pl/pl/Dla_specjalistow/Badania_i_dokumentacja/zabytkinieruchome/instrukcjewytycznezalecenia/index.php?sphrase_id=69171

https://www.nid.pl/pl/Dla_specjalistow/Badania_i_dokumentacja/zabytkiruchome/instrukcjewytycznezalecenia

Appendix

Guidelines for documentary photography

1. Number and type of photograph(s)
   » 1 to 5 photographs should be taken of each object,
   » for architectural objects (e.g. cemetery chapels), this number does not include furnishings such as altars, epitaphs, tombstones and other objects.
2. Composition and framing
   » full shots of the object (from the front) and details (e.g. inscriptions, coats of arms, damage),
   » photographs from different perspectives (e.g. side, diagonal) depicting the item objectively,
   » photographs without visible people or random objects.
3. Technical standards
   » photograph resolution: at least 2480 x 3508 px (300 dpi),
   » file format: TIFF / RAW, lossless JPEG optional,
   » white balance: adjusted to the light source, manual settings preferred,
   » natural daylight; avoid harsh shadows and reflections,
   » colour scheme: sRGB colour profile,
   » sharpness: photographs must be sharp, with preserved details.
4. Photograph description and metadata
   » each photograph should include a description: object name, place, date of creation,
   » preservation of EXIF metadata such as author, date, location, copyright.

5. Additional requirements
    »   photographs must be free of watermarks and other graphic elements,
    »   no editing that distorts the original appearance of the object (minimal correction of brightness and contrast allowed),
    »   all photographs must be delivered on a digital medium or in the cloud by the agreed deadline.

Deviations from the guidelines are only permitted in difficult terrain and weather conditions. Photographs with lower parameters are allowed as long as they are legible.

Photographs must be accompanied by a list of illustrations containing the photograph number, information about the depicted object (author, name, e.g. Tombstone of the Kowalski family, year when the photograph was taken), and the object location.

Volunteering and document templates

The Appendix contains templates of agreements concluded in Poland in accordance with the Polish law. Individual provisions must be updated to comply with regulations applicable in individual countries. Although the templates cannot be used without detailed verification, they have been included herewith, as they regulate the most important issues concerning agreements concluded with volunteers.

1. The issue of volunteering in Poland is primarily regulated by the Act of 24 April 2003 on Public Benefit Activity and Volunteerism (Journal of Laws 2003 no. 96 item 873 as amended).

2. When starting work with a volunteer/volunteers, the organiser must conclude a cooperation agreement with them. If the service lasts for less than 30 days, the agreement does not need to be in writing (unless desired by the volunteer), but it is better if it is in writing for clarity. The period of 30 days does not mean 30 days of service, but rather the period during which the cooperation agreement is in force.

3. A volunteer agreement creates a legal relationship between the parties which has the nature of a civil law contract. This means that upon conclusion of the agreement the parties must comply with rules set out in the law, in particular the Civil Code and the mentioned Act on Public Benefit Activity and Volunteerism.

4. Due to copyright and image protection, the organiser should conclude licence agreements with volunteers for use of the effects of their work (e.g. publication in an online catalogue) and consents for use of their image for the project's information and promotional purposes. These documents

must be in writing. As the documentation should also be submitted to external institutions, provisions should be made for these institutions to publish the material as part of their work (examples of agreements in the annex).

5. As part of the agreement, we are obliged to inform the volunteer(s) about safe and healthy working conditions, which is not the same as health and safety training (this only applies to employees). However, we must inform the volunteer(s) about, for example, the rules for working in cemeteries, how to deal with emergencies, how to call for help, etc. Selected risks are described on page 132 of the handbook. If, in addition, the volunteer works at the premises of the organisation, he/she must be informed about escape routes, hazards, etc.

6. For work in cemeteries, the organiser must provide the volunteer with personal protective equipment (e.g. gloves). For typical documentation work it is not necessary to provide protective clothing. However, if work such as tombstone cleaning is carried out, there may already be such an obligation. In cemeteries, it is also necessary to have protective equipment against, for example, bushes or poisonous plants.

7. Pursuant to Article 46 of the Act on Public Benefit Activity and Volunteerism, 'a volunteer is entitled to provision for an accident during the performance of services referred to in Article 42, pursuant to separate regulations, subject to paragraph 3'. The organiser of the volunteering activity is obligated to insure the volunteer against accidents if the period of volunteering is less than 30 days. The fact that the volunteer already holds other personal accident insurance does not exempt the organiser from this obligation. Beyond 30 days, the basis for insurance is the so-called Minor Accident Act, according to which this obligation falls on the state. There is no obligation to take out accident insurance when working abroad (except in places affected by a war, natural disaster or a natural calamity). However, it is a good idea for participants to take out such insurance, as this can avoid potential claims in the event of an unfortunate incident. However, insurance does not have to be taken out for the entire duration of the agreement, but only for the time when the volunteer actually carries out entrusted tasks (e.g. during a documentation expedition).

8. Particularly in the case of trips abroad, especially to countries outside the EU (in the EU, participants should hold a European Health Insurance Card – EHIC), it is reasonable to obtain an adequate insurance package covering medical treatment, medical transport, rescue costs, etc. This is not explicitly stated in regulations, but in practice the organiser is responsible for the costs of such medical treatment and, in the absence of insurance, the volunteer may claim reimbursement.

9. A separate issue is the purchase of third-party insurance, i.e. liability insurance for damage caused. In the case of volunteering, these are damages

caused in connection with the volunteer's performance of assigned tasks. Third-party liability insurance is not required by law (except when volunteering in an institution where employees must be insured). When deciding whether to cover volunteers, it should be borne in mind that, according to the Civil Code (Article 429), the beneficiary, i.e. in this case the organiser, may be liable for damage caused by third parties. This applies if there is a connection between entrusted tasks and damage, e.g. a volunteer damages a tombstone during its cleaning. This does not apply if damage is caused during the period of the agreement but is not related to assigned tasks. For example, during a field trip the volunteer destroys furnishings in the hotel. This applies regardless of whether the agreement is in writing. What is important is whether there is an entrustment of activities. Furthermore, the organiser's representatives entrust tasks to volunteers and thus, on the basis of Article 430 of the Civil Code, they may be held liable for the consequences of their actions.

10. When concluding insurance contracts for third-party liability, accident insurance, health insurance, etc., it is necessary to carefully check their terms to ascertain whether they will be valid when working outside the country, what exact conditions must be met, and to check the list of exclusions, etc. Check what action must be taken in the event of an accident, damage, etc. (e.g. what documentation must be provided, the deadline for notification). It is best to determine at the stage of collecting an insurance quote exactly what type of work will be carried out and the scope of insurance. It is good to conduct a market survey in this respect during preparation of a grant application to realistically estimate the cost of insurance.

11. The organiser must ensure reimbursement of costs incurred by volunteers in connection with their work (e.g. if they must print tombstone cards, such a cost may be toner and printer paper, but the purchase of a printer will no longer be a justified cost). This situation can raise all sorts of ambiguities as to their amount, rates and, for example, losses due to theft or loss. To avoid this, it is advisable to create a closed list of the organiser's costs in the agreement.

12. In the case of travel, allowances, accommodation and meals are settled according to rules on business travel costs. However, a volunteer may waive part or all such costs in writing. Particularly in the case of trips abroad where high per diems apply, this is reasonable as long as actual costs incurred are lower than those prescribed by law. A waiver of a part of costs must be in writing.

13. In the case of accounting for travel, the best basis for settlement is the travel order form; samples of such documents are available free of charge online. These should be adapted to the specifics of an expedition.

14. At the request of the volunteer, the organiser must provide the volunteer with a certificate of voluntary service.

15. Please note that rules differ between volunteering and student internships. For example, in the context of an internship, it may be the responsibility of the student to take out insurance. The organiser is only liable if he/she is at fault, e.g. if he/she did not observe health and safety rules and the accident was due to his/her own negligence. Benefits for students who are injured during their internship are governed by universal pension provision for employees and their families.

16. Student internships do not constitute an employment relationship. The rights and obligations of both parties are regulated by law. The organisation of student internships is governed by the Act of 20 July 2018 Law on Higher Education and Science (Journal of Laws 2018, item 1668, as amended).

17. Student internships may be unpaid but are not the same as volunteering.

18. In the case of accounting in the project for part of the costs of task execution by own work of volunteers, their labour cost should be estimated according to market rates (e.g. PLN 60 for creating a tombstone inventory card or on the basis of an hourly rate). These costs are not to be shown in the organisation's financial books but are only used to account for the project. However, it is prudent to have relevant documents signed by both parties confirming work completed, e.g. a time sheet, documentation of work carried out, etc., as well as the basis for the valuation of work time (to avoid ambiguity, this data is best specified already at the grant application stage).

19. Specialised organisations such as Ogólnopolska Sieć Centrów Wolontariatu (National Network of Volunteer Centres) (wolontariat.org.pl) may be helpful in matters related to volunteering.

The document templates presented below are not a ready made example to be used and must not be used as documents. The agreement and its form should always be adapted to the situation, scope of tasks, current legal status, etc.

Template with description drafted on the basis of materials provided by the volunteering.org.pl service

This agreement is a template that defines basic provisions for involvement of the volunteer(s) in activities carried out by the beneficiary. It should be kept in mind that this agreement is a form of contract and may be complemented by new provisions regulating the obligations of the beneficiary and volunteer in accordance with provisions of the Civil Code. When concluding agreements, individual provisions must be updated to correspond with regulations which are in force in the area where the agreement is concluded.

Agreement
on the provision of voluntary services

concluded on the date and place of conclusion of the agreement between:
full name and address details of the entity engaging the volunteer(s)
represented by the name and surname of the person(s) signing the agreement,
who has/have the legal authority to enter into such obligations, e.g. through
a relevant entry in the National Court Register or a granted power of attorney.
The content of the power of attorney should be attached to the agreement.

hereinafter referred to as Beneficiary and

name and surname of the Volunteer, address, PESEL number, number and series of identity card or passport

hereinafter referred to as Volunteer. The parties conclude the following agreement:
1. The Beneficiary and Volunteer conclude a cooperation agreement on:
Example:
Documentation of cemeteries in the area of… within the framework of the project 'name of the project' financed by e.g. the Programme of the Minister of…

2. The **Volunteer** undertakes to perform the following services under the agreement:
Example:
- inventory work in cemeteries indicated by the Beneficiary, in accordance with the schedule attached as Annex 1 to this agreement,

- producing inventory cards (according to the model and diagram provided by the Beneficiary) in electronic form and their entry in the computer system located at… in accordance with the Beneficiary's instructions. The Beneficiary reserves the right to make corrections to the provided documentation. Any comments must be made within a maximum of 30 days of their transmission.
- providing photographic files (in size not less than 2256 x 1496 inches in JPG [uncompressed] or TIFF format) of photographs taken during the inventory work, described and catalogued in accordance with the Beneficiary's guidelines.

3. The Parties agree that the performance of services shall commence on the date of commencement of the agreement and shall be completed by… the end of the agreement, including the expedition being scheduled from… to…

4. The parties agree that this agreement covers the provision of a voluntary service which is unpaid.

5. The **Beneficiary** has informed about and provides safe and hygienic conditions for the provision of services.
The record confirms fulfilment by the Beneficiary of the obligation under Article 45. paragraph 1. point 1 of the Act on Public Benefit Activity and Volunteerism.

6. (OPTIONAL) The **Beneficiary** undertakes to reimburse the **Volunteer** only for the following costs incurred by him/her in performance of the services:
(a)   payment of travel costs to the area of the inventory work carried out and free travel to cemeteries during the expedition,
(b)   overnight accommodation or reimbursement of the cost of overnight accommodation in the area during the inventory work (lump sum),
(c)   reimbursement of the cost of meals during the inventory work (lump sum).
The parties agree on a lump sum per day of stay at the rate of…
The **Beneficiary** reserves the right to choose the place of accommodation and means of transport.
Moreover, the **Beneficiary** shall provide insurance (personal accident insurance/third-party liability insurance/health insurance) to the **Volunteer** during the expedition.
Expenses shall be reimbursed within 7 days after the Volunteer has provided an appropriate account together with evidence of expenses incurred.
The Beneficiary may but is not obliged to bear additional expenses that the Volunteer will incur in the course of his/her voluntary service. If the Beneficiary decides to incur such costs, it is advisable to stipulate in the agreement what the costs will be and how they will be reimbursed to the Volunteer. If the Beneficiary does not decide to reimburse such costs, this point can be removed from the agreement.

7. (OPTIONAL) The **Volunteer** releases the **Beneficiary** from the obligation to cover the costs of business travels and per diems in accordance with rules on employees as defined by separate regulations. The Volunteer may release the Beneficiary from the obligation to cover the costs of business travel and per diem only in writing. If the Volunteer decides on such a waiver, it can be included as part of the agreement.

If the Beneficiary covers such costs, or the exemption is standardised by a separate statement by the Volunteer, this point can be removed from the agreement.

8. The **Volunteer** shall be entitled to accident insurance when performing the service listed in point 2 of the Agreement in accordance with separate regulations.

Attention should be paid to properly insure the Volunteer(s) for the time of the expedition, especially abroad, to avoid possible costs: rescue, transport, medical treatment.

9. The **Volunteer** undertakes to carry out the service personally.

10. The **Volunteer** undertakes to keep confidential all information concerning the execution of the agreement.

11. The **Volunteer** has been informed of his/her rights and obligations.

The record confirms fulfilment of the Beneficiary's obligation under Article 47 of the Act on Public Benefit Activity and Volunteerism. In the first place, the provisions of Article 47 should be consulted, possibly with other documents resulting from the specificity of the project.

12. (OPTIONAL) The **Volunteer** authorises the **Beneficiary**, without any compensation to him/her, both during the performance of services and at any time after their termination, to use and give a non-commercial, indefinite licence to others, his/her image, name, voice, words for TV, radio, film, press or other media recordings and in any other form for promotion of the **Beneficiary's** aims and activities and/or to use them to raise funds to support these aims and activities.

If the Beneficiary wishes to use the image of the Volunteer in the future, i.e., for example, pictures of him/her during his/her voluntary work, such a record is necessary. The Volunteer is not obliged to grant such consent and granted consent can be withdrawn at his/her discretion. Consent for the use of an image can also be regulated by a separate statement by the Volunteer.

13. (OPTIONAL) Consent to use the image and results of the Volunteer's work performed under this agreement is set out in a separate Licence Agreement and Image Consent.

14. The agreement may be terminated by each of the Parties within the period specified herein, **e.g.** 14 days from the date of concluding the agreement or 30 days prior to the commencement of volunteering.
The obligation to inform about the possibility of terminating the agreement is regulated in Article 47 of the Act on Public Benefit Activity and Volunteerism.

15. (OPTIONAL) In case of failure to undertake the entrusted task or failure to perform the entrusted task, the Beneficiary may demand the **Volunteer** to cover all costs resulting from his/her negligence.

16. In matters not regulated by this Agreement, the Civil Code and the Act of 24 April 2003 on Public Benefit Activity and Volunteerism (Journal of Laws 2003 No. 96 item 873 as amended) shall apply.

17. Any changes to the content of the agreement must be in writing under pain of nullity.

18. The agreement is drawn up in duplicate with one copy for each party.

....
BENEFICIARY   VOLUNTEER

Non-exclusive licence agreement template

concluded at................... on..,
between:

name, surname, residential address,

PESEL (ID) number hereinafter referred to as the **Licensor**,

and

name, registered office, number in the National Court Register or any other relevant register, VAT ID, REGON number, persons authorised to represent hereinafter referred to as the **Licensee**.

§ 1

The subject matter of this agreement is the granting by the Licensor of a non-exclusive licence for use by the Licensee of the following works within the meaning of the Copyright and Related Rights Act of 4 February 1994 (Journal of Laws 2019, item 1231, as amended):

describe the work: e.g. as-built documentation, inventory sheets, plans, designs, photographs in the fields of exploitation specified in § 3.

§ 2

The Licensor declares to be entitled to copyright in the scope of this agreement. The Licensor's use of the work shall not infringe the rights of third parties.

§ 3

The Licensor grants permission to the Licensee to use the work specified in § 1, without limitation in time or territory, in all fields of exploitation known at the time of concluding this agreement, in particular: **(1)** those listed in Art. 50 of the Act, **(2)** permanent or temporary recording or multiplication in whole or in part of the work by any means and in any form, regardless of format, system or standard, particularly as regards recording and multiplication of the work or its part – production by any technique, including printing, reprography, magnetic recording and digital technique, **(3)** introduction of the work into the memory of a computer or other electronic device in whole or in part or temporary fixation or reproduction of such records, including copies thereof and any use and disposal of such copies, **(4)** use, commissioning, display, transmission and storage, regardless of format, system or standard, and access to the work or parts thereof, in particular the right to make back-up copies of the work or parts thereof, **(5)** public distribution, in particular availability in such

a way that the public may access it from an individually chosen place and time, including making it available electronically on demand, in particular distribution over the Internet and closed networks, regardless of the method of their connection, **(6)** public exhibition, screening and reproduction of the work or the medium on which it is stored, **(7)** lending a copy or the original of the work or medium on which the work is stored, **(8)** trade in the original or copies on which the work or a part thereof is stored – marketing, lending or lease of the original or copies, as well as granting of licences, sub-licences, usufruct, leasing or otherwise the granting of rights to use the work in all or selected fields of exploitation, **(9)** translation, adaptation, rearrangement or any other changes or alterations in the work to the fullest extent permitted by law, as well as reprints of the whole or its part, together with disposal and use of such adaptations and/or derivative works in all or selected fields of exploitation, **(10)** the right of permanent or temporary reproduction of the work in whole or in part by any means and in any form, as well as elaborations (modifications, adaptations or any other changes) – without limiting the conditions of permissibility of these activities, **(11)** use and disposal of the work in whole or in part, as well as collected remuneration for the use of all or part of the work in all or selected fields of exploitation, **(12)** determination of the name of the work under which it will be used or distributed, including trade names, **(13)** the right to register for own benefit the trademarks that will be used to label the work or the trademarks used in the work, use of the work for marketing or promotional purposes, including advertising, sponsorship, sales promotion, as well as designation or identification of products and services or other manifestations of activity, together with educational or training purposes, **(14)** use of the work or its part and making the work or its part available for temporary use in incomplete versions for the purpose of testing, **(15)** disposal of works constituting the work and its elaborations and the right to make them available for use, including authorisation of their use by third parties in any form permitted by law in all or selected fields of exploitation, **(16)** allowance of the above rights to be exercised in all or selected fields of exploitation on all known platforms, **(17)** in respect of all dependent rights (including but not limited to adaptations, elaborations, translations), also the creation of separate dependent works for the work, **(18)** exploitation on all known hardware and functional platforms as well as on the Internet.

§ 4

This licence is royalty-free.

<div align="center">§ 5</div>

1. This agreement is concluded for an indefinite period.

2. The Licensor undertakes not to terminate the agreement in accordance with relevant provisions of the Act referred to in § 8.

<div align="center">§ 6</div>

The Licensor agrees to change the document format in which the work was originally recorded without changing content to the extent justified by use of the work under this licence.

<div align="center">§ 7</div>

The Licensee consents to the processing of personal data for project-related purposes.

<div align="center">§ 8</div>

In matters not covered by this agreement, provisions of the Copyright and Related Rights Act of 4 February 1994 (Journal of Laws 2019, item 1231, as amended) shall apply.

<div align="center">§ 9</div>

Any amendment to the agreement must be in writing under pain of nullity.

<div align="center">§ 10</div>

Any disputes that may arise in the performance of this agreement shall, without amicable settlement, be settled by the court having jurisdiction over the registered office of the Licensee.

<div align="center">§ 11</div>

The agreement has been concluded in two counterparts with one for the Licensee and one for the Licensor.

....
               LICENSEE   LICENSOR

(place, date)

Template consent of use of image

I, the undersigned name and surname, declare that I give my free and unlimited permission for my image, recorded in the form of photographs or a recording, made in connection with execution of the project, name of the project, to be repeatedly recorded, used and disseminated without the need for each approval, by e.g. the organiser of the documentation works, name, address (hereinafter referred to as the 'Organiser').

This consent:
is free of charge and is not limited in quantity, time or territory; it includes storage of the image on any audiovisual media, including video, photosensitive tape, magnetic tape and computer disk, in a multimedia network (including the Internet), includes the dissemination and multiplication of the image by any technique, including audiovisual disk technique, photosensitive technique, digital technique, computer recording technique in a multimedia network (including the Internet – on the Organiser's website, the Organiser's social network – Facebook, YouTube, Instagram, and in newspapers, magazines and other publications), includes various forms of electronic image processing, framing and composition without the obligation to accept the final product, but not in forms that are offensive or generally considered unethical, concerns the use of the image in materials or in connection with events aimed at documenting and carrying out information activities and promotional tasks by the Organiser, and includes the right to grant further consents (or the transfer of rights covered by the consent), in particular to entities to which the Organiser makes available, sells or transfers materials, content and/or works containing the image,

I am aware that I have the right to access and correct my data and to request that it be supplemented, rectified or erased, and that the provision of data is voluntary and that I have the right to withdraw this consent at any time by submitting a written request to revoke it.

(date and legible signature
of the person granting consent)

The data Administrator is the name of the organiser, based at the address of the registered office.

Contact with the Data Protection Supervisor is possible at the following email: address.

Personal data – image recorded in the form of photographs and recordings will be processed for the purpose of documenting and carrying out information and promotional activities surrounding the tasks carried out by the Administrator on the basis of Article 6 paragraph 1a GDPR, the current legal basis should be provided.

Recipients of personal data in the form of an image will only be entities providing the Administrator's IT systems and software support services, external entities providing services to the Administrator, and entities entitled to obtain personal data on the basis of the law (including public administration bodies). The data Administrator has no intention to transfer personal data to a third country or international organisation.

Personal data will be processed for the duration of compulsory archiving on the basis of generally applicable regulations and procedures of the Administrator and not longer than until a request for erasure is received by the name of the organisation.

The person whose data is processed has the right to request the Administrator to provide access to the content of his/her data and the right to rectification and erasure, restriction of processing, right to data portability, right to object, and right to withdraw consent at any time. The person whose data is processed has the right to lodge a complaint to the supervisory authority, i.e. President of the Office for Personal Data Protection.

Provision of personal data is voluntary, however, failure to provide data may result in inability to participate in the project. Consent may be withdrawn at any time. The withdrawal of consent does not affect the compliance of data processing with applicable law, which was performed on the basis of consent before its withdrawal.

Personal data will not be processed by automated means and will not be subject to profiling.

(date and legible signature
of the person granting consent)

Index

AUTHORS:
Anna Sylwia Czyż, Prof. PhD (ORCID: 0000-0001-7923-1204)
Bartłomiej Gutowski, PhD (ORCID: 0000-0002-7833-7485)