Having presented the tradition and recent usage of the famous building and ornamental stones of Salzburg (Uhlir et al., 2010), that were widely used across Europe since ancient times, here we describe examples of their applications in a number of localities on the territory of the present-day Poland and Lithuania, mostly in XV and XVI c. These stones, especially the most popular red “marbles” (in fact, unmetamorphosed limestones) were used as decorative stones already in the Roman times to become really fashionable in the Middle Ages and reach their top fame in the Renaissance and Baroque periods and be in use with variable intensity up to the present. The Salzburg “marbles”, together with other famous Italian, Dutch and Hungarian “marbles”, had an extraordinary impact on small architecture and stone sculpture, in particular sepulchral art in Europe, for centuries.

The most famous Salzburg stones, the red Adnet “marbles” (Upper Triassic and Lower Jurassic) and the less known creamy Untersberg “marbles” have been well known throughout Central Europe and far beyond. Figure 1 shows only a small selection of the most typical varieties of these stones (Uhlir, 2008). The history of their usage is given in Kieslinger’s (1964) monograph. On Kieslinger’s impressive list of applications of the Salzburg stones, there are many examples from the territory of Poland and Lithuania, mostly from XV to XVII century. Among them are well known grave monuments executed by famous masters of late Gothic and Renaissance sculpture in Poland: Veit Stoss of Nürnberg, Giovanni Cini da Siena and Giovanni Maria Mosca (Padovano) (Cercha, 1910; Kopera, 1938; Skubiszewski, 1957). One of favourite decorative materials of these masters was the red Adnet “marble” from Salzburg, which appeared as a competitive sculptural material to the earlier used Hungarian “marbles” and, later on, also to the more locally derived Spisz limestones from Stara Lubowla (Wardzyński, 2009a, b). The use of these stones is described in original historical documents and subsequently referred to and analysed in numerous publications (e.g. Chmiel, 1911; Kopera, 1938). The most famous monuments made of the Salzburg “marbles” include: the marble tomb of King Kazimierz Jagiellończyk in Royal Cathedral on Wawel Hill in Kraków, the grave of Heinrich Rybisch in St. Elizabeth Church and much younger University Fountain in Wroclaw, and a number of spectacular grave-stones of bishops and representatives of civil authorities in Gniezno, Nysa, Poznań, Tarnów and Wroclaw. The most extraordinary is the story of the grave monuments of queens Elizabeth and Barbara, the 1st and 2nd wives of Zygmunt II August (Sigismund II Augustus), the king of Poland and Lithuania. Based on our own direct inspection (including consultations with masons working in today’s Adnet quarries), as well as referring to the published information, we intend to present to the Polish and international geological community and other readers interested in the art history of decorative stone, some selected aspects of use of the Salzburg “marbles” in Poland and Lithuania since XV century.

Kieslinger’s (1964) monograph lists the following examples:

- Gniezno – grave monument of “unknown bishop”;
- Kraków – Wawel Cathedral: grave monuments of kings Kazimierz Jagiellończyk (†1492), Jan Olbracht (†1501), Władysław Jagiełło (†1434), and bishop Samuel Maciejowski (†1550); Dominican Church (parts of altar);
- Krośno – Franciscan Church, grave of voivode Jan Kamieniecki (†1560);
- Tarnów – Cathedral, monument of hetman Jan Tarnowski (†1561) and his son Jan Krzysztof Tarnowski (†1567);
- Włocławek – Cathedral, tomb of bishop Piotr of Bnin (†1494);
- Wrocław – St. Elizabeth Church, grave of patrician Heinrich Rybish (†1534); Holy Virgin Mary Church on Sand, grave of abp. Bartholomeo Fuchs (†1620); damaged in 1945; University Fountain “Szermierz”.
- Lithuania (Vilnius) – Vilnius Cathedral (and not completed Church of St. Anna and St. Barbara), grave monuments of queens Elizabeth (†1545) and Barbara (†1551), two wives of king Zygmunt II August (made of Adnet “marble”, but never mounted).
Fig. 1. Limestones (“marbles”) of Salzburg – Adnet red “marbles”: A – Scheck, B – Rottropf, C – Wimberger, D – Lienbacher, E – Eisenmann Rotgrau, F – Schnöll Rotgrau; Untersberg creamy-grey “marbles”: G – Untersberg Bretsch, H – Untersberg Hell. Photo by C.F. Uhlir
Wardzyński (2009a, b) gives a detailed analysis of the application of all red “marbles” on the territory of the Commonwealth of Poland and Lithuania from XIV to the first half of the XVII century, with particular attention paid to sepulchral art. In the Middle Ages, the most important stone in that area was the Hungarian “marble” from Tardos near Esztergom, NW of Budapest. This is a knobby Lower Jurassic (Lias) limestone of brownish-red colour, with darker ferruginous binder. This limestone was applied as the “royal stone”, following the tradition of use of ancient red “imperial porphyry”, widespread in the Mediterranean region. Later on, beside the Hungarian “marble”, we find in Central Europe other red “marbles”, e.g. from Salzburg (Adnet), Stara Lubowla in Spisz (presently northern Slovakia), and other less precise located sites such as “Upper Hungary” (presently eastern Slovakia) and Transylvania. Based on his careful observations, Wardzyński (2009a) verifies and extends the information provided earlier by Kieslinger (1964). On the map of objects made of the Salzburg “marbles”, we find new localities, e.g. Nysa, Opole and Poznań, and the list contains also new objects identified in Kraków and Gniezno: grave monuments of bp. Andrzej Gamrat (1545–47) in Wawel Cathedral and of Jan Ocięska (who died as a child in 1547) in the Dominican Church, details of ciborium in the Holy Virgin Mary Church in Kraków, as well as several grave monuments of primates in Gniezno Cathedral: Zbigniew Oleśnicki (1495), Maciej Drzewicki (after 1535), Andrzej Krzycki (1535–37) and Mikołaj Dzierżgowski (1554). Wardzyński (2009a) questions also the use of the Salzburg stones in a number of objects from Kieslinger’s (1964) list: the tomb of king Władysław Jagiełło (Hungarian “marble”) in Wawel Cathedral, the grave monument of the Tarnowskis in Tarnów Cathedral (Stara Lubowla and, subordinately other limestones), and the grave figure of hetman Jan Kamieniecki in the Franciscan Church in Krosno (Stara Lubowla “marble”).

Outstanding examples

**Kraków.** The grave monument of King Kazimierz Jagiellończyk (†1492) is the most famous in Poland, and well known beyond this country, example of historical monuments decorated with Salzburg “marbles”. The tomb is an impressive canopy supported by eight columns (Fig. 2). Several varieties of the Adnet “marbles” have been used in this monument: Rotscheck (king’s figure), Scheck (reliefs on the tomb), Langmoos (corpus of the tomb), Rottropf (base of tomb), Lienbacher? (columns). The masters, Veit Stoss and Jörg Huber of Passau, left their signatures on the grave, which is one of the most precious late-Gothic sepulchral monuments in Poland. The red Adnet “marbles” were also used to decorate the grave monuments of King Jan Olbracht, bishops Andrzej Gamrat, and Samuel Maciejowski in Wawel Cathedral.

**Gniezno.** The grave stone of primate Zbigniew Oleśnicki (†1493) is the most prominent among several monuments made of red “marbles” in Gniezno Cathedral. The grave slab, executed by Veit Stoss by 1495, is a typical example of grave plates showing the whole body of the

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**Fig. 2.** The grave monument of King Kazimierz Jagiellończyk (†1492) in Wawel Cathedral, Kraków. Photo by Father P. Guzik, by courtesy of Archive and Library of the Kraków Cathedral Chapter House

**Fig. 3.** The grave slab of primate Zbigniew Oleśnicki (†1493) in Gniezno Cathedral. Photo by R. Kryza
buried person, and with inscriptions in the bordure (Fig. 3). Such grave slabs were common in Europe in the late Middle Ages and other famous objects are known, e.g. from Mainz, Passau and Regensburg. There are several other sepulchral monuments of Salzburg red “marbles” in Gniezno Cathedral: monuments of primates Maciej Drzewicki, Andrzej Krzycki (Fig. 4) and Mikołaj Dzierzgowski.

**Wrocław.** The tomb of bishop Piotr of Bnin (†1494) is made of the Adnet “marble” of the Wimberger type (Fig. 5). The cover plate shows a finely sculptured relief of the bishop in pontifical dress. The tomb is considered as the most Renaissance-style work of Veit Stoss.

**Wrocław.** The grave monument of patrician Heinrich Rybisch (†1534) in the St. Elizabeth Church is a well preserved example of several architectural objects made of Salzburg limestones in the Lower Silesian region. The epitaph (made around 1534) of brownish-red Wimberger with characteristic greenish discolourations is placed within a canopy (around 1538), supported by columns made of colourful, dotty Scheck (Figs. 6 & 7). Much younger is the
Nysa. As a residence city of the bishops of Wrocław, Nysa has preserved many important historical monuments, including several grave monuments in the St. Jacob and St. Agnew Basilica. Although the church was badly destroyed during the World War II, several grave monuments made of red Salzburg “marbles” escaped serious damage. The most impressive are: the tomb of bp. Jacob von Salz (†1539; Wimberger “marble”) (Fig. 9), canopy grave of bp. Balthazar Promnitz (†1562; Wimberger “marble”) (Fig. 10), and partly damaged monument in an attached chapel of the right-hand nave of the basilica, with nice columns made of Adnet Scheck.

Tarnów. Tarnów Cathedral comprises many historical sepulchral monuments, the most famous being the grave of the Tarnowskis’ family, a masterpiece of Padovano. This monument comprises two sarcophagus of hetman Jan Tarnowski (†1561) in the upper part, and of his son, Jan Krzysztof (†1567) below, both decorated with fully-moulded sculptures made of red “marbles”. To the right, there is an epitaph of Jan Tarnowski’s daughter, Zofia Ostrogaska (†1570). There have been controversies about the actual provenance of the red “marbles” of these and other monuments from Tarnów Cathedral (e.g. Wardzyński, 2009a). However, even our general inspection leaves no doubt that important parts of several monuments are made of the Salzburg red “marbles”, e.g. the figure of Jan Krzysztof Tarnowski is executed in typical Adnet Wimberger (Fig. 11).

Vilnius. The Capital of Lithuania is one of distant sites where the Salzburg “marbles” began to be imported already in the XVI century. An intriguing story of the grave monuments of queens Elizabeth and Barbara has been documented by Chmiel (1911) and reported in several other publications (Cywiński, 1933; Zahorski, 1904; Zasztowt, 1910; Koper, 1938; Jamski, 2005). Queen Elizabeth, the first wife of Zygmunt II August, died in 1545 in her 18th, and was buried in Vilnius Cathedral. Queen Barbara, the second wife of the king, died in 1551 in Kraków and her body was transported by the king to Vilnius and buried in the Cathedral there. The grave monuments were ordered from the famous masters, Giovanni Cini da Siena and Giovanni Maria Padovano. The story of the grave of queen Elizabeth is more enigmatic, but we have many details concerning the grave of queen Barbara (Chmiel, 1911; Koper, 1938). The stone for that grave was ordered from Rupert Beyr in Salzburg in 1552. Altogether, eight blocks were imported, together with an extra block for the grave of bp. Samuel Maciejowski at Wawel Cathedral. The “marble” blocks were transported along the rivers of Salzach, Inn and Danube, to Hainburg near Bratislava, and then upstream the Morava river, up to Kremsier (Kroměříž) in Moravia (Fig. 12). There, the stones were loaded on five carts pulled by 35 horses, and transported to Kraków. From here, the marbles were shipped downstream along the Vistula river to Gdańsk and, afterwards, again on carts to Königsberg (Królewiec) up to the Nemän (Niemen) river, and upstream the Nemän and Neris (Wilia) to their final destination in Vilnius. The completion of both monuments probably lasted quite long, as the final receipt for 971 florins and 13 pence (grosches) was issued in 1562. Unfortunately, the
grave monuments of the two queens were never mounted and disappeared in rubbles of Vilnius Cathedral during its violent history. The tombs of the queens, together with other royal tombs, were discovered in the crypt of the Cathedral in the year 1931 and the remains were placed in new oak sarcophagus in a newly constructed mausoleum crypt under the St. Casimir Chapel of the Cathedral (Fig. 13).

Final remarks

Historical sources and a number of publications (see e.g. Wardzyński, 2009a, b), as well as our own site inspections of selected, well known late Gothic and Renaissance masterpieces of small architectural and sepulchral art testify that the Salzburg red “marbles” were fashionable and prized sculptural and ornamental materials in the recent territories of Poland and Lithuania at these times. Many of the grave monuments represent extraordinary sculptural masterpieces and are recognized as significant motives characteristic of these periods in European sculptural art. Careful analysis of historical sources, together with provenance studies, highlight historical trade links between various regions of Europe, paths of transportations of goods and of their prices (including heavy but prized “marbles”), as well as social relationships, e.g. on royal courts and in society elite circles. A spectacular example is the extraordinary story of the grave monuments of the two wives of king Zygmunt II August, Elizabeth and Barbara.

Wardzyński (2009a, b), based on his detailed analysis of historical background of the usage of red “marbles” in Central Europe between XIV and XVII centuries, argues that during the Middle Ages, the most prized were the Hungarian red “marbles”. Shortly before the middle of XVI century, they were largely replaced by less known there Salzburg “marbles”, mainly due to Ottoman Turk’s invasion of Hungary. Later on, however, the “costly” Salzburg “marbles” began to lose their competitiveness with material from more local deposits, such as that from Stara Lubowla in Spisz, eastern Slovakia and Transylvania, mainly because of economical reasons, especially high costs of transportation.

Fig. 11. Fragment of the grave monument of Jan Krzysztof Tarnowski (†1567) in Tarnów Cathedral

Fig. 12. Transportation route of Salzburg “marbles” for the grave monument of Queen Elizabeth and Queen Barbara Radziwiłłówna (Radvilaitė) in Vilnius (Kieslinger, 1964, modified)

Fig. 13. Coffin of Queen Barbara Radziwiłłówna (Radvilaitė) in the King’s Crypt under the St. Casimir Chapel in Vilnius Cathedral. Figs. 11 and 13 photo by R. Kryza
Our reconnaissance work involving basically macroscopic petrographic observation and comparative analyses allows usually fairly reliable verification of the use of the Salzburg “marbles” in a number of monuments in Poland. However, actual provenance of stone material, especially various red “marbles” used in making numerous other historical objects, needs further, more detailed investigation due to their often subtle variation and macroscopic similarities.

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