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## A NEGLECTED MEDIEVAL HELMET FROM LUCERA IN ITALY

**Abstract.** The authors of the present article intend to draw the attention of the scientific community to a Medieval Great Helm found in Lucera, southern Italy, at the end of 1980, and presently unpublished. The importance of the helmet – belonging to the last quarter of 13<sup>th</sup> century and being one of the older specimens of that category existing in the world – has been until now neglected, and it is the intention of the authors to produce an initial analysis of the helmet, its history, technical characteristics and historical background.

**Keywords:** Great Helm, Lucera, Angevin, Suebian, Italy

### Introduction

In a land where the protection of historical, archaeological and landscape heritage is an ongoing challenge, it is also important to recognize the actions and contributions of individual people, and highlight those stories from which we should all follow the example. At the end of the 1980s, during the excavation works of one of the perimeter towers of the Fortress of Lucera – the legendary city inside whose walls Frederick II Hohenstaufen packed his Saracen Guard and held a garrison of the feared Teutonic Knights<sup>1</sup> – the head of the building company involved

<sup>1</sup> On the presence of Muslims and Teutonic Knights in Lucera, see C. GRAVETT, *German Medieval Armies 1000–1300*, London 1997, p. 17; J.A. TAYLOR, *Muslim in Medieval Italy. The Colony of Lucera*, Oxford 2005, p. 44sq; *The Crusades. An Encyclopaedia*, vol. I, ed. A.V. MURRAY, Santa Barbara 2006, p. 763sq. Lucera (ancient Luceria) was an important Roman centre of the *Regio II Apulia et Calabria*. Destroyed by the Emperor Constans II in AD 663, reconstructed by the bishop Marcus II in 744, the city passed from the Lombards to the Normans and from them to the Swabian Dynasty of the Hohenstaufen. Under them, Luceria soon resumed its central role, with the arrival of Emperor Frederick II. In 1223, The Emperor, following the armed struggle between Muslims and Swabian troops, deported numerous Muslims from Sicily to Luceria, transforming the city into a veritable Saracen colony (*Luceria Saracenorum*). In 1233, Riccardo di San Germano reported that the Emperor

in the excavations, a certain Antonio Maffulli, found a helmet and offered the precious artefact to the Civic Museum of Lucera (Civico Museo Fiorelli). The helmet is one of the very few examples of medieval great helms found in Europe and Outermer<sup>2</sup> and, until now, details about it were not published due to the scant interest that Italian archaeology gives to military equipment. In this paper, the authors will try to reconstruct the history of the discovery and its restoration, and, by comparing it with other existing specimens, will attempt to date it, trying to identify its material culture of provenance.

### The Finding of the helmet

On 28 April 1987 at 10:00 a.m., Mr. Antonio Maffulli, inhabitant of Lucera, entered the Civic Museum of Lucera with an envelope<sup>3</sup>. Maffulli, a well-known person

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decided to fortify the city with walls. And it is probably in those years that, on Colle Albano (in the north-east corner to be precise), Frederick II erected his royal Palatium and the first nucleus of the fortress (D. MORLACCO, *Le mura e le porte di Lucera*, Lucera 1987, p. 180). The new city of Lūḡārah (G. LEVI DELLA VIDA, *La sottoscrizione araba di Riccardo di Lucera*, RSO 10, 1923–1925, p. 292) experienced a remarkable flowering in that period, so much so that it was soon compared, by Muslim travelers and historians of the time, to the Cordova of the Caliphs. The Muslim Lucera remained faithful to the Swabian house and, after the death of Frederick II in 1250, served Conrad IV of Swabia and then Manfredi, fighting for him at the famous battle of Benevento in 1266, which marked the death of the Swabian ruler and the arrival of the Anjou. Lūḡārah refused obedience to Charles I of Anjou and vigorously resisted the assaults of the Angevin soldiers, remaining faithful to the last heir of the Swabians, Corradino. After his death on 29 October 1268, Charles I resumed the siege of Lūḡārah in the spring of 1269, with bombs of all kinds and with siege engines (N. TOMAIUOLI, *Lucera, il Palazzo dell'Imperatore e la fortezza del re*, Foggia 2005, p. 50). The siege ended on 27 August 1269 when the Saracens and rebel Christians, exhausted by hunger, surrendered themselves to the new King of Sicily. Despite pressure from the Holy See, Charles I of Anjou, following the example of Frederick II, adopted a more tolerant policy. Instead of killing or exiling the Saracens, he tried to establish a relationship of trust with them: he forgave them their sins, depriving them of the freedom to govern themselves according to Islamic laws, and burdening them with a heavy annual war toll of four thousand ounces. The Saracens who, to avoid submitting to the Anjou, tried to escape from the city, met their death. Charles I of Anjou, in the reorganization of the city, reduced its perimeter and, near the Frederick Palatium, had built the present-day existing fortress, with a majestic city wall close to the hillside of Colle Albano. The works were supervised by Pierre d'Angicourt, designer of fortifications, and by the carpentry masters Riccardo da Foggia and Giovanni di Toul; the works lasted almost fifteen years (1269–1283) and gave to Luceria its permanent and definitive fortification system.

<sup>2</sup> See P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique Finding of a Great Helm from the Dalečín Castle in Moravia*, AMM 8, 2011, p. 93 for an almost complete list of Great Helms published until 2011. Apart from the fragment of Montfort (Fig. 22d) we know of only a second Crusader specimen, said to come from Cilicia Armenia, preserved in the Hisart Museum of Istanbul (Fig. 26d). The analysis and the study of this one are being undertaken by the present authors.

<sup>3</sup> All this information derives from the documents preserved in the Civic Museum of Lucera. However, it was only thanks to Dr. Pina Russo of the Civic Lucera Museum, where the helmet is kept, that



in the city, was the owner of company managing the restoration works on the wall of the Angevine fortress of the town. He had a precious find in his hand: a medieval Great Helm, just uncovered by his employees. The helmet was discovered by the group of workers engaged in the earthwork of one of the square towers of the perimeter walls of the Lucera fortress, in particular the one positioned between the Lioness Tower ("Torre della Leonessa")<sup>4</sup> and the Trojan Gate ("Porta Troiana"), on the side of the road going in direction of the municipality of Pietra Montecorvino (Fig. 1a). The tower was in a very bad state of decay (and still is), and consolidation works, under the direction of the Architect Grazia Zampelli, were conducted by the Maffulli company. Unfortunately, the pickaxe of one of Maffulli's workers hit a metallic object, damaging it partially, causing a gash on the left part of the head protection (Fig. 1b). The damage was evident on the left side near the temple. At the time of discovery, the helmet was strongly oxidized, at risk of falling to pieces, and without any crest attachment.

The news of the discovery was immediately reported to the "Soprintendenza ai monumenti della Puglia", to the Architect Nunzio Tomaioli (at that time *Dirigente regionale del Ministero per i Beni e le Attività Culturali of Regione Puglia*<sup>5</sup>). Once recovered by Maffulli, the helmet was gifted to the Museum, where a partial restoration took place, financed by the donor for a total cost of 500.000 old Italian lire (250 euro). News of the finding was given to the local newspaper "Il Centro", which issued a short article with the only photo published until now (Fig. 1c)<sup>6</sup>. Unfortunately, the accidental finding, and the fact that the discovery of the helmet did not happen during an archaeological campaign, had compromised irremediably the stratigraphy of the object. Later, the helmet took its place inside the museum, where, till today, it is made available to competent authorities and scholars.

### The Restoration of the helmet

The restoration of the helmet was performed two years later. A document related to the renovation was sent to the director of the museum in Lucera with a report by the restorers, dated 25 January 1989. The restoration work, under the supervision of Dr. Donato Lavio, took place between 27 December 1988 and 22 January 1989.

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the documents related to the restoration have been found and could be published for the first time in this paper. The authors therefore would like to extend their deepest gratitude to Dr. Russo.

<sup>4</sup> See N. TOMAIOLI, *Lucera...*, p. 58–59; C. DELPINO, *Il versante sud-orientale della cittadella di Lucera: una testimonianza capetingia in Puglia*, SRSA 4, 2018, p. 86sq.

<sup>5</sup> 'Superintendence of Monuments of Puglia', 'Regional Director of the Ministry for Cultural Heritage and Activities of the Puglia Region'. He was the Regional Inspector for the Cultural Activities and Regional monuments of Puglia, who wrote the most relevant volume on the Lucera fortress (N. TOMAIOLI, *Lucera...*).

<sup>6</sup> "Il Centro" di Lucera, 28 April 1987.

The restorers split the work into three phases:

- A) Mechanical cleaning;
- B) Washing;
- C) Final protection work.

Phase A (Figs. 1d and 2a). The mechanical cleaning was realized with a scalpel, and rotating steel and bristle brushes for dental use. In those operations, the calcareous and siliceous depots – derived from landfill – were completely removed, as well as the superficial layers of the corrosion products.

Phase B (Fig. 2b). A washing procedure was indispensable to extract harmful soluble salts, especially the chlorides and sulfates contained in the layers, which could reactivate the process of corrosion at the first contact with humidity. The object was immersed in a sodium nitrite solution of distilled water. The sodium nitrite, in particular, prevents the advance of corrosion during the washing itself, because it acts as a real inhibitor. Various washes were performed. In the early washing process, the concentration of the sodium nitrite was higher, in successive washing performances the concentration was reduced to 2%. The final washing process was executed with distilled water, to remove any residual traces of the sodium nitrite.

Phase C (Figs. 2c–d). The final protection was obtained by immersing the object in Paraloid B72, acetone solution. The immersion was repeated several times, and the last time performed with a brush. The Paraloid B72 protected the find by isolating it from all atmospheric agents, thanks to a surface covering the entire object.

### Description of the helmet

A brief description of the helmet is preserved in the “Verbale di Consegna” (“Record of Delivery”), dated 28 April 1987. The dimensions in the document are listed as follows: height – 30.0 cm; larger diameter at the base – 30.0 cm; lesser diameter at the base – 25.0 cm; larger diameter at the skull – 26.0 cm; lesser diameter at the skull – 25.2 cm; circumference at the base – 87.0 cm; skull circumference – 80.0 cm; larger diameter of the helmet at the top – 31.5 cm; maximum height of the front lower sheet – 14.9 cm; length of the front lower sheet – 35.0 cm; height of the back lower sheet – 12.0 cm; length of the back lower sheet – 53.5 cm; height of the upper sheets – 12.5 cm; length of the upper front sheet – 44.0 cm; length of the upper back sheet – 44.0 cm.

The helmet belongs to the category of the Great Helm, also called by some scholars due its 14<sup>th</sup>-century roots “elmo a bigoncia”<sup>7</sup>, from the Italian word

<sup>7</sup> M. VIGNOLA, *Armi e armature tra Duecento e Trecento*, [in:] *1287 e dintorni. Ricerche su Castelseprio a 730 anni dalla distruzione*, ed. M. SANNAZARO, S. LUSUARDI SIENA, C. GIOSTRA, Quingentole 2017, p. 52.

“bigoncia/bigoncio”, i.e. a kind of wooden bucket made by staves with wooden or iron circlets<sup>8</sup>. Colloquially in contemporary Italy, the helmet is also referred to as “elmo pentolare”<sup>9</sup> or “elmo a staro”<sup>10</sup>, i.e. having a pot shape.

The Lucera helmet is made of five plates of iron (maybe carbon alloy), which form two oval hemispheres, flaring on the front where they join (Fig. 3). All the plates have the same thickness, i.e. 1.5 mm. Two plates form the lower frontal and rear part, and two the upper frontal and rear part, alongside the top. The metal plates are fastened together by rivets vertically and horizontally positioned at a variable distance, from approximately 4 to 5 cm. The central part shows a vertical reinforcement in the middle – a “vergella”, i.e. a wire rod shaped like a small staff – 1.7 cm in width, on the slot that forms the helmet’s visor (Fig. 4a). Horizontally, between the two upper and lower cylinders, the slot measures 1.1 cm in height, with an arch of 30.0 cm, reinforced by a 3.6 cm sheet evidently slotted and fixed to an arch of 39.5 cm, ending with two edges nailed at the extremities (Fig. 4b). These edges are like roundels with a projecting tongue. The lower hemispherical front part has the shape of a rectangle, the perimeter of which is formed by small holes (2.12 mm), which extend in length just above the visual arch positioned on it. At the center of the same frontal lower sheet, four groups of rectangular slots are placed (vertical of 20 × 4 mm), arranged in two rows (Fig. 4c). From the external slits of the upper level on each side starts an oblique row of small holes, running diagonally to the lower corners of the rectangle described above, and four holes, again, under the lower slots (Fig. 3d). A pair of slots, on the rear lower plate, was intended to function, by means of riveting, as an attachment point with the front plate, just below the maximum diameter (Fig. 3c). The edges of the upper plates were riveted on the top of the skull, and tucked inside in the lower ones (Fig. 4d). Upon the bowl a straight wire rod is still visible, riveted with four nails and fitted with a vertical vent and a socket of 1.7 cm (9 × 5.15 mm in depth) for the attachment of the crest (Fig. 4e). In the lower part of this vent a rectangular slot is positioned, running from one to the other side, for the fastening of a plume (Fig. 4f). Sometimes, as evidenced in the miniatures of the splendid *Manesse Codex*<sup>11</sup> these

<sup>8</sup> From the Latin word “bis” (double) and “congius” (ancient measurement unit for liquids, see F. ZAMBALDI, *Etimologico Italiano*, Città di Castello 1889, p. 325); the “bigoncia” is quoted in the *Divina Commedia* by DANTE ALIGHIERI (*La divina comedia di Dante di nuovo alla sua vera letione ridotta con l'aiuto di molti antichissimi esemplari, con argomenti e allegorie per ciascun canto, & apostille nel margine, et indice copiosissimo di tutti i vocaboli più importanti usati dal poeta, con la position loro*, Vinegia [Venise] 1555, Paradise, IX, 55–57) inside the famous “Prophecy of Cunizza”: *Troppo sarebbe larga la bigoncia che ricevesse il sangue ferrarese, e stanco chi'l pesasse a oncia a oncia...*

<sup>9</sup> R. MARCHIONNI, *Battaglie Senesi (1) Montaperti*, Siena 1996, p. 25, 28.

<sup>10</sup> M. SCALINI, *Protezione e segno di distinzione: l'equipaggiamento difensivo nel duecento*, [in:] *Il Sabeto di San Barnaba, la battaglia di Campaldino, 11 giugno 1289–1989*, Milano 1989, p. 85–86.

<sup>11</sup> *Codex Manesse, Die Miniaturen der Großen Heidelberger Liederhandschrift Insel*, ed. I.F. WALTHER, G. SIEBERT, Frankfurt am Main 1992 (cetera: *Manesse Codex*), *passim*.

helmets were surmounted by a decorative plume or crest, made of organic material like parchment, "cuir bouilli", "papier-mache", wood, or a copper sheet.

Very weak traces of colored pigments are noticeable on the back of the skull, and they seem to be extremely important (Fig. 3c). Even though it has not been proved by an analysis so far, the helmet was most likely painted with heraldic colors, which can be evidenced by many head defences portrayed in the artistic sources (Figs. 5–6)<sup>12</sup> and clearly mentioned in the sources (the 13<sup>th</sup> century poem: *Clauen ot bon et hiaurne peint a flors... = the good hauberk and the helm painted with flowers*)<sup>13</sup>. A royal helmet could be completely gilded, like the *Heaume* of Saint Louis in 1249 at the battle of Mansourah<sup>14</sup>.

### Great helms in the 13<sup>th</sup> century

Between the end of the 12<sup>th</sup> and the beginning of the 13<sup>th</sup> century, in particular in the panoply of the armoured "miles", the old nasal and flat-topped helmets, which left the faces of the warriors substantially uncovered, were progressively substituted by more protective new types, evolving during the 13<sup>th</sup> century from the visored helmet to the Great Helm. It was during the 13<sup>th</sup> century that the early cylindrical helmet appeared wrapping the whole head<sup>15</sup>: over time, the upper part of the helmet, the bowl, became more and more ovoid in order to better ward off blows. It was a sort of metallic "bigoncia" made by numerous plates riveted on each other, whose use – albeit with significant morphological variations – continued until the second half of the 14<sup>th</sup> century<sup>16</sup> (Fig. 7a). More precisely, from the late 12<sup>th</sup> century<sup>17</sup> the structure of the flat topped, conical or round-topped helmet (e.g. visible in the famous image related to the assassination of Thomas Becket from the Canterbury Psalter<sup>18</sup>) was fitted with a face guard which contained two slits for the eyes – the "sights" – and pierced with ventilation holes – the "breaths"<sup>19</sup>. This evolution of the Great Helm seems to have been developed contemporarily in various European regions. This is visible, for instance, in the Germanic environment (comprising Italy, Germany, Austria and Provence) from the late 12<sup>th</sup> or early

<sup>12</sup> D. EDGE, G.M. PADDOCK, *Arms and Armour of the Medieval Knight*, New York 1988, p. 59; see also M. SCALINI, *Protezione e segno...*, p. 86 – reconstruction of the Dargen helmet.

<sup>13</sup> F. BUTIN, *Du Costume Militaire au Moyen Age et Pendant la Renaissance*, Barcelona 1971, p. 24.

<sup>14</sup> DAUNOU MM. & NAUDET, *Rerum Gallicarum and Franciscarum scriptores, tomus vigesimus, Vie de Saint Louis par Guillaume de Nangis*, [in:] *Recueil des historiens des Gaules et de la France*, vol. XX, ed. D.M. BOUQUET, M.L. DELISLE, Paris 1840–1890 (cetera: *Recueil*), p. 226.

<sup>15</sup> S. VONDRA, *Le costume militaire médiéval. Les chevaliers catalans du XIII<sup>e</sup> au début du XV<sup>e</sup> siècle*, Loubatières 2015, p. 54.

<sup>16</sup> D. NICOLLE, *Medieval Warfare Source Book*, vol. I, *Warfare in Western Christendom*, London 1995, p. 192; M. VIGNOLA, *Armi e armature...*, p. 53, Fig. 1.

<sup>17</sup> After 1180 according to C. BLAIR, *European Armour circa 1066 to circa 1700*, London 1958, p. 30.

<sup>18</sup> D. NICOLLE, *Arms and Armour of the Crusading Era, 1050–1350*, vol. I–II, London 1999, Figs. 191a–c, Harley MS 5102 Psalter, British Library, 1200–1225 AD, folio 32.

<sup>19</sup> D. EDGE, G.M. PADDOCK, *Arms and Armour...*, p. 53.

13<sup>th</sup> century, when full visors appeared on helmets rounded on the top and enclosing the face of the “miles” (Fig. 7b)<sup>20</sup>. This tendency, although mainly visible in the German area, also developed in a parallel way in other central European countries, like England, to create a helmet with flat top bowl, while in the French area the first examples of such enclosed helmets had a more ogival shape (Figs. 8–10a–b). The visor, added to the flat top bowl, created the prototypes of the Great Helms: the face begins to receive an integral protection and the proto-barrel helmet gradually took its shape. Since 1223 AD (but probably earlier) in France (Fig. 8c), Germany<sup>21</sup> and in the Angevin Empire of Plantagenets (see the seal of Thierry de Maldegem dated to 1226 AD)<sup>22</sup> – a massive production of such helmets took place, with a flat top, mask and neck protection. Germain Demay, in his analysis of the early 13<sup>th</sup> century French seals, observed that starting from 1217 AD<sup>23</sup> the representations of the helmets showed the back part of the bowl descending to protect the neck of the wearer, in such a way that its lower edge was positioned on the same line as the lower edge of the fixed visor. The profile of the helmets visible on the seals was more arched, in order to best fit with the wearer’s head and not weigh down on it. The ventilation openings began to be symmetrically aligned, usually on two parallel lines arriving at the ear slots, made as small openings to facilitate hearing. Demay called such helmet the “Saint Louis casque”, or “Grand Heaume” or “casque des croisades”. From 1226 to 1234, in France, the five-piece box helmet seems to have consolidated, as shown by the image of Great Helm on the St. Louis Bible of the same period (Fig. 10c). It was certainly used in the Albigensian Crusade, at least in the last phases of the war, as attested by the infamous relief of Carcassonne (Fig. 11).

<sup>20</sup> D. NICOLLE, *The Crusades, 1095–1274*, Oxford 1988, p. 15. The “Eneit or Aeneasroman” of Henrik Van Veldeke (Ms.Germ.20282) is one of the most interesting 12<sup>th</sup>- or early 13<sup>th</sup>-century German manuscripts for the portrayed military equipment, and for our topic. The illuminations include flat or almost flat-topped types with or without nasals (D. NICOLLE, *Arms and Armour...*, p. 175, Fig. 438:F–G). Others are either “proto-Great Helms” consisting of little more than flat-topped helmets with face-masks (*ibidem*, Fig. 438:C–D), or early forms of true Great Helm (*ibidem*, Fig. 438:E, L–Q). The figures with flat-topped Great Helms lacking face-masks seem to have mail coifs covering the entire face save for eye holes (*ibidem*, Fig. 438:F–G). According to Leslie SOUTHWICK (*The Great Helm in England*, A&A 3.1, 2006, p. 6) these miniatures are thought to date between 1220 and 1230, showing a variety of head-gear and, in particular, the faces of several warriors completely covered with mail with only the eyes exposed beneath flat-topped helmets. Such a style seems to be almost unique outside Central Asia, Byzantium and the Islamic world. Its appearance in late 12<sup>th</sup>-century Germany it is likely to have reflected Eastern European or even steppe influences. Tree figures have some kind of turban wound around their helmets (*ibidem*, Fig. 438:D, O–P), while others carry substantial crests (*ibidem*, Fig. 438:L–N, P).

<sup>21</sup> C. BLAIR, *European Armour...*, p. 21, Fig. 3. See also the 13<sup>th</sup>-century frescoes showing a scene from “Iwein” by Hartmann von Aue in Rodenegg Castle, South Tyrol, Italy (Fig. 10d).

<sup>22</sup> G. DEMAY, *Le costume au Moyen Age d’après les sceaux*, Paris 1880, p. 133.

<sup>23</sup> G. DEMAY (*Le costume...*, p. 132) analysed the seals of Louis, son of Philip Auguste (1214 AD); Gaucher de Joiny (1211); and Guillaume de Chauvigny (1217).

Pictorial sources indicate that the development into a separate type was completed by the middle of the 13<sup>th</sup> century<sup>24</sup>. However, as demonstrated by regional variants and developmental lags, the development of the typology was not straightforward. Only in the period between the first quarter of 13<sup>th</sup> century and 1250 AD, we can observe that the protection of the whole face of the knight was certainly achieved from this box helm, characterized by a visor for the vision and ventilation openings. English, German, Italian and French artworks and manuscripts are clear proofs of the evolution and wide diffusion of these massive helmets around Western Medieval Europe (statues from Hereford, Herefordshire, late 12<sup>th</sup> – early 13<sup>th</sup> century, Cloisters Museum, New York)<sup>25</sup>. The use of such head defences was quickly diffused in all parts of Western Europe, from the German Empire to Italy and the kingdom of Hungary<sup>26</sup>, France, England, Spain<sup>27</sup>, and arriving in the Eastern Mediterranean with the Crusades and the employment of Western equipment from the Balkan states and Latin Greece. However, as already stated, the iconography is clear in showing that there were differences in production and details, as well as in decoration.

Sometimes the face guard was reinforced with applied strips in the shape of a cross, of which the horizontal arms contains the visor slits (Figs. 3, 13a–b). The earliest actual surviving examples of this type appear to date from the last quarter of the 13<sup>th</sup> century – for instance, the two well-known helms from Dargen (today in the Deutsches Historisches Museum, Berlin, Fig. 13b)<sup>28</sup> and Årnäs (today in the Historical Museum, Stockholm, Figs. 13 c–d), respectively – or the example excavated at Rehburg (Fig. 14a) in the early 1990s<sup>29</sup>. Other specimens from the late 13<sup>th</sup> century exist, but have long been classified by Laking as evident or possible forgeries<sup>30</sup>.

<sup>24</sup> D. BREIDING, *Some Notes on Great Helms, Crests and Early Tournament Reinforces*, [in:] *Park Lane Arms Fair*, London 2013, p. 1.

<sup>25</sup> D. NICOLLE, *Arms and Armour...*, cat. 13:a–b; cathedral of Exeter, Fig. 12a–b–c; gravestone of William de Lanvalei, dead 1217, in Walkern, Fig. 12d; “Maciejowski Bible”, Paris, 1250 AD, Pierpont Morgan Library, Ms. 638, folio 23v – Figs. 5–6.

<sup>26</sup> See the seal of Stephen V, King of Hungary from 1263, while he was still an *iunior rex* (junior king) or heir to the throne, in AD 1261. The king is represented riding a horse (Fig. 14b). He bears a shield with the coat of arms of the Duchy of Styria. His helmet is similar to those depicted in the “Maciejowski Bible”. His lance is topped with a typical 13<sup>th</sup> century standard which also bears the lion rampant of the Duchy of Styria in a green field.

<sup>27</sup> One of the first instances seems to be the seal of Ramon, Viscont de Cardona, 1258 AD, S. VON-DRA, *Le costume militaire...*, p. 58.

<sup>28</sup> A. JANOWSKI, *Where is Dargen Located? A Solution of a Hundred-Year Old Riddle*, AMM 15, 2019, Fig. 2 p. 131; according to the careful analysis of this scholar, the location of Dargen has been identified in Dargin, near Bobolice, where an archaeological site – located approximately 200 m to the west of the village – was identified as a knightly residence of the families Wedels, Sanitzs or Spenings.

<sup>29</sup> D. BREIDING, *Some Notes...*, p. 1.

<sup>30</sup> G.F. LAKING, *A Record of European Armour through Seven Centuries*, vol. V, London 1922, p. 129sq.



The Great Helm<sup>31</sup>, in its evolution, was the ideal face protection from blows and thrusting hits. The structure of this “Helm” in the second half of the 13<sup>th</sup> century was generally still the same: it was made of five iron plates riveted together. As it is visible in the sculptures of the Wells cathedral and on the tombstone of Sir Thomas Fitzwilliam in Blyth (both dated 1240 AD) it protected the face by fully enclosing it (Figs. 13a, 14c–d). One limitation was that eye-slits gave the wearer a restricted view, and ventilation holes allowed him to speak and to breathe with a voice distorted by the helmet. The fastening laces were riveted to the interior of the helmet<sup>32</sup>. These helmets are generally thought to have been worn over the mail hauberk, and supported inside by an internal padding called “padiglione” in Italy.

From the second quarter of the 13<sup>th</sup> century, the iconography shows as the full Great Helm was widely used by all Western Potentates: the Templars<sup>33</sup>, the French, German and Flemish Knights (*Manesse Codex*, XXIX), as well as the Crusader States in general (Figs. 15b–c)<sup>34</sup>, and obviously the Anglo-Norman knights, included the famous Guillaume le Marechal (Fig. 15d). The widespread employment of this helm by the various powers who contended with Italy in the 13<sup>th</sup> century is also well attested. In Northern Italy, in territories formally subjected to the German Empire, the painted cycle of Iwein at the Castle of Rodenegg already shows the warrior’s face covered with a helmet fitted with visor in the first quarter of the century, although the shape is still archaic if compared with the fully developed Great Helm<sup>35</sup>. One

<sup>31</sup> Called “helmvaz” and “helmhuot” or simply “Helm” in German (P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, p. 92); “elme” in mid/late 12<sup>th</sup> century France (D. NICOLLE, *Arms and Armour...*, p. 557); “Helm”, “Helme”, in late 13<sup>th</sup> – early 14<sup>th</sup> century England; “Helm harsnir”, “Helm harsture” in late 13<sup>th</sup>-century Netherlands (*ibidem*, p. 564); it is not easy by the way to understand which was the medieval word designating such category of helmets. The terms “helmvaz” and “helmhuot” – used, for instance, in the German epic *Nibelungenlied* – also probably refer to large and closed helmets as such. This is why some authors, therefore, associate the origin of Great Helms with the German lands. The theory can be supported by the fact that most European languages adopted the term for this type of helmets from German: “helm” or “Great Helm” in English; “heaume” in French; “elmo” in Italian, and “yelmo” in Spanish (A. DEMMIN, *Die Kriegswaffen in ihren geschichtlichen Entwicklungen von den ältesten Zeiten bis auf die Gegenwart. Eine Encyclopädie der Waffenkunde*, Gera-Untermhaus 1891, p. 492–493; H. MÜLLER-HICKLER, *Über die Funde aus der Burg Tannenberg*, ZHWK 13, NF 4, 1934, p. 179; O. GAMBER, *Geschichte der mittelalterlichen Waffen* (Teil 4), ZHWK 37, 1995, p. 19). In the written sources of the Bohemian medieval Kingdom, the candidate terms referring to Great Helms seem to be “přilba” or “přilbice” and the derivative of the German word “helm” (cf. P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, p. 92; R. D’AMATO, *Medieval German Great Helm*, [in:] *Timeline Auctions. Ancient Art and Antiquities*, 26 November 2019 – 27 November – 3 December 2019, London 2019, p. 141).

<sup>32</sup> H. NICHOLSON, *Knight Templar, 1120–1312*, Oxford 2007, p. 63.

<sup>33</sup> Fig. 15a; H. NICHOLSON, *Knight Templar...*, p. 28, Pl. F and H.

<sup>34</sup> See also: the Battle of La Forbie (1244 AD), and the Defeat of the Crusades at Gaza of the manuscript of the “Corpus Christi College 16”, fol. 133v, 170v (H. NICHOLSON, *Knight Templar...*, p. 47, 55).

<sup>35</sup> M. VIGNOLA, *Armi e armature...*, p. 53.



of the first representations of Italian Helms of this typology can be found on one Illumination from the manuscript *Relatio de innovatione ecclesie Sancti Geminiani ac de translatione eius beatissimi corporis* (Ms. O.II.11, folio 9r, Archivio Capitolare, Modena, Fig. 7c). Although dated to the transitional period between the 12<sup>th</sup> and 13<sup>th</sup> centuries, the manuscript could have been completed in the early 13<sup>th</sup> century<sup>36</sup>. In this miniature, two groups of *Milites* are facing each other while the grave of Saint Geminianus is open by the people of Modena, in the presence of the famous Matilde di Canossa. Six warriors are protecting their faces with an earlier form of Great Helm, lacquered in three different colours (light green, dark blue and mauve). The visor is not crossed-shaped, but leaves part of the nose uncovered and the eyes as well. A Templar fresco from 1242 of San Bevignate (Fig. 15a), where the helmet is box-shaped like in the Lucera specimen, represents a further Italic iconography, where it seems that the eye-slit is no longer a single slot, but it is divided in two separate parts. The helmets are painted in white, red and black, and one of them is surmounted by a red plume.

These earliest iconographies show the top of the helmet flat, successively evolving into the rounded one, like in the specimen from Altena<sup>37</sup>. This typology, called "Heaume di Pavia" is often quoted in the 13<sup>th</sup> century Romans<sup>38</sup>. In the splendid frescoes of Saint Gimignano (1290) (Fig. 16), next to a pointed Great Helm we can see a specimen with movable visor<sup>39</sup>. These iconographic models show that these helmets, originally provided with a flat profile poorly adapted to the blows received vertically, developed a more appropriate ovoid shape in the last third of 13<sup>th</sup> century. The development is fully attested by Tuscany seals, by a seal of the Corporation of Saint George in Ferrara<sup>40</sup>, an evolution that continues until the middle of the 14<sup>th</sup> century (Fig. 7a).

<sup>36</sup> We owe the information on the manuscript illumination to our colleagues from the staff of "Acta Militaria Mediaevalia".

<sup>37</sup> P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, Fig. 18:B. Some scholars support the thesis that the Altena helmet is a forgery: it is more correct to say that (maybe) it was restored in the 19<sup>th</sup> century, but that its core is a 14<sup>th</sup> century original: see *ibidem*, p. 93, 109, considering the fact that it has been dated by organic matter C14 analysis and that scholars like Schäfer, Herzog and Steeger consider it totally original. The fact that something does not satisfy our visual taste or our personal conceptions does not mean that this object is a forgery, but many scholars seem to ignore such a rule.

<sup>38</sup> L. FUNCKEN, F. FUNCKEN, *Le costume, l'armure et les armes au temps de la chevalerie*, vol. I, Tournai 1977, p. 22.

<sup>39</sup> A fact confirmed by the *Istorie Senesi* (*Il primo libro delle istorie senesi, due narrazioni sulla sconfitta di Montaperto*, ed. F. BELLARMATI, Siena 1844, p. 64) for the battle of Montaperti (1260 AD): *Poi mettendosi l'elmo tutto rilucente in testa, facendoselo bene allacciare dinanzi e dietro, alzando la visiera gli disse... (indeed putting the shiny helmet on his head, making it well fastened front and back, he raised the visor and said to him...)*.

<sup>40</sup> Today at the British Museum, E. OAKESHOTT, *The Archaeology of the Weapons, Arms and Armour from Prehistory to the Age of the Chivalry*, London 1960, Pl.11:b; I. HEATH, *Armies of the Feudal Europe, 1066–1300*, Worthing 1989, Fig. 16, p. 81; D. NICOLLE, *Arms and Armour...*, Fig. 597;

The helmet, “a staro” – i.e. with cylindrical shape and composed of five plates<sup>41</sup> was well in use until the last decades of the 13<sup>th</sup> century, as demonstrated by the iconography of the seals of Cavalcante de Cavalcanti (1250–1260)<sup>42</sup>, the “Entrée d’Espagne” (manuscript Fr Z.21 (=257) in the Marciana Library in Venezia) and various other pieces of art. In approximately 1280 AD, the structure of the Great Helm underwent an evolution, especially in the area of central Italy. Passing through experiences like that visible on the seal of Sozzo Guicciardini<sup>43</sup>, in which the simple ventilation openings were substituted by squared windows of bigger dimensions, partially closed by openwork bars destined to evolve in an ever more complex way, the craftsmen managed to conceive a true openwork ventilation system inserted between the bands of the bowl<sup>44</sup>. In the last decade of the 13<sup>th</sup> century, the Great Helm took a backwards frontal shape in order to allow a better opening of the visor – sometimes with two, sometimes with four “sights” – and always more extended ventilation openings. The Great Helm from Traun (Linz)<sup>45</sup> is a good example of such an evolution. Moreover, after 1250 AD, the upper part of the Great Helm often tapered slightly, and this became more pronounced after 1275 AD<sup>46</sup>. From 1275 on, the top of the bowl became narrower and the helm assumed a massive form, beginning a process that will drive to the reduction of the plates on the facial side<sup>47</sup>. This is visible, for instance, on a helmet from a private collection, still unpublished (Fig. 17), which finds its immediate and concrete parallel with the helmet from Bozen<sup>48</sup> and Årnäs (Figs. 13c–d). If the helmet should

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reconstruction in M. GIULIANI, *I nomi degli eroi in Scramasax*, [in:] *Il Sabato di San Barnaba, la battaglia di Campaldino, 11 giugno 1289–1289*, Milano 1989, p. 40, and many other representations (D. NICOLLE, *Medieval Warfare...*, Figs. p. 7; IDEM, *Arms and Armour...*, Figs. 616–617, 709).

<sup>41</sup> As in the quoted example from Dargen – see also P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, Fig. 9:A.

<sup>42</sup> Firenze, Bargello Museum, Inv. No. 771 (cf. M. SCALINI, *Protezione e segno...*, p. 85).

<sup>43</sup> *Ibidem*, p. 87.

<sup>44</sup> See also the seal of Philip, Latin Emperor of Constantinople (J. GLÉNISSON, *La Guerre au Moyen Age: (catalogue de l'exposition du château de Pons (Charente-maritime), juillet-août 1976*, Pons 1976, p. 76–77).

<sup>45</sup> P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, Fig. 10:C, here Fig. 17a–b.

<sup>46</sup> A. WILLIAMS, D. EDGE, *Great Helms and their Development into Helmets*, Gla 24, 2004, p. 123.

<sup>47</sup> Of the two helmets of Madeln, one is still made of 5 plates, the other of 3, see: A. WILLIAMS, D. EDGE, *Great Helms...*, p. 125.

<sup>48</sup> P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, Fig. 9:D; L. SOUTHWICK, *The Great...*, p. 5–77. On the authenticity of this helmet there is some scepticism among scholars. The helmet was found by a private in a tower, and it shows the same construction of the Årnäs helm: neither circumstance is so invasive as to consider the helmet a forgery, as stated by the many scholars who published about it, considering it absolutely authentic. See C. BLAIR, *European Armour...*, p. 96, Fig. 81; E. OAKESHOTT, *The Archaeology...*, p. 263, Fig. 129; H.M. CURTIS, *2,500 Years of European Helmets 800 B.C.–1700 A.D.*, North Hollywood 1978, p. 34–35; A. WILLIAMS, ‘Early Armour Metallurgy, [in:] *Techniques of Medieval Armour Reproduction. The 14<sup>th</sup> Century*, ed. B.R. PRICE, Boulder 2000, p. 112–114 (Williams even conducted a metallurgical analysis of it); for a complete bibliography see

be confirmed as original, it can be dated between 1300–1350 AD<sup>49</sup>. A subsequent development involved larger helms with an oval cross-section with a distinctive edge. These helmets reached to the shoulders of the wearer and the top was already convex. One of the best examples is the Great Helm from the castle of Tannenberg, dated 1350 AD or from the second half of the 14<sup>th</sup> century<sup>50</sup>.

At the end of the 14<sup>th</sup> century, the Great Helm disappeared slowly from battlefields, mainly substituted by bascinets with a mobile visor, but it was still in use for Jousts and Tournaments<sup>51</sup>. There is evidence, however, that on the Continent, especially in Italy and Germany, the Great Helm continued in use in warfare until the 15<sup>th</sup> century<sup>52</sup>.

### The Dating and identification of the helmet of Lucera

At the time of the discovery, the helmet was dated to the second half of the 14<sup>th</sup> century. Considering the loss of stratigraphic data, the only way to get a summary chronology of the helmet is to compare it with other similar finds found in all of Europe and with the artworks representing this typology of helmet. Looking at the head protection from Lucera, at first sight the shape suggests a dating to the second half or last quarter of the 13<sup>th</sup> century – maybe between 1260 and 1280. This is an opinion derived from the cylindrical shape of the helmet, first of all, which corresponds with the older types visible in the iconography of the 13<sup>th</sup> century (Figs. 5, 6, 10c, 13a, 14d, 15a) and from the detail of the cross-shaped visor at the height of the nose, a component visible in the sources related to the cylindrical Great Helms after 1230–1240 (Figs. 10c, 18a).

P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, note 8. The Great Helms had a similar construction evolving during the time and both helmets (Bozen and Aranäs) are from the same Germanic area.

<sup>49</sup> It seems to be a German Great Helm of later typology; a good state of preservation, few traces of corrosion, mainly complete, still visible in its original shape without larger deformations; it is composed of five nailed plates: one plate forming the top, riveted by 15 or 16 iron nails; two plates comprise the visor, the top occipital plate riveted also by iron nails, part of which are riveted to the top; the lower facial plate still fastened with 14 nails, two of them attaching a T-shaped nose-guard raising on the upper plate; the back upper plate fastened by 24 rivets, also riveted to the lower plate and the top; the edge holes are still visible, destined to fix the internal padding system; the top of the helmet is convex; the visual system is divided into two parts, and on both left and right parts the remaining openings forming the ventilation system are distributed, shaped like openwork crosses. Weight – 1.6 kg; size – 28.5 cm. A substantial identical specimen of 1300 in L. SOUTHWICK, *The Knightly Great Helm and the Tournament Jousting Helm in England?*, [in:] *The Spring Park Lane Arms Fair cat. 135, Weapons*, London 2018, p. 12–91; one of the authors has inspected the helmet directly, however, metallurgical analysis is needed to confirm the complete authenticity.

<sup>50</sup> P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, p. 93, Fig. 9:E.

<sup>51</sup> K. DEVRIES, R.D. SMITH, *Medieval Weapons. An Illustrated History of their Impact*, Santa Barbara 2007, p. 176; M. SCALINI, *A bon droyt, Spade di uomini liberi, cavalieri e Santi / Épées d'hommes libres, chevaliers et saints*, Milano 2007, p. 165.

<sup>52</sup> D. NICOLLE, *Medieval Warfare...*, p. 178–179; C. BLAIR, *European Armour...*, p. 73.

Based on actual surviving specimens, we can say that such reinforcement is noticeable only on the helmet from Dargen, dated to the third quarter of the 13<sup>th</sup> century<sup>53</sup> (Fig. 13b) and on the helmet from Madeln, ca. 1325–1350 (Figs. 18a–b–c)<sup>54</sup>. However, this reinforcement attached the helmet front plates between them only on the Dargen helmet. On the helmet from Madeln, the cross-shaped reinforcing plates, also visible on the Lucera specimen, are just a clean decoration.

If the cruciform fittings on the frontal plates are features of earlier examples, a further element for dating our helmet to the second half of 13<sup>th</sup> century is suggested by the particular shape of the crest attachment system (Figs. 4d–e–f) and especially by the presence of the crest eyelet. In the period between 1260–1300 AD such elements appear on many helmets visible in the Western European iconography, especially the French (Fig. 5) and Germanic one (Figs. 25a–b). This crest holder served primarily for the attack of the crest or other decorative elements, which often reflected the heraldic symbols of the helmet's wearer<sup>55</sup>. These decorative elements could be of different types: flag shaped, horsehairs painted with natural pigments, or small flags with the heraldry of the knight (Figs. 19, 20, 21a–b).

Several features of the Lucera helmet strengthen the proposed dating of 1260–1280 AD. Apart from the crest-holder<sup>56</sup>, it has holes for attaching a cap of maintenance, as well as rectangular breathing holes on the frontal plate of the helmet similar to specimen from Traun near Linz (Figs. 17a–b). At the same time, there are features of earlier helmets, such as the cruciform plates on the frontal plates (Dargen). Its general appearance could induce some doubts about its authenticity, if its provenance had not been confirmed by the information in our possession given by official authorities, because its shape is uncharacteristic of the archaeological findings nowadays known to us with few exceptions. We are talking about the fact that the edges of the occipital plate of the helmet from Lucera cover the top plate of the helmet (Fig. 4e). In most other known specimens, the edges of the top plate overlap the edges of the occipital plate (Figs. 13b, 18b–c). There are however important exceptions to consider in such regard.

One is the recently published helmet from Dalečín, dated to the first quarter of the 14<sup>th</sup> century or 1340 AD at the latest<sup>57</sup>. In this helmet, the top edge of the front segment and the top edge of the rear segment are bent inward, creating

<sup>53</sup> M. ERBSTÖSSER, *Die Kreuzzüge, Eine Kulturgeschichte*, Leipzig 1976, p. 83, Fig. 46; H.M. CURTIS, *2,500 Years...*, p. 25–27.

<sup>54</sup> R. MARTI, R. WINDLER, *Die Burg Madeln bei Pratteln / BL. Eine Neubearbeitung der Grabungen 1939/40*, Liestal 1988, Taf. 13; P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, Fig. 10:A.

<sup>55</sup> This is clearly visible in the *Manesse Codex*, Pl. 12–13, 15.

<sup>56</sup> This element is visible on helmets from the beginning of the 14<sup>th</sup> century: Küssnach (E.A. GESSLER, *Der Topfhelm von Küssnach*, ZHWK 9, 1922, p. 22–26), Traun near Linz (K. BRUNNER, F. DAIM, *Ritter, Knappen, Edelfrauen. Ideologie und Realität des Rittertums im Mittelalter*, Wien–Köln–Graz 1981, Abb. 46) and Carluke (T. CAPWELL, *The Real Fighting Stuff. Arms and Armour at Glasgow Museums*, Glasgow 2007, Fig. 4).

<sup>57</sup> P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, p. 114.

a simple flange, to which the top, oval occipital part of the helmet was riveted from the inside<sup>58</sup>. Petr Žákovský, Jiří Hošek and Vlado Cisár have proposed that the shape of the top occipital plate be regarded as a chronological indicator for five-plate helms. This was flat in older helms dated to the 13<sup>th</sup> and early 14<sup>th</sup> century, and riveted on the top, its bent flanges overlapping the upper plates – as clearly seen on the Dargen and Bolzano (Bozen) helmets. Somewhat younger were the helmets whose occipital plates, still flat, were riveted to the other plates of the helm from inside to a flange created by the bent top plates, like in the Lucera helmet. But this rule is not applicable here, if the Lucera helmet can be dated to the last quarter of the 13<sup>th</sup> century AD.

Unfortunately, we have only few examples dated to the 13<sup>th</sup> century: the helmets from Dargen, Rehburg<sup>59</sup> (Fig. 14a) and possible helmet fragments from Montfort castle<sup>60</sup> (Fig. 22d)<sup>61</sup>. The images do not allow us to judge in a clear way whether the helmet's bowl scheme was the same on all helmets and the edges of the frontal plate were superimposed over the edges of the occipital plate. What is clear from the iconography is that the top part is sometimes clearly nailed (Figs. 6a–b, 23a), and the line of the overlapping top plate is clearly understandable (Figs. 13a–14c) but sometimes the nailing is not visible (Fig. 14d), and the line of the top plate is

<sup>58</sup> *Ibidem*, p. 98, Fig. 6, 8. The same detail can be seen on a series of Great Helms recently sold by Timeline Auctions in London. The first of them (Fig. 21c), dated to ca. 1300 AD (R. D'AMATO, *Medieval German...*, p. 127, 141), is composed of five plates nailed between them, and the plate forming the top is riveted from the inside, with iron nails, to the top edge of the front segment and to the top edge of the rear segment which are also bent inward, creating the same flange visible on the Dalečín helmet. The second helmet (Fig. 21d), dated ca. 1350 AD (R. D'AMATO, *Medieval German Great Helm*, [in:] *Timeline Auctions. Antiquities & Ancient Art*, 25 February 2020 – 26 February – 02 March 2020, London 2020, p. 164) it is also composed of five plates nailed between them: the plate forming the top is riveted by 15 iron nails, the same riveting from inside the front and back upper plates. The third helmet too, of future publication, presents the same characteristics, although it can be dated to approximately 1320 (Fig. 22a–b). All these helmets obviously need a metallurgical analysis.

<sup>59</sup> E. COSACK, *Neuere archäologische Funde aus dem Regierungsbezirk Hannover. Ein Katalog besonderer Objekte*, NNU 63, 1994, p. 95–122; J. SCHWEEN, *Topfhelm*, [in:] *Die Weser – Ein Fluss in Europa*, ed. N. HUMBURG, J. SCHWEEN, Holzminden 2000, p. 330, cat. no. 60).

<sup>60</sup> B. DEAN, *The Exploration of a Crusader's Fortress (Montfort) in Palestine*, MMAB 22.9, 1927, Fig. 53.

<sup>61</sup> A. BOAS, G. KHAMISY, *Montfort. History, Early Research and Recent Studies of the Principal Fortress of the Teutonic Order*, Leiden 2017 [= MMe, 107], p. 195, 203, 205–206, 336; the piece is still published there as a possible Great Helm (p. 205–206), although some of the scholars believe, contrary to our opinion, that the interpretation of the fragment of Montfort was the result of a long living legend created by B. Dean, who was desperate to find a spectacular item related to arms and armour on the site. Some scholars – examining this modest, extremely corroded relic at the MET (inv.28.99.17) – could hardly believe that such an object was produced by a craftsman, who lacked the required skill ever left a medieval armourer's workshop. Considering the poor state of the find, we can hardly believe that the Dean opinion, who grew up with a medieval helmet at home, could be confirmed or dismissed. However, we all should be cautious with far-fetched hypotheses on the identification of the find.

missing. This could be an iconographical element that could help us to understand if the top plate overlapped or was overlapped by the occipital and rear plates: it seems that both systems were used in the second half of the 13<sup>th</sup> century.

In our opinion, some variations could take place with the evolution of these type of helmets during the 13<sup>th</sup> century, when both stylistic and structural experimentation took place: the shape of the helmet was changed, and by the end of the 13<sup>th</sup> century a cap of maintenance appears on the helmet<sup>62</sup> (Fig. 23b). Unfortunately, for what concerns the specimen of Lucera, the context of the find itself does not allow for an understanding of the chronology of the helmet. It is possible that during its use the helmet could have been subjected to repeated alterations, for example: not only were the small round holes for air exchange added in the frontal part, but also holes for attaching the cap of maintenance, and even the crest-holder could be a further addition. Judging from the iconographic sources we have examined, the very shape of the helmet testifies to its manufacture in the last quarter of the 13<sup>th</sup> century<sup>63</sup>.

<sup>62</sup> The owners of Great Helms, who wore open-faced helmets with an aventail to protect the neck, could thus choose to take the Great Helm off after the first contact in battle and let it hang from a chain down their back. This is why they needed – as it is possible to see on the Cangrande della Scala statue (P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, Fig. 12:c) – another extra metallic protection of the head. This is quite visible on many German gravestones of the 14<sup>th</sup> century, where knights, represented in full armour, are wearing a “bascinet” or a “cervelliere” on the head and their Great Helm beside them (*ibidem*, Fig. 11, 12a–b). For instance, this can be seen in the *Manesse Codex*, p. 150; see also L.G. BOCCIA, F. ROSSI, M. MORIN, *Armi ed armature lombarde*, Milano 1980, p. 37).

<sup>63</sup> Another possible element of dating could be represented by a couple of swords, may be found in the same context, a fact confirmed to one of the authors by the personnel of the Museum. The swords, until now, have not been published or studied. These swords had the typical shape of the swords of the second half of the 13<sup>th</sup> century (Fig. 22c), which can be compared with the image of “Maciejowski Bible” (Fig. 6a). According to the classification of Oakeshott, they should belong to the type XVI or XVIa of the cavalry swords, the so-called “estoc” (E. OAKESHOTT, *Records of the Medieval Sword*, Woodbridge 1991, p. 61sq; IDEM, *The Swords in the Age of Chivalry*, Gateshead 1998, Fig. 34) of which they present the main characteristics. We can note, for instance, the broad double-edged blade of the most preserved specimen, with shallow central fuller over two thirds of its length on each side, the fuller towards the forte on each side, the iron hilt comprising straight quillons of circular section widening to the tips, the long flat tapering tang and the large compressed wheel pommel. The strongly tapering blade is of medium length (28”–32”), the upper half broad, of a strong section, and one still shows the well-marked, deep fuller which extends a little over half the length of the blade; the lower half tapers to an acute point, although the actual state of the sword does not present any solid four-sided “flattened diamond” section. The grip is of average length (about 4”); the tang is stout, and the fuller is running up into it. The most preserved specimen shows a variant of the “wheel” pommel. They also correspond to some swords of type K and K1 (XVIa Oakeshott) published by M. ALEKSIĆ, *Mediaeval Swords from Southeastern Europe. Materials from 12<sup>th</sup> to 15<sup>th</sup> Century*, Beograd 2007, pls. 1, 4, 11.4. Both Oakeshott and Aleksić date such typology to the early 14<sup>th</sup> century but a sword of 1300 could have been in use 20/30 years before its hypothetical chronology. Another possible interpretation is that the type (especially the one of the sword without a pommel) can be considered as a XIIIa sword according to the Oakeshott classification, mainly used



## The Material culture of the helmet

If the dating hypothesis is correct, the find could be dated to the end of the “Hohenstaufen” era and the beginning of the Anjou period. It would be interesting to answer the question: who was the owner of the helmet? A Swabian or an Angevin warrior? Somebody else?

The information collected from the local people was the following: a famous bandit of the 16<sup>th</sup> century, the abruzzese Marco Sciarra, fighting against the Pope and the Kingdom of Spain, sacked Lucera in 1592 AD, and began looting the house of the nobility. According to popular belief, the helmet fell into the hands of robbers who used it as a chestnut roasting pan while patrolling the tower of the castle that controlled the area. It is possible that the helmet and swords from Lucera were kept in one of the houses of the castle as relics from the 13<sup>th</sup> century AD, since two brothers, Theoden (Teodino) and Mark (Marco) Skassa (Scassa) – the Wrathful – were with Saint Louis during the ninth Crusade. After the band of the Sciarra escaped from Lucera, the helmet and swords were left in the tower under a layer of debris, which were safely preserved until the arrival of archaeologists. However, this information cannot be confirmed by any document.

Certainly, the fact that the helmet was found inside a tower of the new fortress built by Charles on the site of the Frederick II Palace is one of the first and stronger elements in favor of the Angevin thesis. If we examine the iconography, the helmet shows a strong similarity as well with the image of the French Manuscript

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from the last quarter of 13<sup>th</sup> century until the 15<sup>th</sup> century (see M. ALEKSIĆ, *Mediaeval Swords...*, p. 46; D. CULIC, A. PRALEA, *A Medieval Sword discovered in Maramureș*, AMP 35, 2013, p. 3sqq). The same can be said of the XVa swords, according to the analysis of Prof. Głosek (M. GŁOSEK, *Miecze środkowoeuropejskie z X–XV wieku*, Warszawa 1984, p. 181). Their characteristic pommel and the presence of the socket in the tang could confirm it, paralleling such swords with the description of the French swords at the battle of Benevento (1266 AD) in which the technological innovation brought by the Angevin on the field was the presence of “estoc” swords. According the chronicle of the Benevento, the French cavalrymen of Charles d’Anjou could not harm the German knights with slashing hits vibrated from above, because of the plates armour (*doublets armeures, duplici tegmine loricati*) of the Manfredi’s “milites” (*Recueil*, p. 424–425): *Et cum densitas armorum, quibus hostes erant munitissimi, ictus Francorum vibratos in aëre repelleret, Franci mucronibus gracilibus et acutis sub humeris ipsorum, ubi inermis patebat aditus, dum levarent brachia, transforantes, per lateribus viscerum gladios scapulo tenuis immergebant* (trans.: *When the French saw and noticed this, they took the small swords that were with them, and shouted to strike in the armpits, where the Germans were more lightly armored*). Also A.B. HOFFMEYER, *Arms and Armour in Spain. A Short Survey*, vol. I, *The Bronze Age to the End of the High Middle Ages*, Madrid 1972, p. 33 mentions swords able to easily penetrate the armour and the helmets of the knights in 14<sup>th</sup> century. Certainly, we cannot say that some original specimens of swords are from one or the other medieval culture based solely on written or schematic figural sources. These kinds of swords were popular in whole of Europe, and we have similar specimen from France as well as from Germany (if XIIIa, see E. OAKESHOTT, *Records of...*, p. 98, 101, 106; if XVIa see p. 153, 156). In this context, and without a deep analysis of them, they are of little utility for the helmet’s dating, but a mention was relevant.



of Saint Louis (Fig. 10c). Nor should the comparison with one of the most important iconographic documents for the representation of the Great Helms – i.e. the “Maciejowski Bible”, completed in France ca. 1250<sup>64</sup> – be neglected. Five plates form the Lucera helmet, which can also be seen on the helmets of the Bible (Figs. 5, 6, 23); some helmets of the Maciejowski miniatures show an identical crest holder attachment (Fig. 24a); the crossed visor of the Lucera helmet is characterised by the same “fleur de lys” (or clover) at the extremities visible for the most part on the helmets represented in the Morgan Bible (Fig. 23), again a typical characteristic of the helmets between 1250 and 1270. The same detail is visible on some helmets on the Chartres Cathedral windows (Fig. 24b).

On the other hand, we cannot exclude that the helm belonged to a “miles” of the Ghibellini faction of Hohenstaufen. We have already noted that the general development of Great Helms was starting in the early 13<sup>th</sup> century, based on round shapes with straight sides and a flat occipital plate with a distinct edge, and this happened probably inside the territories formerly under the German Empire. This evolution is well known thanks to the preserved beautiful aquamaniles<sup>65</sup>. In the Bargello Museum in Firenze one of these aquamaniles has been preserved, classified as made in the Swabian Kingdom of Sicily or Saxony in about 1250 (Figs. 25a–b). The helmet of the warrior is very similar to the Lucera one, with his crossed visor and the same square fastening system for the crest. A very similar helmet is also worn by a “miles” on a second German aquamanile, similarly dated, and preserved in the Metropolitan Museum in New York (Fig. 25c) and by one preserved in the Civico Museo of Bologna (Fig. 25d)<sup>66</sup>. The bulk of these water vessels was made in the territories of the Holy Roman Empire, and Saxony in particular produced them in abundance. The helmet of the aquamanile from Besançon, also executed in lower Saxony, and the similar specimen in the National Museum in Copenhagen (Figs. 26a–b) also show affinities with the Lucera specimen (Fig. 3).

However, there can be various hypotheses. The circumstances and the location of the find cannot exclude the possibility that the helmet could be a war booty taken from the Imperial Army, or simply worn by a mercenary of both armies. There is another question about the iconography of the Maciejowski miniatures. It is certainly true that they were made in a French workshop but it is not certain that the iconography of the represented warriors refers only to French knights. The images represent Biblical warriors dressed in 13<sup>th</sup>-century costumes, and very often the enemies of the heroes (the Israelites) were portrayed as the enemies of the people

<sup>64</sup> D. NICOLLE, *Arms and Armour...*, cat. 49.

<sup>65</sup> M. SCALINI, *A bon droyt...*, p. 132–133; P. ŽÁKOVSKÝ, J. HOŠEK, V. CÍŠÁR, *A Unique...*, p. 95, Fig. 4).

<sup>66</sup> See M.G. D'APUZZO, M. MEDICA, *L'Aquamanile del Museo Civico Medievale di Bologna*, Bologna 2013.

to whom the miniaturist or the commissioner belongs. We can see that in the miniature of the folio 13 ("Gideon fights the Midianites") one of the Midianite warriors has on his shield Imperial Heraldry (Fig. 26c). So many "evil" warriors represented in the manuscript wearing Great Helms can be also iconographical images of the German knights. Again, this cannot be the rule because in the miniature of folio 24r (Fig. 23b) the same heraldry is represented on the shields of the Saul warriors! In conclusion, the magnificent miniatures of the "Maciejowski Bible" represent the medieval costumes of the 13<sup>th</sup>-century Western potentates according to the taste of artist. Certainly, they were not fictionally created costumes, and the details confirm that they were copied from the material culture of the time and from the equipment of actual knights – but probably not with the intention to illustrate the difference between the "good" French knights and their "evil" opponents. The identification of the portrayed knights can be done only on the basis of an attentive heraldic study, and it is beyond the purpose of this paper.

### **Conclusion: the authenticity of the helmet and further actions**

Unfortunately, the helmet – despite having been restored, immediately exhibited in a museum, and the subject of some local conferences – has been largely neglected by the scientific community. And that is certainly not because its honest discoverer failed to inform the scientific community. Maffulli was not an academic, much less a member of a museum community: he was a worker who accidentally made an incredible discovery. After making it, he did the only thing possible for a man of his cultural formation: he informed the local authorities, had the helmet published in a local newspaper and even restored the helmet at his own expense. The fact that the discovery of this extremely important helmet was not immediately brought to the knowledge of the scientific community cannot be attributed to Maffulli, for whom it was not his responsibility. If anything, it can be attributed to a lack of willingness on the part of the Soprintendenza of those years to publish a fundamental medieval war instrument, which was considered less important than a simple Greek vase. Still, the experts of Medieval war equipment were (and are still today) very few in Italy.

The answer to the question 'who was the owner of the Lucera helmet' for now remains unknown. There are elements to support both theories and therefore the problem will probably be unsolved for a long time. It is clear that such a splendid helmet was worn by an important warrior, a "miles", maybe fighting in one of the famous battles of 13<sup>th</sup> century Italy. However, reality – as a colleague observed – was more complicated than we think. These items were exported, looted, gifted. What it is certain is that this find has extraordinary meaning for the understanding of the strategic importance of the Lucera fortress in the second half of the 13<sup>th</sup> century. From a military point of view, thanks to its unique shape, the helmet allows us to add more knowledge to the morphology and evolution of such

artefacts. Further studies on the helmet are still necessary: e.g. a detailed micro-analysis of some helmet fragments could help to understand the original heraldry painting, the composition of the steel and, by analyzing the mixture of carbon, steel and iron, the provenance of the helmet and the logic of its construction. The identification of the color pigments will also certainly help in formulate a more correct hypothesis on the material culture of origin.

We are hoping that this contribution can push the Italian Authorities to promote additional scientific research (on the metal and the pigment, mainly) through ENEA, the National Agency for New Technologies, Energy and Sustainable Economic Development (one of more qualified at the European level), or another qualified laboratory (preferably Italian), to enhance further the importance of this wonderful piece of the Italian Middle Ages.

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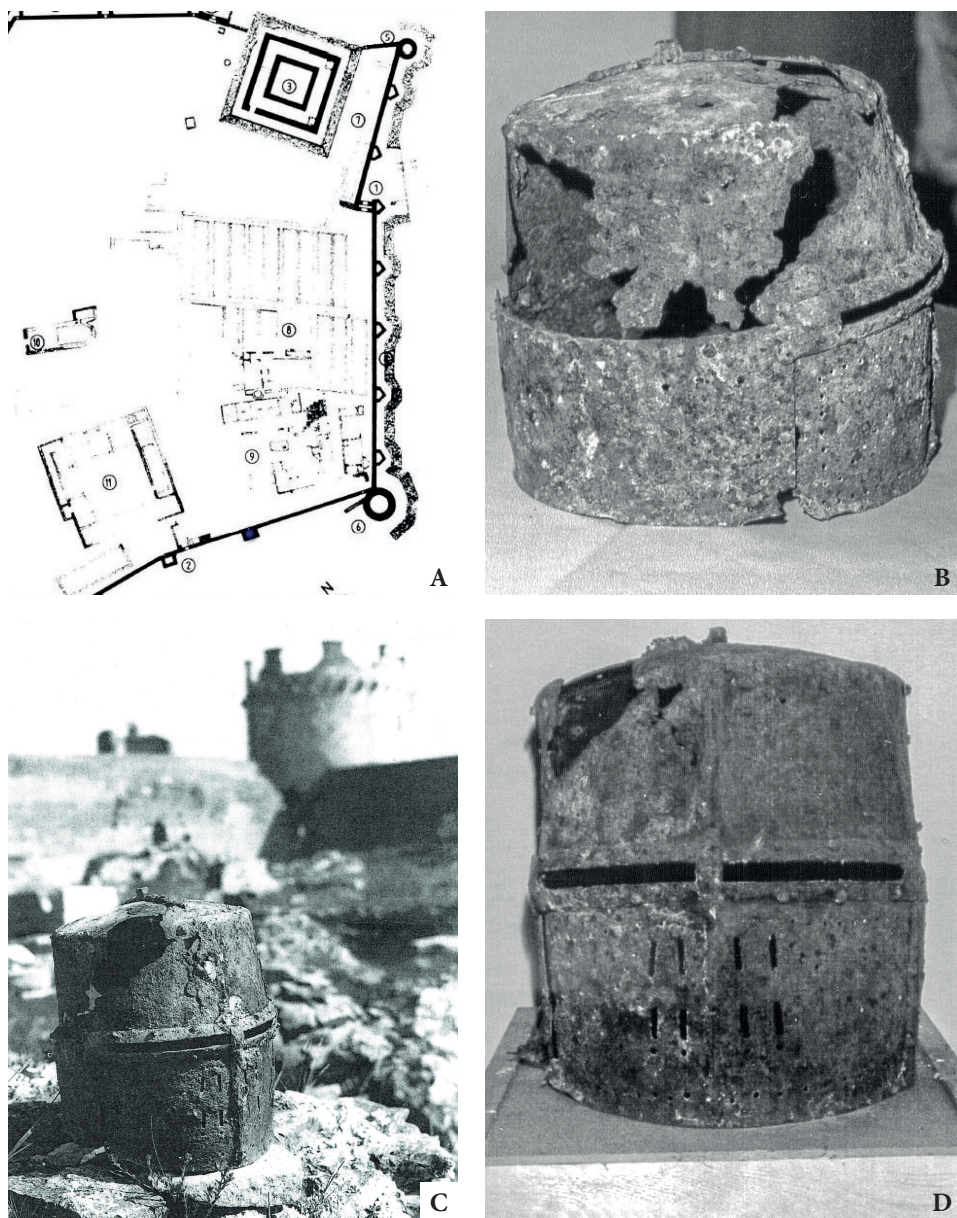
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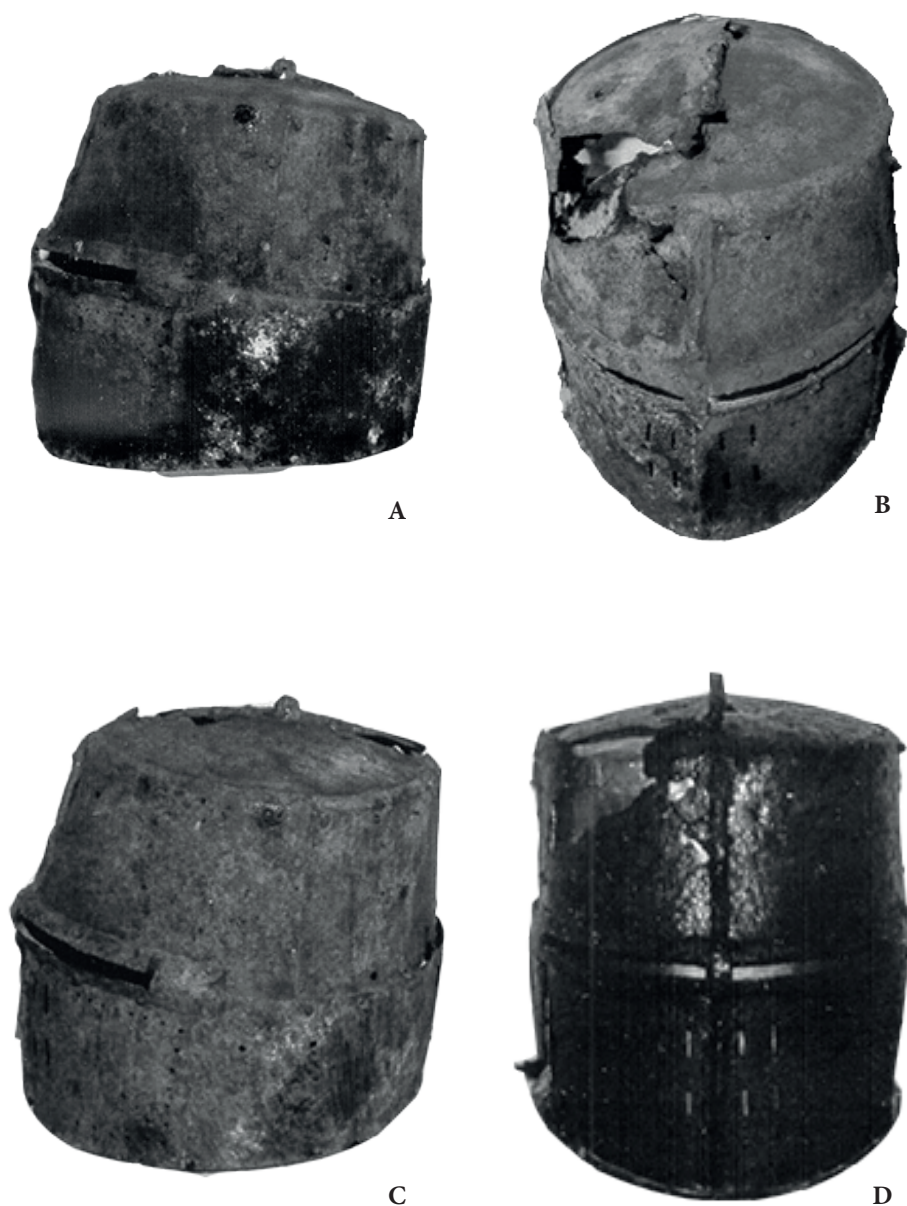
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## ILLUSTRATIONS



**Fig. 1a.** Map of the fortress of Lucera. The tower where the helmet was found has been marked with a blue colour, ex Tomaïoli, 2005, p. 27, fig. 4; **b.** The Great Helm from Lucera, photo before the restoration, photo TEDESCHI, 1989. Courtesy photo Dr.ssa P. Russo; **c.** Photo from the newspaper “The Centro” of Lucera, 28 April 1987; **d.** The Great Helm from Lucera, cleaning phase 1A, photo Tedeschi, 1989. Courtesy photo Dr.ssa P. Russo.



**Fig. 2a.** The Great Helm from Lucera, cleaning phase 1B, photo Tedeschi, 1989. Courtesy photo Dr.ssa P. Russo; **b.** and **c.** The Great Helm from Lucera, cleaning phase 1C, photo Tedeschi, 1989. Courtesy photo Dr.ssa P. Russo; **d.** The Great Helm from Lucera, cleaning final phase A, photo Tedeschi, 1989. Courtesy photo Dr.ssa P. Russo.





A



B

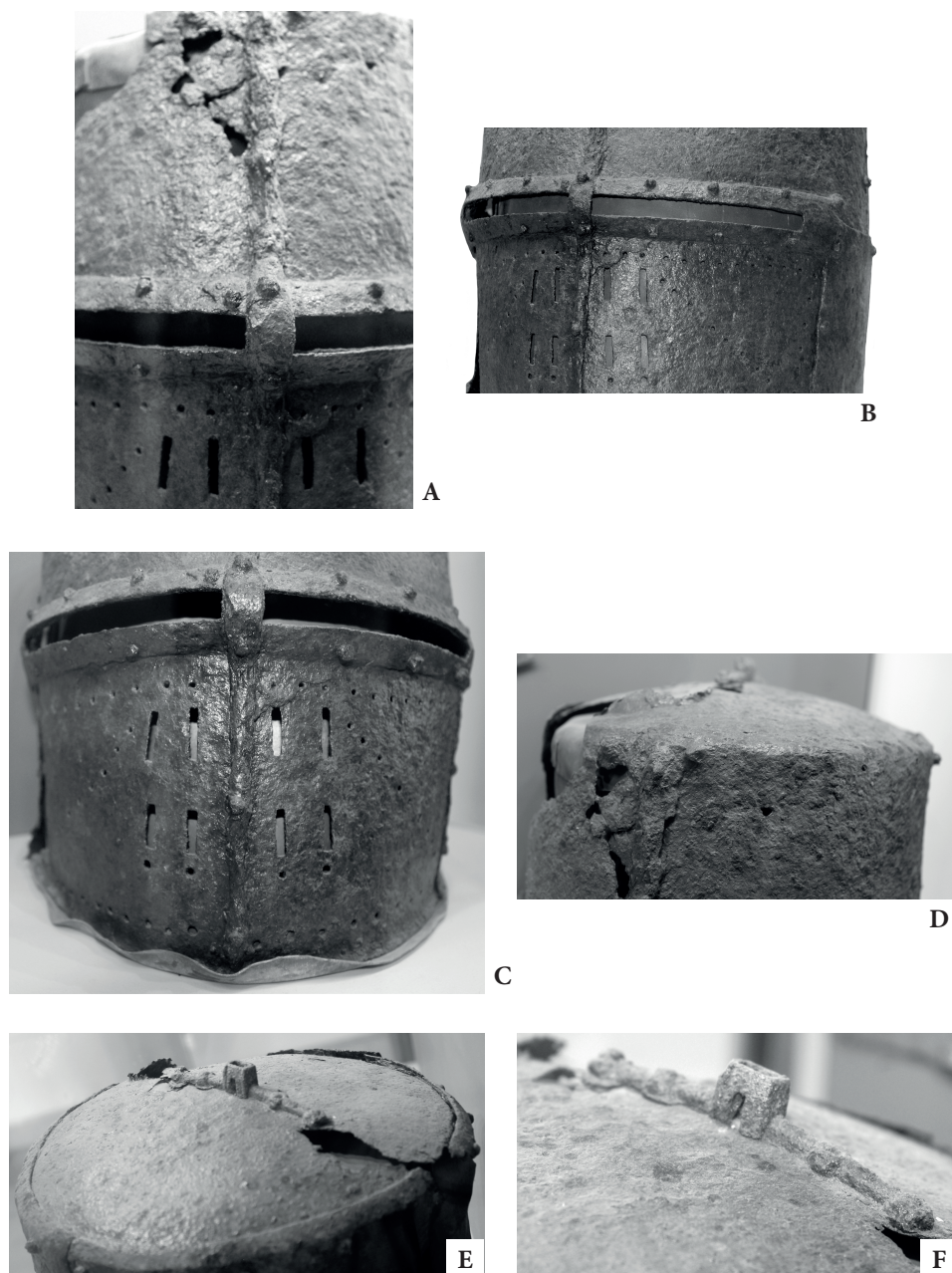


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**Fig. 3a-b-c-d.** The Great Helm from Lucera, second half of the 13<sup>th</sup> century, Lucera, Civico Museo Fiorelli. Photo R. D'AMATO.



**Fig. 4.** The Great Helm from Lucera, Civico Museo Fiorelli: **a** – detail of the crossed visor; **b** – detail of the ventilation system; **c** – detail of the lower frontal plates and of the crossed visor; **d** – detail of the top frontal occipital plate overlapping the flat top; **e** – detail of the flat top plate with the plume attachment system; **f** – detail of plume fastening system. Photo R. D'AMATO.









A



B

**Fig. 6.** “Maciejowski Bible”, France, ca. 1250–1260: **a** – Saul victorious over the Ammonites, Pierpont Morgan Library, New York, Ms. 638 folio 23v; **b** – Knights in battle wearing Great Helms, Pierpont Morgan Library, New York, Ms. 638, folio 42r. Courtesy photo S. POPOV.



A



B



C

**Fig. 7a** – Detail of scene with Knights, fresco in Abbazia di S. Maria in Silvis, Sesto al Reghena (PN), half of the 14<sup>th</sup> century AD. Photo R. D'AMATO; **b** – “Eneit or Aeneas \_roman”, Henrik Van Veldeke, folio 50r, Ms. Germ. 20282, Deutsche Staatsbibliothek, Berlin, after Wikimedia Commons; **c** – Illumination from the manuscript *Relatio de innovatione ecclesie Sancti Geminiani ac de translatione eius beatissimi corporis* (Ms. O. II.11, folio 9r, Archivio Capitolare, Modena, courtesy photo Wikimedia Commons).

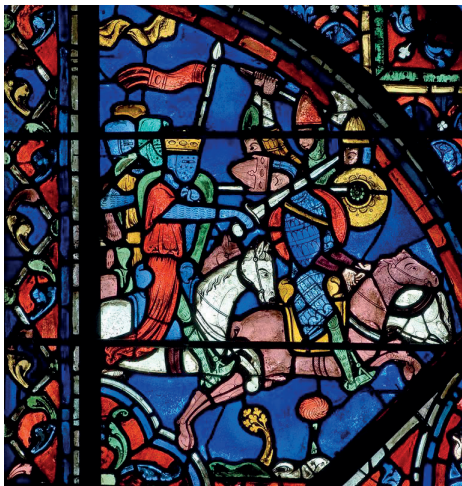




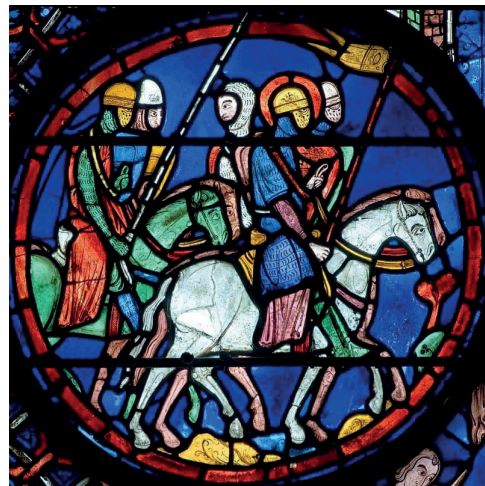
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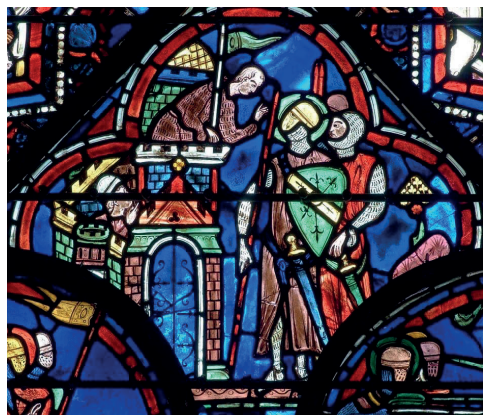


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**Fig. 8a** – “The Emperor Constantine dreams of Charlemagne”, Panel 3 from The Legends of Charlemagne window in Chartres Cathedral, ca. 1225, Chartres; **b** – “The duel between Roland and Ferragut (or King Marsile)”, Panel 16 from The Legends of Charlemagne window in Chartres Cathedral, ca. 1225, Chartres; **c** – “Charlemagne defeating the Saracens”, Panel 5 from The Legends of Charlemagne window in Chartres Cathedral, ca. 1225, Chartres; **d** – Julian leaves for the Crusade together with his companions, Panel 12 from the Life of Saint Julian the Hospitaller, window in Chartres Cathedral, ca. 1219–1225. Photos R. D’AMATO.



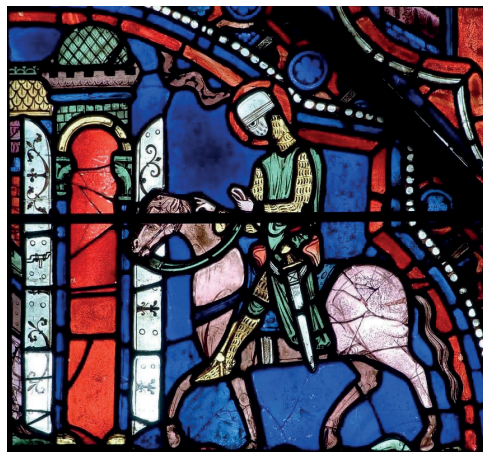
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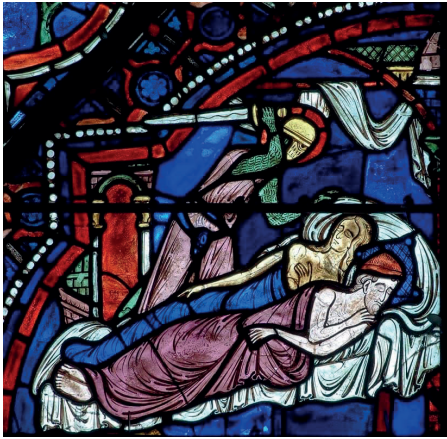
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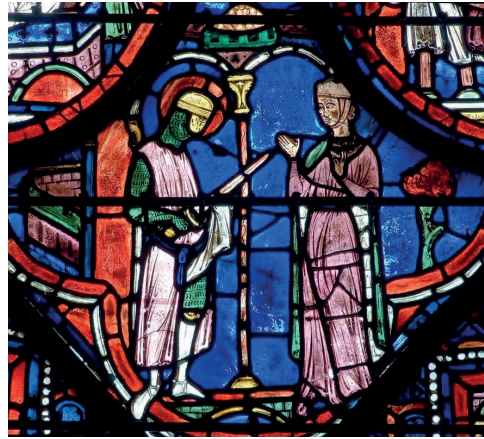
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**Fig. 9a** – Scene of battle; **b** – Julian and other knights at the doors of a city; **c** – Julian prepares to leave for his home; **d** – Julian comes back home. Panels 13, 14, 16, 17 from the Life of Saint Julian the Hospitaller, window in Chartres Cathedral, ca. 1219–1225, Chartres. Photo R. D'AMATO.





A



B



C



D

**Fig. 10a** – Julian kills his parents by mistake; **b** – Julian meets his wife. Panels 18, 19 from the Life of Saint Julian the Hospitaller, window in Chartres Cathedral, ca. 1219–1225, Chartres. Photo R. D'AMATO; **c** – Fighting between a Saracen and Christian warrior, Bible of Saint Louis, 1226–1234 AD, courtesy image of Pavel Alekseychik; **d** – Anonymous, 'the duel between Aschelon and Ywain', fresco from "Iwein" by Hartmann von Aue, in situ, Rodenegg Castle, South Tyrol, Italy, first half of the 13<sup>th</sup> century AD, Wikimedia Commons.



A



B



C



D

**Fig. 11a–b–c–d.** Stone panel in the Carcassonne cathedral, siege of a city and details of the knights wearing Great Helms, 1229–1240 AD. Photos R. D'AMATO.





A



B



C



D

**Fig. 12a–b–c** – Knights wearing Great Helms, Exeter Cathedral, England, in situ, wooden panels of chorus. Courtesy photos of A. KUCHARCZYK; **d** – Gravestone of William de Lanvalei, dead 1217, Walkern, Saint Mary Church. Courtesy photos of A. KUCHARCZYK.



A



B



C



D

**Fig. 13a** – ca. 1240, Tombstone of a knight with a Great Helm (Kirkstead Knight), Church of St Leonard's Without, Kirkstead, Lincolnshire, England. Photo by Heritage UK; **b** – German Great Helm from "Schlossberg" in Dargen, Pomerania, second half of 13<sup>th</sup> century, Museum für Deutsche Geschichte, Berlin. Photo by Wikimedia Commons; **c-d** – Great Helm from the Arnäs Castle, early 14<sup>th</sup> century, Stockholm, Statens Historiska Museum. Photo R. D'AMATO.





**Fig. 14a** – Great Helm, probably German, found at Rehburg, Germany, ca. 1275–1300; Heimatmuseum, Inv. no. 18, Rehburg-Loccum (after Breiding, 2013); **b** – Seal of King-junior Stephen of Eastern Hungary, later Stephen V, King of Hungary (1270–1272 AD), ex MOL, DL-DF:538. Collectio Diplomatica Hungarica, A középkori Magyarország levéltári forrásainak adatbázisa. (Hungarian Diplomatic Collection. A database of archival sources of medieval Hungary), Veszprem; **c** – Knights statue on the Well Cathedral façade, Wells, England, circa AD 1230–1240, in situ, after Edge-Paddock, 1988; **d** – Detail of the Great Helm from the tombstone of Sir Thomas (or Percival?) Fitzwilliam in Blyth, circa 1240 AD, in situ, Sts Mary & Martin's church, Blyth, England. Courtesy photo local Parrish.





A



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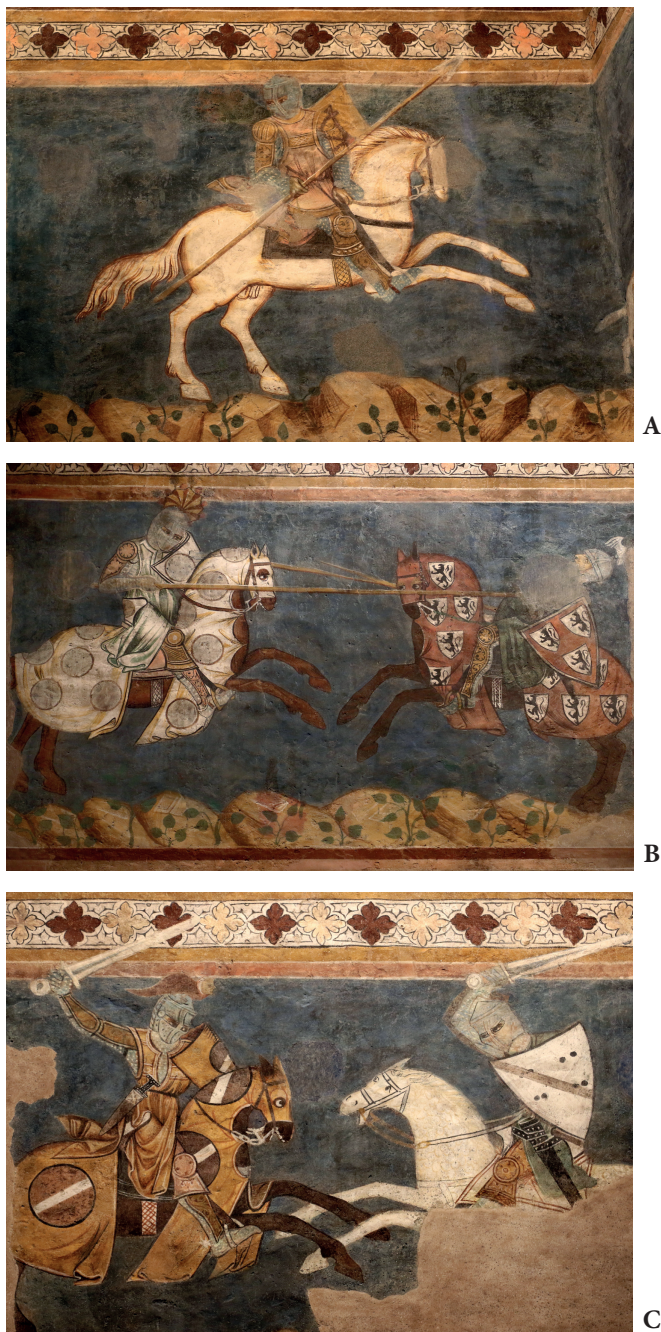


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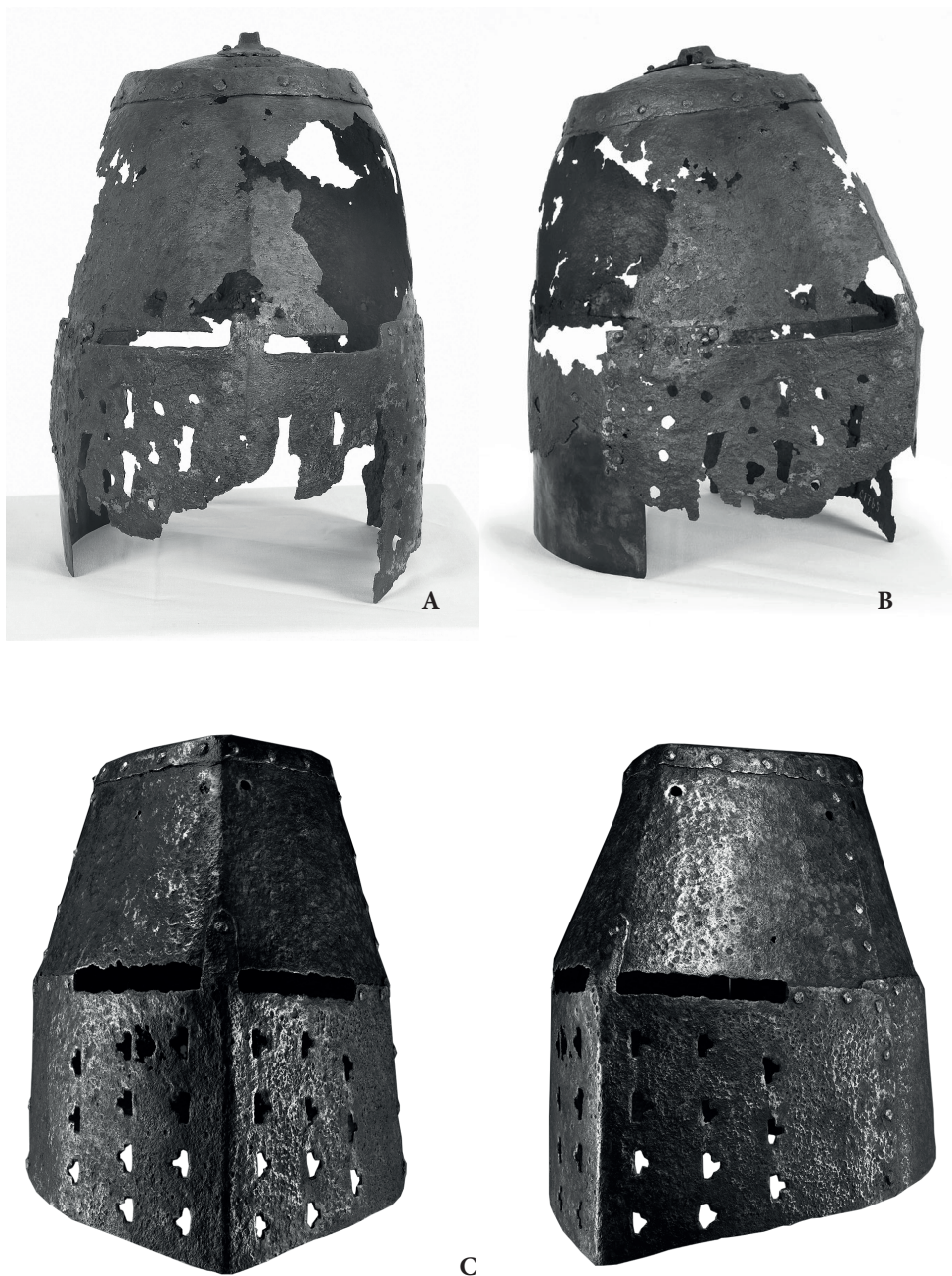
D

**Fig. 15a** – Fighting between the Templars and Saracens at Nablus in 1242, detail of a fresco of the Controfacciata, frescoes of the second master, Church of San Bevignate, Perugia, ca. 1260. Courtesy photo A. SALIMBETI; **b–c–d** – Cambridge Manuscript of the Corpus Christi College 16: **b** – The battle of Bouvines, folio 41r; **c** – The Battle among Christians and Saracens in Damietta (1244), folio 58v; **d** – Guillaume le Marechal (1230 AD), folio 91v. Courtesy of the Cambridge University.

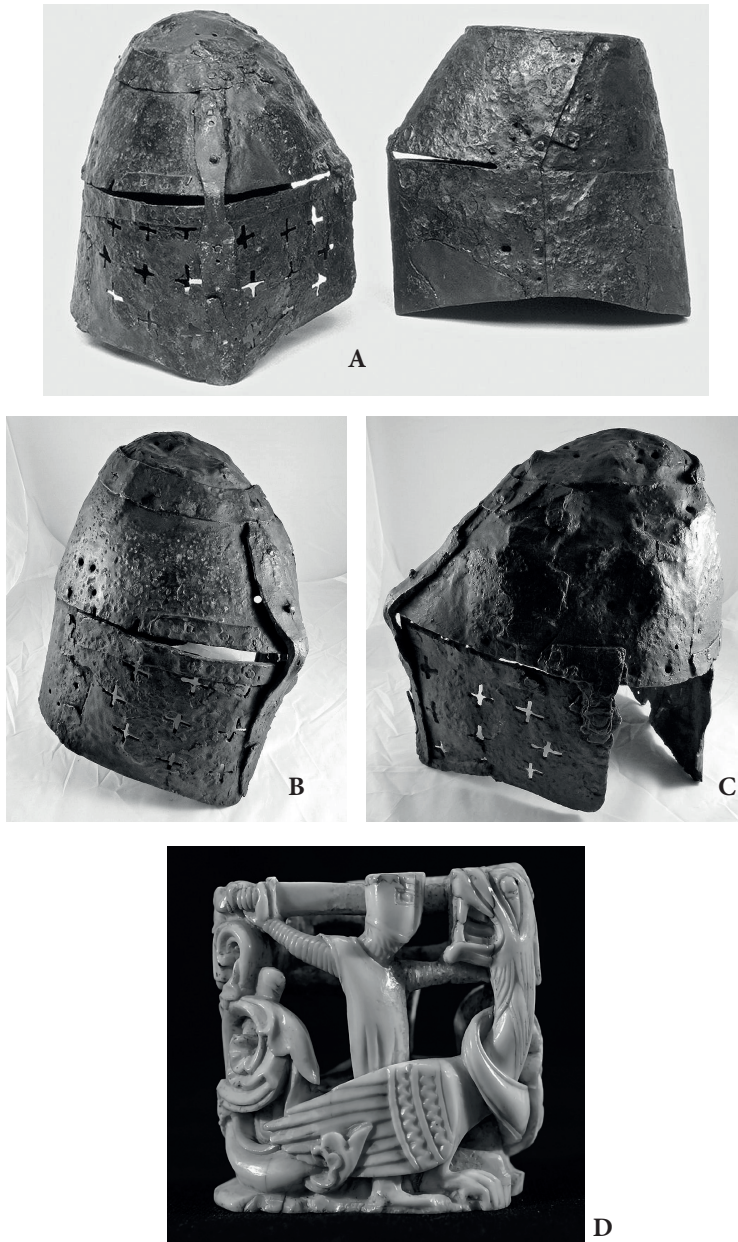


**Fig. 16a–b–c.** Knights tournament, battle and hunting scenes dedicated to Charles of Anjou, frescoes cycle of the late 13<sup>th</sup> century (1290), Azzo di Masetto, Dante Hall – Town Hall in San Gimignano. Courtesy photos R. PAGANI.





**Fig. 17a-b** – Great Helm from River Traun, early 14<sup>th</sup> century AD, Österreichisches Landesmuseum, Linz. Courtesy Photo of Museum; **c** – German Great Helm from circa 1300–1350 AD, European Private Collection. Photo courtesy Timeline Auctions.



**Fig. 18a–b–c** – Two probably Swiss Great Helms found at Madeln Castle near Pratteln in Swit\_zerland, Kantonsmuseum Baselland, Liesberg, Inv. nos. 53.1.211 and 53.1.212, the later example from ca. 1340–1350, the earlier example of ca. 1310–1320 (**18b** – after Breiding 2013; **18a–b**. Photo from Wikimedia Commons); **18d** – Ivory chess piece, representing a miles covered by a Grand Heaume, half of 13<sup>th</sup> century AD, Musée Antoine Vivenel, Compiègne. Photo courtesy of the Museum.





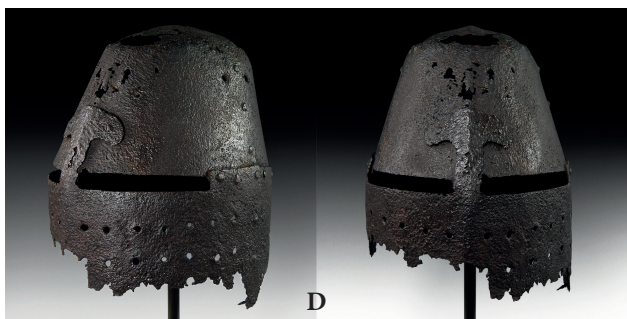
**Fig. 19a–b–c–d.** Miniatures from the manuscript of Wilhelm von Orlens – BSB Cgm 63, Germany, 1260–1300 AD, Bayerische Staatbibliothek, courtesy of the Library, Licence Metadata.





**Fig. 20a–b–c–d.** Miniatures from the manuscript of Wilhelm von Orlens – BSB Cgm 63, Germany, 1260–1300 AD, Bayerische Staatsbibliothek, courtesy of the Library, Licence Metadata.



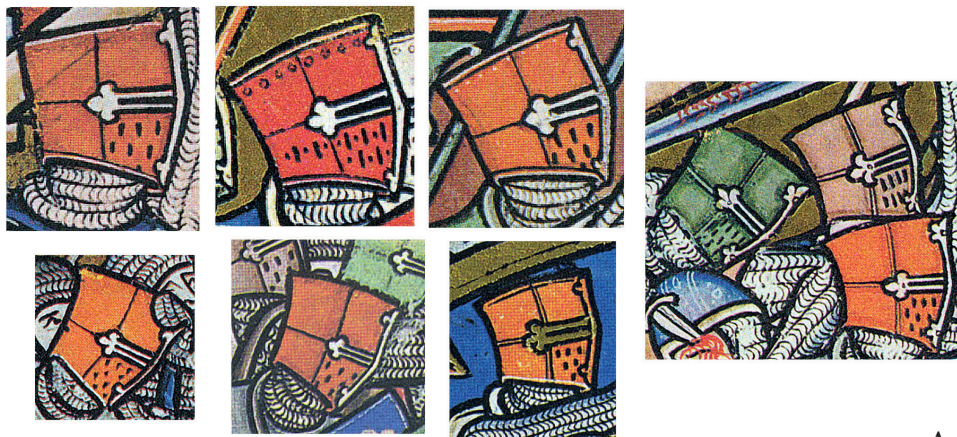


**Fig. 21a–b** – Miniatures from the manuscript of Wilhelm von Orlens – BSB Cgm 63, Germany, 1260–1300 AD, Bayerische Staatsbibliothek, courtesy of the Library, Licence Metadata; **c** – German Great Helm from ca. 1300, from European Private Collection. Photo courtesy Timeline Auctions; **d** – German Great Helm from ca. 1350 from European Private Collection. Photo courtesy Timeline Auctions.



**Fig. 22a–b.** German Great Helm from circa 1300–1320 AD, European Private Collection. Photo courtesy Timeline Auctions; **c.** Swords, possibly from the second half of the 13<sup>th</sup> century, Civico Museo Fiorelli in Lucera. Photo R. D'AMATO; **d.** Possible fragment of a Great Helm found in the Castle of Montfort, Palestine, second half of 13<sup>th</sup> century (probably 1266–1271 AD), drawing of ANDREA SALIMBETI EX DEAN, 1927.





A



**Fig. 23a.** Great Helmets' impression from the "Maciejowski Bible", France, ca. 1250–1260: Ms. 638, Pierpont Morgan Library, New York. Courtesy images S. POPOV;  
**b.** "Maciejowski Bible", France, ca. 1250, Ms. 638, "The army of Saul", detail from folio 24r, Pierpont Morgan Library, New York. Courtesy image S. POPOV.





A



B

**Fig. 24a.** “Maciejowski Bible”, France, ca. 1250: Knights in battle wearing Great Helms, MS M.638, detail from folio 41r, Morgan Pierpont Library, New York. Courtesy photo S. POPOV; **b.** Louis Prince of France, Upper Rose Windows of Chartres Cathedral, second half of the 13<sup>th</sup> century AD, in situ, Chartres, France. Photo R. D’AMATO.





A



B



C

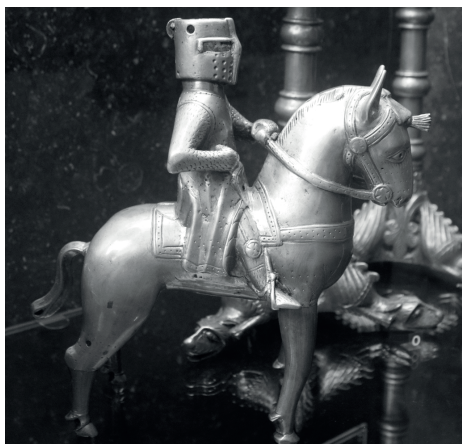


D

**Figs. 25a–b.** Aquamanile, Made in Sicily or Germany, Swabian work from 1250 AD, Museo del Bargello in Firenze, inv. No 328C. Photo R. D'AMATO; **c.** German aquamanile from Lower Saxony, ca. 1250 AD, Metropolitan Museum of Art in New York, Inv. No. 64.101.1492. Photo Museum Public Domain; **d.** Aquamanile, Germany, ca. 1250, Museo Civico Medievale in Bologna, Inv. No. 1511, from d'Apuzzo, Medica.



A



B



C



D



**Fig. 26a–b.** Aquamanile, French or German, Lower Saxony, ca. 1250, Nationalmuseet in Copenhagen, Inv. No. AKG165960. Photos courtesy Museum; **c.** “Gedeon’s victory over the Midianites”, “Maciejowski Bible” France, 1250 AD, MS M.638, detail from folio 13v, Morgan Pierpont Library, New York. Courtesy photo S. POPOV; **d.** Great Helm, late 13<sup>th</sup>–14<sup>th</sup> century AD, or later, Hisart Museum, Istanbul, photo R. D’AMATO, courtesy of the museum.

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