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THREE 'GROTESQUE' HELMET VISORS IN THE WALLACE COLLECTION

Abstract:

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Three 'grotesque' helmet visors in the Wallace Collection have been analysed. Two were made of hardened steel, and are likely to have been products of the Innsbruck Hofplattneri (Court Armoury) while the third one is a 19th c. fake.

Key words: the 16th c. armour, pageants, Innsbruck, Ambras, costume armour, grotesque helmets

The Wallace Collection in London contains amongst its other riches a princely Armoury that contains many significant items of Medieval, Renaissance and later arms and armour. Like many other such collections, this Armoury was assembled in the nineteenth century, and again like many other collections, it contains its fair share of fakes. However, where the Wallace Collection differs from most others of its origin and type is that it is completely static in nature, and has been so since it opened its doors to the public in 1900. The terms of Lady Wallace's bequest, made in 1897 in memory of her late husband, stated that Sir Richard Wallace's collection at Hertford House was to be "kept unmixed" with other works of art. This has resulted in it becoming a microcosm of Victorian taste and connoisseurship, untainted by modern additions whether genuine or fake.

In 2010, at the request of the Armoury curator, three sixteenth-century so-called 'grotesque' helmet-visors in the Wallace Collection were examined microscopically as part of a wider research project to review and re-catalogue the European Armoury. The construction of these pieces of armour, all of which had been made without any 'rolled' edges but instead with a sharply cut edge, made it possible to place all of them in turn on their lower rim upon the stage-plate of an inverted metallurgical microscope, enabling the authors to examine the full cross-section of each plate without any need for invasive sampling of their metal. The microstructures thus revealed enabled some interesting conclusions to be drawn about the group.

During the sixteenth century European Renaissance, the concept of making the surface decoration, and sometimes actual elements of armour themselves, resemble beasts, monsters, Gods or Heroes became a particular feature of much so-called 'parade' armour. On occasion, such fashion was extended into the realm of tournament armour, and sometimes even armour for the field ('war' armour) as well. These aesthetics were by no means 'new' of course; their origins can be traced back to classical antiquity, for example to the Roman love of military games and gladiatorial combat, both of which could sometimes incorporate elements of fantasy and story-telling involving the wearing of armour having the appearance of 'costume'.

It can be argued, however, that in the case of the particular kind of embossed (and sometimes formerly painted) 'grotesque' visors forming the subject of this paper, the concept behind their creation had its origins not in the 'rebirth' of classical learning, form and fashion that we today call the European 'Renaissance', but instead a tournament tradition for 'dressing up' that is altogether more medieval in its history and cultural expression – a tradition seemingly well-established by the thirteenth century. As far afield as Scotland, on the fringes of medieval European society and culture, there are records of tournaments in which knights jousted 'in costume', just as their brethren in the German lands and elsewhere on the mainland of Europe were doing... for example, one Scottish tournament is recorded as having featured jousts



Fig. 1. A202 visor from the Wallace Collection, London: a – front; b – interior; c – side (Copyright Trustees of the Wallace Collection).

Ryc. 1. Zasłona A202 ze zbiorów Wallace Collection w Londynie: a – przód; b – wewnątrz; c – bok (Copyright Trustees of the Wallace Collection).

between Christian knights and ‘Wild Men’. Another such spectacle included ‘holy clerics’ jousting against ‘devils’. Religious themes, mythology and story-telling were an important part of early tournaments, and the wearing of costume played a vital role in their use. Virtually nothing of this tradition survives in terms of actual pieces of armour or equipment; sadly, our knowledge is almost entirely reliant on written and illustrative

manuscript sources. In such circumstances it is not easy to assess to what extent these early tournament ‘costumes’ were exactly and precisely that, or if they were made as fully-functional workable armour, designed to protect the wearer whilst also fulfilling a ‘costume’ role.

In most instances, however, it would not have been necessary for the armourers tasked with producing such ‘armour-as-costume’ to carry



Fig. 2. A203 visor from the Wallace Collection, London: a – front; b – interior; c – side (Copyright Trustees of the Wallace Collection).

Ryc. 2. Zasłona A203 ze zbiorów Wallace Collection w Londynie: a – przód; b – wnętrze; c – bok (Copyright Trustees of the Wallace Collection).

out major work to create the required fanciful and exotic effects... as much (or indeed more) could be done with *papier-mâché* and a paint-brush as with the armourer's hammer. Furthermore, it is well-known that moulded and hardened leather, often intricately hand-worked and richly decorated,

painted and gilded, was the precursor (and, for a time, companion) of plate armour in the thirteenth and fourteenth centuries, so it makes sense that much early metal armour would be similarly colourfully decorated. In exactly the same way that the interior of a medieval church was invariably



Fig. 3. A204 visor from the Wallace Collection, London: a – front; b – interior; c – side (Copyright Trustees of the Wallace Collection).

Ryc. 3. Zasłona A204 ze zbiorów Wallace Collection w Londynie: a – przód; b – wewnątrz; c – bok (Copyright Trustees of the Wallace Collection).

richly painted, so a knight of the same era would not ride abroad clad simply in polished steel alone... such sensibilities were for a later century altogether. Armour, colour and pageantry were inextricably linked, and nowhere more so than on the medieval tournament field.

As society and culture moved from Middle Ages to Renaissance, the idea of extraordinarily formed and painted armour, and tournaments involving colourful and imaginative scenarios requiring the participants' armour to be as much 'spectacle' as personal protection, became not

weaker but actually stronger. As the tournament increasingly became a way for the ruling classes to demonstrate their wealth and power, so it became an increasingly extravagant and colourful affair, ever more needful of 'new' spectacles to thrill and awe its audience. The extravagant sixteenth-century 'Turkish Jousts' of the Archduke Ferdinand precisely fitted this requirement. Jousting against plate-armoured opponents with solid wood lances and lance 'arrêtes' required rather more than moulded leather and painted *papier-mâché*, however, so these 'Turkish Joust' armours were made with the same skill and (as we shall see) from the same metal as any standard princely tournament armour of the era. Using additional paint and textile, however, the illusion of the jousters being ferocious Turks could be created without compromising the practicality or protective features of the armour they were wearing.

The visors of the 'Turkish Joust' helmets, painted to resemble Turkish warrior's faces, are a very rare survival. Painted surfaces are of course more prone to wear and damage than other forms of decoration on metal, and even from as late as the fifteenth and sixteenth centuries very little painted armour has survived. Even so, scattered throughout the museums and private collections of the world, enough painted armour still exists that we in the twenty-first century can glimpse how important it actually was, and how the effect of the exoticism created through a lavish use of colour, form and design could have been so prized. The painted armour of the 'Turkish Jousts' is not alone of course. A number of earlier painted helmets, mostly dating to around ca. 1490-1520, can be found in museum collections around the world. For example, a German 'black sallet' helmet, its surface rough from the armourer's hammer and oil-painted with a scarlet and white chequered pattern, each square charged with a six-pointed star in contrasting colour, is in the Hofjagd-und Rustkammer in Vienna (Cat. No. A3, described in the "Katalog der Leibruestkammer", vol. I, compiled by Thomas & Gamber 1976, 97-98). More significantly for the subject of this paper, another helmet, this time with its visor painted with the face of a monstrous fanged beast, is in the Wallace Collection, London (A82, described in the Wallace Collection Catalogue of European Arms and Armour by Mann 1962, 101). Others of these 'face' helmets, made and decorated in similar style, are known across the world. Although those surviving with original paint are rare, examples can nonetheless be found in the USA (for example in the Philadelphia Museum of Art), and in Europe (for example in the Germanisches

Nationalmuseum, Nürnberg). There would certainly have been many more, but their painted decoration has been lost over the centuries, and they are no longer firmly identifiable as belonging to the group. Their existence at all, however, as with the visors in Vienna, is significant. In the German lands some fifty years earlier, at the beginning of the sixteenth century, there seems to have been a vogue for extravagantly embossed (but as far as we know, unpainted) 'face' visors fitted to helmets such as the 'horned' helmet presented to King Henry VIII of England by the Emperor Maximilian in 1514 (now in the Royal Armouries at Leeds, Inv. No. IV22), and to a number of 'Maximilian'-style fluted armours dating generally to the first decades of the century. The 'grotesque' painted visors produced for the 'Turkish Jousts' briefly in vogue at the beginning of the second half of the sixteenth century, however, seem to belong to an entirely different, smaller, special group, and as such are worthy of special study. To us, helmets with visors made or decorated in the form of moustachioed Turks' faces might seem outlandish, if not downright racist, but seen in context, to the audiences of that era they would have appeared both meaningful and excitingly exotic.

In the Wallace Collection Armoury, an extravagantly moustachioed visor, Cat. No. A202 (Fig. 1:a), was the first to be analysed. Until A.V.B. ('Nick') Norman's Supplementary volume of 1986 (Norman 1986), all catalogues of the museum's European Armoury confidently proclaimed this visor to be genuine. Sir James Mann's entry in the definitive 1962 edition, for example, described it as being *German, about 1530*. Even then, however, he noted that it was "Unusually heavy" (a common fault made by fakers both then and now). Comparing the weight of the three visors under discussion here, we find that A202 is in fact by far the heaviest, weighing a wince-inducing 1.07 kg compared to 0.605 kg for A203 (Fig. 2:a), and 0.75kg for A204 (Fig. 3:a). This alone might have rung warning bells, but there is more to come. Besides the weight, there are significant problems with the design and construction; in particular, the pair of tiny holes provided for the eyes, which are wholly inadequate to provide the wearer with any sort of proper vision. It was Nick Norman in the early 1980s who first became convinced that the physical impracticality of the visor's construction raised serious doubts as to the authenticity of A202 (he eventually catalogued it as being *almost certainly of XIX-century workmanship*). Norman observed that virtually every other 'grotesque' visor of this type



Fig. 4. A185 helmet from the Wallace Collection, London: a – side-open; b – front (Copyright Trustees of the Wallace Collection).

Ryc. 4. Hełm A185 ze zbiorów Wallace Collection w Londynie: a – widok z boku z otwartą zasłoną; b – przód (Copyright Trustees of the Wallace Collection).

was provided with the usual horizontal sight common to most visors fitted to sixteenth-century close-helmets, whether or not the embossed eyes were actually pierced through or not. The other two visors under examination here, Cat. Nos. A203 and A204, conform to this pattern, and unlike A202, both offer perfectly adequate visibility when held up to the face to simulate wear. This is most graphically indicated by the photographs of the inside of all three visors (Figs. 1:b, 2:b, 3:b).

In addition to these concerns, one might also opinion that the actual dimensions of A202 are open to question, the visor's overall curvature not sitting very comfortably against the sides of various helmets offered up against it to gauge its suitability for wear. If one considers the side-views of our three visors (Figs. 1:c, 2:c, 3:c) then it becomes clear that of the three the shape and curvature of A202 is most likely to present problems if one were to offer it up against a genuine helmet. Additionally, the distance between the two visor pivot-points is rather small; if genuine, the helmet that this visor was made for must have been intended for a very small head. Visor Cat. No. A203 has been somewhat crushed in the past, so cannot now provide us with a usefully accurate measurement, but A204 has suffered from no such damage. From pivot-point to pivot-point the A202 visor measures only 18.4cms. compared to 19.2 cms. for A204. Again, getting the three-dimensional proportions wrong is a common mistake made by fakers. The fakers of helmets, particularly, often make them too narrow, or do

not allow sufficient cranial capacity for a human skull. If A202 was made as a fake, of course, then it is very likely that it was created as a single detached object, and was never actually made to be fitted to an existing helmet at all.

The Wallace Collection contains one particularly good example of how seriously fakers could 'get it wrong' in the past. Significantly, unlike every other European helmet in the Collection, whether genuine or fake, this particular 'grotesque'-visored helmet is not on open display but is kept permanently in store. Throughout the Armoury galleries of the Wallace Collection, completely genuine pieces rub shoulders with composites or outright fakes, all displayed together in the collectors' style of the Victorian and Edwardian eras, but this particular helmet is nowadays regarded as such a poor-quality fake that it is considered to be undisplayable. It is Cat. No. A185 (Fig. 4:a), a helmet affectionately nicknamed 'Captain Beaky' by the museum's staff. Viewed from the front (Fig. 4:b) it is immediately obvious that the maker appears to have left no room at all for the wearer's brain! Like visor A202, one hundred years ago this piece too was catalogued as original, though even the cataloguers of that time had to admit to some doubt, observing that although *probably German* it was nonetheless *of uncertain date*. Metallurgical analysis of this helmet has yet to be agreed, but it is hoped that once undertaken such analysis may help to form the basis of a more wide-ranging future study of nineteenth-century armour fakes and fakers.

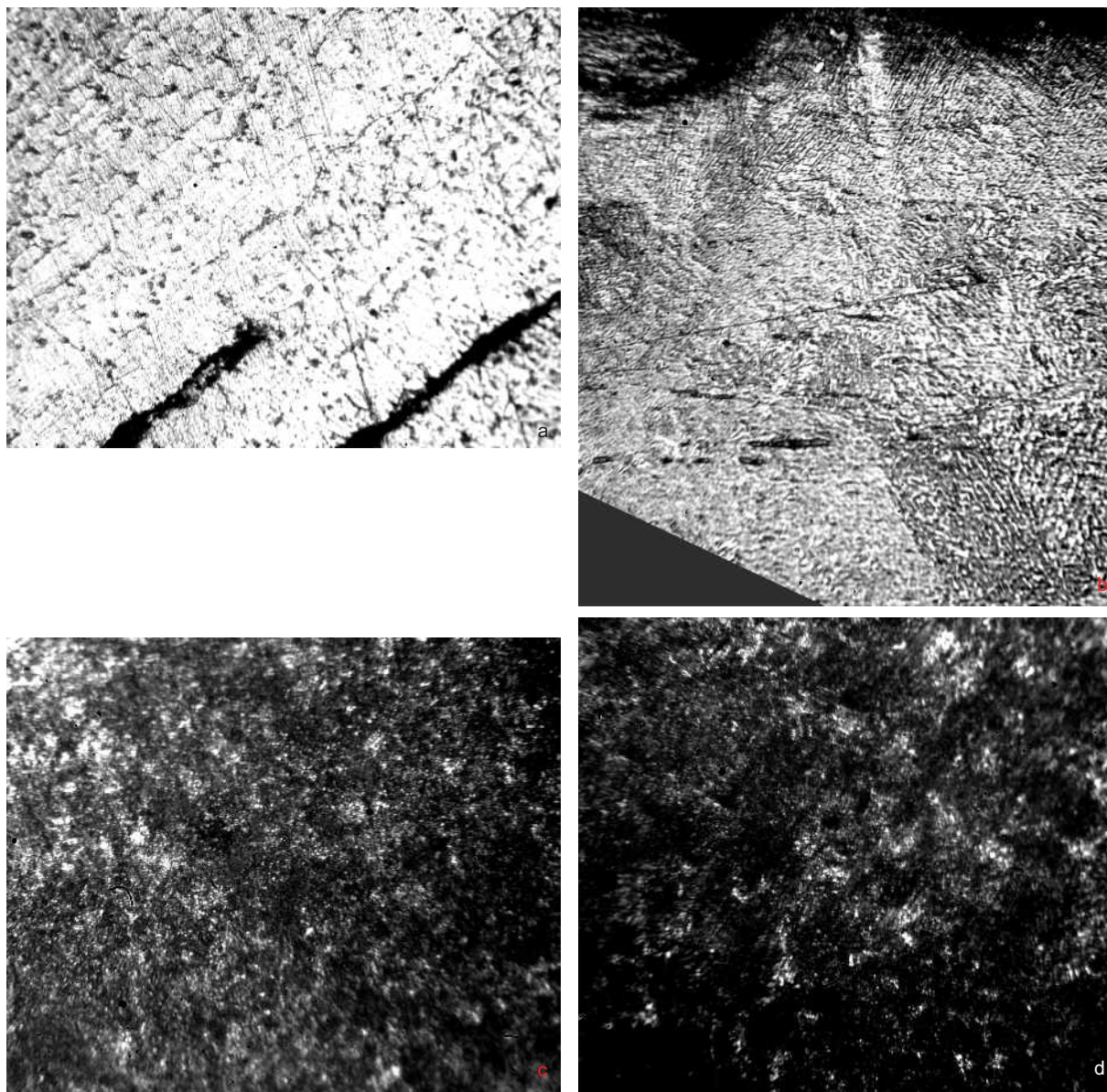


Fig. 5. Microstructure of visors from the Wallace Collection, London: a – A202 (x 160); b – A203 (x 160); c – A204 (x 160); d – A204 (detail, x 800).

Ryc. 5. Mikrostruktura zasłon ze zbiorów Wallace Collection w Londynie: a – A202 (x 160); b – A203 (x 160); c – A204 (x 160); d – A204 (detal, x 800).

Until relatively recently, the authentication of items of armour such as visor A202 had to be undertaken through traditional curatorial observation, experience and opinion rather than through scientific analysis. It was actually Nick Norman, who compiled the 1986 Supplement to the Wallace Collection Catalogue of Arms and Armour published by Sir James Mann in 1962, completely up-dating its contents, who first realised the value of metallurgical analysis, and who first authorised its use at the Collection in the late 1970s, albeit on a very small scale. Visor A202 thus escaped analysis until now, but Norman would have been interested to know that its scientific investigation would in fact bear out his own misgivings about the piece.

Analysis reveals that the microstructure of visor A202 (Fig. 5:a) is ferrite and pearlite, with a carbon content of around 0.2%, but with NO slag. And also, importantly, the photomicrograph shows segregation of the pearlite into parallel rows; in other words, it is a 'rolled' mild steel. Because ferrous metals in the sixteenth century would have contained some bloomery slag, and were almost certainly not hot or cold-rolled into sheet-metal but instead worked into sheet by trip-hammers in water-powered hammer-mills, this must be a fake. Since the Wallace Collection has remained static since 1897, its contents closely inventoried since that date, and the rolling of sheet iron and steel was very much a nineteenth-century



Fig. 6. 'Moorish' visors from castle Ambras, Tyrol (after Auer 2005).

Ryc. 6. „Mauryjskie” zasłony z zamku Ambras, Tyrol (wg Auer 2005).

technological development, this visor (despite the maker's undoubted skill in metal forming and forging evinced by its twirling moustachios) must therefore be a specifically nineteenth-century fake.

In complete contrast, the visor A203 (catalogued in 1962 as being *German c. 1550*) has a microstructure of uniform tempered martensite (Fig. 5:b). This is a steel which has been competently hardened by heat-treatment, indicating a sophisticated and practised technology. Also present are also some large (hammer-scale?) inclusions, but no ferrite (iron), an indication of this being a fairly homogenous steel. The average microhardness, measured on the Vickers Pyramid Hardness scale, is a very respectable 303 VPH, and compares well against the 100 to 130VPH that one would expect if the metal had been an ordinary sixteenth-century bloomery iron (or indeed a nineteenth-century ingot iron).

These results are consistent with visor A203 being a high-quality sixteenth-century product of Southern Germany. It could even have been made in Innsbruck, probably the most famous of the German armour-making centres, with a fully-justified reputation for consistently high quality armour products, to such an extent that the Imperial armourers' workshops operated there (Williams 2003, 451-550 and especially 459).

Our third visor, A204, is catalogued *having been made by Hans Sensenhofer for Ferdinand I c. 1529*. Like the others, it has never before been subjected to metallurgical analysis. This is certainly the finest-quality of the three visors, in terms both of its forging and its decoration. Unlike A203, its etched borders have been gilded; the rest of its surface, though now bearing a 'russet' patina, was probably originally heat-blued, the contrasting

blue-and-gold colouration giving it a tremendous 'presence' and (bearing in mind that the rest of the wearer's armour would have matched in design and richness) securing for its owner a lasting impression amongst all who saw him. This visor may have been one of the well-known number made to represent 'Turkish' faces for the series of 'Moorish' tournaments held at Schloss Ambras near Innsbruck in the Tyrol (Auer, Seipel 2005). The Moorish and Hussar's masks made for the "Husarische" or "Ungarische Turnier" are described in the "Turnierbuch" of the Archduke Ferdinand II. The visors representing the Moors had more prominent noses and were decorated with moustaches of horsehair, and were made in the Prague "Hofplattnererei". A number of these visors survive in the Hofjagd- und Rüstammer of the Kunsthistorisches Museum in Vienna, and at Schloss Ambras. As we have seen, many (though we cannot necessarily say all) were painted in lifelike flesh-tones to render the illusion more effective (Fig. 6). In Auer's catalogue, they are said to have been made of iron, but until now none of the surviving examples have ever been analysed. The results of the analytical work carried out on the two genuine Wallace Collection visors currently under discussion would seem to suggest that far from being iron, it is very likely that all of the group (and presumably the armours with which they were associated) were in fact made of hardened steel.

The microstructure of visor A204 shows that it is a steel, although the image is difficult to resolve (Fig. 5:c) – it appears to be very fine pearlite with few slag inclusions. There is a welding fold in the centre of the plate, with an area of ferrite. The average microhardness is 317 VPH. This is a steel that has been hardened by a heat-treatment of some sort which has produced very fine pearlite rather than martensite. Subsequent reheating for gilding might have partly decomposed the pearlite (Fig. 5:d). This is entirely compatible with this visor (and presumably others from the same group) having been made in Innsbruck, home of the Imperial Armourer's workshop until around 1550, when the Court and workshops moved to Prague in response to a heightened threat of Ottoman incursions.

It is interesting, first, that although it was made for what might be regarded as a 'sporting' event, the visor A204 was entirely serviceable as armour, rather than being just a 'pageant-piece'. Secondly, although A 203 seems to have been an exchange visor for another garniture of armour entirely, its metallurgy is very similar to that of A204, suggesting that both were made as parts of similarly high-quality garnitures produced around the same date and in the same part of the world

(probably Innsbruck), all for a similar purpose... especially flamboyant tournament jousts, supported and patronised by the Imperial Court.

Our investigation of European (as well as Oriental) armour continues. The Wallace Collection is committed to an active programme of research into all aspects of the works of art in its care, including materials and techniques of construction and manufacture. Although no longer adding to its collections, there is a vast and untapped wealth of both scientific and art-historical information still to be mined amongst its rich displays, and the museum's Conservation Department pursues the

scientific investigation of metals by microscopic analysis as an integral part of its operating brief. The authors wish to thank the Director and Trustees of the Collection, and its Curators, for their support in this area.

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TRZY GROTESKOWE ZASŁONY HEŁMÓW Z WALLACE COLLECTION

Streszczenie

W zbiorach Wallace Collection przechowywane są trzy groteskowe zasłony do hełmów (A 202-204). Uformowano je w wąsate twarze z wydatnymi nosami, co stwarzać miało jednoznaczną asocjacje z Turkami. Forma ta ma bez wątpienia średniowieczną genezę. Wykonano je najpewniej na turniejach cesarskich, w których postaci w nie przebrane od twarzą miały rolę złowieszczych Turków, czy szerzej Muzułmanów. Zabytki te w dotychczasowych opracowaniach określone były jako niemieckie i datowane na początek okresu nowożytnego (ok. 1535-1550). W stosunku do jednego z nich (A202), najczęściej, ale o mniejszych wymiarach, A.V.B. Norman

wysuwał jednak poważne zastrzeżenia, sugerując, że może być on XIX-wieczną kopią.

Przeprowadzone w 2010 r. badania metalograficzne miały rozstrzygnąć te wątpliwości. Ujawniły one, że jedną z zasłon (A203) wykonano z hartowanej stali o strukturze martenzytycznej, drugą zaś ze stali perlitycznej (A204). Ze względu na wysoką jakość tych produktów nie można wykluczyć, że wytworzono je w dworskiej zbrojowni w Innsbrucku. Trzecią zasłonę wykonano z metalu o strukturze ferrytycznej i perlitycznej, nie zawierającego jednak żuźla. Na podstawie tej obserwacji uznano, że jest ona zapewne XIX-wiecznym fałszerstwem.

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