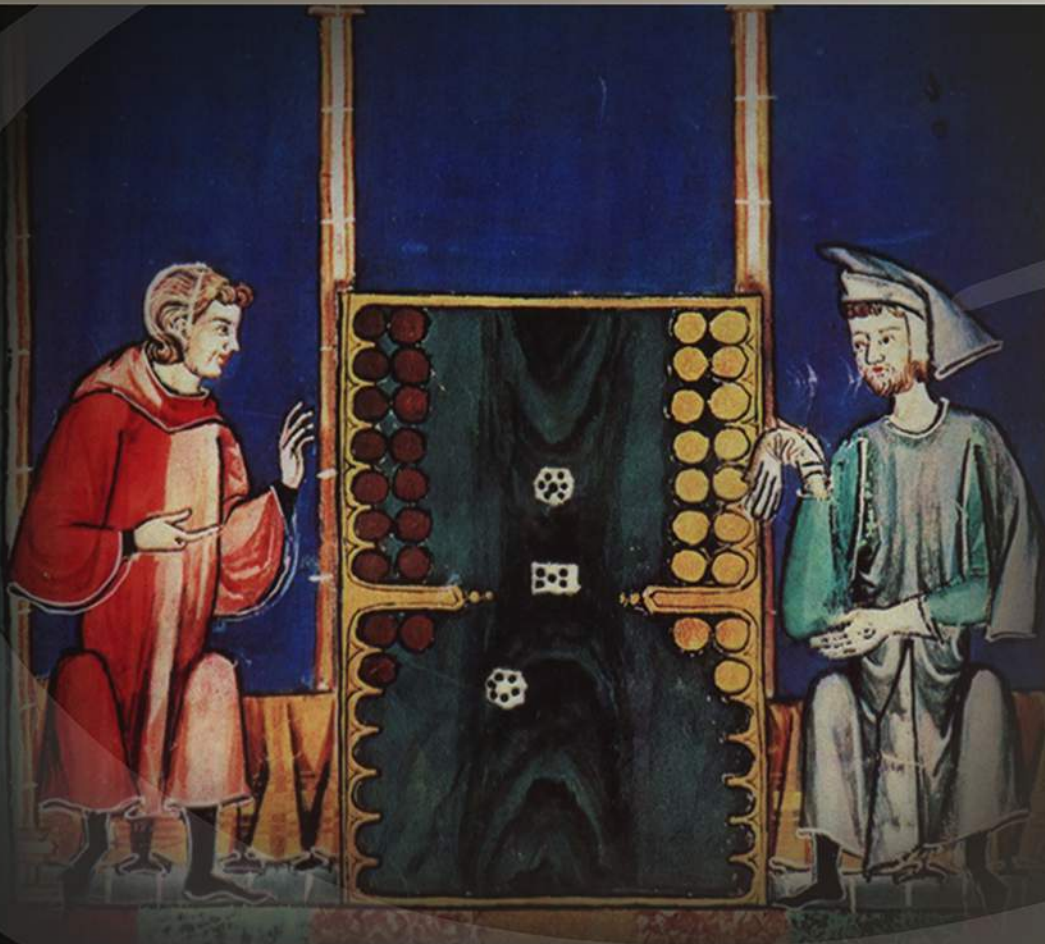


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## STRANGE GAMES: SOME IRON AGE EXAMPLES OF A FOUR-PLAYER BOARD GAME?

*Eddie Duggan*

**Abstract:** *A late Iron Age cremation grave, dated to the second half of the first century BC, excavated from a site in Welwyn Garden City, Hertfordshire, contains an apparently unique set of glass gaming pieces. The gaming pieces are visually striking because of their distinctive appearance: the twenty-four opaque or semi-translucent colored glass domes (six white pieces, six yellow, six red and six green), each with adorned with decorative spiral motifs, seem to comprise a complete set of game pieces for what may be an unknown four-player game. They were found in a rich burial containing five Dressel 1B wine amphorae and an Italian silver cup, along with other grave goods.*

*Some account of the pieces is given by Donald Harden in Stead's archaeological report (Stead, 1967), along with a scientific analysis by Tony Werner and Mavis Bimson, based on spectrographic and X-ray examination.*

*While Harden's account of the glass pieces emphasizes their unique significance for the double-spiral motif, and Werner and Bimson's analysis suggests the yellow pieces show the earliest example of the use of lead and tin as an opacifying agent, the pieces are also thought to represent a unique example of a game for four players, described by Stead as "similar to a game played in India on a board with cruciform marking. This game was [...] patented with the name 'ludo'" (Stead, 1967, p. 19).*

*Footnotes in Stead suggest that other examples of what could also be glass gaming pieces for a four player game — or at least incomplete sets of glass gaming pieces that can be organized into four groups by design or color — have also been found in a number of Italian locations, including sites in the Po Valley.*

*This paper presents several examples of Iron Age Italian gaming pieces, and offers some comparison to the Welwyn Garden City pieces in order to draw attention to what may be examples of a hitherto overlooked four-player game.*

**Keywords:** Arnoaldi, Benacci, Board game, Bologna, British Museum, Celtic, Ceretolo, Etruscan, Iron Age, Montefortino, Museo Archeologico

Nazionale delle Marche, Museo Civico Archeologico di Bologna, Welwyn Garden City.

A late Iron Age cremation grave, dated to the second half of the first century BC, is widely known for the visually striking and apparently unique set of glass gaming pieces it contains. The game pieces are included in a rich burial containing five Dressel 1B wine amphorae and an Italian silver cup along with other grave goods, including some thirty-five items of pottery. According to the curator's note accompanying the British Museum Online Collection, this Welwyn Garden City grave is the "richest Iron Age burial to be found in Britain". A reconstruction of the tomb is on permanent display in Room 50 of the British Museum.



Figure 1: Reconstruction of the Welwyn Garden City late Iron Age burial. British Museum Room 50, Case 28. 1967.02-02. AN784753 Photograph ©Trustees of the British Museum.

The imported goods and the wine amphorae are indicators of elite status, signifying sophistication and wealth. Simon Ó Faoláin and Antone Minard discuss the importance of wine to Celtic culture in western Europe, describing the wine trade in Britain and Gaul in the late C1st BC as operating on an industrial scale (Ó Faoláin and Minard in (Koch, 2005, p. 1808)).

The Greek historian Diodorus Siculus (flourished Sicily, C1st BC) expressed incredulity at the high price Celts were willing to pay to satiate their desire for the luxurious liquid which they drank "unmixed and [...] without moderation". According to Diodorus, Italian merchants trading with Celts in the first century BC were apparently able to exchange one amphora of wine (about 39 litres) for the "incredible price" of one slave (see Book V, Chapter 26, §3 of Siculus (1939)).

Heléne Whittaker discusses Iron Age games in terms of Thorstein Veblen’s notion of “conspicuous leisure”, a concept that describes the processes by which members of a social elite distinguish themselves by engaging in non-productive activity. While Whittaker concentrates primarily on Scandinavian examples, the Welwyn Garden City game pieces are cited as an illustration of the association of leisure with status (Whittaker, 2006, pp. 103–104).

The Welwyn Garden City gaming pieces (1967.02-02.42—65), are visually striking because of their distinctive appearance: the twenty-four opaque or semi-translucent colored glass domes (six white pieces, six yellow, six red and six green), each adorned with decorative spiral motifs, seem to comprise a complete set of pieces of what is thought to be an otherwise unknown four-player game.



Figure 2: Gaming-pieces from the Welwyn Garden City burial. British Museum 1967.02-02.58, AN1210989 Photograph ©Trustees of the British Museum.

Some account of the glass gaming pieces is given by Donald Harden in Ian Stead’s archaeological report (Stead, 1967, p. 15), along with a scientific analysis by Tony Werner and Mavis Bimson, based on spectrographic and X-ray examination.

Harden describes the game pieces as being “of the greatest interest and rarity”, noting “not only is there is no comparable set extant; there is not even a single gaming piece of the same form and decoration which can be cited as a parallel, whether contemporary or not” (Stead, 1967, p. 15). Harden goes on to suggest “the places where we could most reasonably expect to find parallels to these pieces are eastern and southern Gaul, the Alpine region and the upper Rhineland, and the Po valley, and it is likely that in time parallels to them in one or more of those areas will turn up” (Stead, 1967, p. 16).



Figure 3: Glass gaming-pieces. British Museum 1967.02-02.54, AN00788394  
 Photograph © Trustees of the British Museum.

While Harden’s account of the glass pieces emphasizes their unique significance for the double-spiral motif, and Werner and Bimson’s analysis suggests the yellow pieces show the earliest example of the use of lead and tin as an opacifying agent, the pieces are also thought to represent a unique example of a game for four players, described by Stead as “similar to a game played in India on a board with cruciform marking. This game was [...] patented with the name ‘ludo’ ” (Stead, 1967, p. 19).

While Stead concludes his discussion of the Welwyn Garden City pieces with the observation that they “do not readily correspond to any known classical board game (Stead 1967, p. 19), he also notes, intriguingly, that similar glass game pieces have been excavated from two tombs at Montefortino and also from two tombs near Bologna. Stead remarks that the Montefortino and Bologna pieces, “could be interpreted as part-sets from a complete 24 [and] could be divided into four groups distinguished by color or design, and no such group had more than six pieces” (Stead, 1967, p. 19). However, Stead also observes that none of the Italian pieces, described by Eduardo Brizio in his archaeological reports of 1887 and 1899, “resemble those from Welwyn Garden City in detail” (Stead, 1967, p. 19).

Brizio’s brief descriptions and accompanying illustrations of the pieces from the Montefortino Tombs shed little more light. For example, of Tomb 23, Brizio writes:

[C]onsiderable in this woman’s tomb are three bone dice, with twenty variegated buttons in glass paste, which were used to score points in the game of dice.

*Ma notevoli in questa tomba femminile sono tre dadi di osso, con una ventina di bottoni variegati di pasta vitrea, che usavansi per segnare i punti nel giuoco dei dadi.* (Brizio, 1899, p. 682).



Figure 4: Montefortino Tomb 23. Game pieces: items 10 and 11 (centre right). Brizio (1899) Table 5a. <http://digi.ub.uni-heidelberg.de/diglit/monant1899/0441>.

Brizio's comment on the game pieces and dice in Tomb 35 is even more brief:

Two cubic bone dice and twelve hemispherical bullets of glass paste, in various colors.

*Due dadi cubici di osso e dodici pallottole emisferiche di pasta vitrea, di vario colore.* (Brizio, 1899, p. 699).

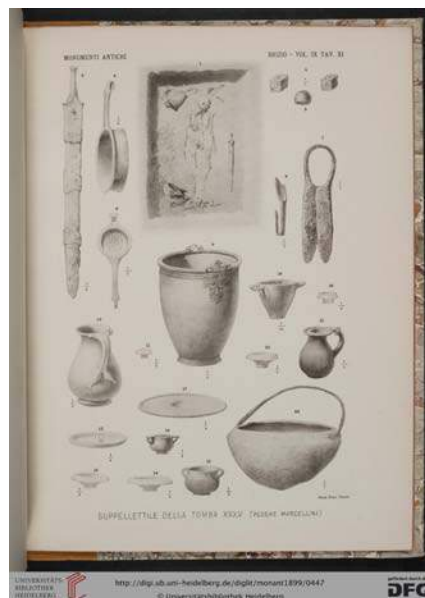


Figure 5: Montefortino Tomb 35. Game pieces: items 4 and 5 (top right). Brizio (1899) Table 11a. <http://digi.ub.uni-heidelberg.de/diglit/monant1899/0447>.

## Montefortino

The Montefortino necropolis is located in Arcevia, in the present day province of Ancona on the Adriatic coast of Italy. The area was settled in the C5th or C4th BC by a Gallic tribe called the Senones. The site is significant because the so-called “Montefortino” type helmet, with distinctive jockey-cap shape and detachable cheek-plates, was first discovered here. The cemetery, in use from the C4th to C3rd BC, also yielded the so-called “Montefortino hoard” of late C4th — early C3rd BC silver plate from the tomb of a Gallic warrior, which is now housed in New York’s Metropolitan Museum of Art (Oliver and Luckner, 1997, pp. 64–65). The Montefortino cemetery is also important, as Daniele Vitali writes, for “numerous items which demonstrated the process of the assimilation of Greek and Italian influences in the material culture of the Senones who had settled on the eastern slopes of the Central Apennines”, see Vitali in (Koch, 2005, p. 1308).

### Montefortino Tomb 23

Brizio’s account of Montefortino Tomb 23 describes a female inhumation burial. This particular grave is dated to the late C3rd — early C2nd BC: the Etruscan mirror and gold earrings are datable to the first quarter of C2nd BC (Museo Archeologico Nazionale delle Marche). The supine body was aligned north-south in a rectangular grave (3.6m x 2m x 1.8m deep). According to Brizio, three iron nails with large flat circular heads in the area around the skull indicate burial in a wooden crate or casket.

The contents of this rich grave, catalogued as twenty-two items, include a gold twisted-wire torque, a pair of gold snake-head bracelets, a pair of gold disc earrings with inverted pyramid pendants, a gold ring incised with a Minerva decoration, along with a bronze Etruscan mirror engraved with an image of the goddess Lasa and a bone tube for hairpins, together with accessories for the symposium: a bell Krater (a large, wide-mouthed vessel used for mixing wine with water), a small black glaze amphora or wine container, a black glaze Skyphos (two-handled wine-cup), a bronze situla (bucket) and a bronze olpe (used to serve wine from the Krater).





Figure 6: Montefortino Tomb 23. Museum Display. Room 22. Museo Archeologico Nazionale delle Marche. Photograph by the author (with permission).



Figure 7: Montefortino Tomb 23. Display. Room 22. Museo Archeologico Nazionale delle Marche. Photograph by the author (with permission).

The jewellery adorned the body. Brizio notes that, while the ring was on the right hand, the torque was around the neck and the earrings hung “from the earlobe using a hook that, when discovered, still adhered to the upper disk and which later was lost *L’orecchino doveva pendere dal lobo auricolare mediante un gancetto che, all’atto della scoperta, ancora aderiva al disco superiore, e che in seguito andò perduto.*” (Brizio, 1899, p. 682).

The amphora, other vessels and tableware were placed near the head while the mirror, gaming pieces, hairpin tube, spits and firedogs were near the feet. The gaming pieces consist of twenty glass counters and three cubic bone dice. The game pieces themselves have an interesting appearance:



Figure 8: Montefortino Tomb 23. Twenty glass gaming pieces and three bone dice. Museo Archeologico Nazionale delle Marche. Room 22. Photograph by the author (with permission).

The twenty pieces in Montefortino Tomb 23 are of differing colors and patterns. It is possible to identify four different types:

- black glass with an orange/deep-yellow swirl pattern
- grey glass with a white swirl pattern
- plain un-patterned glass (in black, grey and white)
- grey glass with a concentric ring pattern

Twelve of the pieces are decorated with a swirl pattern. Of these, six appear to be black pieces with an orange/deep-yellow swirl while six appear to be grey with a white swirl. Four pieces (one black, one grey and two white pieces) appear to be plain, while a ring pattern is evident on the other four pieces.

Manuela Diliberto and Thierry Lejars offer a different description of the pieces:

Twenty glass tokens of tomb XXIII of the Montefortino necropolis are associated with three cubic bone dice. The tokens are of different colors (one black, two white and seventeen blue). The blues are united (four) or spiral decoration (seven whitish and six yellowish). *Les vingt jetons en verre de la tombe XXIII de la nécropole de Montefortino sont associés à trois dés cubiques en os. Les jetons sont de couleurs différentes (un noir, deux blancs et dix-sept bleus). Les bleus sont unis (quatre) ou à décor spiralé (sept de couleur blanchâtre et six de couleur jaunâtre).* (Diliberto and Lejars, 2011, p. 444)

It is not clear why Diliberto and Lejars describe the single plain dark piece as “black” while the remaining dark pieces and grey pieces are all described as “blue”. However, it should be noted that while Diliberto and Lejars include photographs of many of the game pieces in their survey, the pieces from Montefortino Tomb 23 are represented by a drawing of one spiral-patterned piece (Diliberto and Lejars, 2011, fig. 4).

Diliberto and Lejars note the spiral pattern in these pieces is in the form of a single thread rather than two threads, as is the case with the Fillotrano pieces (also housed in the Ancona museum), and some of the other spiral-patterned pieces they have gathered.

The ring pattern appears to differ from the swirl decoration. The ring pattern may differ from the spiral due to the manufacturing process, or to the opacifying agent used to make the pattern, or perhaps due to some other form of erosion.

### Montefortino Tomb 35

Brizio’s description and inventory of Montefortino Tomb 35 records a male inhumation burial with fragments of a wooden casket and several brass studs. It may be that the game pieces, described by Brizio as:

Two cubic bone dice and twelve hemispherical bullets of glass paste, in various colors, used to keep score in the game of dice *Erano altresì due dadi cubici di osso e dodici pallottole emisferiche di pasta vitrea, di vario colore, usate per segnare i punti nel giuoco dei dadi* (Brizio, 1899, p. 699)

were placed on top of the casket as Brizio notes that the game pieces, along with iron scissors, were between the fragments of wood. The accompanying illustration suggests the game pieces were at or near the feet of the body.



Figure 9: Montefortino Tomb 35. Brizio (1899) Table 11a (detail)  
<http://digi.ub.uni-heidelberg.de/diglit/monant1899/0447>.

The contents of Montefortino Tomb 35 are on display at Museo Archeologico Statale di Arcevia, which is in a somewhat remote rural location difficult to reach via public transport. Regrettably, due to limitations of time, language and budget, it hasn't been possible to visit Arcevia museum to inspect these pieces.

## Bologna

Stead refers to two tombs in the Bologna area that Brizio identified as containing gaming pieces that could be seen as incomplete sets of 24 pieces:

There are sets of glass gaming pieces, or part sets, from four Celtic graves in Cisalpine Gaul. These graves, two from Montefortino and two near Bologna, had from 12 to 22 gaming pieces

which could be interpreted as part sets from a complete 24 — for each could be divided into four groups distinguished by color or design, and no such group had more than six pieces. But the Bologna and Montefortino gaming pieces do not resemble those from Welwyn Garden City in detail — they are smaller and lower, and those which are decorated have a single spiral or streaking (Stead, 1967, pp. 18–19).

Stead identifies the tombs “near Bologna” in a footnote: Benacci tomb 953 (3 dice and 22 pieces) and Ceretolo (17 pieces), each supported by a reference to Brizio (1887). Stead’s footnote also makes a broad reference to “other Italian gaming pieces”, including several examples in the collection of Bologna Civic Museum of Archaeology, and two examples each in the Archaeological Museum, Florence (from Populonia and Todi), and the Villa Giulia Museum, Rome (from Todi and Palestrina). We will concentrate here only on the pieces from Bologna.

### **Benacci Tomb 953**

Benacci Tomb 953 is dated to the early C3rd BC. This rich male inhumation burial was found to contain remains adorned with a gold crown of laurels and an iron bracelet. Symposium apparatus, including five bronze kyathoi (dipping cups), a bronze oinochoe (wine jug) and an iron candelabra, is placed to the left of the body, near the head. Martial items, including iron sword, iron javelins and a bronze helmet are near the feet, along with a bronze strigil. The gaming pieces and dice are placed in the space between the two sets of equipment.

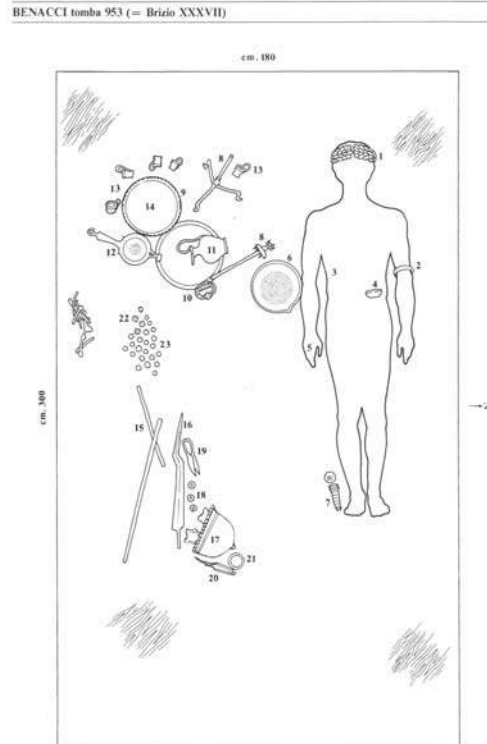


Figure 10: Benacci Tomb 953. Sketch based on Brizio (1899) “Tomba XXXVII”.  
Source: (Vitali, 1992, p. 285).

According to Brizio, the gaming pieces consist of:

Three ivory dice, unfortunately very worn; 22 glass paste hemispheres to score points in the game of dice, in different colors: 6 are white in color clear, 6 off-white, 5 red in color and five dark tint.

*Tre dadi di avorio disgraziatamente molto logori; n. 22 semisferette di pasta vitrea per segnare I punti nel giuoco dei dadi, e di colori diversi: 6 sono di color bianco chiaro; 6 di color bianco sporco; 5 di color rosso e cinque di tinta scura.* (Brizio, 1887, pp. 475–476).



Figure 11: Benacci Tomb 953. Twenty-one limestone game pieces. Museo Civico Archeologico di Bologna. Room 11 Case 4. Photograph by the author (with permission).

The contents of Benacci Tomb 953 are on display in Bologna Civic Museum of Archaeology (Room 11, Case 4). However, only twenty-one game pieces are present: it appears that one has been lost since Brizio made his inventory. It's also difficult to group the pieces in exactly the same way as Brizio, not only because one piece is missing, but because the remaining pieces do not easily fall into sets of white, off-white, red and “dark tint”. While Brizio describes the pieces as glass paste, “*pasta vitrea*” (Brizio 1887, p. 475), they are in fact made of limestone.

It's worth noting Daniele Vitali neglects to correct Brizio's misidentification of the Benacci warrior's gaming pieces. Vitali's study of the excavation records allows him to identify several discrepancies between Zannoni and Brizio, along with a number of other errors and omissions. For example, Vitali shows that Zannoni re-positioned the bronze helmet for the photographs (Vitali, 1992, p. 289) and he also notes Brizio's egregious assertion that the cylindrical bone tube (seen beside the right foot of the skeleton in Vitali's sketch) was positioned over the shank of the sword (Vitali, 1992, p. 289); cf (Brizio, 1887, pp. 474–475). Vitali himself refers to the gaming pieces as colored limestone, “*calcare colorato*” (Vitali, 1992, p. 290), while Zannoni used the term “*pietruzze*”:

Towards the feet three dice, and hemisphere of colored stones. *Verso i piedi tre dadi, e semisferette di pietruzze a colori*, see Zannoni in (Vitali, 1992, p.286).



## Ceretolo

The Ceretolo tomb has been the focus of some considerable controversy. In 1877, the unearthing of objects during agricultural work in Ceretolo, a suburb to the west of Bologna, led to the discovery of a tomb containing a skeleton with a sword, spear, and other items, including a bronze oinochoe with a figural handle of a bacchanalian youth. The artefacts from Ceretolo, also known as The Ceretolo Warrior's Tomb, are now part of the Celtic collection on display in Room XI of the Museo Civico Archeologico di Bologna.



Figure 12: Ceretolo Museum Display. Room 11, Case 8. Museo Civico Archeologico di Bologna. Photograph by the author (with permission).

At the time of the discovery, the landowner was apparently unaware of the necessity to report the find, and it was some months before Giovanni Gozzadini excavated the site. Controversy arose from a number of concerns:

some items had been misplaced and the location of some finds was inaccurately reported, as well as other apparent irregularities. Also, Gozzadini suggested the material was Etruscan while Zanonni disagreed, identifying the fibulae as Gallic. While Daniele Vitali dissects the controversy (Vitali, 1992, pp. 380–390), it has no material effect on the game pieces attributed to the Ceretolo tomb, other than the fact that while eighteen pieces were originally recorded, one has subsequently been lost (however, some other archaeological confusion at another Bologna necropolis will be of greater interest later).

The Ceretolo grave is dated to the second quarter of C3rd BC. The rich male inhumation burial includes a bronze oinochoe with figural handle, depicting a naked youth in a bacchanalian revel. The vessel is “probably from a southern Etruscan workshop”, see Minarini in (Morigi Govi, 2009, p. 109). Other grave goods include an iron sword and iron scabbard, an iron chain for suspending the scabbard, and the umbo from an iron shield, along with other items, including the remaining seventeen dull-colored limestone game pieces. Laura Minarini describes the grave goods as “among the richest and most complex found in the Boii territory”, see Minarini in (Morigi Govi, 2009, p. 109).

Brizio’s report cites Gozzadini’s note: “on the chest eighteen hemispheres of a limestone arranged in series” (Brizio, 1887, p. 495). Brizio adds the footnote: “The hemispheres now number seventeen, one perhaps has been lost.” *Le semisfere sono ora in numero di 17, una forse è andata perduta* (Brizio, 1887, p. 495).

Brizio also notes the pieces could not have been a necklace as they were un-pierced, reasoning from that, and from the colors: “four red, four white, six dark grey veined and three yellow, it becomes very probable that they were employed for the game of dice although the latter was not found.” *4 di color rosso, 4 di color bianco, 6 di color bigio scuro venato, e 3 di color giallo diventa molto probabile che fossero adoperate per il giuoco del dadi, quantunque questi ultimi non siansi trovati.* (Brizio, 1887, p. 495).



Figure 13: Bronze oinochoe with figural handle. Museo Civico Archeologico di Bologna. Room 11, Case 8. Photograph by the author (with permission).



Figure 14: Seventeen limestone game pieces. Museo Civico Archeologico di Bologna. Room 11, Case 8. Photograph by the author (with permission).

Vitali discusses the omissions and uncertainties of Gozzadini and, following Zannoni, suggests that fragments of umbo in the pelvic region indicate a shield was placed over the body and the game pieces were probably set upon the shield (Vitali, 1992, p. 382). [cf Santa Paolina di Filottrano, Tomb 2, on display in the National Museum of the Marche, Ancona, where gaming pieces and dice also appear to have been placed on the body.]

### The Arnoaldi Necropolis

The Arnoaldi site is one of several properties to the west of Bologna extensively excavated in the late C19th during what is described by Cristina Marchesi as “Bologna’s enthusiastic archaeological season, which went from 1869, the year the Certosa necropolis was discovered, to the early 1900s”, see Marchesi in (Morigi Govi, 2009, p. 82). Various ancient burial sites in Bologna are named according to the owner of the property at the time of excavation — Arnoaldi, Benacci, De Luca, etc. While the naming convention may give the impression of several distinct sites, the contiguous group form the vast necropolis of the Etruscan city of Felsina. Graves are hierarchically arranged either side of an ancient road, leading to the Tyrrhenean coast, which enters Felsina from the west.

The Museo Civico Archeologico di Bologna has a large room (Room X) showing material from the Felsina phase excavated during the “enthusiastic season”, with stone monuments (stelae) and glass-and-wood display cases preserving the inaugural state of the museum’s museological past.



Figure 15: Museum Gallery. Museo Civico Archeologico di Bologna. Room 10: The Felsinean Period. Photograph by the author (with permission).



Figure 16: Museum Gallery. Museo Civico Archeologico di Bologna. Room 10: The Felsinean Period. Photograph by the author (with permission).

While material from the Arnoaldi necropolis is displayed in Room X, along with grave goods from De Luca, La Certosa and other Felsinean sites, some of the more interesting items are not on display at all.

Stead had noted several instances where game pieces could be organised into “four groups distinguished by color or design” (Stead, 1967, p.19). While an examination of most of the examples cited has confirmed this to be more or less the case, no other “complete set” has, thus far, been seen. Although Ulrich Schädler notes the notion of a “complete set” of game pieces may be a contemporary idea, the prevalence of “incomplete” sets might also be understood if we consider Schädler’s suggestion that some game pieces may be ritually discarded as part of the funerary rite “to remove the game from secular use” in a way similar to the ritual deformation of weapons or the breakage of ceramics (Schädler, 2007, p. 368).

While researching the collection at Museo Civico Archeologico di Bologna, the author was introduced to Roberto Macellari’s study of the Arnoaldi necropolis Macellari (2002). Macellari identifies and corrects some errors in the Arnoaldi assemblages: several examples (Tombs 80, 128 and 132) are of particular interest in relation to game pieces.

## Arnoaldi 80

Macellari discusses the content of Tomb 80, discovered in March 1879, and identifies some of the contradictions and confusion concerning the grave goods. For example, Macellari notes that Brizio states the cremated remains

were placed directly on the bottom of the pit, not in a cinerary urn; a detail apparently omitted from Gozzadini's original excavation note (Macellari, 2002, v.1, p. 165). Macellari agrees with the C19th archaeologists that the amphora and olpe are correctly assigned, but there is some confusion regarding a couple of kylixes: Brizio would assign two to this grave, while Gozzadini's report notes only one. Some of the dispersed contents were later acquired by the Museo Civico di Bologna and assembled as Arnoaldi 80 following Brizio's directions, including what Macellari calls "doubtlessly spurious" ("senza dubbio spurii") items, namely the St Valentin kantharos from Tomb 60 and the owl skyphos from Tomb 58 (Macellari, 2002, v.1, p. 165). Macellari asserts the six silver buckles are erroneous, and cannot be the five bronze fibulae in Gozzadini's note, and suggests the buckles belong in Tomb 73 (Macellari, 2002, v.1, p. 165).

Certosa-type fibulae in the tomb are dated late C6th — first half C5th BC (Macellari, 2002, v.1 p. 168 *passim*). Macellari would also assign four bronze studs, three bone dice and twenty-one glass game pieces to Tomb 80 (which Brizio placed in Tomb 78). The game pieces fall clearly into four groups: six white, five blue-green, five yellow and five blue. Despite assigning three dice to this tomb, Macellari describes the dice as "not tracked" ("non rintracciati") which seems to be a euphemism for "lost" (Macellari, 2002, v.1, p. 169).



Figure 17: Arnoaldi Tomb 80. 21 game pieces. Museo Civico Archeologico di Bologna. In storage. Photograph: Laura Minarini.

## Arnoaldi 132

This tomb contains eighteen glass game pieces and three parallelepiped dice. Macellari includes the original archaeological note, in which Gozzadini records picking up from the floor of the tomb, three dice, six turquoise button pebbles, the same in white and the same again in turquoise with white dots, along with a wheel of bone, four iron hooks, tableware and fragments (Macellari, 2002, v.1, p. 316).

Each of the three parallelepiped dice is marked in the same distinctive manner: both end faces are marked with a dot within three concentric circles. Three of the remaining four faces show four, six and three, all marked with a dot within two concentric circles. The final face is unmarked.



Figure 18: Arnoaldi Tomb 132. 18 game pieces and three parallelepiped dice. Museo Civico Archeologico di Bologna. In storage. Photograph: Laura Minarini.

## Arnoaldi 128

Vitali discusses some confusion over the contents of tombs excavated on the Arnoaldi property in 1885. For example, Tomb 128 contains both typically masculine items (weapons) and typically feminine items (distaff; ointment jar), despite being originally catalogued as a single burial. Vitali suggests a number of possible scenarios, including a bisoma or double tomb, with either simultaneous burials or sequential deposition; or two separate burials subject to ancient tampering and “rimescolate” or “shuffling” (Vitali, 1992, pp. 115–116).

Despite the confusion, the tomb is dated to second half C5th BC.

Macellari (2002) has reconstructed the Arnoaldi graves, correcting some omissions and re-assembling grave goods which were mis-assigned in the 1880s. In what is now identified as Arnoaldi 128 (originally Arnoaldi 1885/4), Macellari places 24 glass gaming counters, comprised of six pieces in four different colors: 6 x grey, 6 x black, 6 x white and 6 x patterned pieces. There are also two parallelepiped dice.



Figure 19: Arnoaldi Tomb 128. 24 game pieces and two parallelepiped dice. Museo Civico Archeologico di Bologna. In storage. Photograph: Laura Minarini.

This set of game pieces, like the pieces excavated from the Welwyn Garden City grave, may comprise a complete set of gaming pieces for a four-player game. However, unlike the Welwyn Garden City grave, which is prominently displayed in the British Museum, this exciting antecedent remains hidden in storage in the Museo Civico Archeologico di Bologna.

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Board Games Studies was first published in 1998, an initiative inspired by the colloquia on board games held at Leiden University, the Netherlands, in 1995 and 1997. Five institutions affiliated themselves with the journal: the Institut für Spielforschung und Spielpädagogik in Salzburg, the International Institute for Asian Studies in Leiden, the Russian Chess Museum in Moscow, the British Museum in London, and the Department of Computer Science at the University of Maastricht. The journal, which was published by CNWS Publications in Leiden on a yearly basis, was partially funded through the assistance of patrons and boasted a modern layout, trilingual summaries and color plates. The broad ambition of this journal required a continuous commitment from the editors, who reviewed contributions in German, French and English, provided translations of summaries for each article and, in several cases, collaborated extensively with authors to develop manuscripts that were to the academic standards of the publication. The journal had a trial run of three years, after which the format, content and review process was evaluated. The authors of the articles integrated wide-ranging literature necessary for a comprehensive understanding of particular games. Contributions from different disciplines — including psychology, computer science, philology, classical archaeology and history — allowed for a better historical and systematic understanding of board games to emerge. Starting in 2000, a section with a translation of primary sources was added. Book reviews and research notes further complemented the multi-faceted contents. Its first ambition, to serve as a platform for the publication of board games research, was met quickly, while gradually the journal gained prominence among researchers by publishing seminal historical overviews. The colloquia continued from 1995 onwards, moving from a biennial to a yearly schedule. The host institution was expanded beyond Leiden to universities and museums throughout Europe as well as Jerusalem, Philadelphia and, in 2013, the Azores. The colloquia continue to gather an enthusiastic group of scholars, players and collectors. Despite the institutional affiliations and a group of patrons, the production of the journal became financially and logistically problematic with CNWS no longer able to serve as a publisher. Reluctantly, the paper version of the journal was discontinued after volume 7 was published in 2004. The possibility of an online version of the journal had been explored with the online publication of the first issues, a decision that greatly assisted the dissemination of knowledge accumulated in those early volumes. The next step, an online journal that operates again as a platform for recent board games research, was not far away but required the skills and enthusiasm of previous and new editors to materialize. In these last fifteen years, the study of board games has gained momentum and this journal will not only showcase new results but, most of all, will encourage and publicize the work of the dedicated researchers in this field.

Alex de Voogt



## To the authors

Board Game Studies is an academic journal for historical and systematic research on board games. Its object is to provide a forum for board games research from all academic disciplines in order to further our understanding of the development and distribution of board games within an interdisciplinary academic context. Articles are accepted in English, French, and German and will be refereed by at least two editors under the final responsibility of the Editorial Board. Please send your contributions in any editable format (Word, L<sup>A</sup>T<sub>E</sub>X, rtf, ...) with a matching PDF file. Please send all the illustrations in separate files.

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