# CELTIC <br> DEFENSIVE WEAPONRY <br> IN BRITAIN <br> AND ITS CONTINENTAL BACKGROUND 

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below Dürrnberg bei Hallein (Salzburg);
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5. above
below
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Altertumsmuseum, Mainz.
below

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Bermond-Montanari.
Rätisches $\mathbb{M u s e u m , ~ C h u r . ~}$
6. above Mogilia Tokmak (Ukraine); Reinecke, 1948, pl. p. 92.
below left 'near Landek' (Tirol); von Merhart, 1932, Abb. 4.
below right fibula knob, no Krämer, 1960, Taf. 1, provenance; ld.
7. above Umbria; Jacobsthal, 1944, pl. 85.
below Gottolengo (Brescia); Rampinelli, 1964-6, fig. 1.
8. above Certosa Situla, Bologna

Kastelic, 1965, (detail);
pl. 19.
below
Prunay (Marne);
Author.
9. above Amfreville-sous-lesMonts (Eure);
below (detail)
Arch. Photog. Paris.

Jacobsthal, 1944, pl. 80.

| 10 | above and centre | Castelrotto (Alto-Ad. Trent.) ; | Tiroler Landesmuseum, Innsbruck, and Lipperheide, 230, no. 457. |
| :---: | :---: | :---: | :---: |
|  | below | Sanzeno (Alto-Ad. Irento); | Lipperheide, 229, no. 459. |
| 11 | above | San Maurizio (Alto-Ad. Trento); | Bertrand and Reinach, 1894, fig. 77. |
|  | below | Helmet; | Tiroler Landesmuseum, Innsbruck. |
| 12. | above | Sanzeno (Alto-Ad. Trento); | Tiroler Landes. Innsbruck. |
|  | below left | Mihovo (Slovenia) <br> parznum. 1655, Grave 58; | Naturhist. Mus. Vienna. |
|  | below right | Giubiasco, Grave 263 <br> (Ticino); | Ulrich, 1914, pl. lxxxi, 2a. |
| 13. | above | $\begin{gathered} \text { Pergamon (Western } \\ \text { Turkey); } \end{gathered}$ | Bohn, 1885, Taf. xlvi, 2. |
|  | below | Batina (Croatia); | Naturhist. Mus. Vienna. |
| 14. |  | Apahida nr Cluj (Transylvania); | C. Daicoviciu and <br> M. Russu, Cluj. |
| 15. |  | Ciumeşti, Carei (Transylvania); | C. Daicoviciu and <br> M. Russu, Cluj. |
| 16. | above | Giubiasco, (Grave 32 | Schweiz Landesmus. Zurich, photos. |
|  | below | Port (Bern) |  |
| 17. | above | Agen (Iot-et-Garonne); | J. Prunet, Agen. |
|  | below | Vié Cioutat (Gard); | Mus. Arch. Nîmes. |
| 18. |  | Vinji vrh (Slovenia); | Jacobsthal, 1944. |


| 19. | above | Port (Bern); | Schweiz Landesmus. Zurich. |
| :---: | :---: | :---: | :---: |
|  | centre | Mihovo (Slovenia) parznumm. 1656 Grave $2^{\prime}$ | Naturhis. Mus. Vienna. |
|  | below | Alésia, cheek pieces (Côte d'Or); | Verchère de Reffye, 1864, fig. 18. |
| 20. | above | Coolus (Marne); | British Museum. |
|  | below | Tongern (Limbourg) | Musées Royaux, Brussels. |
| 203 |  | River Rhine, Mainz; | Kessler, 1928, Abb. 1. |
| 21. | above | Breuvannes (Marne); | T. D. MacArdle. |
|  | below | Böckweiler (Saar); | Staatliches Konservatoramt, Saarbrücken. |
| 22. | above | Entremont (Bouches-duRhone) ; | Moreau, 1961, Taf. 47. |
|  | centre | Plaine de la Brague (Alpes-Maritimes); | $\begin{aligned} & \text { Espérandieu, Recueil, } \\ & \text { i, } 31, \text { no. } 24,6_{\text {. }} \end{aligned}$ |
|  | below | Narbonne (Aude); | $\begin{aligned} & \text { Espérandieu, Recueil, } \\ & \text { i, 443, no. } 735 \text {. } \end{aligned}$ |
| CON | ENTAL S | DS |  |
| 23. | above | St. Etienne-au-Temple <br> (Marne); | author. |
|  | below | Gourgançon (Marne) Grave 14; | author. |
| 24. | above | La Tène (Neuchatel); | Vouga, 1923, pl. xvii. |
|  | below | Strip-boss; | Mus. d'Art et d'histoire, Geneva. |
| 25. | above | Connantre (Marne); | Morel, 1898, pl. 31. |
|  | below | Vevey (Vaud) Grave 26; | A.Gétaz, Vevey. |

26. above and Kasr el Harit (Fayum); centre below Horath (Bernkastel);
27. above left Hjortspring (Als)
above right " "
below left " "
below right Vadebr $\varnothing$
28. above left Mondragon (Vaucluse);
above right Vachères (Basses-Alpes);

Kimmig, 1940, Taf. 23. and Abb . 1.

Kimmig, 1938, Taf. 52, 4 and 5.

Rosenberg, 1937, fig. 30, c.

Rosenberg, 1937, fig. 3l, a.

Rosenberg, 1937, fig. 3l, b.

Skalk, 1959, nr. l, fig. p. 9.

Editions de Luxe, 'Estel " " "
below Arnoaldi Situla, Bologna; Lucke and Frey, 1962, Taf. 14.
29. above Pergamon (Western Turkey) ; Bohn, 1885, Taf. xliii.

| centre | $"$ | $"$ | $"$ | $"$ | $"$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| below Taf. xliv,2 |  |  |  |  |  |


| 30. above | Vindonissa (Aargau); | Vindonissa Illustrata, <br> l962, Taf. l3. |
| :--- | :--- | :--- |
| below | Civita Alba (Bologna); | Rostovtzeff, 1928, <br> pl. vii, 2-3. |

## BRITISH HELMETS

31. 

Ogmore Down (Glamorgan- Grant Francis, 1871, shire); pl. xxxvi.
32. above Waterloo Bridge (Middle- British Museum. sex);
(detail); British Museum.

32a
Waterloo Bridge;
author

| 33. above below | 'North of England'; detail of side-piece; | British Museum. British Museum. |
| :---: | :---: | :---: |
| 34. above | 'North of England' helmet, detail of sidenicks; | author. |
| below | Croft Ambrey (Herefordshire) cheek-piece; | S.C. Stanford. |
| 35. | Peterborough, bronze bosses; | British Museum. |
| BRITISH SHIELDS |  |  |
| 36. above | Battersea; | British Museum. |
| below | hand-grip; | Mansel Spratling. |
| 37. above | central roundel; | British Museum. |
| below left | lower roundel; | author. |
| below right | detail of central roundel; | author. |
| 38. | $\begin{array}{r} \text { Grimthorpe (E.R. York- } \\ \text { shire); } \end{array}$ | Mortimer, 1905, Frontispiece. |
| 39. above | Hunsbury (Northants.) <br> Boss 1; | author. |
| below | Boss 2; | author. |
| 40. above | Llyn Cerrig Bach <br> (Anglesey); | Fox, l946, pl. xxxvi. |
| below | detail of decoration; | Fox, 1946, fig. 3. |
| 41. above | Moel Hiraddug (Flint shire); | Hemp, 1928, fig. 4. |
| below | Owslebury (Hampshire); | Hampshire Chronicle. |
| 42. above | $\begin{gathered} \text { Polden Hill (Somerset) } \\ \text { Boss } 1 \text {; } \end{gathered}$ | author. |
| below | Boss 2; | author. |


below " " no. 99;
54.

Bridgeness (West
Lothian);
55. above
below
(detail);

Grosvenor Museum, Chester.

Grosvenor Museum, Chester.

National Museum of Antiquities of Scotland.

Hunterian Museum, Glasgow.

Hunterian Museum, Glasgow.
56. above
below
57. above
below Maryport (Cumberland); Ross, 1967, pl. 49b.
58. above, 1 Hod Hill (Dorset);
above, 2-4 Worth (Kent);
below Newton of Lewesk (Aberdeenshire);

Smith, 1922, fig. 4. Klein, 1928, fig. 11. PSAS, lxiv (1939-40), pl. xxia.

## BODY ARMOUR

59. above left Gutenberg (Liechtenstein); Schweiz Landesmus. Zurich.
above right Gundestrup Cauldron; Klindt-Jensen, 1961, fig. 40.
below, 1 St. Dalmas de Tende Musée Borély,
(Alpes Maritimes); Marseille.
2 Idrija bei Bǎi (Slo- Déchelette, 1914, venia); fig. 452.

3 Vild (St. Gallen);
ed. Drack, 1960, pl. 14, 53.
61. above Pergamon (Western Bohn, 1885, Taf. xlvi,2

| below left | $"$ | $"$ | Turkey); (detail); " | " Taf. xliv, 1. |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| below right | $"$ | $"$ | $"$ | $"$ | $"$ |
| Taf. xlix, 4. |  |  |  |  |  |

62. above
63. above
below
64. above
below
65. 

Helmet, Coll. Prof. Piggott, Edinburgh;

Nalcolm Murray.

Helmet, Coll. Prof. Piggott, Edinburgh;
66. above
below
67. above
below
Torc, Grave 21, Les Commelles (Marne);

St. Dalmas de Tende (Alpes Maritimes);
68. above below
author and Ruth Tringham.

Musée Borély, Marseille.
Raymond Fortt, Bayswater.

Badisches Landesmus., Karlsruhe.
T.D. NacArdle. Pleiner, 1962, Taf. v.

Although illustration has been provided of every British helmet and shield, there has otherwise been no attempt to duplicate the photographs given by Fox (1958). Nor has Jacobsthal's series of European helmets been illustrated here unless they emphasise a particular point.

It has been suggested that the terms dexter and sinister might be employed to clarify the descriptions of artistic pieces. They are used in their heraldic sense and thus

> dexter indicates the right-hand side, opposite to the spectator's left, sinister indicates the left-hand side, opposite to the spectator's right.

## CHAPTER 2.

## EUROPEAN HETMETS

(i) Conical Helmets (Map 1)
A. Marne Department.

1. Berru, Mont de Bury (Marne), Musée National de St. Germain-en-Laye. Pl. 3, above.

Bertrand, 1889, 356 ff and figs.
Déchelette, 1914, l164f., fig. 490, 2.
Jacobsthal, 1944, 178, no. 136, pp. 116, 464-5.
Frey, 1955, 12, Abb. 5.
Joffroy and Bretz-Mahler, 1959, App. iv.
2. Châlons-sur-Marne (Marne), Musée Municipal de

$$
\text { Châlons-sur-Marne Pl. } 2 .
$$

Lemoine, 1905, 100ff.
Joffroy and Bretz-Mahler, 1959, 25, fig. 21,3.
Stead, 1965, 260, fig. 1.
3. Cuperly (Marne)

Fourdrignier, 1880, 370 fe.
Déchelette, 1914, 1165, fig. 490.
4. Ecury-sur-Coole, Les Côtes en Marne (Marne) Grave 13. Thiérot, 1931, passim.

Déchelette, 1914, 1513n.
Jacobsthal, 1944, 179, no. 138.
Joffroy and Bretz-Mahler, 1959, App. iv.
5. La Gorge Meillet, Somme Tourbe (Marne) Musée

National de St. Germain-en-Laye Pl.I.
Fourdrignier, 1878 , passim.
Déchelette, 1914, 1165, fig. 490, 4. Jacobsthal, 1944, 178, no.135; and refs.
B. Doubtful or Rejected examples from the Marne

Condé-sur-Marne (Marne).
Joffroy and Bretz-Mahler, 1959, 27.
Stead, 1965, 97.
Sept Saulx, La Prise d'eau (Marne).
Jacobsthal and Langsdorff, 1929, 37. (no mention of $\begin{gathered}\text { helmet) }\end{gathered}$
Joffroy and Bretz-Mahler, 1959, 27.
Tuizy / Tuisy (Marne)
Joffroy and Bretz-Mahler, 1959, 27.
C. East European and Alpine Examples.
6. Dürrnberg bei Hallein. (Salzburg), Hallein Museum. Pl.3, below.
Penninger 1960a, 353 ff. Taf. 44 $1960 b, l f f, A b b s . l$ and 2.
7. Possibly from Hallstatt (Oberosterreich),

Oberösterrichisches Landesmuseum, Linz. Penninger, 1960a, 362.

Unprovenanced. National Museum of Hungary, Budapest. sometimes said to be from the district of Túrócz (Túroc) or Turec / Turč Sv. Martine.

Reinecke, 1898, 310 ff.
Parvan, 1928, pl. 13.
Marton, 1933, 52, Abb. 7.
Reinecke, 1940, 66
Jacobsthal, 1944, 178 f., no. 137.
Filip, 1956, 422 f., and refs.


Map 1. 1, Conical Helmets; 2, Later North French Helmets. $\triangle$ CONICAL HBMEITS.

1. Berru, Mont de Bury (Marne).
2. Châlons-sur-Marne (Marne).
3. Cuperly (談arne).
4. Beury-sur-Coole, les Côtes-en-iliarne (Marne) Grave 13.
5. La Gorge Meillet, Somme Tourbe (Marne).
6. Dürrnberg bai Hallein (Salzburg).
7. Hallstatt (Oberösterreich).
8. Aafreville-sous-les-lionts (Eure).
9. Prunay, les 俍arquises (Karne).
10. Tronoën, St. Jean-Trolimon (Finistère).


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(ii) Negau Helmets ; complete study and earlier references Reinecke (1942), recent catalogue and distribution map in Gabrovec, 1965, 184f.

## Bronze figures wearing Negau Helmets.

Baratela, Este (Venetia)
Notiz. Scav., 1888, Tav. viii.
Reinecke, 1942, 159.
Klindt-Jensen, 1950, 136, 1ig. 90.
Gutenberg, Balzers (Liechtenstein) Pls. 59, above
left; 60.
Jahrb. d. Hist. ... für das Fürstentum Iichtenstein, xxx (1933), Taf. 7; 12,4.

Reinecke, 1942, 127 n.
Poeschel, 1950, 7, 20, 28ff. Abbs. 2, 10 - 13.
Drack and Schib, 1958, 65, Taf. 14.
Krämer, 1960, Taf. 6, opp. p.29.
Idrija pri Bači, Grave 25 (Idria bei Bače) S. Lucia
d'Isonzo (Slovenia) Pl.59, below, 2.
Szombathy, 1887, 295 ff., figs. 9 and 9a.
Déchelette, 1914, 1098, fig. 452.
St. Dalmas de Tende, Mont Bego (Alpes Maritimes),
Musée de Cimiez, Nice.

Musée Archéologique: Guide du Visiteur de Cimiez, Plis. 59, below, l; 67, below. Nice, 1964, fig. p. 22.
Vild, Sargans (St. Gallen), Historisches Museum, St. Gallen.




Fic. 1
Elmo proveniente di Gottolengo (rilievo di M. Bertolone). Museo Romano di Brescia

## (iiia) Amfreville, Prunay and Tronoën etc.

1. Amfreville-sous-les-Monts (Eure), Musée National
de St. Germain-en-Laye; some tiny fragments
in the museum at Rouen. (Pl. 9)
Rev. Arch., v (1862), pl. v
Bertrand, 1889, 370, fig. 106.
Lipperheide, 1896, 224, no. 363.
Coutil, 1902, 82ff., pl.10.
Coutil, 1912, lff. figs. l and l bis
Déchelette, 1914, 1164, fig. 490, 3.
Jacobsthal, 1944. 179, no. 140 and refs.
2. Prunay, Les Marquises (Marne),Musée de l'Abbaye
St. Rémi, Reims. (Pl. 8, below)

Coulon, 1930a, 183£. 1930b, 44f.

Jacobsthal 1944, 179, no. 139.
Stead, 1965, 99.
3. Tronoën, St. Jean-Trolimon (Finistère), ex du

Châtellier Collection, Poss. St. Germain-en-Laye. du Châtellier, 1907, 323f. p. xvi, 25.

Coutil, 1912, 5, fig. 2.
Déchelette, 1914, 1164, 1606.
Jacobsthal, 1944, 179, no. 141.
Giot, 1960, 187.



1. Castelrotto (Kastelruth) (Alto-Adige-Trentino),

Naturhistorisches Museum, Vienna. Pl. IO, above.

Lipperheide, 1896, 230, no. 457.
Krämer, 1964, 14n.
2. Giubiasco (Ticino), Schweiz. Landesmuseum, Zurich.
(i) Grave 263 (Pl. 12, below right).

Ulrich, 1914, pl. Ixxxi, 2 and 2a.
Coutil, 1914, 50, pl. 16.
Drack, 1954-5, 222
Moreau, 1958, 247, Taf. 18.
(ii) Grave 425

Ulrich, 1914, 652f., p.l. Ixxx, 1 and la.
3. Haţeg (Hátszeg) Rurnania. Naturhistorisches Museum, Vienna.

Moreau, 1958, 246, Taf.10.
Vinski-Gasparini, 1959, 296, Tab. iii, 17.
4. Mihovo, St. Vereja, Krško (Mihovo bei St. Bartelmä,

Kostanjeviča, Gurkfeld) (Slovenia),
Parzellennummer
1655 - Grave 58. Naturhistorisches Museum, Vienna. (PI. 12, below left).

Vinski-Gasparini, 1959, 291n., 296, Tab.ii,15.
5. Montefortino (Emilia)

Brizio, 1899, 673, Tav. vi, 3.
6. Nebringen, Böblingen (Baden-Württemberg)

Krämer 1964, 14f, 27, Tafs. 11, 7 and 12.
7. San Maurizio, Bolzano (Moritzing, Bozen) (Alto-AdigeTrentino.) , Tiroler Landesmuseum, Innsbruck. (P1. 11).

Bertrand and Reinach, 1894, 118. fig. 77. Lipperheide, 1896, 228, no. 458. Coutil, 1914, 15. Jacobsthal, 1944, 116n. Lucke and Frey, 1962, 68f.
8. Sanzeno (Alto-Adige-Trentino), Tiroler Landesmuseum, Innsbruck. Pls. 10, below; 12, above.

Lipperkeide, 1896, 229, no. 459. Coutil, 1914, 15. von Merhart, 1926, 75. Reinecke, 1942, 157n. Jacobsthal, 1944, 104, 116n.
9. Silivaş (Oláhszilvás) Aiud, Alba de-Jos-Alsofehér
(Rumania)
Reinecke, 1898, 310ff.
Parvan, 1928, pl. 13.(and pl. 12 for associated finds)

Marton, 1933, 52f., Abb. 10.
Jacobsthal, 1941, 391ff.
Hunyady 1942 Tab.xlviii.
Jacobsthal, 1944, 179, no. 42.
Filip, 1956, 168.
Filip, 1966, 212 (D. Berciu).
Berciu, 1967, 152, fig. 67a.
It is as well to recall Parvan's caution (1928, ll0)
'The contents of this Celtic tomb, which long remained
hidden away in a private collection, may belong to the
upper valley of the Mureş. The first man to describe it affirmed that the information at his disposal enabled him to place its origin at Silivaş, near Uioara de Mureş. .... Unfortunately, however, we are by no means sure of the origin of this discovery. The private collector who acquired it might very well have made a mistake.'


Map 2. 1, Castelrotto Helmets; 2, Batina Helmet
$\triangle$ CASTESLROTTO HBLMEPS

1. Castelrotto (Kastelruth) (Alto-Adige-Irentino
2. Giubiasco (Ticino) Graves 263 and 425.
3. Haţeg (Hátszeg) (Rumania).
4. Mihovo, St. Vereja (Slovenia) Parz.num. 1655 -
5. Montefortino (Emilia).
6. Nebringen, Böblingen (Baden-württemberg).
7. San Maurizio, Bolzano (Alto-Adige-Trentino).
8. Sanzeno, (Alto-Adige-Trentino).
9. Silivaş (Oláhsilvas) (Rumania).

## O BATINA HETMETS

1. Apahida, Cluj (Rumania).
2. Batina (Kisköszeg) (Crostia).
3. Ciumeazti near Satumare (Rumania).
4. Holiare (Slovakia).
5. Pergamon (Western Turkey).




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\underset{A}{d}
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## (iiic) Batina

1. Apahida, Cluj (Rumania),Muzeul de Istorie, Cluj. Pl.14. Filip, 1956, 168.

Vinski-Gasparini, 1959, 290.
The helmet fragments were found in 1900 and the drawings published here for the first time have been supplied by Prof. C. Daicovicui, Cluj. who has also provided the original reference to the discovery. Arch. Ert. xxi (1901) 288.
2. Batina (Kisköszeg) (Croatia) Naturhistorisches Museum Vienna. Pl. 13, below. Vinski-Gasparini, 1959, 281, 294f土., Tab. ii, 12-14.
3. Ciumeşti near Satumare (Rumania),

Muzeul de Baia Mare. P1. 15.
Filip, 1966, 236 (M. Rusu).
4. Holiare (Slovakia), Nitra Museum.

Benadik et al, 1957, 142f., Taf. xxxv, Abb. 27.
5. Pergamon, Western Turkey. P1. 13, above.

Bohn, 1885, pl. xlvi, 3.
Reinach, 1896, 1145, fig. 3458.
Powell, 1958, pl. 49.
Jaeckel, 1965, 10lf., fig. 23.


$\downarrow 1$ 1 1 cm.


1


(iva) Agen

1. Agen, Plateau de I'Ermitage (Lot-et-Garonne), Musée d'Agen.Pl.17, above.
Matériaux, 1878 , 190£f.
Maitre, 1879, 2l6ff figs. 2 and 3.
Coutil, 1914, 30.
Déchelette, 1914, ll66, fig. 491. and refs.
Fabre, 1952, 143.
Harmand, 1967, 85£., fig. 8.
2. Alésia, Alise Sainte Reine (Côte d'Or), Mu.sée National de St. Germain-en-Laye. PI. 19, below.

Verchere de Reffye, 1864, 348, fig. 18, pl. xxii. Maitre, 1879,216 ff. figs. 3, 4 and 8.
Déchelette, 1914, 1166 , fig. 491, and reis.
3. Giubiasco (Ticino) Grave 32, Schweiz. Landesmu.seum, Zurich. Pl. 16, above.

Ulrich 1914 5481. pl. Ixxx, 3 and 3 a
Coutil, 1914, 30, pl. ix, 2.
Jacobsthal and Langsdorff, 1929, 19f.
Reinecke, 1942, 155.
Drack, 1954-5, 221.
4. Idrija pri Bači (Idria bei Bače) S Lucia d'Isonzo (Slovenia) (Grave 5.)

Szombathy, 1887, 328, fig. 138.
Reinecke, 1942, 14lf.n.
5. Mihovo, St Vereja, Krško (Mihovo bei St Bartelmä, Kostanjeviča, Gurkfeld) (Slovenia)

Parzellennummer 1656, Grave 27. Naturhistorisches Museum, Vienna. Pl. 19, centre.

Vinski-Gasparini 1959 291n., 296. Tab. iii, 16.
6. Notre Dame du Vaudreuil, Conninière (Eure), Musée de Louviers.

Coutil, 1902, 97ff., pl.10.
Coutil, 1914, 29f, 1918, 86.
Harmand, 1967, 851., fig. 7.
7. Port, from the River Aare, Station Portländte (Bern),

Schweiz. Landesmuseum, Zurich. Pøl.l9above.
JSGU, 1921, 85.
Tschumi, 1940, 16, Abb. lla.
Staehlin, 1948, 130, Abb. 14.
Tschumi, 1953, 328f.
8. Port, Zihlkanal (Bern), Bernisches Historisches Museum, Pl.16, below.

JSGU, 1913, ll6f and fig.
Vouga, 1923, 631.n.
Tschumi, 1953, 404
Wyss, 1960, no. 41.
9. Vié Cioutat, Méjannes-les-Alès (Gard), Musée

Archéologique de Nîmes. Pl. 17, below.
Rev. Arch., i (1880) 297.
Lipperheide, 1896, 268f., no. 492 a-c.
Reinach, 1898, 1447
Déchelette, 1914, 1165n.
10. Vinji vrh (Vini vrh) Šmarjeta (Slovenia). Pl. 18.

Mullner, 1898, 20ff, figs. 1 - 3 .
Déchelette, 1914, 1167, fig. 492.
Jacobsthal, 1944, 181, no. 152. and Plates.


Map 3. 1, Agen Helmets; 2, Coolus Helmets; 3, Helmets allied to the Coolus group; 4, British Helmets.

## - AGEN HELWETS

1. Agen, Plateau de 1'Ermitage (Iot-et-Garonne).
2. Alésia, Alise Sainte Reine (Côte d•Or).
3. Giubiasco (Ticino) Grave 32.
4. Idrija pri Bači (Slovenia) Grave 5.
5. Mihovo, St. Vereja (Slovenia) Parz.num. 1656 - Grave 27.
6. Notre Dame du Vaudreuil, Conninière (Eure).
7. Port, from the River Aare, Station Portländte (Bern).
8. Port, Zihlkanal (Bern).
9. Vié Cioutat, Méjannes-les-Alès (Gard).
10. Vinji vrh, Šmarjete (Slovenia).

## - COOLUS HELMETS

1. River Flambart, Breuvannes (Haute Marne).
2. River Doubs, near Ciel (Saone-et-Loire).
3. Condé sur Suippes (Aisne).
4. River Marne near Coolus (Marne).
5. Lacollonge (Territoire de Belfort).
6. River Aisne at Laon (Aisne).
7. Vadenay, Suippes (Mame).
8. River Danube at Straubing (Bavaria).
9. Düsseldorf (Westphalia).

- ALLIED HBLMETS.

10. Cité de Limes, Dieppe (Seine Maritime).
11. Tongemn (Iimburg).
12. Böckweiller (Saar).
13. River Rhine at Mainz (Rhineland Palatinate).
14. River Rhine (an old bed) at Mannheim (Baden-Ẅ̈rttemberg).
$\triangle$ BRITISH HELMETS.
15. Ogmore Down, Cowbridge (Glamorganshire).
16. River Thames at Waterloo Bridge (liliddlesex).
17. Findspot unknown but probably in the North of Ingland.




(ivb) Coolus
18. River Flambart, Breuvannes (Haute Marne), Musée

National de St. Germain-en-Laye. Pl. 2l, above.
Lipperheide, 1896, 225, no. 97.
Coutil, 1912, 7
Kessler, 1928, 162, Abb. 2, 3.
2. River Doubs, near Chalon (Saône-et-Loire), Musée de Chalon-sur-Saône.

Armand Calliat, 1965, 261 ff., fig.l.
3. Condé sur Suippes (Aisne), Musée de Soissons.
4. River Marne near Coolus (Marne), British Museum, Pl. 20, above.

Morel, 1898, Pl.39, fig.2.
BMEIAG, 1905, 68, fig. 59.
Armand Calliat 1965263 (fig. 32 and 6: Irom a cast)
5. Lacollonge (Territoire de Belfort), Musée de Belfort

Lerat, 1960, 261f., fig. 24.
Armand Calliat, 1965, 263
6. River Aisne at Laon (Aisne), Private collection.

Information A France-Lanord. The Aisne does
not in fact flow through Iaon - ? in the Aisne
to the Soutb of Laon.
7. Vadenay, Suippes (Marne), Musée National de St. Germain-en-Laye.

Lipperheide, 1896, 226, no. 98.
Coutil 191888.
Kessler, 1928, $162 \mathrm{Abb} \cdot 2,2$.
8. River Danube at Straubing (Bavaria),

Prähistorische StaatssamJung, Munich.

Reinecke, 1951, 37f. Abb.l.
Moreau, 1958, Taf. 27.
9. Düsseldorf (Westphalia), Landesmuseum Bonn.

Bonner Jahrbucher, cxlvi (1941), 217, Taf. 26
Abb. 2.

Allied helmets
10. Cité de Limes, Braquemont, Dieppe (Seine Maritime), Musée de Dieppe.

Coutil, 1902, 981.
Coutil, 1912, 6£. and fig.; 1914, 19 and fig.
Déchelette, 1914, 1164.
11. Tongern (Tongres)(Limbourg), Musées Royaux d'Art et
d'Histoire, Bruxelles. Pl. 20 ,below.
Mariën, 1952, 368, fig. 345.
de Laet, 1958, 1163.
12. Böckweiler (Saar), Staatliches Konservatoramat.
Pl.21, below.
13. River Rhine at Mainz (Rhineland Palatinate)

Altertums nuseum Mainz.
Kessler, 1928, 16lff., Abbl.
Revue des Musées et Collections Archéologiques, xx (1929), 60.
Maréchal, 1963, 75, fig. 15.
14. River Rhine (an old bed) at Mannheim (Baden Württemberg)

Badische Landesmuseum, Karlsruhe.
AuhV, iv, 1900, Taf. 55, 2 and 2 a.
Coutil, 1914, 18.

Déchelette, 1914, 1164, fig. 489,1. Kessler, 1928, 162, Abb. 2, 1. Moreau, 1958, 252, Taf. 42.





Many discussions of Celtic helmets quote the work of von Lipperheide, Antike Helme, Munich, 1896, but as this volume is not readily available in Britain, reference has been made to it in this chapter as seldom as possible. It seemed useful, however, to provide a list of the pages and the numbers of the individual helmets which Lipperheide illustrated because it is not always clear whether references in other works refer to a page or to a helmet number in Lipperheide. Only the Celtic helmets under discussion have been listed in this way. The volume is to be found for example in the collection of the Ashmolean Library, Oxford and in the library of the Romisch-Germanisch Museum, Mainz. Antike Helm.

Herausgegehen von Franz Freiherrn von Lipperheide mit Abbildungen von Karl Rickelt.

Munich. 1896.

|  | Page | Helmet number. |
| :--- | :---: | :---: |
| Amfreville-sous-les Mont (Eure) | 224 | 363 |
| Breuvannes (Haute Marne) | 225 | 97 |
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| $\quad$ (i.e. San Maurizio, Bolzano) |  |  |
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| (i.e. Castelrotto) |  |  |
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| Telamon. Mus. Etrusco, Florence | 233 | 17 |
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| Between Acquaviva and Montepulciano | 235 | 226 |
| 'Lyon', Mus. St. Germain-en-Laye | 246 | 96 |
| Berru. (Marne) | 262 | 103 |
| La Gorge Meillet (Marne) | 263 | 99 |
| Agen. (Lot-et-Garonne) | 264 | 264 |
| Vié-Cioutat (Gard) | 268-270 | $4922-c$ |
| Zihl. at Port nr. Nidau |  |  |
| (Zurich Landesmuseum.) | 271-2 | 495b-a |
| British Museum, "North of England" | 281 | 253 |
| River Thames - Waterloo Bridge | 351 | 30.a. |










3. Gatrs in Fliailt

# CHAPMER 4. <br> BRITISH HELMETS 

Catalogue

## Helmets

Site: Castell y Lligiad, Ogmore Down, Cowbridge (Glamorganshire).
Coll.: Lost.
The objects found on Ogmore Down in 1818 were llost on the road' after their dispatch to the Society of Antiquaries in London, but a number of notes made by Charles Redwood at the time of the discovery and by W.W. Young rather later, were published in 1871, along with an engraving of Young's sketches of the pieces. The grave goods of at least two inhumations seem to be represented, and the two helmets were found to contain the skulls of the buried warriors. Apart from the helmets, several swords or daggers, a number of spear heads and pieces of bronze chain were also uncovered. 'Neither of the helmets was preserved whole, but some ornamental parts detached from the casques they had formerly adorned remained in excellent preservation'. Only one ornamental side-piece was preserved, and as each of Young's sketches of the helmets shows it (pl. xxxvi, figs. 1 and 2), they must both be taken to illustrate the same piece. As it is not possible to disentangle distinct features of two helmets, only one is described here, but it seems likely that they must have been very similar.

Desc.: The helmet cap was of beaten bronze surmounted by an annular top knob on a crown piece, said to have been of silver, and this appears to have been edged with strands of gold and silver twisted together. At the base of the helmet there were two ribs, the lower of which might have been the thickening of the brim, and between them there was a band
of blue enamel. Hinged to the upper rib was a 'side or ear-piece........which could be turned up or down.' In the former position the visible face is said to have been infilled with vermillion enamel. Twisted wires are shown inserted into two holes at its free edge and these are attached to the crown, thus making the flap immovable. This side piece is lyre-shaped with a hole at each side of the head of the lyre. Although it is difficult to interpret from the drawings, it may have been a decorative balance to a missing cheek-piece. It is more likely that this is the attachment for a chin-strap and the twisted wires may be explained as the edging for the strap. Modern military chin-straps, when not in position under the chin, are attached to a hook at the crown of the helmet and this may account for the position of the hinged side-piece and the wires as shown in the published drawings. There is some confusion about the shape of the helmet itself; fig. l shows it half-face and it appears to be almost conical with bowed-out sides; fig. 2, which shows it in profile, suggests a more bowl shape and the base is seen to be rather arched. The measurements given for one of the helmets, taken from a sketch that may be full size, are '9 inches in greatest width, 8 inches high exclusive of ornament'.

What seems to be a third disturbed grave was uncovered by Redwood some weeks later and a 'copper helmet and many heads of spears' were discovered. The 'copper' (i.e. bronze) was nearly a quarter of an inch thick, and again two drawings are illustrated although, on this occasion, only one piece was found (pl. xxxvi, figs. 3 and 4; fig. 3 is that referred to in the note itself). This piece would seem to be of a size to cover the crown of the head, and there are three
visible loops from its base (and presumably a fourth hidden); there is also a ring top-knob. Its purpose seems to have been noted at the time but to have occasioned no comment since - it is the top piece either of a leather helmet or of a ritual crown and taking into account the solidity of the piece and the fact that no other ornamental features were uncovered, the former seems the most probable solution. The padded leather cap would be attached to this top knob by sewing thongs through the four loops.

Refs.: Grant Francis, 1871, 553ff., pl. xxxvi.
Wheeler, 1925, 205ff.
Ashbee, l960, l03f., 143 (wrongly ascribed to the Bronze Age).

Jope, 1961, 32ln.
Al cock, 1963, 14.
Hogg in ed. Foster and Daniel, 1965, 128, fig. 16. Simpson, 1966, p. 169f.

Although the Grant Francis collection of MSS. is still extant in the Royal Institution of South Wales, Swansea, and some items are in the National Library of Wales, enquiries have failed to bring to light the original sketches or notes of the Ogmore Down finds.

Illust.: Pl. 31 from Grant Francis, l87l, pl. xxxvi.
!

Site: River Thames at Waterloo Bridge (Niddlesex)
Coll.: British Niuseum. Deposited by Thames Conservancy. Found in 1868 .

Nat.: Bronze, repoussé decorated and plain sheets.
Meas.: Height of cap $14 \mathrm{~cm} . ;$ height to horn tips 21.6 and 24.2 cm . Diarn 18.6 cm . front to back and 18.3 cm . side to side; Width (between horns) 42 cm .

Desc.: The cap consists of two sheets of bronze, one front and one back, which is in fact the better preserved, and a smaller additional piece which provides additional protection at the neck; all three are decorated in repoussé. The sheets are riveted together and the joins are masked by narrow bronze strips with milled edges. A series of cast rivet heads in the centre of these strips are almost all solely decorative, with the functional rivets almost counter-sunk. These joining strips terminate at either side above the temple with a ring through which a chin-strip may have been looped.

The two horns are conical, slightly convex, and are riveted to the cap through a narrow basal flange; the joins are ringed by milled-edged strips of bronze like those described above. Each horn consists of a single sheet of metal folded round and riveted to form a cone; the join is in each case concealed by a bronze strip. Plenderleith and Maryon were the first to note that the terminal knobs had been cast-on in position,for some of the molten bronze has run down the inside of the cone and is still visible. The knobs also have a slightly pitted appearance.

The repousse decoration on the three sheets that make up the head piece forms three independent schemes. On both
back and front, three broad-headed studs (cross-scored forred enamel, some of which still survives) have been riveted onto the cap so that they make up the points of triangles with their apex near the crown and their bases longer than their sides. The metal bases of the decorative studs seem to have been cross-scored as a sheet and cut to size after this operation. The deep scorings have created V-shaped cuts in the metal, and the enamel probably covered these completely. Plenderleith and Maryon note that the enamel was not inlaid but fused into position and that, if after firing the surface was smoothed, the points of the cones left in position after the scoring were still not exposed. The rivet which fixed these studs was decorated with an inscribed circle and a central dot. On the back, at either side of the uppermost enamel knob a sinuous curve sweeps outward, almost to the edge of the helmet. On the dexter curve a triangular junction touches the other curve with one point; this motif encloses a trumpet pattern with a 'matting' infilling, and there has also been a central stud but this is represented only by its hole. At the base of each of the main curves a right-angled joint allows the scroll to curl beneath the base of the horns and to terminate in a stylised bird's head. The knobbed beaks touch the main tendril against small triangular motifs. These enclose crescents of 'matting' with small pseudo-rivets. The imbalance below the crown and the fact that the birds' heads are not identical serve to offset the almost axial symmetry.

Between this decorative scheme and the rim there is an additional strip of bronze which may well have served to increase the cover at the neck. Its simple pattern centres on an
arched tendril springing from triangular bases which enclose trumpet patterns of 'matting' with three small rivet heads in each motif, and from the outer corners of these triangles the tendril arches up again to finish in a 'golf-club-shaped' flourish.

The repoussé decoration on the front has been asymmetrically set round three enamelled rivets, although at present only two survive. From the mid-point of the bottom rim of the helmet two tendrils flow under the lower studs and curve round under the base of the horns into birds' head terminals with knobbed beaks. These birds 'look' outwards and upwards in contrast to the heads on the back of the helmet. On the crown a pair of small 'horns', which enclose crescents of 'matting', spring from the key of a tendril arch which encloses the lower studs in a right-hand sweep at each base. The dexter side of this motif forms one end of an S-pattern with the bird terminal as the other. The sinister, abutts the comparable tendril but cannot form a similar figure as it is not reversed. Above the lower studs there is a lobe of basket matting;although this survives only fragmentarily on the sinister, the position of one of the decorative nails can still be seen. There are three such nails symmetrically placed within the dexter motif. A small U-shaped binding strip of bronze edges the rim of the helmet and three ribbed tabs riveted to the body of the helmet at the base of the neck guard to secure this binding. Refs.: BMEIAG, 1905 , 95, fig. 67. Déchelette, 1914, 1159, fig. 487. Leeds, 1933, 26. Henry, 1933, 81f., fig. 8,7. Piggott and Daniel, 1951, 21, no. 53.

BVIPAG, 1953, 68, pl. xviii, 1.
Brailsford, 1954, 759ff.
Clarke, 1954, 65.
Jope and Wilson, 1957, 99.
Fox, 1958, 49.
MacGregor, 1962, 29n.
Thomas, l965, fig. 264.
Powell, 1966, 216.
Simpson, 1966, p. 184, 186.
A technical report prepared by J.H. Plenderleith and
H. Maryon at the British Museum laboratories in August

1953 has been consulted by kind permission of J.W. Brailsford.
Illust.: Pl. 32 above: back view; photo. British Museum. below: side view; photo. British Museum.

Pl. 32a: inside of helmet; photo. author.



Site: Findspot unknown. Probably in the North of England.

Coll.: British Museum, 1872, 12-13, 2. Previously in the Meyrick collection. Given to the British Museum by W. Franks in 1872.

Mat.: Bronze, beaten and possibly spun.
Meas.: Maximum height 16.5 cm ., diam. front to back $2 l \mathrm{~cm} .$, side to side 15.5 cm ., maximum width of neck guard 8.9 cm .

Desc.: The helmet consists of a conical cap (possibly spun from a single bronze sheet) and a broad neck-guard with repoussé decoration. The side pieces above the temples are fragmentary and cheek-pieces, had they ever existed, are lost. The top-knob or plume-holder is also missing,but a central and three flanking rivet-holes by which it has been attached are still visible. The central hole may either have resulted from a fixing rivet of the top-knob that has surmounted the helmet, or from the chucking necessary during the lathe spinning. The tooling implied by this later suggestion is not visible (al though it could easily be polished off), but this technique is suggested because of the evenness of the cap. Three rivet holes and a circular area rather lighter in colour than the rest of the helmet which extends beyond these holes, show the size and method of fixture of the top-knob which seems to have had a diameter of about 3.8 cm . This summit area has also been hammered up slightly and is thus out of alignment with the rest of the profile. The thickened rim of the cap is edged with two pairs of incisions at the front and two
deep grooves above the neckguard.
The side-pieces are of repoussé bronze and each has been held in position by two broad headed rivets, with criss-cross scorings to hold enamel; the scores have vertical sides and thus flat, not conical, tops. Only one suck rivet now survives to each fragmentary attachment, the lower rivet on the dexter and the upper on the sinister. It has been suggested that an internal rivet on the dexter attachment, a.t the rim of the helmet, has been for the fixing of a leather chin-strap but this is not certain. A similar rivet on the other cheek-piece is missing, but there is a rivet hole on this side and also a rivet inserted from the inside of the helmet. A filed nick is visible on the interior underneath each of these rivets, and this may have been necessary to allow the tab, by which a cheek-piece would be attached, to pass across the inner thickening. The mark of such a tab is still clearly visible on the sinister side of the helmet and to a lesser extent on the dexter. These nicks, which are about 1.3 cm . broad, in the inner thickening of the rim are visible on Pl. 34, above, and the marks of the tabs show that they have only been about 1.3 cm . in length.

The broad crescent-shaped neck-guard, springing from the rear edge of the side-pieces, is made from the same piece of metal as the cap. It is bounded by a single incised line and its repoussé decoration is symmetrical around the central axis. On either side of this, a lobe curves round from a stud criss-crossed for enamel. A rivet hole on this central axis may have held a similarly decorated stud and round this the two lobes are joined by a central lyre loop. The surviving studs still have traces of red enamel in the grooving. There
are also two smaller rivet holes on the central axis of the neck-guard; they play no part in the decorative scheme, and it might be suggested that they are for a leather thong for hanging up or for carrying the helmet.

An unusual feature is the scored Roman numeral II
behind the dexter side piece.
Refs.: BMIAG, 1905, 95, fig. 59.
Déchelette, 1914, 1160n.
Henry, 1933, 81.
BMIAG, 1925, 72, 107, fig. 65.
Piggott and Daniel, 1951, 24, no. 54.
BVIPAG, 1953, 68, pl. xviii, 2.
Brailsford, 1954, 759ff.
Fox, 1958, ll9, pl. 62c.
Wright, 1963, 181.
Simpson, 1966, p. 167, Catalogue no. 175.
A technical report prepared by J.H. Plenderleith and H. Maryon at the British Museum laboratories in August 1953 has been consulted by kind permission of J.W. Brailsford.

Illust.: Pl. 33 above: helmet and neck-guard; photo. British Museum.
below: detail of side-piece; photo. British Museum.

Pl. 34 above: interior of helmet showing side nicks; photo. author.



## Cheek-Piece

Site: Croft Ambrey (Herefordshire).
Coll.: In the possession of the excavator (1965 Stanley C. Stanford.

Mat.: Iron.
Meas.: 12.2 cm . long, 6.4 cm . broad.
Desc. and Cond.: This helmet cheek-piece is in a rather fragmentary state, presumably because of the poor survival value of iron. The upper edge along which it has been attached to the helmet is incomplete and whether it was hinged or fixed by thongs cannot be shown. It had an indented edge and, as this usually faces front, this must be taken to be the cheek-piece on the right side of the head. The rear edge is concave (a most unusual feature); the indented front face is perhaps intended to make the protection of the cheek as complete as possible without reducing side visibility, but the whole piece is too slight to have afforded significant protection for the face.

Decoration of this piece takes the form of two embossed. scroll patterns also in iron, but the upper is too rusted to decipher and is in part missing. The lower motif consists of a loop which begins near the base of the upper scallop and runs round the edge of the lower. The rib of the loop divides at the bottom of the cheek piece to enclose a triangular base, but unites again to hook inwards to its expanded terminal. Refs.: Unpublished information in litt. from S.C. Stanford. Illust.: Pl. 34 below: cheek-piece, from a drawing kindly communicated by S.C. Stanford.


The following pieces are not considered to be helmets nor defensive headgear and although they are mentioned in the discussion they are not included in this catalogue. Bronze Bosses, Peterborough, BMIPAG, 1953, 66, 69, fig. 25, 2; Jope in Ed. Frere, no date, PIASB, 82n. Pl. 35, photos. British Museum. Ritual Horns, Cork, ${ }^{\prime}$ Kelly, 1961, lff. for best account and earlier references.
'The Petrie Crown', Ireland, but findspot unknown. O'Kelly, l96l, lff.; with earlier references.


## BRITISH SHIELDS

Catalogue

Site: River Thames, Battersea (Niddlesex)
Coll.: British Museum, 1857, 7-15, 1 and 2.
Mat.: Bronze and red glass.
Meas.: Shield 77.5 cm . in length, 35.6 cm . in greatest width. Mounting for hand grip 14.5 by 13.2 cm .

Desc.: As the shield is virtually symmetrical on both axes, its top in this description is understood to be that shown by Kemble (1863, pl. xv, l); the shield consists of a base of four bronze sheets on which there are traces of mercury gilding. Each of the sheets makes up one quarter of the surface and they are bound in position by U-shaped strips. On one side the strip is complete from top to bottom; on the other it is now in four pieces. Only one of the small bindings that protected the joins of this outer rim survives, and it is decorated with simple linear motifs. The surface of the U-shaped binding strips is covered by a series of parallel transverse lines made with a blunt tracer at close intervals. The binding shows too that there must originally have been a. backing of wood. The shield is round-ended and gracefully waisted. Decoration consists of three large applied bronze roundels with repoussé ornament which curls round saucers of red glass; one such roundel surrounds the central boss of the shield and it is flanked above and below by two smaller pieces. A single decorative scheme is achieved by linking all three by bovine, or possibly equine heads, whose glass-filled knobbedhorns and glass-filled eyes rest on the rim of the central roundel and whose muzzles nose onto the outer ones. This
central axis is in essence the spina of the ordinary plankmade shield. The shield will be described in the following order, first the central boss, then the upper roundel (although slightly smaller, the lower is virtually identical to it) and finally the bronze mounting which may have decorated the handgrip on the reverse of the shield.

The central roundel is 28.7 cm . in diameter; it is riveted to the back-ground sheets through two small outer tabs on its cross axis and by ten rivets symmetrically arranged on its surface. The raised boss is ribbed at its base and at its summit there is a saucer of red glass. The saucers of red glass were first examined in detail by Plenderleith and Maryon and the following paragraph owes much to their description. Each red glass setting is made from a bronze plate which was filed down to provide four recesses into each of which a piece of red glass, cut to shape, was cemented. Between the glass, the bronze forms a 'windrnill paddle' (or swastika) shape but this does not overlie the glass in any way, for each segment is independent. At the cross axis of each paddle there is a small rivet by which the complete saucer has been attached to the shield.

Although to describe one quarter of the art motifs of the roundel would be sufficient from a mathematical point of view, the notion of the scheme would be lost. Above and below the boss there is a fugitive face; the line of the nose uses the central axis, and a small pursed mouth rests against the boss itself. Eye-brow tendrils arch out above the owl-like background in which there are two rather convergent 'eyes' of red glass. Flanking the boss there are two repoussé palmettes which curl to enclose two glass knobs apiece and these are
surmounted by a concave-sided lozenge, infilled with dots. This lozenge contains a cross-ridge and a tear motif between the glass circles. Those four patterns are woven into one by a sinuous tendril with hollow-sided triangular joints and these joints form the base from which the palmettes and the circles which enclose the eyes of the face all spring.

The upper and lower roundels are rather less than half the central one in size, and the upper one measures 16.5 cm . in diameter. The bovine head belongs to the same bronze sheet, and the central roundel overlaps a flap which extends beyond the knobbed horms. The centre of this roundel is again a raised, ribbed boss on which there is a glass-filled saucer. Four other glass saucers which are disposed on the axes of the shield are linked by sinuous symmetrical S-scrolls which hook round the side knobs and through the top and bottom ones. There is considerable skill in the breaking of the contour of the thin stem of the $S$, so that the three-dimensional sweep is maintained. Those curls which include the top and bottom knobs within their final sweep are expanded to achieve this effect, and the outer ribbing encloses fields of pointillé ornament. The roundel itself is fixed to the background sheet bronze by five rivets. Four small glass saucers with thin bronze cross bars are the principal features round which the linking head has been created. The tiny 'windmill paddles' of the cross-pieces have a small central dot in place of the hatching on the larger 'paddles'. Two glass-filled circles on the central axis are the eyes of the beast; above them spring brow-ridges which extend into trumpet curls, themselves encircling the other two areas of glass which form the horm terminals. The eyes are enclosed in a palmette which suggests
the outline of the face and which extends to a drop-like nose; this latter rests on the lower roundel. On either side of the nose there are two further attachment rivets. A mending strip on this enclosing circle, covering a weakness in the bronze, is decorated with a simple knobbed-S in repoussé technique.

The handle mount has decorated the back of the shield and has been attached by a number of tiny rivets, some fixed through small tabs which extend beyond the grip. The fact that there are no corresponding holes in the shield itself shows that there has been a wooden backing to the sheet bronze, and the insubstantial rivets show too that there has been a solid wooden grip behind this bronze covering, a suggestion confirmed by two rivet holes on the bronze handle itself. To the top and bottom of the axis of the handle there are two open work comma motifs, cut through the bronze, and these flank a. knobbed and cross-ridged rib. On either side of the handle opening are two arches and from these have been cut two lentoid shapes, leaving, in the middle of each area, a concavesided triangle, which has been filled with dotted decoration. The whole plate is raised in repoussé from its edges, and round the open-work areas there are further raised ribs. Refs.: Journal of the British Archaeological Association, xiii (1857), 237. ibid., xiv (l858), 326ff., pl. 24, 4 . Kemble, l863, 190, pl. xv, 1. BNEIAG, $1925,25,106, p l . i$. Hemp, 1928, 259, fig. 12. Leeds, 1933, 11, 23, 25ff. Henry, 1933, 81, fig. 7, 2 and 4.

Fox, 1946, 7n.
Piggott and Daniel, 1951, no. 55.
BMIPAG, 1953, 68, pl. xix.
Brailsford, 1954, 759f.
Fox, 1958, 27ff., pls. 14a, 16, 17.
Thomas, 1965, fig. 251.
Powell, 1966, 236, fig. 246.
Details of the shield-grip mounting have generously been made available to me by Mr. Mansel Spratling in advance of his publication of this piece. A technical report prepared by J.H. Plenderleith and H. Maryon at the British Museum laboratories in August 1953 has been consulted by kind permission of J.W. Brailsford.

Illust.: Pl. 36 above: front view of shield; photo.
British Museum.
below: hand grip; drawing Mansel Spratling.
Pl. 37 above: central roundel; photo. British Museum.
below left: lower roundel, photo. author. below right: detail of side of central roundel; photo. author.


## 1.




Site: Blackburn Mill, Cockburnspath (Berwickshire)
Coll.: National Museum of Antiquities of Scotland, D.W. 148.

Mat.: Iron.
Meas.: 16.5 by 7.7 cm .
Desc.: This seems to be a fragment of a round boss and the major surviving portion is the circular flange which was originally riveted to the planking of the shield. One rivet hole is visible on the flange and part of the dome of the boss also survives. This piece comes from a hoard of metalwork of late lst to early 2nd century A.D. date. Ref.: Piggott, 1952-3, 47, fig. 12, B 30 and refs.

Site: Carlingwark Loch (Kirkcudbrightshire)
Coll.: National Nuseum of Antiquities of Scotland, D.W. 85L.

Mat. : Iron.
Meas.: originally about 10.2 cm . internal diameter.
Desc.: It is possible that this flat iron ring is the flange (circa 2.6 cm . wide) of a round shield boss. Three rivet holes survive for its attachment to the planking of a shield, and the outer edge has a decorative nicking. In a hoard of metal-work of late lst to early 2nd century A.D. date.

Ref.: Piggott, 1952-3, 37, fig. 9, C 38, and refs.

Site: Catioroc, St. Saviour Parish (Guernsey). Cist. no. 1.

Coll.: Guernsey Museum.
Mat.: Iron.
Neas.: 18.3 cm . long and 8.7 cm . broad.
Desc.: The boss was found in the cist burial of a warrior discovered with three others in 1843. 'Several' iron socketed spear-heads and knife fragments, an iron sword with a type of cocked-hat hilt, a number of bronze and iron rings, a clay bead and a wheel-turned pot were associated with it. The iron strip boss has an attachment flange on each side, but these appear to be incomplete and there are no rivet holes in the surviving portions. The thickness of the arched boss is at most 8 mm. , but this would seem to be due to rust. There is an edging rib at top and bottom of this central portion to increase its strength. No further shield attachments, handle, binding strip, were recorded.

Ref.: Kendrick, 1928, 190.

Site: Grimthorpe East Riding (Yorkshire)
Coll.: British Museum, 1876, 2-8, 1 and 2.
Mat.: Bronze.
Meas.: i. Central cover, llcm. long, 8.2 cm . broad. ii. Side pieces, 31.8 cm . long, 9.5 cm . broad at mid point.
iii. Spina fittings, 28 and 29 cm . long, 1.3 cm . broad.

Desc.: The boss-cover, two crescentic side-pieces and two bronze spina covers survive and are here described in that order.

The central wooden boss has been covered by an oval sheet of bronze which has, as its central motif, a circle some 6.4 cm . in diameter divided along its axes. The outer points of two of the opposing quadrants of the oval are joined by the arc of a circle, and thus two triangles with one concave side are formed: these are filled with hatched incisions. The whole central motif is surrounded by a hatched border, and this in turn is extended on its vertical axis by two hollow-sided triangles, again infilled with hatching. The decoration is achieved by fine incision. There are four rivet holes on the axes, and a central rivet survives to a length of 5 mm .

Flanking the spindle shaped wooden boss that this piece has covered were two crescentic bronze plaques. The outer edges of these make a diameter of just over 30.5 cm . and the inner sides are curved to accommodate the boss itself. Decoration is confined to a band round the circumference in which a series of incised rectangles with their top left corner stepped have been infilled with hatching. This motif has been described as a travesty of the Greek key pattern

Two U-shaped bronze sheaths have covered the wooden spina and have been attached to it by rivets at each end; (the remaining rivet is 1.5 cm . long). One end of each piece is rounded to enclose the extremity of the spina and the U-shaped open end, which has faced the centre of the shield, has a simple incised triangle with one of the rivet holes at its apex. The shield was placed in a grave over the body of the dead warrior.

Refs.: Mortimer, Reliquary, ix (1869), I80ff.
Hortimer, 1905, l50ff., Frontispiece.
BIIEIAG, 1925, 99, 106, 113f.
Hemp, 1928, 258, 268, fig. 11.
Atkinson and Piggott, 1955, 232.
Fox, 1958, 35, pl. 23c.
Stead, 1965, 67, 69, 119.
Simpson, 1966, p. 165.
Illust.: PI. 38 from Mortimer, 1905, Frontispiece.


Site: Hunsbury (Northants.)
Coll.: Northampton City Museum D396/1956-7 and D397/1956-7.

Nat.: Iron.
Meas.: (I) 15.3 cm . in diam., 5.7 cm . high and spike 4.6 cm . long, 3 mm . thick.
(2) 15.3 cm . in diam., 5.7 cm . high and spike
12.2 cm . long, 3 mm . thick approx.

Desc.: The first consists of a round boss which has been attached to the planking of the shield by a circular flange, but, as there are no rivet holes through the flange itself, the broad-headed rivets may have been nailed outside the edge of the boss. An iron spike, which protrudes from the centre of the boss, has a rectangular section (16 by 8 mm .) and is kept in position by a flat plate at the base of the spike within the dome of the boss. The interior diameter is some 12 cm. , providing sufficient space for the shield's hand-grip. The iron of the boss is at present in a. very rusty and fragmentary condition.

The second boss is also in a fragmentary state and may in fact be two bosses one on top of the other; the inner has an internal diameter of 11.7 cm . and there are very slight remains of the flange of a domed boss of the same type as (1). The outer is a round boss, 15.3 cm . in overall diameter (including the flange 16 mm . in breadth), but the shape of this piece is partia.lly flattened and damaged. A spike, which apparently belongs to the upper boss, and has a rectangular section ( $13 \times 7 \mathrm{~mm}$.) and is bent and in a fragile condition. Refs.: Dryden, 1885, 59, p1. iii, 5.

Fell, 1936, 67, no. 26.

Piggott, 1952-3, 47.
Illust。: Pl. 39 above: side-view of Boss (1); photo. author. below: side-view of Boss (2); photo. author.


Site: Ilyn Cerrig Bach (Anglesey)
Coll.: National Museum of Wales, Cardiff.
As Fox's description of this piece is so thorough, only his scale drawings have been included in this section. Refs.: Fox, 1946, 7, 51, 91, pl. xxxvi.

Fox, 1958, 43, figs. 28-29.
Alcock, 1963, 23.
Powell, l966, fig. 248.
Illust.: Pl. 40 above: from Fox, 1946, pl. xxxvi. below: from Fox, 1946, fig. 3.



Tooling enlarged 3/

Site: Moel Hiraddug (Flintshire)
Coll.: Powysland Museum, Welshpool, and currently on show in the National Museum of Wales, Cardiff.

Found in 1872.
Mat.: Bronze.
Meas.: i. Boss and spina sheathing, 46 cm . long, 5.4 cm . high.
ii. Crescentic sidempiece, 13.5 cm 。 long, 20.1 cm . broad.

Desc.: Two components of the bronze decoration of this shield survive; the first is the cover for the wooden boss and spina; the central part, essentially a strip boss was riveted to the shield by three rivets on either side. It extends longitudinally after a low ridge, to cover the spindle-shaped spina, but the upper tip is incomplete and there are traces which indicate that it has been repaired in antiquity. The decoration consists of a repousse circle at the centre of the boss, and three grooves radiate on either side from it to the side flange. The spina cover has also been riveted to its wooden backing. The side-piece is a large pelta-shaped motif which has originally been one of a pair springing from the boss flanges and the points of which have arched back to the spina. The pelta was secured by a number of rivets round its perimeter, and by three placed centrally. The middle rivet-head has been circa 3.4 cm . broad, and the differential staining of this and the two smaller heads is still clearly shown.

Refs.: Hemp, 1928, 253ff., figs. 3-6.

Fox, 1946, 9 fig. 4.
Grimes, 1951, 225f., Cat. no. 700.
Houlder, 1961, 6ff., l8ff.
Alcock, 1963, 14.
Illust.: Pl. 4l, above: from Hemp 1928, fig. 4.
The diamond-shaped bronze plaque and the small concave-sided-triangular bronze found with the shield fragments are at present lost. Two pieces of a sword blade were also found at the same time but these could not be traced in 1928. It seems likely that the iron blade which was very oxydised at the time of the discovery has since disintegrated. It should also be noted that the concave triangular piece (now lost) was just 'one of four or five of the same size and pattern'. (Hemp, 1928, 262). (The diamond-shaped plaque is not a terminal for the central rib of a shield; pace Fox, 1958, 117).

Site: Owslebury (Hampshire)
Coll.:
Mat. Bronze
This piece has not yet been published apart from a mention in The Times, 20th January 1968. It has however been examined in the laboratories of the Winchester Museum (April 1968) and the illustration PI. 41, below, is taken from the files of The Hampshire Chronicle.

The shield boss was found across the stomach of a warrior burial in a chalk-cut grave accompanied by a long iron sword, a belt-hook, two rings and a spear. The strip boss is of beaten bronze and marks of the hammering are still visible on the inside. The hump of the strip, behind which would be the hand-grip, is remarkable as it has been beaten into a cone and forms a broad thrusting spike. There has been $a$ wooden spina extending above and below the boss and the sides of this arched centre part have been hammered up to form a distinct crescent-shaped ridge. A unique feature of the shield is that the terminal decoration of the wooden Spina also survive, for two crescents of bronze fit exactly against the ridge of the strip boss and these must have been fixed to the wooden spina. The side flanges by which the boss has been riveted to the shield are complete and expand from the central hump to provide a larger area of bronze to be fixed to the planking of the shield. The only decoration visible at present is a slight nicking round the outer edges of the crescentic terminals of the spina.

The shield may have been made up of a number of strips of wood covered with leather, but conservation and examination of this exciting find are still in progress.


Site: Polden Hill, Bridgewater (Somerset)
Coll.: British Niuseum, 1846, 3-22, 114 to 116.
Ma.t.: Bronze (I) repoussé decoration, possibly lathe finished
(2) and (3) lathe spun.

Meas.: (1) 26.1 cm . in diam.; (2) 20.9 cm . in diam.;
(3) 20.9 cm . in diam. originally but now rather warped.

Desc.: Boss (I) consists of a slightly rounded cone rising from a small straight cylinder-drum and a broad flange round it, which is decorated in repoussé. The ornamented scheme centres on the four symmetrically placed rivets that have fixed the boss to the shield planking, though now only the holes survive. In view of the importance of these rivets to the ornamental scheme it is possible that they heve been decorated or perhaps enamelled. Repoussé scroll motifs hook round alternating sides of the rivets and the scrolls are completed by trumpets at each end. The lathe finish that will be noted on the other two bosses is not at once so apparent on (1) but it may nevertheless be suggested that the final shape of this boss and the line at the edge of the flange may have been the product of spinning. The top of the boss is too crumpled to make identification of the chuck possible, and the decoration of the flange means that the perfectly circular lines of (2) and (3) were (apart from the outermost) never engraved.

Bosses (2) and (3) are undecorated and the thinness of the bronze has meant that they are now damaged and that (3) has even been folded; (2) has not previously been illustrated. Boss (2) has a conical centre rising from a low cylinder.

Two pairs of turned lines surround the boss, and a turned beading edges the flange-collar. The graving tool has in some places been held so firmly that the line has weakened the bronze and has in some places cracked it. Three rivet holes show the method of fixing the boss to the shield. Boss (3) is identical but is in a much more fragmentary state a.s, apart from cracks along its graved lines, it has also been bent and split presumably during the deposition of the hoard.

Refs.: Harford, l803, 91, pl. xviii, fig. 1. Arch. Jour., vi (1849), 411

CAS, ii (1846-50) Misc. Comm., Pt. I, II, Il. Kemble, 1863, 173.

BMEIAG, 1925, 106, 143, fig. 164. Hemp, 1928, 268.

Watson, 1948, 51.
Fox, 1958,116, fig. 72 (unreliable).
Illust.: Pl. 42 above: Boss (1); photo. author below: Boss (2); photo. author.



Site: St. Iawrence (Isle of Wight)
Coll.:
Mat.: Iron (boss and rim).
This piece has not yet been published and information on this find has kindly been provided by Dr. Ian Stead. Although it is not possible to provide complete documentation on this piece it was found with a Ia Tène III sword, and they are presumably the surviving grave-goods of a warrior burial in a flat grave.

Site: Snailwell, Newmarket (Norfolk)
Coll.: University Niuseum of Archaeology \& Ethnology, Cambridge.

Mat.: Iron.
Meas.: 14.5 cm . in diam.; 10.2 cm . high; flange circa 2.6 cm . broad.

Desc.: The conical boss sits on a low drum and has been a.ttached to the shield by a circular flange. As there are no holes in this flange, it must be supposed that the boss was attached to the shield by broad-headed rivets outside the flange with their heads overlapping it. There was no sign of the shield itself, and, as no hand-grip or fittings remained, Lethbridge suggested that the boss had been detached before burial. But as all these pieces, apart perhaps from the rivets, might have been made from perishablé material, this is not certain. The shield belongs to the grave goods of a cremation burial of a Belgic chieftain dated to circa 10 B.C. - 50 A.D. Reis.: Lethbridge, l954, 25ff., pl. v, c. Stead, 1967, 36, 47, 54 (inventory).
Illust.: Pl. 43 above: photo., Univ.Nus. Arch. and Ethn. Cambridge.

Site: Stanfordbury, North Vault (Bedfordshire)
(the First Vault; Birchall and Stead 'Stanfordbury A').

Coll.: University Museum of Archaeology \& Ethnology, Cambridge.

Na.t.: Bronze.
Meas.: 12.1 cm. long, 10.8 cm . broad, 7.7 cm . high.
Desc.: Only the central part of a bronze strip-boss survives, and small portions of the side flanges are just visible on one side of the fragment. This piece has protected a wooden boss which has had a projecting spina above and below it and which has extended through arched openings in the bronze. The simple decoration consists of four incised lines making a long cross-rib. A central rivet hole with the trace of a circle round it shows that there has originally been a button or knob to complete this austere piece of armament.
'About this part of the vault were numerous pieces of iron, some rivetted, which had the appearance of scales of armour.' Given that the original interpretation of the shield boss was as the elbow piece of this armour it is possible that the scales themselves are binding strips or tabs for the shield, but this must remain mere conjecture as they cannot now be found.

Refs.: Dryden, 1845,16 , art. 4, and 'scales', 17, art. 8. Lethbridge, 1954, 29. Stead, 1967, 36, 47, 55 (inventory).
Illust.: Pl. 43, below: photo., Univ. Mus. Arch. and Ethn. Cambridge.


Site: Tal-y-llyn (Merioneth)
Coll.: National Museum of Wales, Cardiff.
As these pieces have recently been described in detail it was felt that it would serve no useful purpose to paraphrase the published reports. Drawings and photographs of the finds have been included to facilitate comparisons. Refs.: Savory, 1964a, 18ff.
" 1964b, 449ff.
Thomas, 1965, figs. 275 and 6.
Savory, 1966, 88ff.
Powell, 1966, 240, fig. 247.
Illust.: Pl. 44 above: shield fragments.
below: detail of pelta shaped plaque.
Pl. 45 above: shield boss (1)
below: shield boss (2)
photos. from Savory, 1964b, pl. i, l; pl. iii, l; fig. 2 and fig. 5.



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Site: River Thames at Wandsworth (Middlesex), known as Wandsworth Round.

Coll.: British Museum, 1858, ll-16, 2.
Mat.: Bronze with chased and repoussé decoration.
Meas.: 33.1 cm . in diam.; height of boss $3.3 \mathrm{~cm} . ;$ thickness about size 10 on the metal gauge - circa 7 mm .

Desc.: The central boss is surrounded by a broad flange on which leafy repoussé decoration centres on two beaked birds' heads. On the boss there is an annular central depression with a hole which suggests that this has been the setting for an additional ornament. A groove surrounds this, and between the groove and the flange there is a series of chased motifs scrolls terminating in birds' heads and fan motifs in the same style as the chased ornament on the flange. The boss opening on the back is 8.9 cm . in diameter - just large enough for a gripping hand (perhaps with the thumb outside).

Surrounding the central boss is a further raised rib which is finished in a crimped or zig-zag style, and between this and the edge of the rim is the main area of repoussé decoration. Opposed birds' heads (with simple linear chased decoration on their beaks and faces) have originally had inlaid eyes for which the fixing pins still survive. Their bodies too have chased motifs, and their tails curl round to end themselves in heads with long spoon-shaped beaks. A similar circular curl flanks the other side of the head, and a lobed foliate finial, which encloses a Ilyn Cerrig void, terminates this. Above the heads there is an S-trumpet which forms no clear part of the scheme but serves to continue the circular motion of the whole ornament.

Cracks which formed round the outside during working have been repaired by small binding wires through holes on either side of the crack. Some of the wires are lost but the flanking holes themselves still survive. The boss has been attached to the shield by a series of rivets round its perimeter, though now only the holes survive, and by four axial rivets on the centre of the flange. One rivet remains and is 8 mm . long. This boss and the subsequent piece were dredged from the River Thames in 1849 on the same occasion. Refs.: Arch. Jour., vi (1849), 411.

Kemble, l863, l91, pl. xvi, l.
BNEIAG, 1925, l06.
Hemp, 1928, 259, 268, fig. 14.
Leeds, 1933, 6, 10, 12.
Jacobsthal, 1939, 28ff., pl. B and D.
BVILPAG, 1953, 70, pl. xx, 1.
Fox, 1958, 26, pl. 13.
Thomas, l965, figs. 254-6.
Powell, l966, 234, fig. 238.
Illust.: Pl. 46, above: front view of shield; photo. author.
below: detail of decoration; photo. author.

P1. 47, above: detail of boss decoration; photo. British Museum.


Site: River Thames at Wandsworth (Middlesex), known as Wandsworth Long.

Coll.: British Museum, 1858, 11-16, 3.
Mat.: Bronze.
Meas.: 37.5 cm . long; diam. at boss 10.7 cm .; thickness about size 10 on the metal gavge - circa 7 mm .

Desc.: This bronze cover for the boss and the spina of a shield survives almost completely. The decoration of the boss which arches some 4.1 cm . above a narrow surrounding flange consists of the heads of two birds. These spring from one corner of a pair of triangles at the base of the boss, and from another corner a lobed leaf tendril with chased spiral ornament points along the spina, while from the third apex a wavy rib crosses the boss at an angle and links the triangles themselves. Each bird's head is made up of a large 'eye' and a thick curled beak both in high repoussé, and, because of the thinness of the bronze of the 'eyes' and the soft bosses, these are now in a rather fragmentary state.

A spina, at least a symbolic one, extends on either side of this boss, but only at one end does the terminal ornament survive completely. The upper rib is rather shorter than the lower one (now broken) and thus suggests an off-centre position for the boss itself.

The terminal is an owl-like face with two round 'eyes' in high repoussé, a drop like nose and a ribbed mouth sullenly drawn across the spina beneath it. Small chased decoration in the concave-sided triangle which contains the nose consists of three spirals, reminiscent of snaily coils. The curved eye-brow ridges extend to the comers of the piece and give the face rather pointed ears; this may have
been the seating-hollow for some lost terminal. The complete decorative scheme has been raised from the surrounding flange by which the boss has been attached to the shield. The length of the surviving rivets suggests that the planking has been 10mm. in thickness as the front and back of seven of the rivets still survive. This seems to suggest, too, that the shield has been thrown into the river complete for otherwise the back-plates of these rivets would have been wrenched off. It was dredged from the Thames in 1849 on the same occasion as the Wandsworth-Round boss.

Ref.: Arch. Jour., vi (1849), 411.
Kemble, l863, 191, pl. xvi, 2.
BMEIAG, 1925, l06.
Hemp, 1928, 261, 268, fig. 13.
Leeds, 1933, 6, fig. 2 b (wrongly called 'from R. Witham')

BMIPAG, 1953, 70, pl. $x x, 2$.
Fox, 1958, 26, pl. 14 b.
Illust.: Pl. 47, below: Photo. British Museum.


Site: River Witham, near Washingborough (Lincs.)
Coll.: British Museum, 1872, 12-13, 1. Found circa 1827.

Nat.: Bronze; the background sheets are beaten and the spina cast.

Meas.: ll3.1cm. long; 39.4 cm . broad. The sheet bronze is about size 4 on the metal gauge - circa 3 mm . in thickness.

Desc.: The complete bronze covering of the shield survives; it consists of two sheets of bronze which are joined lontitudinally by a central cast spina and boss. One of the U-shaped binding strips by which the bronze has been attached to the wooden planking of the shield survives along one side of the bronze and curves half way round one end. The shield has straight parallel sides and rounded ends. Two periods of workmanship may be recognised and described.

The sheet bronze of the first montage has been slightly bevelled and upon this, disposed around a round boss, the figure of a boar has been fixed by a series of rivets. The clearest illustration of this animal is Kemble's in Horae Ferales, and he seems to have been the first to recognise the animal. The rivet holes, by which the animal has been a.ttached, are also shown by Meyrick, although he does not seem to have recognised their significance. Meyrick's illustration shows the binding strip on the opposite side from its present position. The animal survives at the present time only as a light linear outline, a complementary series of rivet holes and as a frint difference in the colour of the bronze sheets.

The opening round which the boar is placed, has been
partially destroyed (or at least enlarged) by the addition of the cast boss and spina of the second phase of workmanship, but it seems likely that this has originally been a round boss, placed rather above the central point of the shield. The thin body of the boar arches slightly over the boss and the head and hind parts of the boar flank it on either side; parallel to the long sides of the shield are the long thin legs of the animal which are portrayed with rather weak joints and trotters. The head has had a decisive snout and two pointed ears, and the outline suggests that the eye has stood out, as an area of bronze shining through an opening in the material of the applique boar. A feature that is not clearly shown on Kemble's drawing is that the waist measurement of the animal differs on each side of the secondary spina ( 11 mm . and 17 mm .) and this seems to indicate that the shield may well have been narrowed by cutting the two bronze sheets along their central vertical edges before being remounted.

The bronze sheets have been hammered flat before being used for a second time and have become rather wrinkled in the process. The two sheets are not attached to one another except at the extremities beyond the central boss and spina, which has been cast in one piece along with its terminal roundels. It is possible that the sheets have been cut back to leave a space for a wooden spina under this bronze one, and for this reason there is no opportunity for deciding on the shape of the original boss. This second decorative scheme makes use of the original hand-grip hole but does not take account of the boar outline at all. A tooling mark is visible all round the spina and boss, and the sheet bronze
has been cut down on the inside of this guide line. The spina has thus been cast and the bronze sheets remodelled at that stage to suit it.

It has been suggested that the boss, spina and the two terminal roundels have been cast in one piece because of the depth of the ormament and there is no sign of any join nor of hammering on the underside. There are a number of cracks or flaws in the casting including a crack under the nose of each of the bovine heads of the spina, and the strengthening plates, which were riveted to the back of the bronze to stop such hair-cracks spreading, remain in
position. There is a series of rivets round the openwork areas on the roundels and the boss, and these may originally have served to position material which was intended to show through from beneath the bronze.

The U-shaped bending strip is about 5 mm . in width and thus the thickness of the backing on which the bronze has been fixed was very thin at least at the edges. The wooden strengthening spina suggested above may thus have played quite an important part in the construction of the second shield. The bronze spina is also important as the bronze sheets are mainly joined to it. At the extremities, however, the two sheets are riveted to one another; all the rivets seem to be dome-headed on the upper surface and underneath to be set into saucers about 14 mm . in diameter.

The central feature of the boss is a ring containing three red coral studs. Two circles flank this on either side and they are divided into two thin 'void' shapes. In the centre of the motifs on either side of the central studs there is a further single coral stud and in the voids themselves
there is a bronze rosette. One end of each of the flanking circles is open, and these ends loop round to enclose palmettes, the tips of which point along the spina. This rib terminates against the top and bottom roundels with bovine, or perhaps more equine, heads. These, and the spina tips, are decorated with incised ornament and the heads and eyes possibly owe their relief to the casting process. A simple linear spiral decoration based on an S-scroll completes the spina. Palmettes which resemble a fir tree shape spring from the nostrils of the bovine heads but the eyes are divided in a similar way to the central coral motif. The horns or ears have an incongruously feathery look and flank the outer rim of the terminal roundels.

The central rib and S-roundels are riveted to the shield through a flange which edges either side of the spina. Bordering the flange, there is a raised ridge which is formed by a wavy line created by using a punch on alternate sides of the central rib of a pair of parallel incised grooves.

Although the lower roundel is rather larger than the upper, they are described as one; the central motif does not survive on the upper piece. A central rosette is ringed by a circle with a single rib. The whole roundel is ringed by a wavy rib which springs from back-to-back commas sitting against the animal 'horns' of the spina. In the horse-shoe shaped areas between these two ribs on each of the terminals there is a band of incised decoration different in each case but based on a series of S-coils which are given spiral or foliate terminals.
Refs.: Meyrick, 1831, 92ff., pl. xiii, figs. 2-4.
Kemble, 1863, 190, pl. xiv, 1.

BMEIAG, 1925, 25, 101, 105, figs. 113-5.
Hemp, 1928, 261, 268, fig. 10.
Leeds, 1933, 6, loff., 95, fig. 2a.
Piggott and Daniel, 1951, no. 56.
BNLPAG, 1953, 68, pl. xix.
Fox, $1958,26 \pm .$, frontispiece pl. 15.
Thomas, l965, figs. 252 and 253.
Powell, 1966, 236, figs. 241-2.
The experience of Mr . P.H.T. Shorer of the Conservation Department of the British Museum was of great value during the examination of this piece.

Illust.: Pl. 48, above: full view of shield; photo. British Museum.
below: detail of lower roundel; photo. author.

Pl. 49 , above: detail of central boss; photo. author.
below: side view of boss; photo. author.



Shield-bindings and two possible binding- or sheathingstrips for a spina occur from a number of sites, and although they are not very informative, they stress the frequency of the use of perishable material in the manufacture of shields. Eastburn, E. Riding (Yorkshire) Hull Museum.

Stead, 1965, 119. Possible spina sheathing in a grave with, among other things, a sword and a spearhead.

Hod Hill (Dorset). British Museum. Brailsford, 1962, fig. 1, A 9 - 11.

North Grimston, E. Riding (Yorkshire). Hull Nuseum. Mortimer, 1905, 354.

BMEIAG, 1925, 109.
Hemp, 1928, 268. Stead, 1965, ll9.

What may be shield binding-strips of bronze, or indeed the sheathing for a spina, were discovered with this warrior burial. Six fragments survive, one with a rivet through it. Although the association with the anthropoid dagger and the class II sword is interesting, these fragments are not really certainly parts of a shield.

Spettisbury Rings (Dorset). British Museum.
Arch. Jour., xcvi (1939), 120.
Stanwick, N. Riding (Yorkshire). British Museum.
PPS, xxviii (1962), 32, no. 134.

A number of other pieces are recorded or mentioned as shields, or decorative attachments for shields, but because of some uncertainty or indeed error of attribution, they have not been included in the foregoing catalogue.

Balmaclellan (Dumfriesshire) National Museum of Antiquities of Scotland.

Hemp, 1928, 268. Simpson has also dismissed this
possibility. (1966, p. 402, nos. 303-8 and refs.).
'The alternative of a shield seems somewhat weakened
by the mirror's presence, although of course, there is
no logical reason for suspecting their combined use.'
The function of these pieces is not known, but the idea
that they are shield parts has little to recommend it.
PSAS, iv (1860-2), 294; ibid. vii (1866-8), 350.
Bugthorpe, E. Riding (Yorkshire). British Museum.
Stead, 1966 , 69, suggests that this piece is a shield
decoration, but this attribution is doubtful.
Charioteer's Barrow, Arras, E. Riding (Yorkshire)
Stillingfleet, 1846, 30.
Kemble, 1863, 173.
Greenwell, 1906, 281ff., fig. 24.
Déchelette, 1914, 1103.
Stead, 1965, 36f. dismisses the piece.
Simpson, $1966, \mathrm{p} .166$ still notes it as a possibility.
The boss in question is illustrated in David and Thurnam, Crania Britannica, vol. ii, xii, fig. 7, and Stead, 1965, fig. $17,1$.

It is 11.5 cm . in diameter and it appears to be too small
to be a shield boss; the centre is dished, not convex.
As more than one was found, it seems possible that it is
a phalera or chariot fitting.

Ham Hill (Somerset) Taunton Museum.
Fox, (1943, 91) notes that 'the central disc of boss and one rib 8:" long survives'.

Mr. A.D. Hallam, the Assistant Keeper, suggests that the association of these two objects is doubtful and that, though the strip has been thought of as a patera handle, even this is unlikely because of its thinness. The boss is 3.8 cm . in diameter and consists of two thin bronze discs riveted together. The upper one is tinned with a slight moulding round its edge and a low dome shaped central boss. Neither piece belongs to a shield.

Hunmanby, E. Riding (Yorkshire). Hull Museum. Sheppard, 1907, 483f. Stead, 1965, 35, 94f. Simpson, 1966, p. 166. A shield with straight sides almost 2 ft. ( 61 cm. ) long and a curved end is described by Sheppard, but none of the surviving fragments - small pieces of sheet bronze and U-shaped binding strips - can be classified as anything with confidence. No other weaponry comes from the grave.

Hunsbury (Northants.) Northampton City Museum.
Dryden, 1885, 59, pl. iii, 6.
Fell, 1936, 67, no. 26.
A semi-globe with a spike protruding into the inside
is not part of a shield but may more probably be the terminal for a pole or possible an axle.
Ilyn Cerrig Bach (Anglesey) National Museum of Wales, Cardiff. Fox, 1940, 7, 74, pl. xxv, nos. 17-18; see Ringstead below.

Ringstead (Norfolk). Norwich Castle Museum.
Clarke, 1951, 214ff.
Simpson (1966, p. I76) suggests that these plaques represent the flanking pieces for a shield boss, but this is uncertain, and her oblique comparison with the two bean-shaped panels from LIyn Cerrig Bach (Anglesey) is not strictly valid. The case for the Ilyn Cerrig Bach (Anglesey) plaques is not proven; Fox (pace Simpson) did suggest that these pieces might belong to a shield, and he likened them to the lunate spina terminals on the NAmes altar already discussed but they seem to be too small for this (only 6.9 cm . by 3.6 cm .)

## Saffron Walden Museum (Essex)

Fox (1923, 107) records 'the strap-work of a shield
in the Walden Miuseum'. Miss Susan Nicholson, the
Assistant Curator, suggests that these pieces, on later examination, were thought to be medieval and to have no connection with shields but they cannot be found at present.

St. Mawgan in Pyder (Cornwall) Truro Museum.
Fox, l956, 80f., pl. xi, fig. 40.
" 1958, 115, pl. 67b.
Fox (Lady A) 1964, 128, fig. 39.
The certainty with which this is taken to be a shield
mount is out of place and although this must remain one possible solution for it, until there is a closer study of comparative material, it must remain unproven.
Stanwick (N. Riding, Yorkshire) British Museum.
'A small fragment of shield-boss of the Polden Hill
form, unornamented, but with a rivet in position on the edge', is recorded by the British Museum Iron Age Guide, (1925, 141), Hemp (1928, 268) and Fox (1943, 91). Simpson (1962, 33) thought that no. 105 of her catalogue might be a shield boss. Although the fragmentary state of this piece makes it difficult to be certain about its purpose, it is certainly not the boss described in the Guide, and it does not seem to this writer to suggest that it is, in fact a shield boss at all. In 1966, Simpson lists no. 122 from her Stanwick catalogue among circular shield bosses, (p. 167); this piece is described as 'fragment of circular boss (?) cast: $2.45 \times$ l. 65 in.' (i.e. 6.2 by 4.2 cm .). As this is not comparable to the bosses already listed it is perhaps safer to discount it at this stage. Traprain (E. Lothian) National Museum of Antiquities of Scotland.
Burley, 1955-6, 200, no. 382.
Simpson, 1966, p. 166.
This piece is much too fragmentary to be certain of its attribution as the centre of a boss. It is 8.7 cm . in diameter, and this seems rather small. There are, however, U-shaped binding-strips from the site some of which may have belonged to shields.

Burley, 1955-6, 189, nos. 299-307.
PSAS, xlix (1914-15), 184, fig. 34, 4.

## CHAPTER 6.

## (i) Roman Grave Slabs Showing Defeated Natives

llost are inscribed slabs and as such they have been discussed most fully from this point of view by Collingwood and Wright (1965) where full references will be found.

Bath (Somerset), Roman Baths, Bath.
Collingwood and Wright, 1965, 52, no. 159, pl.v. Chester (Cheshire), Grosvenor Museum, Chester.
(i) ibid., 183, no. 550. (Pl.53, above; photo Grosvenor Museum).
(ii) ibid., 183, no. 551. (Pl. 53, below; photo Grosvenor Museum).

Cirencester (Gloucestershire), Corinium Museum.
(i) Dannicus ibid., 32f., no. 108, pl. iii.
(ii) Genialis ibid., 33, no. 109, pl. iv.
(Pl.5l, below; photo Corinium Huseum)
Colchester (Essex), Colchester and Essex Museum
(P1. 50, below left; photo Colchester and Essex Museum)

Toynbee, 1963, 158, no. 83, pl. 92
Collingwood and Wright, 1965, 66, no. 201, pl. v. Gloucester (Gloucestershire), Gloucester City Museum. (Pl.52, above; photo, Gloucester City Huseum)

Toynbee, 1963, 157, no. 82, pl. 87.
Collingwood and Wright, 1965, 36, no. 121, pl. iv. Hexham (Northumberland), South Transept of Hexham Abbey. (Pl.5l, above; photo, J.E. Hedley)
ibid., 386, no. 1172, pl. xvii and JRS, (1912), 126, fig. 8.

Kirkby Thore (Westnorland) Iowther Castle Collection. RCANE Westmorland, 1936, pl. 3.
(i) Cavalryman riding down and spearing a prostrate barbarian.
(ii) Cavalryman with the head and arms of a barbarian visible, upside down between the legs of the horse.
Ribchester (Lencashire).
(i) Iost manuscript illustration, Collingwood and Wright, 1965, 200, no. 595.
(ii) Ribchester Museum. (Pl. 50, below ri ght; photo, The National Trust).
Toynbee, 1965, 192.
Stanwiz (Cumberland), Methertell, built into the veramda. Collingwood and Wright, 1965, 621, mo. 2030. Wrozeter (Shropshire), Rowley's House Iuseu, Shrewsbury. (PI. 50, above; photo, The West Midland Photo Services Ital.).
Ibid., 98, no. 291.





## (ii) Antonine Wall Distance Slabs Showing Defeated Barbarians.

Bridgeness (West Lothian), National Museum of Antiquities of Scotland. (Pl. 54; photo, NMA)

Macdonald, 1934, 362, pl. Ixi.
Toynbee, 1963, 166.
Collingwood and Wright, 1965, 657, no. 2139, pl. xviii.
Near Sumnerston (Lanarkshire), Hunterian Museum, Glasgow. (Pl. 55; photos, Hunterian Museum)
Macdonald, 1934, 373, pl. Ixiv.
Collingwood and Wright, 1965, 678, no. 2193, pl. xix.
Dr. A.S. Robertson kindly sent me new photographs of this slab.


(iii) Clonoura Shield

Littleton Bog, Clonoura Townland, Co. Tipperary, National

$$
\begin{gathered}
\text { Museum of Ireland, Dublin. (Pl. 56, } \\
\text { above; photos, NMI.) }
\end{gathered}
$$

ed. Rynne, 1962, 152, pl. xvii.
ed. Raftery, 1964, 39n.
The shield's measurements are 57 cm . long, 35 cm . wide; the boss is $9.5 \mathrm{~cm} . \times 8 \mathrm{~cm}$. and it stands 2.5 cm . high above the outer face. The grip is 11.1 cm . long although only 8 cm . is required to bridge the boss. Valkenburg (South Holland)

Helenium, iii (1963:),253 土f.
Groenman - van-Waateringe, 1967, 52ff., 209, figs.

$$
8-18
$$

## (iv) Representations of Celtic Gods bearing Shields

Bewcastle (Cumberland), Carlisle Museum. (Pl. 56, below;
photo, Carlisle Museum)
Collingwood and Wright, 1965, 329, no. 986.
Corbridge, (Northumberland), Corbridge Museurn. (Pl. 57, above)

Toynbee, 1963, 191, nc. 161, pls. 164 - 5.
Great Chessels, Lower Slaughter, (Gloucestershire), Gloucester

> Museum (Pl. 52, below; photo, Gloucester Museum).

O'Neil and Toynbee, 1958, 52, pl. ix, 1. Ross, 1967, 186, pl. 61.



## (v) Miniature or Votive Shields.

Breedon-on-the-Hill (Leics.)
in litt. J.S. Wacher, April 1968.
Hod Hill (Dorset) (Pl. 58, above 1).
Smith,1922, 97 ff., fig. 4.
Hemp, 1928, 276, fig. 9.
Frilford (Berks.), Ashmolean Nuseum.
Bradford and Goodchild, 1939, 13f., pl. v,b.
Thomas, 1965, pl. 263.
Worth (Kent) (Pl. 58, above 2-3).
Klein, 1928, 76ff., fig. ll.
Ross, 1967, 46, fig. 15.

## (vi) Roman Shield Brooches.

Iydney (Gloucestershire).
(a) Wheeler and Wheeler, 1932, 81, fig. 16, 42.
(b) ibid., fig. 16, 43.
(c) ibid., fig. 16, 44.

Verulamium (Herts.), St. Albans.
Wheeler and Wheeler, 1936, 209, fig. 45, 34.
see also inter al.
Richborough (Kent)
Bushe-Fox, 1928, 43, pl. xvii, 9.
Bushe-Fox, 1949, 12l, pls. xxix, 46 and 48; xxxi, 63.
BMARB, 1922, 60, fig. 76.
ibid., 1958, 20, fig. 11, 36.
(vii) Rectangular and Square Shields on Pictish Sculptured Stones.

Birsay (Orkney), National Museum of Antiquities of Scotland.
Ralegh Radford, 1959, 17, pl. 8.
Eassie (Angus)
ECMS, 218.
Kirriemuir (Angus)
ECMS 227.
Newton of Lewesk (Aberdeenshire) (Pl. 58, below)
PSAS, 1 (1915-16), 280ff.,fig. 4. (from which the Pl. is taken)
ibid., Ixxiv (1939-40), pl. xxi, a. (not Rayne as here described)

Shandwick (Ross-shire)
ECMS, 68.
This part of the stone is now defaced and reference
must be made to
Stuart, Sculptured Stones of Scotland, vol. I, pl. 26. Cordiner, Antiquities and Remarkable Ruins, vol ii, 32. Petley, Archaeologia Scotica, IV, 346.

Mention will also be found of rectangular shields from Fowlis Wester (Perthshire) and Logierait (Perth), ECMS, 289 and 291, but they have not been included in this study. The former shows a number of figures following a belled calf - the figures are not armed and the rectangular objects three of them carry may more probably be books and one possibly a bell. The Logierait stone is fragmentary and the square feature seems to be the horseman's patterned tunic.

There is a most interesting series of warrior representations showing a rectangular shield with a large notch at the top and bottom. Though not strictly relevant they may be listed. Ardchattan (Argyll)

ECMS, 377 ff., fig. 393.
Nigg (Ross-shire)
ECMS, 75 ff., figs. 72a and 81.
St. Andrews (Fife), sarcophagus.
ECMS, 351 ff., fig. 365.
The Aberlemno and St. Andrews examples come from hunting scenes.

Mrs. Patricia Crichton has kindly made available material which has been used in the preparation of parts of this note.

Spear butts
It should be noted that spear butts listed by Thomas (1964, 51) from Rushall Down (Wilts.) and Fulbourn (Cambridgeshire) are Bronze Age pieces and should not be included. References to WAM, xlii (19224), 227 ff. and Archaeologia, xix, (1823), 56-60, pl. iv. respectively. I am indebted to Mr. Alan Burchard for help in tracing these pieces.


## CHAPTER 7

## BODY ARMOUR

a) Pergamon; stoa balustrade of the temple of Athena Polias Nikephoros.

Bohn 1885, 95-138 pls. xliii - 1.
This volume is accessible in Britain in the Library of the Museum of Classical Archaeology, Cambridge, and I am grateful to Professor Cook for providing me with complete photographic coverage of the relevant plates. Drawings of the various panels are included in Reinach, 1909, 211-215; the following concordance to this and other publications may be helpful. The weapons on the balustrade have been isolated and fully illustrated by Jaeckel, 1965 , passim.
Bohn Present Work Reinach Other illustrations
xliii Pl. 29, above 215.1 Atkinson and Piggott, 1955, (detail)
xliv.1 Pl. 61, below 215.4 left (detail)

2 Pl. 29, centre 215.2 Jacobsthal, 1944, no. 132, pl. 73 (cuirasse).
xlv.1 Pl. 29, below 214.1 (detail)

2
xIVi.I
2 Pl. 61, above
3 P1. 13, above

4
xlvii
"
xlviii
$"$
213.2
213.3
212.1
215.3
214.3
" Powell, 1958, pl. 48.
213.1 Jacobsthal, 1944, no. 173; Powell, 1958, pl. 49.
"
212.2

```
Bohn Present Work Reinach Other illustrations
xlix PI. 61, below 214.2
                right (detail)
    "
I
211.1
211.2
```

b) South French sculpture with representations of Body Armour

Entremont (Bouches du Rhône)
Benoit, 1955 and 1962 passim.
The earliest finds are discussed by Espérandieu in Recueil, i and also by Déchelette. The first discoveries were made in 1817, but a number of pieces of sculpture were discovered as a result of excavations of the German army of occupation in 1943 and these were continued after the liberation. It is unfortunate that a more modern series of excavation has never been undertaken on this important site. The original publication is R. Lantier, Les nouvelles statues d'Entremont' in Monuments Piot, xl (1944), 87ff. and the following concordance to the numbering employed here may be made to the most accessible publications and those with the most valuable comment. Esperandieu, Recueil, xii, 6If. provides a most useful summary. As the finds are divided between the Museums of Marseille and Aix-en-Provence, this information has also been added (correct 1965).
Entremont Torso


$$
\begin{aligned}
& \text { Pillar Block } \\
& \text { Helmeted Head } \\
& \text { (Pl. 22, above }
\end{aligned}
$$

$$
\begin{aligned}
& \text { Musee Borély } \\
& \text { Marseille. }
\end{aligned}
$$

Fox Amphoux (Var); Musée Borély, Marseille. Benoit, 1955, 41,45,pl.xl,1and2.

Grézan (Gard): Musées Archéologiques, Nîmes. Espérandieu, Recueil i,no.427. Déchelette, 1914, figs.705-6. Jacobsthal, 1944, 116. Benoit, 1955, 42,pl.xxxi.

Mondragon (Vaucluse): Musée Calvet, Avignon. Pl.28, above left. Espérandieu, Recueil i, no.271; iii, no. 2372. Déchelette, 1914,493. Benoit, 1955, 67,pl.lxiii.

Plaine de la Brague, Biot, Antibes (Alpes Maritimes): Nusée d'Antibes. Espérandieu, Recueil i, no. 24.
'Between Aix-en-Provence and Toulon': Musée d'Antibes. Espérandieu, Recueil i, no. 24.

Roquepertuse (Bouches du Rhône): Musée Borély, Marseille. These statues of squatting men which were found in a temple or sanctuary of a Celto-Ligurian tribe and date to circa 4 th-3rd century B.C. They are illustrated by Jacobsthal (1944, no. 4) and his lettering is employed here ( $A-C$ ). A was found prior to 1824 and $B$ in 1875. C was given a provenance at Rognac nearby but appears in fact to belong to the same site. A concordance to the original publication and to Jacobsthal is given below.

| Gérin-Ricard | Jacobsthal | Benoit | 1955 |
| :---: | :---: | :---: | :---: | Others

A pl. 5, l-2* pl. 3, 4(A) pl.xxxvi-ii Espérandieu, pl. xxxix, l Recueil i; no. 131 Déchelette, 1914. fig. 703.

B pl. 5, 3 pl. 4, 4(B) pl. xxxix,2
C pl. 6, I-2 pl. 4, 4(C) pl. xliv, 6 Esperandieu Recueil ix, no. 6703
*A particularly good series of photographs of this sculpture is to be found in Varagnac and Fabre, 1956, pls. 21-23. Sainte Anastasie: Russan (Gard): Musées Archéologiques Nimes. Espérandieu, Recueil $X$, no. 7614. There are two such busts from the site.

1. 'Helmeted' head. Benoit, 1955, 40, pl. xxx and xxxviii, 1.
2. Torso. Benoit, 1955, 44, pl. xl, 3 and 4.

Substantion, Castelnau-le-Lez (Hérault): Musée de Montpellier. Two heads Espérandieu, Recueil ix, nos. 6859 and 6863. Benoit l955, pl. xxxii top and bottom.
Vachères (Alpes Naritimes): Musée Calvet, Avignon.

Rev. Arch. xxii (1893), 270, pl. xix.
Bienkowski, 1908, 145.
Espérandieu, Recueil i, no. 35 .
Bienkowski, 1928, 153, fig. 229.
Benoit, 1955, 67, pl. Ixiii.






(a) Two Unprovenanced Helmets of Coolus type.

Helmets whose provenance is unknown have not been considered in detail in Chapter 2, but two are illustrated here although no more is known about them except that they are said to have come from 'Gaul' (Pls. 65 and 66, above). They were sold through the London dealers Messrs. Spink and Son Ltd. and the former is at present in an Edinburgh collection; the latter is known here as the 'Spinks' helmet. The writer is indebted to Professor Piggott for information on both these pieces and for permission to examine the former. It measures 21.9 by 18.8 cm . and is about 13.4 cm . in height; it has a rounded cap-piece which deepens at the rear to provide additional protection to the back of the head. There are two raised ribs at the base of the cap (each about 8 mm . in width); one edges the rim and with a plain zone about 23 mm . in width between them the second rib also runs round the circumference of the cap. The bowl-shaped cap and the neck-guard which continues the even profile of the crown are features which ally this helmet to the Coolus group discussed in chapter 2(ivb). The pair of lines at the base of the cap and the profile of the neck-guard might be compared for example to the helmet from the Rhine at Mainz (Pl. 20a). Two most important features may also be noted on the 'Edinburgh' helmet; there is a lip beneath the rim in which there is a line of holes each about 1.5 mm . in diameter, and the helmet appears to have been worked, in part at least, on a lathe. It seems possible to
interpret the line of holes in two ways. The padding which may have existed within the helmet was sewn onto this lip, which would then be folded into the cap; if this padding were roughly ripped out, the lip would be forced outwards again to its present position. This appears to the present writer to be unlikely as none of the holes are broken and the whole lip seems very much in position. The alternative is that something was sewn on below the present rim to extend the cover all round. This is a much more attractive possibility, particularly as the helmet provides protection only to the upper part of the head. It seems most likely that a leather band (perhaps about 3 to 4 cm . in width) has been attached to the holes on this flange (which would thus be covered over). Supplementary protection probably in the form of a leather strip has been illustrated on the small bronze figure from Gutenberg (p.38; Pls. 59 above left, 60). The Gutenberg figure is an important parallel for it is shown wearing a Negau helmet and one of the helmets from this hoard itself has, under its brim, a low flange which is perforated at intervals. Presumably this has served to attach not only the inner lining, but also on the Gutenberg evidence some form of extended leather cover.

A change in patina on the helmet from Tongern (Pl. 20, below) probably represents an additional ornamental band round the forehead, but the band itself no longer survives. The similarity of the shape of this helmet with those found on Ogmore Down has already been noted ( $p .92$ ) and the possibility mentioned above that the Edinburgh helmet has
been lathe spun may also be compared with a British piece, the unprovenanced helmet from the Meyrick Collection now in the British Museum. It is possible that a number of examples of the Coolus group of helmets have been worked in this way; the series of perforations on the crown of the Mainz helmet (Pl. 20a) may well be comparable, and the evenly rounded caps of the Lacollonge and Straubing examples (the latter also has a distinct dent at its crown) may be indicative of this.

The second helmet, known here as the 'Spinks' helmet, is said to have had that distinci patina which suggests that it was found in a river. Its shape and decoration are clearly shown on Pl. 66, above, and nothing need be added here by way of description. It may be linked to the Coolus group of helmets and its general affinities are further discussed on pp . $91 f f$.
(b) Helmet Mask, Musée de Rouen

In the museum at Rouen there is an unusual helmet mask which is illustrated here for the first time (Pl. 68, upper). It is of beaten bronze and measures 28 cm . in length and 19 cm . in height; it is shaped like a Corinthian helmet and just over half of the rounded headpiece survives, as well as part of the everted neck-guard. The hair-line is indicated by a line of repoussé knobs; the eye is set beneath a brow-ridge and the open lids are indicated as low bronze ridges. The eye is made of a white paste with the iris coloured green and the pupil black. The nose is represented by a low flange along one side of the central crack and the mouth is shown by a slit. On the crown of the helmet there is a crest-holder and on one side a small hole at the base (just in front of the neck-guard) may also be noted. The Museum Catalogue for April 1840 reads 'de Gonsberg à Paris (seemingly a dealer in antiquities) 341, casque grec en bronze. Les yeux sont en ivoire incustre......le blanc oeil, oie-vert d'eau, la prunelle noire.' The Commission des Antiquites de la Seine Inferièure records a meeting on the 6th November 1845 (1818-1848, tome i, 353) at which a certain M. Deville showed 'un dessin qu'il a executé de grandeur naturelle d'un fragment de masque antique en bronze, découvert dans la fôret de Brotonne.' The 1868 catalogue of the museum gives this as the provenance of our helmet, but by 1875 the compilers of the catalogue had reconsidered their position and in the edition of that year (p.100), they record simply 'acheté à Paris'. Reinach
accepted the provenance of the forêt de Brotonne, but remarked that its small size seemed to prove that it had served as an ex-voto (1896, 1433).

The provenance of the piece is obviously very doubtful, but it is sufficiently unusual to demand comment, for there appears to be no reason to doubt its authenticity. Because of the infilling of the eye the helmet would have to be worn far back on the head in a manner shown on many classical bronzes, and would thus afford no protection to the face at all. It is more probable that the helmet has adorned some piece of temple statuary. There is certainly evidence for the portrayal of eyes in this way on a number of Celtic pieces, but the shape of the helmet is quite unknown. The small curls of hair which the raised knobs of bronze must represent may be similar to those shown on the cheek-piece from Alésia (Pl. 19, below). Two lines of circles indicate the hair-line on a Corinthian helmet from Canosa (Apulia) and this also has a complete crest-attachment (Coutil, l914, l2). Such face-masks or helmets do not form part of the Celtic defensive weaponry which is the subject of this thesis but a delightful full-sized mask from Žehrovice u Kladna in Bohemia may be illustrated by way of envoi (Pleiner, 1962, Taf. iv). The function of such pieces, if they do not play a part in temple ritual, is unknown, but the Celtic origin of this mask at least cannot be doubled, for it is demonstrated by a flamboyant moustace.
(c) Bronze Torc from Les Commelles (Marne) Grave 21.

This burial was excavated by Chance on the 28 th November 1912, but a large tree obstructed the site and this accounts for some confusion in the report. At first the report mentions only a buffer torc but further mention is made of a bracelet on the right arm and a vase at the right side (Favret, 1929, 20f. fig. iii). This appears to be the torc which Jacobsthal was refused permission to study at Reims (1944, 71n.); at present it is in the Musée de l'Abbaye de Saint Rémi, Reims but the other finds cannot now be located (Pl. 67, above). The torc is of interest to the present study as the curl motif round the terminals may be compared to those on the Amfreville and Tronoën helmets; the motif is discussed in Volume I pp. 58ff.





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0-H. Frey, Marburg/Lahn.
C. Daicoviciu and M. Russu, Cluj.
I. Armand-Calliat, Chalon-sur-Saône.
H. Hencken, Peabody Museum, Harvard.

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## ABBREVIATIONS



BSAC
Bull.Soc.Arch. Champ.

BSPF

Bull.Arch.
Bull. Inst.Arch. CAF

CAS

CRAI.

ECMS

ESA
Germ.
IAS

Inv. Arch.

JRAI

JRGZM

JRS

JRSAI

JSGU

Berichten van de rijksdienst voor het oudheidkundig bodemonderzoek.

Bulletin de la société archéologique champenoise.

Bulletin de la société préhistorique française.

Bulletin Archéologique.
Bulletin of the Institute of Archaeology, Congrès archéologique de France. London.

Cambridge Antiquarian Society.

Comptes rendus de l'Académie des Inscriptions.
see Bibliography.

Eurasis Septentrionalis Antiqua. Germania.
Indicateur d'Antiquités suisses. (Anzeiger für Schweiz. Alterturnskunde). Inventaria Archaeologia.

Journal of the Royal Anthropological Institute.

Jahrbuch des Römisch - Germanischen Zentralmuseums Mainz.

Journal of Roman Studies.

Journal of the Royal Society of Antiquaries of Ireland.

Jahrbuch der Gesellschaft für Urgeschichte. (Annuaire de la Société suisse de Préhistoire).
$\left.\left.\begin{array}{ll}\text { MPK } & \begin{array}{l}\text { Mittheilungen der Prähistorischen } \\ \text { Kommission der Kaiserlich Akademie der } \\ \text { Wissenchaft. }\end{array} \\ \text { MSAMI } \\ \text { Memoires de la société d'agriculture, }\end{array}\right\} \begin{array}{l}\text { commerce, sciences, et arts du } \\ \text { departement de la Marne. }\end{array}\right\}$

Transactions of the Cumberland and Westmorthland Antiquarian and Archaeological Society.

Wiltshire Archaeological Magazine.

Wiener Prähistorische Zeitschrift。

Zeitschrift für Schweizerische Archäologie und Kunstgeschichte. (Revue suisse d'art et d'archéologie).

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