The Sintra Collar and the Shannongrove Gorget: aspects of Late Bronze Age goldwork in the west of Europe

T. G. E. Powell

Penannular neck-ornaments can be worn in one of two ways. The Celts of trans-Alpine Europe first took to an exotic, oriental, fashion in the fifth century B.C., and wore the open ends of their ‘torques’ frontwards, lying against throat or chest, and thus giving opportunity for the lavishment of ornament on the terminals. An older European custom had been to display the penannular curve on the chest, as indeed in bead necklaces, and allow the open ends to rest on the shoulders or extend towards the back of the neck where they could be secured by a tie of perishable material. The two masterpieces of the goldsmith’s craft that are the principal subjects of this paper belong to the older tradition (Fig. 1). They were not effected by the younger, Celtic, style, with its apparent Achaemenid inspiration, and they date on present evidence to the eighth, possibly the seventh, century B.C.

The collar (Pl. I) from Sintra, north-west of Lisbon, was discovered in 1895, and came by purchase to the British Museum in 1902. It has recently been the subject of a study of outstanding interest by Professor C. F. C. Hawkes (1971). The gorget (Pls. II-III) from Shannongrove, Co. Limerick, was found sometime before 1783, in a bog, and was in possession of the Bury family until 1948 when it was presented to the Victoria and Albert Museum, South Kensington, London, Vallancey in 1784 first brought this gorget to learned notice, but its whereabouts was unknown to Wilde (1862), Coffey (1913), and Armstrong (1920), who all relied on Vallancey’s drawing (Coffey, 1913, fig. 61). Thanks to enquiries pursued by Mr. L. S. Gógan, the gorget was again traced, and he published a short note with photographs (Gógan, 1940). It appears to have been George Coffey (1913, p. 63) who first drew attention to similarities between Irish gold ornaments of this kind and the collar from Sintra, as well as to bronze neck-ornaments in the Scandinavian region (see also Armstrong, 1920, pp. 13-14). The discovery of the Gleninsheen, Co. Clare, gorget (Gleeson, 1934) enlivened interest in the mid-thirties, but it was not until recent years that forward steps were taken in their general study, first by Eogan (1964) in surveying the characteristics of the Later Bronze Age in Ireland, and then by Raftery (1967) who has put the whole study of gorgets on a new footing through his publication of the gold hoard from Gorteenrigh, Co. Clare.

Herefore Irish gorgets had always emerged as isolated finds, but the Gorteenrigh hoard provided an example in association with other well-known gold types which
Fig. 1. Principal West European gold-finds mentioned in the text.
have received close attention, and whose wider contexts are in some degree understood. These include the types known as ‘lock-ring’ (Eogan, 1969), ‘sleeve-fastener’ (Eogan, 1972; Hawkes and Clarke, 1963, pp. 220-224 for related ‘dress-fasteners’), and a pair of bracelets with shallow trumpet terminals belonging to Type 3 as originally defined by Armstrong (1920), and reassessed by Hawkes and Clarke (1963, pp. 224-227). While the Shannongrove gorget displays nine plain ribs, and the Glenisheen seven, the Gorteenreagh gorget shows but three broad ribs, and in this feature is akin to only one other known gorget, a specimen from Co. Clare without closer locality that may best be referred to as ‘Armstrong 44’ in respect of that scholar’s famous catalogue of Irish gold ornaments in the national collection (Armstrong, 1920, Pl. IX, 44: a chance coincidence of illustration and catalogue number). It must have been Armstrong 44 that Coffey had most in mind in relation to the Sintra collar. Both, and, now additionally, the Gorteenreagh gorget, convey the effect of three close-set, and swelling ribs, or stems, but whereas the gorgets were fashioned from relatively thin sheet metal, the Sintra collar was constructed out of heavy bar metal. Hawkes has described the Sintra collar, and it must suffice to say briefly that it consists of three close-set penannular rings that taper towards the terminals. They are independent of each other across the middle span, but then merge to form massive terminal plates each perforated for the fixing of a separate closing device. The three-tiered and swelling penannular rings are resplendent in their scintillating smooth surfaces, but all received a restrained geometric pattern of tracer-executed lines at the central swelling, and towards the terminals, reminiscent, at least to the writer’s mind, of the linear ornament on the bow of the great gold dress-fastener from Clones, Co. Monaghan (Powell, 1966, Pl. 164). Much more closely, Hawkes has pointed to the connections of the Sintra stems, conceived as separate items, with a tradition of Middle Bronze Age goldwork exemplified in single penannular neck-rings that have come to light in north-western France (Hawkes, 1971, p. 45 & Fig. 3). He further drew attention to the link between these French neck-rings and the well-known triple and twisted bar torque from Moulsoford, Berkshire (Hawkes, 1961, Pls. XXX-XXXI; Powell, 1966, Pls. 139-142). The idea of multi-strand neck-ornaments was thus already present among goldsmiths working in the bar technique, and the Sintra collar can be further drawn into this connection through the discovery in 1970 of a remarkable gold ornament at La Rochepot, Côte d’Or, Burgundy (Devauges, 1970 et seqq.). This object (Pl. V, 1) has about the same inner diameter as the Sintra collar (10 cm. approx.), and could therefore rank as a small neck-ornament. It consists of two twisted square-sectioned bar strands alternating between three massive ribs of plain bar, the whole backed by a smooth plate. The terminals of all these members are enclosed in a pair of sheet-metal ferrules, recalling Moulsoford, but melted gold has also been poured in to hold all together. This last point in particular throws light on the precedents the goldsmith of the Sintra collar can have had in mind. His technique seems, however, to have been to fusion-weld the terminals together although it appears that some melted gold was also employed on the inner faces of the terminals. One other feature of the Sintra collar must also be brought into evidence at this stage, and this is the presence of small gold cups, each with a central spike, that were pegged into the middle rib, a pair on each side, just short of the terminals. Professor Hawkes has convincingly argued for these being barbarous versions of cup-flowers, well known in more delicate craftsmanship in Phoenician and other jewellery of east Mediterranean origin.
Phoenician trade, venturing westward of the Pillars of Hercules, first probably in the early eighth century B.C., provided over the following two centuries a stimulus to Peninsular goldworking that is reflected not only in the Sintra collar, but in numerous other finds that are stylistically more Iberian and 'orientalising.' (Hawkes, 1971, p. 49). Hawkes further recalls that this was also the movement that saw the introduction of the technique of beaten bronze sheet-work to the far west, exemplified in V-notched shields, but more especially in hammered cauldrons with free-cast handles, and both items are of course highly relevant to the Irish Late Bronze Age (Hawkes, 1969 for the wider scene). With all this in mind, together with the west-continental (French Middle Bronze Age), and the Iberian-orientalising, aspects of the Sintra collar, it must be asked if one or both of these southerly craft traditions had not a bearing on the creation of Irish gorgets.

So far as bar goldwork is concerned, Eogan (1964, p. 281) has shown that except for single-strand twisted torques, there is so far no typical representation of penannular neck-ornaments of round-sectioned solid bar type, in Ireland, with or without linear decoration. Gorgets, of course being of sheet gold, belong to a very different craft practice and constructional approach. A full technological study of gorgets as a group is much to be desired, but a short description of the Shannongrove specimen may elucidate the principal characteristics, and some points that have not hitherto been apprehended. The overall lateral width ('diameter') of the Shannongrove gorget is 29.2 cm. from one outer edge to the other. The width of the gold sheet forming the collar is 9.5 cm. at greatest, narrowing to 7.6 cm. towards the terminal discs, it narrows to about 5 cm. behind them. The diameter of the terminal discs is 9.5 cm. The sheet is slightly convex in section from inner to outer edge, accentuating the effect of splay afforded by its tapering towards the terminals. The inner and outer edges of the sheet were folded outwards, and rolled over a length of twisted flat wire in each case. The end extremities of the sheet, which would have been square-ended, had a rectangular piece cut from their centres leaving a tab-like projection on either flank. The terminal discs, which are virtually intact, follow, with some elaboration, the kind of construction already perceived in other gorgets. Each disc is a composite construction consisting of a rear, or lower, disc, dish-shaped with edge turned up and inwards to grip the edge of a front, or upper, disc. In the Shannongrove specimen, the fold-over edge is further concealed by a strip of gold curved over to grip both front and rear discs, and form a rounded rim.

How was the main collar sheet attached to the terminal discs? The evidence of the Gorteenreagh fragments indicated the use of gold wire. Maryon (1938, p. 195), after examination of the gorgets then available in Dublin, mentioned this method, and another by which the ends of the sheet were passed through slits in the centre of the rear disc and then bent over and burnished to secure the join. Professor M. J. O'Kelly informs me that, after examination with Dr. J. Raftery of the gorgets in the National Museum, all but one show use of gold wire. It could already be seen from the photographs published by Gogán (1940) that some alternative method applied in the case of Shannongrove. The pair of tabs, already mentioned, seemed to lie flat against the lower face of the rear disc, and there appeared to be a similar but

* Possible exceptions recognised by Eogan: Great Clare Find (Armstrong 1920, pl. XI, pp. 75-76); Downpatrick (Proudfoot, 1955, p. 41, Pl. 3, 12).
shorter false tab midway between these two. In all cases the edges of the tabs appeared to be defined by an ornamental line of short oblique stabs. Examination of the actual object showed that each of the short central tabs was purely decorative, and had been executed by chasing on the back of the rear disc. There was no sign of gold wire, slits, nor of soldering. Dr. J. Ashley-Smith, Conservation Department, Victoria and Albert Museum, to whom the writer is indebted for an independent technical examination of the gorget, is of the opinion that the ends of the collar sheet, and the rear discs, were held together by means of pins or rivets, two to each terminal. While it would necessitate the dismantlement of the rim and front disc to view these directly, the rivets in each of the sheet tabs can be discerned, under magnification, possessing rectangular rather than rounded heads (Fig. 2, Pl. IV). Dr. Ashley-Smith makes the following valuable comment: "There is no visible evidence of metal fusion except at the rivets (except in as much as two thin sheets of a malleable metal that are hammered, chased, and burnished together are bound to adhere). No soldering would be necessary for such a joint nor would it be in keeping with the purely mechanical construction of the rest of the gorget." The sensibility of Irish Late Bronze Age goldsmiths is thus manifest in their choice of a constructional method in keeping with the size and weight of the end product, rather than by experimentation with solder in which some, at least, were highly skilled as witnessed in the fashioning of contemporary lock-rings and sleeve-fasteners.

The decoration of the Shannongrove gorget, within the peripheries of the rolled-over edges of the collar sheet, consists from outer edge inwards of a single row of small conical bosses. Then comes a broad zone of nine pronounced plain ribs interspersed with eight rows of cable-pattern, the oblique punch marks all lying in the same direction. Finally, around the inner edge is another row of small conical bosses. All this decorative work was executed by repoussé tools from the back. The decoration of the dished faces of the front discs of the terminals is also repoussé work, and displays a high conical boss at the centre surrounded by a zone of fine close-set concentric rills beyond which lie nine widely spaced concentric circles of single line cable pattern, the outermost being adjacent to the encircling rim. The spaces between the seventh, eighth, and ninth cable pattern circles are filled in each case with a single row of small conical bosses. This composition is probably the most restrained, and yet most resplendent, of all known gorget terminal disc ornament. As in other specimens, the under faces of the rear discs were also decorated. In the present case the ornament consists of three, spaced, concentric circles of short punches forming a kind of cable pattern, the outermost running just inside the rim edge, and the innermost touching

Fig. 2. Sketch-section showing construction of terminal disc of Shannongrove Gorget, and method of its attachment to main collar: a rim; b front, or upper, disc; c rear, or lower, disc; d rivet; e main collar.
the outer corners of the flanking tabs, and disappearing beneath the ends of the collar sheet. These circles are repoussé executed, and will have been worked when the rear discs were still separate pieces. Dr. Ashley-Smith points out that the short oblique stabs outlining the edges of the collar, where it lies against the under-face of the rear discs, are executed by chasing, and this had been done after the collar and rear discs had been united by the rivets. The imposition of this chasing on the line of the inner circle repoussé can be seen where they impinge near the outer ends of the flanking tabs. The false central tab in each case appears also to be part of the final work. Opportunity may be taken here to note that the rolled-over edges of the collar sheet were somewhat unevenly tapered off to leave a sharp edge along the outer edges of the flanking tabs, but burnishing was employed along these and adjacent overlaps of metal. Dr. Ashley-Smith shows that there were thirteen separate pieces of gold involved in the construction of the Shannongrove gorget: The main sheet of the collar, 2 edge wires for the collar, 2 front discs, 2 rear discs, 2 disc rims, 4 pins or rivets.

Recognition of the use of rivets in joining component parts of gorgets is an outstanding advance in knowledge of Late Bronze Age goldworking capabilities. The use of wire to strengthen the edges of the collar sheet is not exceptional, but the fragments of a gorget from Ballycottin, Co. Cork, which are in the British Museum, show a two-turn fold-over, and no wire. All the rolled-over edges are outwards, towards the face of the collar, and this practice recalls the technique of rolling outwards and downwards the top edge of sheet bronze buckets over a strong wire. A link with another confection in Irish goldwork is formed by the rim of the Shannongrove terminal discs, and the protecting strips that cover the girth and apex joins of lock-rings (Eogan, 1969, Fig. 1).

It is now possible to approach certain stylistic aspects of the neck-ornaments from Sintra and Shannongrove that bear further on those clashes of tradition and innovation already marked, and the enquiry has to be carried into the rich culture-province of northern Europe (Nordischer Kreis), more especially to Denmark and the southern coastlands of the western Baltic. The shape of objects, and the decorative motifs applied, must be kept separate for a beginning. The durable closing-device, or link-attachment, made for the Sintra collar has not yet been described. It also is of gold, and worked from a single mass. The central portion is thick, rectangular in plan, and curved longitudinally so that the plain inner surface stood against the neck. The narrow ends of the rectangular plate are extended in rod form, one being hammer-held to swivel through a hole in one of the collar terminals, the other is hooked to engage in a hole through the opposite terminal. This device has been compared by Hawkes to a not quite identical link-attachment belonging to a bronze neck-ornament of 'Ziemitz type' as defined by Sprockhoff. It will suffice here to say that throughout Periods IV-VI of the Northern Bronze Age many ingenuities were invented, or adopted, for the construction and closure of bronze neck-ornaments. Collars of Ziemitz type are few in numbers, and are restricted to Rügen and an adjacent stretch of coastland to the east, but that they are indebted to some exotic source from which the Sintra collar also drew is strengthened by Hawkes' suggestion that studs projecting from near the terminals of two of these collars are vestigial representatives of cup-flowers.

Northern Europe has produced many varieties of triple and multi-ribbed bronze neck-ornaments. Some exhibit just that essential character of close-set, three-tiered,
swelling, members, seen in the Sintra collar and the Gorteenreagh gorget. The best have been found in Period IV hoards from Denmark: Mariendal, Eilby, and Hjorthede (Broholm, 1946, pp. 190 & 193; 1953, no. 79), and from Jels (Inventarla Archaeologica, DK 8, 2 (1)). These are hollow-cast, and their surfaces are not smooth but show heavy oblique grooving incorporated in the original casting. They do not look like impressive prototypes for gold ornaments, but rather humbler versions possibly inspired by them. Then there is the question of northern European collars cast as a plate somewhat in the splayed shape of Shannongrove and other multi-ribbed gorgets. This matter was reviewed briefly (Powell, 1953, p. 172), and Eogan (1962, p. 306) has referred to Sprockhoff's Neumärkische Halskragen, a spectacular type unknown in Denmark, and seemingly confined to the area of the Lower Oder. The writer now tends to the opinion that northern European bronze plate-constructed collars copy rarer prototypes, and that, anyway, from at least two possible quarters, new ideas in skills and ornament were reaching the Nordischer Kreis during Periods IV and V, that is approximately in the ninth and eighth centuries B.C. On the one hand there was the opening up of contacts with Ireland (Raftery, 1971, for most recent review), and, on the other, there was an intensification of those old, but intermittent exchanges, principally by way of the Elbe, Oder, and Vistula, with the far south: Italy and the Aegean, Asia Minor and the Levant, whence emanated other versions of those orientalising styles that Phoenicians were carrying to the Iberian Peninsula. One of the strongest links between northern Europe and Ireland in the material under discussion is the sharing of decorative motifs, especially patterns composed of rounded or conical bosses standing at the centre of concentric circles. This subject cannot here be pursued at the length it deserves, but it is important to be clear that such motifs in northern Europe are not confined to bronze-work for, if not in much else, there is a wealth of gold cups repoussé decorated in this fashion. If personal ornaments in gold found favour among the prehistoric inhabitants of western Europe, gold vessels appear to have been extremely rare. The opposite was apparently the case in northern Europe, but the transposition of decorative patterns may have had more to do with technical ability to carry them out than with acceptance of shapes and uses possibly inappropriate in a different cultural milieu. Broholm (1948) looked to an external source for the northern gold cups, and one more probably in central Europe than elsewhere. This view has been generally followed by more recent writers, and some promise of what might have survived, had there been suitable lakes and peat bogs for votive deposits, as in northern Europe, is given by the pair of gold cups from Unterglauheim, Bavaria, with their boss and circle decoration, (Müller-Karpe, 1959, p. 203, Taf. 169,), and by the sheet-gold tiara, with lavish boss and circle repoussé ornament, from Velem Szentvid, in western Hungary (Mozsolics, 1950, Taf. I & III; Powell, 1966, Pl. 150). The sharpness of execution of this kind of decoration in Irish ornament, and the composition of the patterns as a whole, weigh in fact for an initial reliance on northern European exemplars.

No further observation will be pressed here, but it is necessary to ask something more about the nature of the gorget terminal discs on which this northern-inspired ornament was so remarkably displayed. Terminal discs find no place on bronze neck-ornaments in northern Europe, nor are separate discs known with dished, or concave, outer faces. Although it can only be put forward as an hypothesis, it is suggested that the gorget terminal discs, both in shape and position, were intended
for open flowers, more splendid emulations of orientalising jewellery than the severe little cups of the Sintra collar (Maluquer de Motes, 1958, Fig. 5, for gold flowers from Evora, Cadiz).

This discussion has led back to the southern wing of potentialities, and some final questions must be raised as to the possibility of a contribution from that quarter in the collar decoration of such gorgets as Shannongrove, Gleninsheen, and Borrisnane (Armstrong cat. no. 41), to mention but the three finest. In the writer's view, no typological or chronological inferences should be drawn between the three-ribbed and multi-ribbed varieties. The quality of workmanship on the collar and terminal discs of the Gorteenragh gorget is of the same standard as that on the three multi-ribbed examples just mentioned. The gorget, Armstrong 44, for all the interest of its swelling ribs, alone disappoints in its scheme of decoration on ribs and terminals alike. The concept of close-set, narrow, plain ribs, with interspersed zones of decorative repoussé work, seems to display itself earliest in the gold cape from Mold, Flintshire, and on the gold 'hats' from Schiffersee, Rheinpfalz, and Avanton, Vienne, the latter two incorporating boss and circle motifs (Powell, 1953, Pls. XXI & XXV; 1966, Pls. 145-148). The plain ribbing may thus be part of a west European sheet-gold tradition parallel to the bar-work already mentioned. What is absent from this older material is the repoussé cable, or rope, pattern so characteristic of the multi-ribbed gorgets. This last is very fine and accurate work as compared with the short punch-marks, giving the semblance of rope-pattern, on northern European gold cups, and on northern-type gold ribbed bracelets exemplified in the hoard from Derrinboy, Co. Offaly (Raftery, 1961, Pl. V; Powell, 1966, Pl. 143). There is no reason why Irish goldsmiths may not have created for themselves the fine cable motif just as they created the gorget itself. There seems to have been, however, two sources that could have influenced them to produce a form of oblique stroke decoration. The twisted strands, lying between plain ribs, as in the ornament from La Rochepot, is one, and the other would have been some sight of filigree, or perhaps chains, such as were produced in Phoenician and Iberian-orientalising jewellery. (Hawkes, 1971, pp. 45 & 48-49 for bibl., adding Blazquez, 1968, for good photos; Maxwell-Hyslop, 1971, for eastern comparanda). Professor Hawkes interprets the knurling on the outer face of the Sintra link-attachment as an approximation to filigree, but another hint may be involved. As a whole, the decoration of the outer face of the rectangular area of this link-attachment consists of five ribs with strips of undecorated field showing between. The central and two outer ribs are marked with fine, deep, oblique incisions executed by a tracer. This is 'knurling.' The other two ribs are plain. This chased work is a fair approximation to repoussé cable pattern, and despite the spaces, when seen alternating with plain ribs, the whole result is a small scale composition related to that achieved at greater size on multi-ribbed gorgets. Was there in this, too, a common heritage stemming from older west-contintental goldwork? No final decision can as yet be reached, but was the composition no more southerly than the tradition of twisted and plain bars, or was the fascination of truly exotic skills and styles, reaching across the ora maritima, the strongest factor among those many that interacted to result in this excellence of Irish goldwork?
APPENDIX


1. ARDCRONY, Co. Tipperary. Armstrong, 1920, cat. no. 40, Pl. VIII, 41. NMI.
2. BORRISNOE, Co. Tipperary. Armstrong, 1920, cat. no. 41, Pl. IX, 45. NMI.
3. TORYHILL, Co. Limerick. Armstrong, 1920, cat. no. 42, Pl. X, 46. NMI.
4. Location unknown, but probably Lr. Shannon being from Dawson Coll., Armstrong, 1920, cat. no. 43, Pl. VIII, 40. NMI.
5. Location unknown, but reported as Co. Clare. Armstrong, 1920, cat. no. 44, Pl. IX, 44. NMI.
7. SHANNONGROVE, Co. Limerick. Cooley, 1913, Fig. 61 (after Vailancey); Gogan, 1940, opp. pp. 70 & 81; Powell, 1953, Pl. XXVI. VAM.
8. GORTEENREAGH, Co. Clare. Raftery, 1867, Fig. 1. NMI.

Gorget items of uncertain or possibly derived provenance.

B. Location unknown in Co. Longford. Reported by Vailancey (see Armstrong, 1920, p. 13), and melted down on sale.
C. Ballycotton, Co. Cork. Gogan, 1931. Circumstances of find unknown. It may have been scrap buried at any period. British Museum.

---

Fig. 3. Gorgets in Lower Shannon region (Armstrong, 1920, nos. 43 and 44 excluded for lack of ascertained location).
Acknowledgements

For facilities to examine the Shannongrove Gorget I wish to express my thanks to Mr. Claude Blair, Keeper of the Department of Metalwork, Victoria and Albert Museum, and to Mr. A. R. E. North, of that Department, for much assistance and help with the photographs. My indebtedness to Dr. J. Ashley-Smith, of the Department of Conservation in the same museum, is already clear, and he kindly checked technical aspects in my typescript. Dr. Ian Longworth, Keeper of the Département Préhistorique et Romano-British Antiquities, British Museum, gave me opportunities to examine the Sintra Collar, and the gorget fragments from Ballycotton, and I have greatly profited from discussion on goldwork with him. Dr. Joseph Raftery, Keeper of Irish Antiquities, National Museum of Ireland, has been generous in correspondence and in providing information of many kinds. I am grateful to Professor M. J. O’Kelly, of University College, Cork, and to Dr. George Eogan, of University College, Dublin, for help on many points, to Mr. Etienne Rynne, of University College, Galway, for editorial encouragement, and also to Monsieur J. B. Devauges, Directeur des Antiquités de Bourgogne, for supplying the photograph of the gold bracelet or neck-ornament from La Rocheplot. Acknowledgement is made with thanks for photographs to the Victoria and Albert Museum, the British Museum, the National Museum of Ireland, and to the Musée de Dijon, France. Mrs. Elizabeth Davey prepared the line-drawings for publication.

BIBLIOGRAPHY

ARMSTRONG, E. C. R., 1920
BLAZQUEZ, J. M., 1968
BROHOLM, H. C., 1946
———, 1948
———, 1955
COFFEY, G., 1912
DEVAUGES, J. B., 1970
———, 1971
Eogan, G., 1964
———, 1969
———, 1972
Foster, I. Ll., and Alcock L. (eds.), 1963
Glierson, D. F., 1934
Gogan, L. S., 1931
———, 1940

Catalogue of Irish Gold Ornaments, Dublin.
Tartessos y los orígenes de la colonización fenicia en occidente, Salamanca.
Dansmarks Bronzealter, 3. Copenhagen.
Danske Oldsager, IV: Ynge Bronzealter, Copenhagen.
The Bronze Age in Ireland, Dublin.
"Découverte d'un bracelet d'or ... sur la commune de La Rocheplot (Côte d'Or)," Rev. arch. de l'est et du centre-est, 21, pp. 429-436. (Résumé: Gallia Prehistoire, 15 (1972), pp. 430-431).
Culture and Environment: Essays in Honour of Sir Cyril Fox, London.
Hawkes, C. F. C., 1961
---, 1969
---, 1971
Hawkes, C. F. C. and Clarke, R. R., 1963
Maluquer de Motes, J., 1958
---, (ed.), 1969
Maryon, H., 1938
Maxwell-Hyslop, K. R., 1971
Mossolics, A., 1950
Müller-Karpe, H., 1959
Powell, T. G. E., 1953
---, 1966
Proudfoot, V. B., 1955
Raftery, J., 1901
---, 1967
---, 1971
Ryan, J. (ed.), 1940
Rynne, E. (ed.), 1907
Sieveking, G. de G. (ed.), 1971
Wilde, W. R., 1862

Prehistoric Man in Wales and the West: Essays presented to Lily F. Chitty, Bath.
"Nuevas hallzagos en el arte tartésico," Zephyrus, 8, pp. 201-209.
Tartessos y sus problemas, Barcelona.
Western Asiatic Jewellery, London.
Der Goldfund von Veľmi-Szentvid, (Prachistorica, 1).
Beiträge zur Chronologie der Urnenfelderzeit nördlich und südlich der Alpen, (R.-G. Forsch., 22).
Prehistoric Art, London.
The Downpatrick Gold Find, Belfast.
Fáil-Sgríbhinn Éoin Mhíc Néill, Dublin.
North Munster Studies: Essays in Commemoration of Monsignor Michael Moloney, Limerick.
Catalogue of the Antiquities of Gold in the Museum of the Royal Irish Academy, Dublin.
1. The Sintra Collar.

2. The Sintra Collar, showing joined ends of ribs, position of cups, and details of neck-plate.

(Photos: British Museum)
The Shannongrove Gorget.  Front, showing repoussé ornament, and dished terminal discs with central cone.

(Photo: Victoria and Albert Museum)
The Shannongrove Gorget, Back, showing relationship of main collar to terminal discs.

(Photo: Victoria and Albert Museum)
1. Back of left terminal, showing method of attachment.

2. Ditto; tabs and rivet-heads inked in.

3. Back of right terminal, showing method of attachment.

4. Ditto; tabs and rivet-heads inked in.

THE SHANNONGROVE GORGET

(Photos: Victoria and Albert Museum)
1. Gold bracelet or neck-ornament from La Rochepeot, Côte d'Or, France
(Photograph: Musée de Dijon)