

III.

SCOTTISH BURIALS AND SKULLS, PROBABLY BELONGING TO THE BRONZE AGE. BY SIR ARTHUR MITCHELL, K.C.B., M.D., LL.D., *Foreign Secretary.*

On the 15th of August 1892, when cruising with The Duke of Argyll among the Western Islands of Scotland, we heard at Bunessan that Mr Mellis, the tenant of the shootings, had discovered some burials in stone cists on the seashore at Ardachy, near Ardalanish farm, and about three miles distant from Bunessan village.

Next forenoon, we went to inspect the locality and to make further explorations. The party consisted of The Duke, the Rev. the Hon. Edward Carr Glyn (now Bishop of Peterborough), Mr Niall Diarmaid Campbell, Mr Douglas Walter Campbell, and myself.

An undisturbed grave was soon found. There were 20 inches of dry sand above the stone forming the lid of the cist, and the size of the lid was about 4 feet by 2 feet 4 inches. The size of the cist was 31 inches by 18 inches, and its depth was 24 inches. It contained a complete skeleton, bedded in dry sand about 9 inches in depth. The skeleton lay on its right side, with the knees drawn up to the chin. The orientation of the cist was N. and S., or perhaps, more correctly, N.W. and S.E., and the head (A, p. 120) was at the S.E. end. The bones were in excellent preservation. The position of the grave tended to secure a continuous dryness of its contents, and probably to this is due the good preservation of the bones. Those forming the trunk of the body and the limbs were left in the cist with regret.

No urn or other manufactured object was found in the cist—nothing indeed but dry siliceous sand and the skeleton. The sand in the cist was riddled.

The cist examined is one of several cists quite close to each other. In one which was pointed out to us by Mr M'Lean, who resides in the neighbourhood, and which had been partially explored on the 9th of July by himself and Mr Andrew Mair, Dumbarton, an empty urn was found. Through the kindness of Mr Mair I am able to give a woodcut

of this urn (fig. 1), which belongs to the Bronze Age. We reopened the cist, and passed the sand with which it was filled through the riddle, but nothing was found. The grave contained no bones.

Two skulls (B and C, p. 120) from other two of the cists and a few bones of the trunk have since reached me, and along with them a portion of another empty urn, also of the Bronze Age (fig. 2). For the measurements and the description of the three skulls I am indebted to Professor Sir William Turner.



Figs. 1 and 2. Urns found in the cists.

In one of the open cists, which had been examined and emptied of its contents, some white water-worn pebbles were found.

No objects in bronze, so far as I know, were found in any of these graves; but I place them in the Bronze Age, because there were found in two of the cists the urns shown in figs. 1 and 2, which are clearly of the same class and type as those urns which have been found in association with characteristic bronze objects with sufficient frequency to justify their being regarded as Bronze Age urns. In these Ardachy burials there was no cremation, and the urns are not cinerary urns. I do not call them food vessels, because, though that may be a correct enough designation, it is desirable to avoid a name which involves a

view of the purpose of the urns, which, in the particular case under notice, is unproved. It is sufficient to regard them as Sepulchral Pottery, and to be content with a record of facts, avoiding the use of words which really constitute additions to the facts.

I had an opportunity, in December 1896, of carefully examining the three skulls along with Professor Sir William Turner. They were in good preservation, and each had its lower jaw.

The statement on page 118 shows the measurements which Sir William afterwards made. They constitute the measurements to which he is now subjecting all skulls, and these measurements should, if possible, be exactly repeated in the case of other prehistoric skulls which may be described in the *Proceedings* of the Society.

Sir William Turner has been good enough to send me the following account of the leading characters of the three skulls:—

“The crania were those of young persons, and, from the dentition and state of the sutures, ranged in age from about ten to perhaps eighteen. Owing to their immaturity, it was difficult to speak definitely of the sex, though the characters, except perhaps in A, pointed rather to the female sex.

“The crania varied in the proportions of length and breadth. B was brachycephalic, index 81·9; A was mesaticephalic, index 78·6; C approached the dolichocephalic, index 75·9. In B, the outline of the skull was not so rounded as in strongly marked brachycephalic specimens; in A, it was more elongated in relation to the breadth; in C, still more so, and its outline was a longish oval, approaching the pentagonal in form. In each skull the height was less than the greatest breadth. In B and C, the forehead was vertical, and the frontal and parietal eminences were protuberant. In A, the forehead was not quite so vertical. In B, a slight vertical transverse depression was behind the coronal suture, as if from wearing a band during infancy. In C, the parieto-occipital slope was more gradual than in A and B. In all, the occipital squama was rounded, and the inferior and superior curved lines feeble. In C, the sides of the cranium were almost vertical. In A and B they were more bulging. All the crania were cryptozygous. In none of the skulls were the glabella and supra-orbital ridges prominent, or the

*Measurements of Three Skulls found in Short Stone Cists at Ardochy,
near Bunessan, Island of Mull.*

	A.	B.	C.
Age,	ab. 18	ab. 12	ab. 10
Sex,	M. ?	F. ?	F. ?
Cubic capacity,	1250	1390	1350
Glabella-occipital length,	173	171	174
Basi-bregmatic height,	125	131	125
<i>Vertical Index</i> ,	72·3	76·6	71·8
Minimum frontal diameter,	91	90	93
Stephanic diameter,	103	108	109
Asterionic diameter,	110	104	106
Greatest parieto-squamous breadth,	136	140	132
<i>Cephalic Index</i> ,	78·6	81·9	75·9
Horizontal circumference,	491	492	495
Frontal longitudinal arc,	114	128	127
Parietal " "	113	128	127
Occipital " "	113	107	115
Total " "	340	361	369
Vertical transverse arc,	282	305	300
Length of foramen magnum,	38	35	32
Basi-nasal length,	98	92	89
Basi-alveolar length,	96	88	82
<i>Gnathic Index</i> ,	98·0	95·7	92·1
Interzygomatic breadth,	119	121	113
Internalar " "	107	106	101
Nasio-mental length,	98	101	91
<i>Nasio-mental complete facial Index</i> ,	82·3	83·4	80·5
Nasio-alveolar length,	59	58	53
<i>Maxillary upper facial Index</i> ,	49·6	48·0	47·0
Nasal height,	42	43	41
Nasal width,	22	21	20
<i>Nasal Index</i> ,	52·4	48·8	48·8
Orbital width,	39	36	37
Orbital height,	33	31	30
<i>Orbital Index</i> ,	84·6	86·1	81·1
Palato-maxillary length,	51	48	44
Palato-maxillary breadth,	59	56	56
<i>Palato-maxillary Index</i> ,	115·6	116·6	127·2
Lower jaw. { Symphysial height,	28	28	22
{ Coronoid " "	61	55	50
{ Condylod " "	57	52	46
{ Gonio-symphysial length,	83	73	80
{ Inter-gonial width,	87	86	85
{ Breadth of ascending ramus,	38	32	33

nasion depressed, but in A the glabella was a little more tumid than in the others. In B and C, the bridge of the nose was not sharp and prominent, but tending to be flattened. In A it was more projecting. In all, the nasal index was mesorhine, *i.e.*, intermediate between the narrow nostrils of a typical European and the wide nostrils of a negro. The orbit in C was microseme, *i.e.*, the height was materially below the breadth; in A and B the dimensions showed a closer proportion. The upper jaw in all was orthognathous. The palato-maxillary arch was materially broader than long, so that the index was brachyuranic. As regards the relations of the length to the breadth of the face, estimated by the method of Kollmann, the index of the entire face, as well as that of the upper face, is chamæprosopic, that is, the face is low in proportion to its breadth.

“In A, the lambdoidal articulations were deep, and a few small Wormian bones were present in the suture; the suture at the pterion was moderate. In B there were no Wormians, but a large left epipteric bone. In C there were no Wormians and each pterion was broad.”

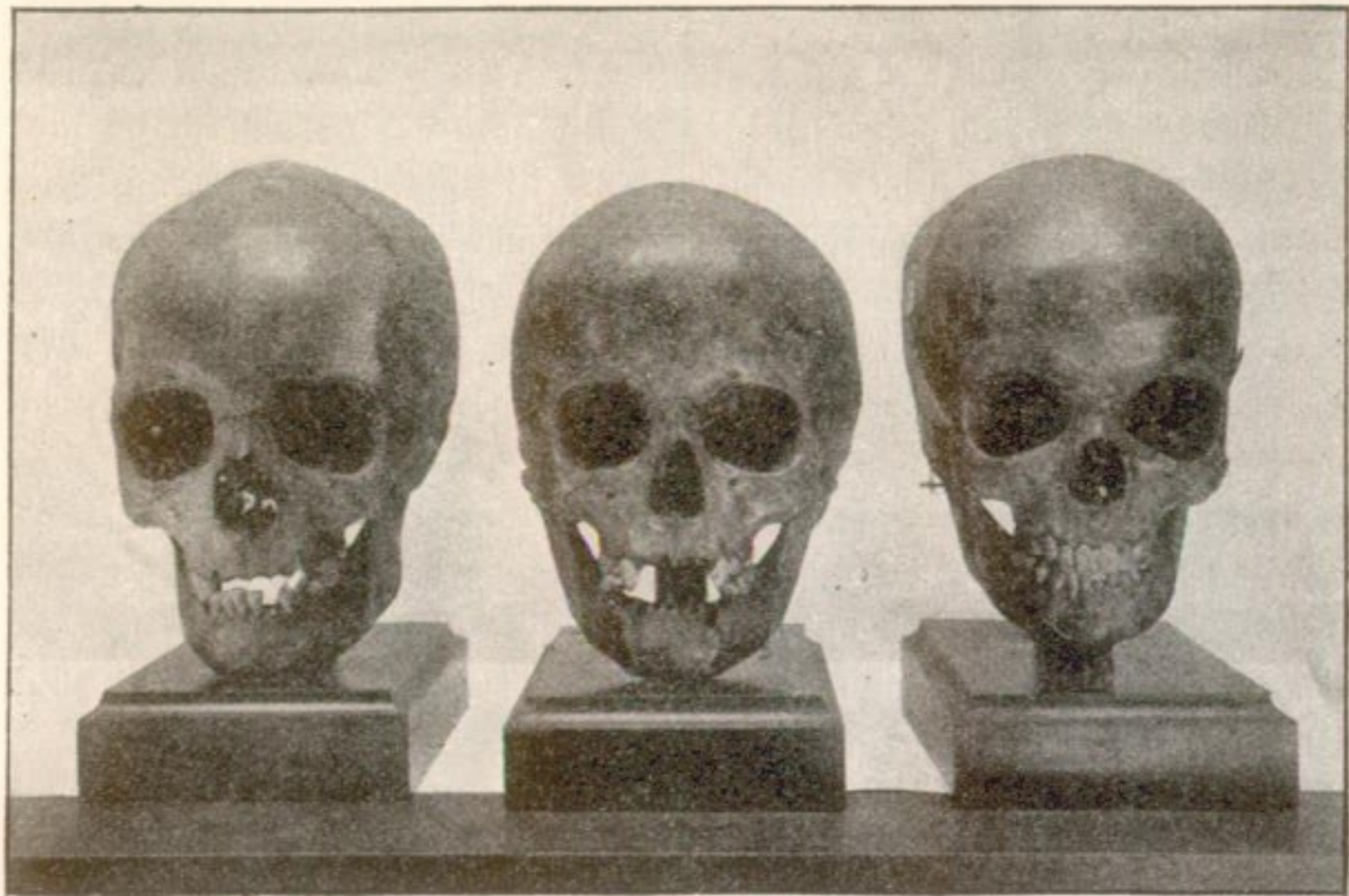
Mr W. E. Carnegie Dickson has kindly taken photographs of the three skulls, which are reproduced on a small scale on page 120.

The immaturity of the skulls is to be regretted in respect that they do not, in consequence, show the full race characters; but in another respect this is not to be regretted, because we learn from it that the people of that time and place gave formal burial to young persons, even to those of the female sex, and that such interments as have been here described were not confined to warriors or chieftains, or even to adults.

In a further note to me on these skulls Sir William Turner says:—

“In all the specimens, the ossification had proceeded in an orderly way and with a minimum of irregular ossification. The skulls were well proportioned, and showed no sign of degradation. From their immaturity they had not reached their full dimensions and adult form, but their capacity was equal to that of modern skulls of the female sex at the same period of life.”

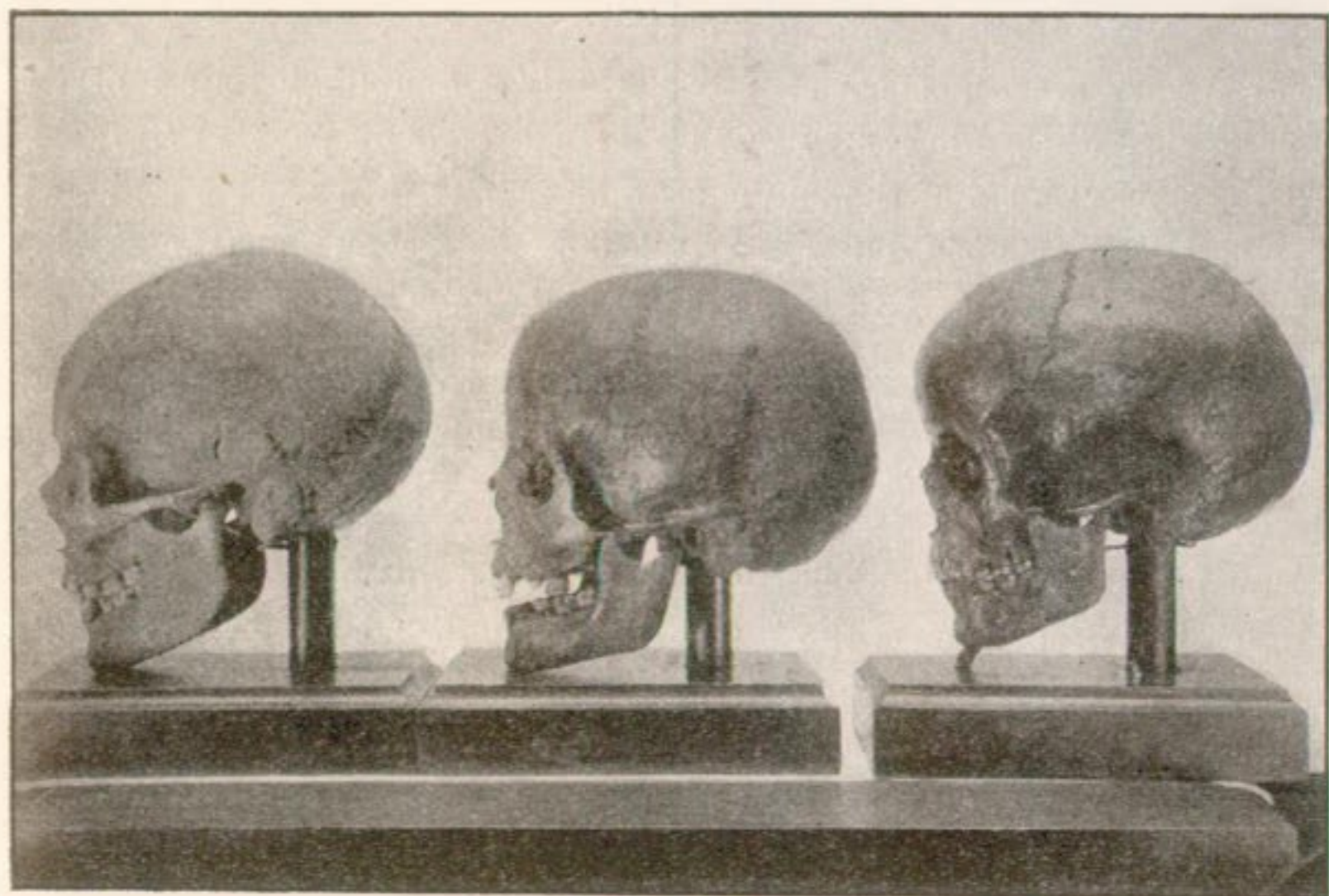
I have deposited the skulls in the Anatomical Museum of the Edin-



A

B

C



Front and side views of three Skulls from cists at Ardochy.

burgh University, which is rapidly forming a large and remarkable collection of skulls.

In conclusion, I express my own opinion—to which, however, Sir William Turner assents—when I say that the broad outcome of the examination of these skulls is that, if the owners of them appeared before us in the flesh which covered their bones when alive, we should look on three healthy, fairly good-looking, and fairly intelligent young persons—all three of them probably girls.