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SKELETAL REMAINS FROM ARNHEM LAND

During our survey of the Central and Western Arnhem Land we found 26 Aboriginal burials. Fourteen skulls were selected for study. The other skulls were found in a state not allowing anthropological study. Four skulls come from Bamyili, Bulman Gorge, and Cadell River in Central Arnhem Land, belonging to the traditional Rembrranga territory. Two other skulls and some postcranial bones were collected at Goomadeer, a traditional Gunwingu camping and burial site. In the East Alligator River area other six skulls were collected / 4 near Red Lily Lagoon and 2 near Cahill's Crossing. They belong, most probably, to the Kakadu or Gunwingu people. The last skull was found near Djerlandjal Rock, south-east from Mt. Brockman. This skull belonged most probably to the Maiali people. An additional skull from Chatham island was obtained from the Wellfare Branch Office in Darwin N.T.

Human remains were usually found in rock niches or fissures, either wrapped with bark and tied up with fibres, or sometimes freely deposited or covered with a few stones. In Bamyili the burial place was in a rock cliff, high on the slope above Beswick Creek. In the cliff there are also several caves with rock paintings (Macintosh 1952). In one cave I found there two burial parcels and on the floor of the rock shelter there were kangaroo and emu bones arranged into a circle. They are red-coloured remains of a burial corroborree. In the adjoining rock wall, in fissures and below overhangs we found some more burials. One of the burial parcels contained the skeleton of an adult male and a small dilly bag made of plant fibres. The human bones were painted red. In the dilly bag there were short pieces of a broken spear, a tin spoon, three pieces of textile and a womera. In the second parcel there were human bones, but most vertebra and the small bones of the hands and feet were missing. In a dilly bag there was a small fragment of a mirror glass, a big kitchen knife, ten tin spoons, two sacred objects (wooden sticks with coloured feathers and with a string made of human hairs), a flat metal spear point, three metal points (prongs) for a fishing spear and two bone sticks for making holes in the nose septum. After studying the objects we wrapped the burials into bark sheets again and put them back to their original places at the burial site.

On the Upper Cadell River we found a rock overhang with Mandarrg's (Rembrranga man) painting of "Burlung", the Rainbow Serpent. This rock was one of Mandarrg's dreaming sites. On the floor there was a 260 cm long naturally hollowed log with human skeletal remains. There was no painting on the log. On the occiput of the skull there was a simple sign painted with red colour. In Goomadeer (Gunwinggu territory), where the human burials were discovered in the rock fissures, we found heaps of kangaroo mandibles and hip bones and emu breast bones, hip bones and several long bones — all red-coloured. The animal bones were found in the vicinity of human burials. They are corroborree remains. One of the parcels found here was wrapped in an old blanket. This burial was not too old, as indicated also by the fresh red painting on the skeletal remains. The man suffered from advanced yaws, as the epiphyseal parts of the long bones and other characteristic bone changes demonstrate.

This small collection can contribute to our knowledge of the skeletal remains of the north Australian population. We collected some of the remains, since there is no doubt that most of them would be soon destroyed in their original burial

places. In East Alligator River area, inside the Arnhem Land Reserve territory, we often found disturbed burials, with bones and skulls smashed and destroyed on purpose and scattered on the ground. The descriptions and the data presented here can serve as supplemental when more numerous material is concentrated.

SKULL NO. 1 *(Red Lily Lagoon).*

A skull with mandible. From the morphology of the lower jaw, frontal squama and degree of formation of the supraorbital relief, from the vault and shape of the occipital squama in general and from the size of the mastoids follows that it belonged to a female. Since the cranial sutures are still open and all third molars are in place, but show slight traces of abrasion, we can put the age of the individual at 20—30 years at the time when the death occurred.

In lateral view we can see the medium-high and medium-vaulted front with slight supraorbital arcs. On the frontal bone we can see slight bosses and strong temporal lines forming a bone crest between the temporal fossa and frontal bone. The vertex of the skull is gradually vaulted, with its summit on the parietal bones. The steady curve of the vertex continues in the vaulted squama of the occipital bone. The parietal bosses are well formed. The squama of the temporal bone is relatively high, with well vaulted upper edge. As a continuation of the not too strong zygomatic arch we can see a slight supramastoideal ridge. The mastoid processes are strong but short. The external auditory meatus is large, oval in shape, with a very strong tympanal plate and bone process on the upper edge. In the vertical view the shape of the skull appears to be a transition between pentagonoid and ovoid form. Frontally we can see the well vaulted forehead. There is no postorbital constriction and the lateral walls of the skull slightly diverge towards the parietal bosses. The occiput from this view looks rounded. On the parietal bones there are four shallow depressions, obviously traces of healed injuries. The coronal and sagittal sutures are medium complicated. Only one small foramen parietale has been formed, on the left parietal bone.

In occipital view the skull has a clearly roof-shaped vertex and almost parallel lateral walls. The occipital part of the parietal bones and the upper part of the squama occipitalis have porous bone which seems to be of pathological origin, most probably of anaemic disease of the individual. The lambdoidal suture is simple, without inserted bones. On the occipital squama in the region of inion there is a slight indication of torus occipitalis. On the nuchal plane there is well visible rough surface for the muscle attachment.

On the basis of the braincase we can see the ovoid foramen magnum with large condyli. The glenoid fossae are deep. The facial skeleton in the frontal view is separated from the frontal bone by a deep nasion, due to the formation of a strong glabella.

We can see both in the lateral and frontal view only not too large supraorbital arches on the frontal bone. The front is laterally limited by strong temporal lines, it is well vaulted, with medium-size frontal bosses and modelled in roof shape towards the vertex. The nasal root is not flat, the nasalia, although narrow, are roof-shaped. The orbits are large, rectangular. The nasal opening is wide, with a thin nasal spine and with weak fossae praenasales on the lower edge. On the maxilla there is only a slight canine fossa, and a submaxillar incisure. The maxilla is strongly prognathic, this fact is especially well visible from lateral view of the facial skeleton. At this view we can see a medium-sized marginal process on the malar bone.

The upper palate is without torus maxillaris or torus palatinus. The upper and lower dental arches are horse-shoe shaped.

The mandible is not large, but robust. Its basis in lateral view is rocking, the chin is round and relatively well formed. At the symphysis the mandible is low. The mental foramina are simple, large and are situated at the middle of the mandibular body height beneath the second premolar. The gonion is straight. The mandibular ramus is broad, with a shallow semilunar incisure and with a small condyle. On its external side there is slight relief for giving attachment to the m. masetter, and on the internal side for the lateral pterygoideus muscle. The mylohyoid line is strong. On the internal side of the chin part of the mandible there are well visible impressions for the sublingual gland and a well formed, but not large mental spine. From the teeth, originally all in position, in the upper and lower jaws all the molars have been preserved, as well as the first left premolar in the mandible, and the second right upper incisor. The other teeth have been post-mortally lost. On the preserved teeth and alveols there are no caries traces or traces of inflammation process.

The third upper molars are somewhat smaller compared with the other molars.

$$\frac{M_3\ M_2\ M_1\ O\ P_1\ O\ O\ C \quad O\ I_2\ O\ O\ O\ M_1\ M_2\ M_3}{M_3\ M_2\ M_1\ O\ P_1\ O\ O\ O \quad O\ O\ O\ O\ O\ M_1\ M_2\ M_3}$$

SKULL NO. 2 *(East Alligator River).*

Skull of an adult female, without mandible. Judging from the morphology of the frontal bone, its vaulting, characters of the supraorbital region, morphology of the occipital squama, the gracile zygomatic arch, small mastoids, small absolute dimensions, and small teeth we can see that the skull belonged to a female. Since all cranial sutures are still open and both third molars have erupted and show medium signs. of use, the chewing surfaces of the other molars and of the preserved incisor reveal excessive wear, the age of the individual at the time of the death can be put between 30 to 40 years.

In lateral view the skull is high, with medium

TABLE 1.

	1	2	4	5	6	7	8	9	10	11	12	13	14
Max. cranial length	182	163	187	182	167	175	182	181	180	171	186	186	177
Nasion opisthocranion length	179	161	182	178	162	173	178	179	177	169		181	174
Greatest cran. breadth	127	117	133	121	122	132	129	131	120	130	128	128	124
Nasion basion length	100	96	105	98	87	98		102	100	97	89		100
Minimal frontal diameter	99	89	99	98	86	92	92	92	84	93	92	94	85
Maximal frontal diameter	107	92	113	101	100	107	103	104	106	108	109	105	96
Biauricular breadth	113	112	117	113	103	112	118	119		120		117	116
Bimastoideal breadth	101	102	105	99	90	97	95?	104	97	106			95
Occipital breadth	99	99	111?	102	97	103	111	107	99	104.5	111		103
Bizygomatic breadth	125	129	134			118		134	136?	134	136		130
Auricular height	103	94	111	107	97	107	101	102					101
Basion bregma height	138	130	140	130	125	136		134	124	132			130
Nasion bregma arc	136	114	128	126	120	120	121	130	116	125		94	105
Nasion bregma chord	117	99	111	111	102	107	106	115	103	110	116	83	86
Bregma lambda arc	132	120	143	138	128	126	132	124	129	118		194	145
Bregma lambda chord	115	118	125	122	110	112	114	112	114	105	121	154	117
Lambda opisthion arc	110	105	111	107	103	118	106	109	102	105			114
Lambda opisthion chord	95	89	92	94	86	99	85	92	87.5	93	105		95
Cranial circumference	498	452	507	493	463	492	500	502	499	488		492	483
Transversal cranial arc	295	267	300	283	272	297	279	288	276	286	288	284	
Frontal angle	54°		56°			60°	63°						
Upper facial angle	54°		69°			58°							
Alveolar angle	52°		55°			47°							
Total facial height	105	95					101				120		112
Upper facial height	65	58	73	61	55	69	62?	67	66		67	67	63
Right orbital height	33	33	37	34	34	34	35	34	34	29	37	32	34
Right orbital breadth	40	37	43	39	35	38		39		44	44	39	38
Left orbital height	33	34	36	33	33	34	34	34	34	31.5	36	32	34
Left orbital breadth	39	37	41	40	35	35	41	39	51	42.5	44	39	39
Nasal height	47	44	54	43	39	47	55	46	54	47	49	50	47
Nasal breadth	29	28	26	30	24	26	32	30	27	30.5	29	27	29
Upper breadth of nasalia	8	11	13	14	5	7	13	13	7	11.5	12	12	10
Biorbital breadth	99	97	108	93	91	92	104	101	106	107	109	112	96
Interorbital breadth	26	25	29	27	22	25	26	27				31	24
Maxilloalveolar breadth	65	64	67				64?	67	67	69	63?	64	68?
Maxilloalveolar length	63	59	63						57?		56?	62	57?
Mandibular length	111	106					105?				127?		110
Bicondylar breadth	108	104					104?				115?		111
Bigonial breadth	90	94					95			110?	90		91
Asc. branch height	64	57					52			67	60		56
Minimal breadth of asc. branch		33	33				33		35	29		32	
Body height in M_2		28	26				26			30?		25	
Body thickness in M_2		13	12				11			16		12	
Symphyseal height		28	30				29		34?	35		36	
Gonion angle		113°	116°				117°						

high, somewhat oblique front, with medium-sized supraorbital arches and glabella. The nasal root is high, with almost no nasion depression. The frontal bosses are slightly indicated. The temporal lines are of medium size. The skull vertex is gradually curved, the sagittal curve of the vault passes fluently from the front to the occipital part of the braincase and to the occipital squama, which has also a round vaulting, without occipital torus or external occipital protuberantia. The temporal squama is low, medium-vaulted, the zygomatic arches are gracile. The external auditory meatus is oval, with a thin tympanal plate. The mastoids are small, the supramastoideal ridge has not been formed.

In the vertical view we can see that the face is characteristically prognathic. The zygomatic arches are well visible from this view. The skull is dolichomorphous, with definite postorbital constriction. The parietal bosses are slightly indicated and the occipital squama in this view appears roundvaulted. The parietal foramen has been formed only on the right side and is relatively large. The coronal and sagittal sutures are medium-complicated. In the occipital view the braincase has the so-called "house-form", i.e. the parietal bones are joined in the form of a house roof and the lateral walls of the braincase are parallel. The lambdoidal suture has no Wormian bones. No protuberantia occipitalis externa, nor torus occipitalis have been formed. The mastoids are small. On the nuchal plane there is rough surface for the attachement of the occipital muscles. In basilar view we can see an almost circular foramen magnum, somewhat asymmetrical occipital condyles and medium-deep glenoidal fossae.

In the frontal view we can see an oblique front, slightly sagitally keeled and with a well-visible postorbital constriction; weak frontal bosses and medium-sized supraorbital arches and glabella. The orbits are rectangular with rounded edges. The

nasal root is wide with narrow flat nasal bones, concave in profile. The malar bones, with a slight trace of a marginal process, are oriented in the fronto-lateral direction, so that the face is relatively wide. The submaxilar incisure has not been formed. In general the malar bones are gracile. On the maxilla there is a well visible canine fossa. The nasal opening is wide, the nasal spine is small. On the lower edge of the nasal opening there are medium-sized praenasal fossae. The facial skeleton is definitely prognathic. The upper palate is medium-deep, with the front part slightly inclined. There are no torus maxillaris or torus palatinus. The dental arch is horse-shoe shaped, oblong, with almost parallelly situated molars. None of the preserved seven teeth has caries and there are no traces of inflammable processes in the preserved alveols. The alveol after the first incisor is closed. The other missing teeth have been lost postmortally. The third molars are somewhat smaller, compared with the other molars.

M_3 M_2 M_1 O O O O O — O C O O M_1 M_2 M_3

SKULL NO. 3 *(Mt. Brockman).*

Skull of a child — of the age of 2—3 years according to the dentition.

It was discovered in a rock niche together with several kangaroo bones and next to it there was a white painting of a female figure on the rock wall with head down. On the skull, still bearing slight traces of red pigment, there are several pathological characters. Firstly the coronal and sagittal sutures, and on the left side the temporo-parietal suture were closed prematurely. The lambdoidal suture, relatively simple, remained open. Due to this situation the skull shows strong postcoronal constriction — the growth continued in the front by vaulting out the frontal part. On the parietal bones there are unusually big parietal bosses. From the parietal bosses towards the asterion there are on both parietal bones places of porous bone structure, usually called "brush-skull" and connected with anaemic disease. Very intersting is in this connection the appearance of strong cribra orbitalia on the ceiling of the orbits.

The occipital squama has round vaulting. Even if we take into account the pathological situation, the skull looks extraordinarily big for the age determined according to the dentition. It is very probable that due to the pathological interference with the physiological processes there was some retardation also in the development of the dentition. Unfortunately it is impossible to determine the age more exactly.

Worth mentioning is also the fact that on the alveol of M_2 there is lingually a medium-sized fistula, indicating that there was an inflammatory centre at the root of the tooth. Such cases are very rare even in adult Aborigines, and in child dentition are quite exceptional. It cannot be excluded that even this condition of the dentition was influenced by the pathology of the child. In the area of the right parietal boss the surface of the bone has been changed by a pathological process of unknown origin.

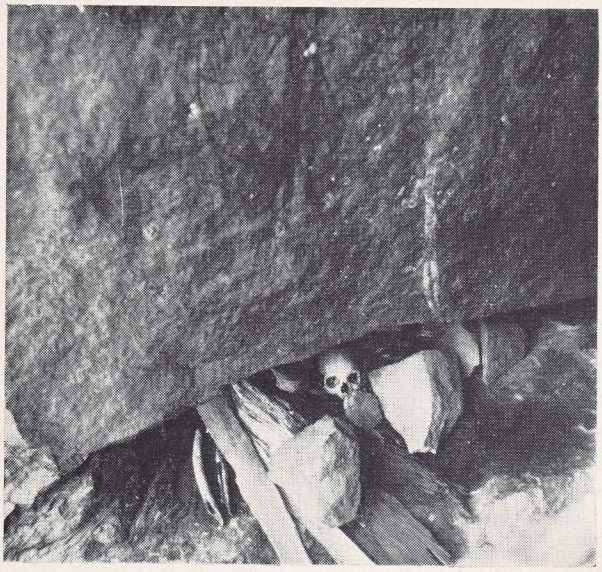
SKULL NO. 4 *(East Alligator River).*

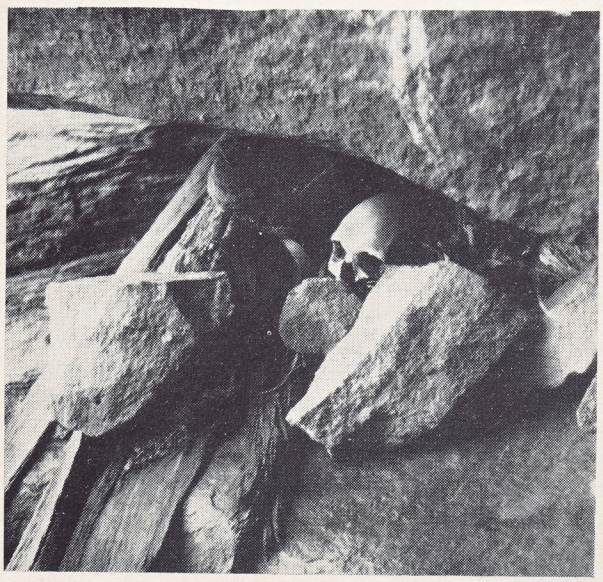
Skull of an adult male without mandible. The entire morphology of the skull, its conspicuous robustness, mighty supraorbital ridges, oblique front, the morphology of the occipital squama and a number of other characters indicate that it is a male skull. Since all the cranial sutures are in medium-stage of obliteration and the alveols indicate that both third molars had erupted and some alveols bear the traces of an inflammatory process, the alveol after the first molar on the right side had healed, we can presume that the individual was 40—50 years old.

In the lateral view very characteristic is the low and oblique front with strong supraorbital arches and glabella, below which there is a deeply seated nasion. The temporal lines are medium-strong. The curve of the cranial vault is relatively gradual, the upper part of the occipital squama is slightly protruding, it break at the inion and there is a transition to a flat nuchal plane. The squama of the temporal bone is high and well vaulted, the zygomatic arch is medium-strong. The mastoids are of medium size, as is also the supramastoideal ridge. The external auditory meatus is oval and has a thin tympanal plate.

In the vertical view the skull is clearly dolichomorphous, birsoid, the zygomatic arches are well visible. Well visible in this view are also the strong supraorbital ridges, which are somewhat asymmetrical (the left is a bit larger). Laterally they pass into trigonum supraorbitale. The postorbital constriction is of medium-degree.

The two supraorbital arches have been separated by the glabella in the form of a medium-sized depression. The parietal bosses are slightly indicated, and only one foramen parietale have been formed. It is of medium size and is on the left side. On the left side of the frontal bone, in the vicinity of the temporal lines we can see a smaller healed trauma that had damaged the surface layer of the bone. In the occipital view the outlines of the skull are of the typical "Hausform", with high, roof-shaped parietal bones and with almost parallel lateral walls. The skull reaches its maximum width at its base. The parietal bosses are well perceptible in this view. Very interesting is the keel-like reinforcement of the skull along the sagittal and lambdoidal sutures, forming a special superstructure of the skull. In spite of the fact that all sutures are in advanced state of obliteration, we can see that they were simple. Across the occipital squama there is a strong torus occipitalis, forming at its centre a large protuberantia occipitalis externa. In basilar view of the skull we can see medium-sized muscular tuberosities on the planum nuchale, a not too big ovoid foramen magnum and medium-deep glenoid fossae.





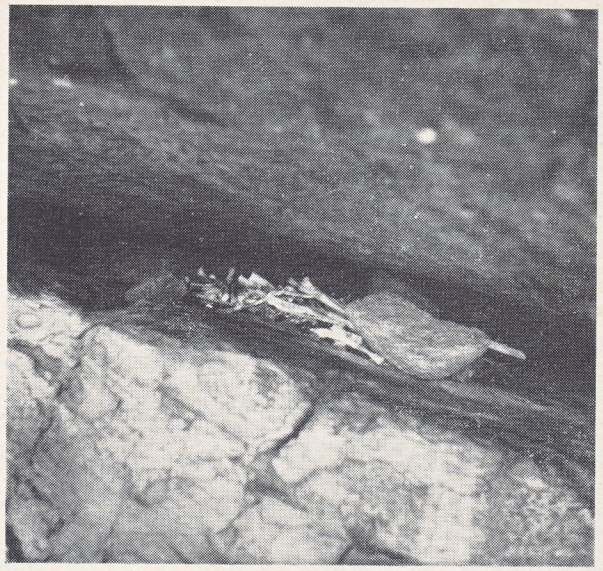


FIG. 1 *Goomadeer River.*
Burial in a rock fissure. Note the rock paintings on the rock wall.

FIG. 2 *Goomadeer River.*
A burial packed in paperbark and an unpacked red ochred burial.

FIG. 3 *Goomadeer River.*
Detail of a burial in a rock fissure.

FIG. 4 *Goomadeer River*
Ochred wallaby long bones and mandibles after a burial corroborree.

FIG. 5 *Bamyili.*
Ochred emu and kangaroo long bones after a burial corroborree.

In frontal view we can see a rather low and oblique front, behind which the parietal bones are roof-shaped. The robust supraorbital arches have been described in the vertical view. The nasalia have been put together in a roof-like manner, the nasal root is medium-wide and deeply seated. The nasal opening is relatively narrow with a medium-sized spina nasalis anterior and with a slight suggestion of the sulcus praenasalis, at the lower edge of a pear-shaped opening. The orbits are rectangular, and are asymmetrical, similarly as the supraorbital arches. The left orbit is less wide. On the upper jaw there is a medium-sized submaxillar incisure. The face and namely the alveolar process is rather prognathic. On the medium-sized maxillary bones no maxillary process has been formed. The upper palate is medium-deep and its frontal part is inclined. No torus palatinus or torus maxillaris have been formed. The dental arch is U-shaped, somewhat square, with a parallel line of molars and with a transversal row of incisors. Unfortunately not a single tooth has been preserved. In the alveols after the first premolar and the second and third molars on the left side we can see traces left behind by an inflammation process. The alveol after the first molar on the same side has healed. Also on the right side the alveol after one root of the right molar has closed. The interesting thing is that both alveols after the first incisors have been preserved, indicating that the teeth had not been ritually removed during the life of the individual, as often seen in other male skulls. From the alveol of the first incisor on the right side there is a labially open fistula of medium size. These findings in the alveols indicate the relatively deteriorated state of denture compared with other skulls. Perhaps we might add that there are also rests of dry skin on the skull, revealing that the time of its burial is not so remote. The fact that the dead individual had his teeth in such a poor state can be explained by civilization contacts. It can explain also the neglecting of the traditional custom of knocking out the first incisors.

∅ ∅ — 0 ∅ 0 0 0 ∅ 0 0 0 0 ∅ 0 0

SKULL NO. 5 *(Oenpelli)*

The skull bones are relatively thin. Since most of the sagittal and lambdoidal suture have disappeared and since the crowns of the two preserved teeth have been completely worn, we can assess the age of the individual at 50—60 years. According to the morphology of the supraorbital region, of the front, facial skeleton, small mastoids and morphology of the occipital squama it was a woman.

Compared with other Australian skulls the front of this female skull is medium-vaulted. The vault index is 88,0. The supraorbital arches continue laterally in a flat trigonum supraorbitale. They are medium-large and are mutually connected with a medium-sized glabella (B r o c a III). The temporal lines are stressed and the postorbital constriction is of medium-degree.

On the parietal bones there are slight parietal bosses. On the left parietal bone near the sagittal suture there is a healed larger traumatic defect. The sagittal suture is mostly obliterated. The occipital squama is protruding and it passes into the nuchal plane with a weak occipital torus without supratoral sulcus. The nuchal plane is flat with medium-sized tuberosities. The foramen magnum is circular.

The scales of the temporal bones are low and little vaulted and have a strong supramastoideal ridge. The mastoids are small, the glenoid fossa is deep.

On the facial skeleton we can see a medium-deep nasion, wide and medium-high nasalia. The nasal root is wide. The lower edge of the piriform aperture has medium-sized praenasal fossae and a medium-sized anterior nasal spine. On both sides of the upper jaw there are deep fossae caninae and large holes of the canalis maxillaris. The maxillary bones are small. The alveols after the upper incisors have been preserved. All teeth have been lost postmortally. There is a definite alveolar prognathism. The upper palate is flat, with a slight onset of maxillar torus. Due to a defect of the upper palate it is difficult to tell whether there was a torus palatinus or not. The parietal bones at the vertex, and also the upper parts of the occipital squama are porous. This character had been probably caused by an anaemic disease.

SKULL NO. 6 *(Goomadeer).*

The skull belonged to a boy of about 15 years. The second molars have been slightly worn, while the third molars are still deep in the alveols. The sphenooccipital suture is still open. In lateral view the front is medium-high and medium vaulted with slightly indicated supraorbital arches and glabella. The depression of the nasion is medium deep. The parietal bones are evenly curved and the upper part of the occipital squama is slightly protruding. The temporal line and the postorbital constriction are weak. In vertical view the shape of the braincase is protracted, pentagonoid. On the two parietal bones there are well visible parietal bosses. No foramina parietalia have been formed. In the relatively slightly complicated lambdoidal suture there are two inserted bones — one of them is in the right part of the suture and is divided into two pieces. The mandibular fossae are medium-deep. The temporal squama is medium-high and relatively well arched. Above the mastoids there is a weak supramastoideal ridge. On the facial skeleton there are high orbits, a broad nasal opening and a broad and flat nasal root. The bottom edge of the piriform opening has weak anterior nasal spine and praenasal fossa. On the maxilla there is a medium-sized fossa canina and strong alveolar prognathism. The upper palate is medium-deep, with no torus palatinus or torus maxillaris. Viewed in the norma occipitalis the skull has pentagonoid shape, with roof-like parietal bones and with the lateral bones converging at the bottom.

SKULL NO. 7 *(Red Lily Lagoon).*

Skull of an adult female, without mandible. The fact that the two third molars in the maxilla have erupted and are medium-worn and that the sutures of the braincase have remained open, indicate that the age of this individual can be placed somewhere between 20—30 years.

In lateral view the front is low, running backwards, with slightly protruding frontal bosses. The supraorbital arches and the glabella are medium-sized (B r o c a II).

The parietal bones look from this view considerably curved; in the region of obelion there is a small flatness. The curve of the sagittal course of the vault passes continuously into a vaulted occipital squama. If we subject the individual bones of the braincase to detailed examination, we can see that there is a medium-sized postorbital constriction on the frontal bone. The temporal line — similarly as on the parietal bones, is well formed. On both parietal bones, namely between the parietal bosses and the lambdoidal suture and on the adjoining occipital squama the surface structure of the bones is rather porous, as it used to be after anaemic diseases. The parietal bosses have slightly birsoid shape in the norma verticalis. The two parietal foramina are simple and of medium size. The occipital squama is well vaulted, without external occipital protuberantia or occipital torus. The mastoids are smaller and there is a medium-sized supramastoideal ridge above them.

The zymomatic arches are weak. The fossa articularis is deep, and the mastoids are medium-sized. In the occipital view the skull has a clearly pentagonoid shape with roof-like parietal bones. The lateral walls slightly converge towards the base. The lambdoidal suture is simple and in its left part there is a Wormian bone. On the facial skeleton we can see relatively high orbits, broader nose with broad root, narrow nasalia and medium-sized anterior nasal spine. The maxilla is strongly prognathic, with deep fossae caninae. The maxillary bones are gracile. The upper palate is medium deep, without torus palatinus or maxillar torus. On the third left molar there is buccaly a medium-sized caries of the crown, which is not frequent with the Australian Aborigines in Arnhem Land. All teeth have been considerably worn. The third molars, as to their dimensions, rank with the other molars. The skull is relatively narrow in the face.

SKULL NO. 8 *(Inagurdurwil).*

A skull with mandible, belonging to an adult male. Missing from the skull is the right malar bone, the right zygomatic arch and the adjoining parts of the maxilla.

On the skull base there is an extensive defect, so that at the place of the foramen magnum the braincase is wide open. The two condyli of the mandible have been so damaged by corrosion that it is impossible to measure the bicondylar breadth. Neither can be measured the bigonial breadth, since the gonion on the left side of the mandible is defective.

It is definitely a male skull, as follows from its overall robustness, morphology of the front and of the supraorbital region, strong torus occipitalis and strong tuberosities on the planum nuchale, the strong mastoids, strong supramastoideal ridges and other morphological characters. Since the obliteration of the sagittal suture has started at its central part and the preserved teeth show signs of considerable abrasion, we put the age of the individual at about 40 years.

In the lateral view we can see a medium-high, oblique front, with strong supraorbital arches, strong glabella and temporal lines in the form of a bone ridge. The nasion depression is deep. The vertex of the skull vault is at the parietal bones. The vault is gradual, with the upper part of the occipital bone somewhat protruding. This character is connected with the presence of Wormian bones in the lambdoidal suture. In the pterion region there is an os epiptericum on both sides of the skull. On the parietal bones we can see the continuing temporal lines. The zygomatic arch is relatively strong, the squama of the temporal bone is high and well vaulted. Above the strong mastoids there is an outstanding supramastoideal ridge. The external auditory meatus is oval, with thin tympanic plate. The slightly protruding upper part of the occipital squama breaks at the inion and passes into a relatively flat planum nuchale.

In the vertical view the braincase is dolichomorphous, almost ovoid. The zygomatic arches are well visible in this view. On most of the surface of the frontal squama and on the parietal bones, between the sagittal suture and temporal lines the surface of the bone is quite porous, as in case of an anaemic disease. The coronal and sagittal sutures are simple, and the central part of the sagittal suture begins its obliteration. The parietal foramina have not been formed and the parietal bosses are marked only slightly.

In the occipital view the skull has the so-called "Hausform", with roof-shaped vertex and with the lateral walls of the skull slightly diverging towards the base, so that the skull reaches its maximum breadth at its base. The lambdoidal suture is complicated, with a number of inserted bones in it. Across the occipital squama, whose upper part is slightly bathrocephalic, there is a wide torus occipitalis. The nuchal plane is flat. In basilar view we can see that the opisthion has been preserved, so that the sagittal arch and chord of the squama occipitalis can be measured. On the other hand it is impossible to measure the basion-bregma height of the skull, neither the basion-nasion length, since the basion has not been preserved. The glenoid fossa is medium deep.

In the frontal view we can see that the upper edges of the orbits have been partially gnawed by small rodents, nevertheless the left orbit can be measured. In this view we can see quite clearly the postorbital constriction, and the strong supraorbital arches passes laterally into a trigonum supra-

SKULL No 1

Fig. 1

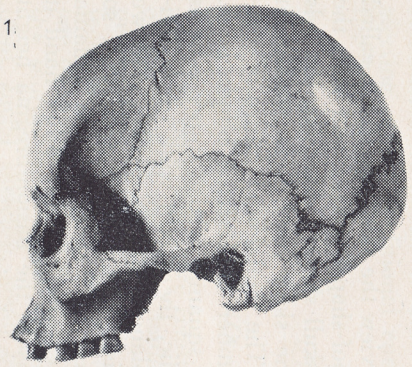


Fig. 2

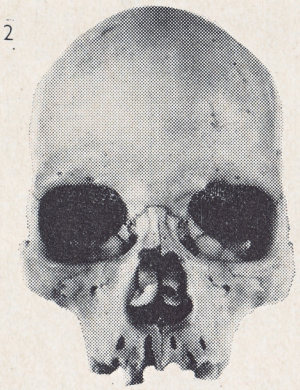


Fig. 3

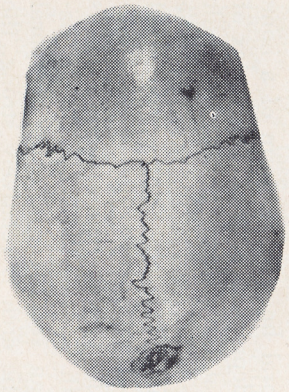
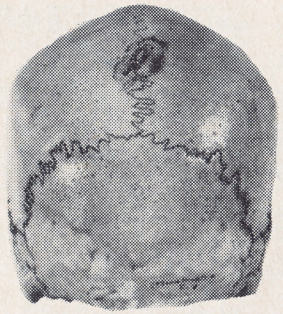


Fig. 4



SKULL No 2

Fig. 5

Fig. 6

Fig. 7

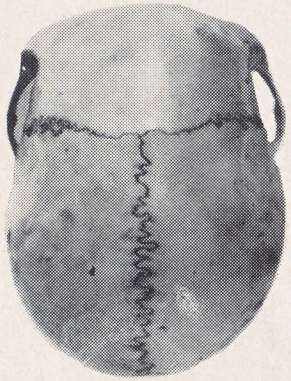
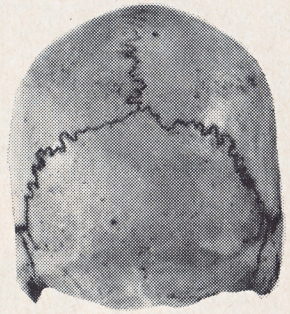


Fig. 8



SKULL No 3

Fig. 9

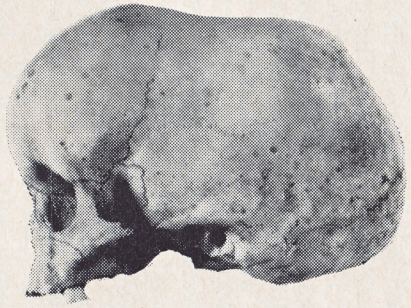


Fig. 10

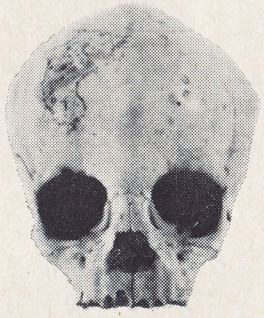


Fig. 11

Fig. 12

SKULL No 4

Fig. 13

Fig. 14

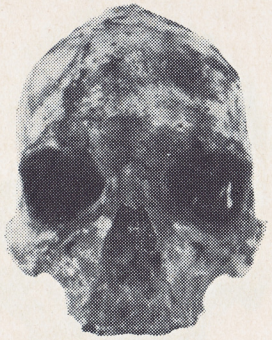


Fig. 15

Fig. 16

SKULL No 5

Fig. 17

Fig. 18

Fig.

Fig. 20

SKULL No 6

Fig. 21

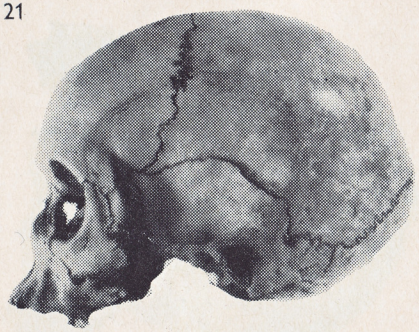


Fig. 22

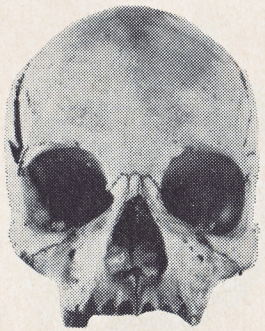
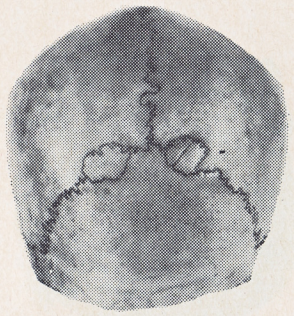


Fig. 23

Fig. 24



SKULL No 7

Fig. 25

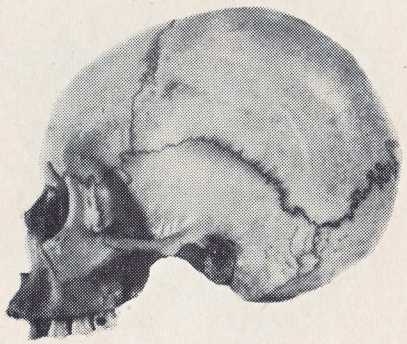


Fig. 26

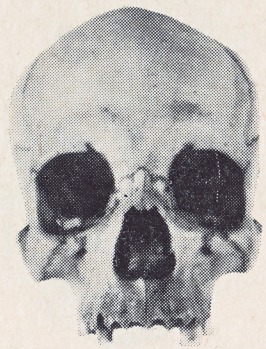


Fig. 27

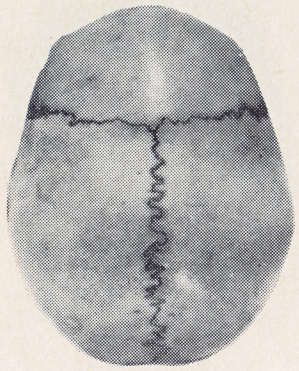


Fig. 28

SKULL No 8

Fig. 29

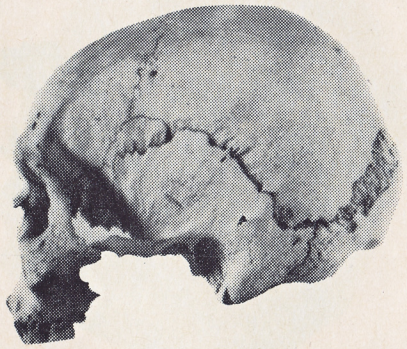


Fig. 30

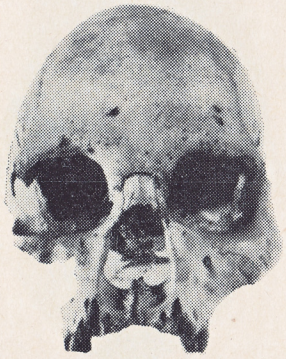


Fig. 31

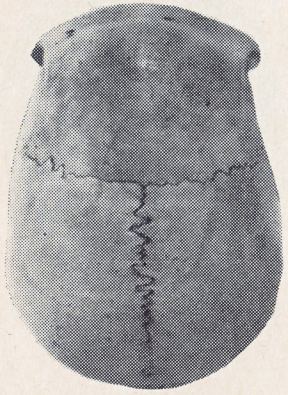


Fig. 32

SKULL No 9

Fig. 33

Fig. 34

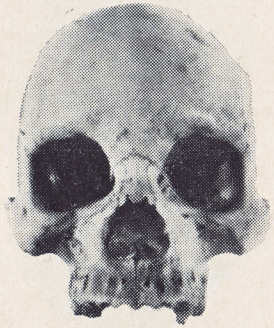
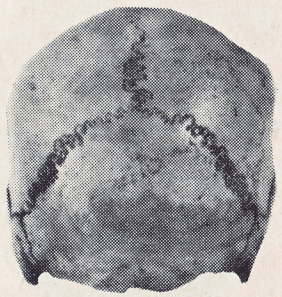


Fig. 35

Fig. 36



SKULL No 10

Fig. 37

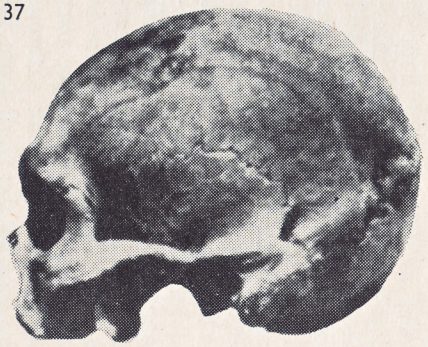


Fig. 38

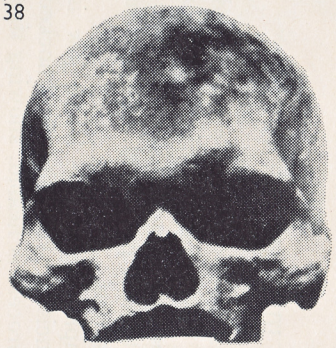


Fig. 39

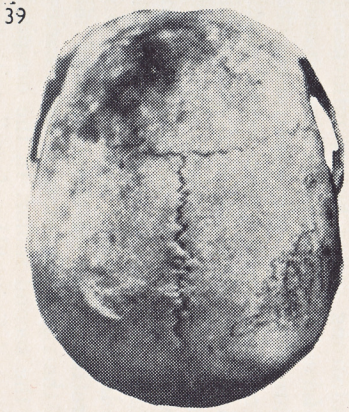
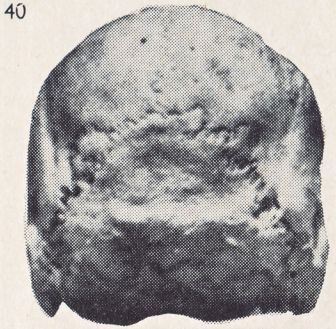


Fig. 40



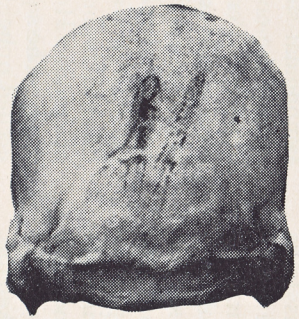
SKULL No 11

Fig. 41

Fig. 42

Fig. 43

Fig. 44



SKULL No 12

Fig. 45

Fig. 46

Fig. 47

Fig. 48

orbitale. Also the glabella (Broca IV) is large and it connects both supraorbital arches. The supraorbital part of the front is separated from the frontal squama by a weak, obliquely running depression. The nasalia are broad and transversely slightly arched. On the profile they are concave. The nasal opening is medium-broad, with large fossae praenasales at the lower edge. Both first upper incisors have been removed during the lifetime of the individual and their alveols have healed, decreasing the original prognathy of this part of the facial skeleton. The fossa canina is relatively shallow, neither is the incisura submaxillaris deep. The face is broad. There is no marginal process on the malar bone. The orbit entrances are rectangular and somewhat obliquely inclined. The upper palate is deep and alongated, with horse-shoe shaped dental arc.

The mandible is not large, it has low body and a weak negative chin.

There is a pronounced alveolar prognathy also in this mandible. The mental foramen is medium-sized, simple, it is at the medium height of the mandibular body, below the second premolar. The gonion is slightly everted. On the internal side of the low and broad ascending ramus we can see strong tuberosities for the attachement of the m. pterygoideus lateralis, and on the external side there are slight tuberosities giving attachement to m. massetter. The mylohyoid ridge is rather strong. The mental spine is medium large and the fossa digastrica is directed obliquely rearwards. The dental arch has the shape of an elongated horse-shoe. The alveols after the second, and partially also after the third molar have been deeply pathologically changed. The other alveols are empty, all teeth of the lower jaw have been lost postmortally.

O M_2 M_1 P_2 O O O —	— O O O P_2 M_1 M_2 O
∅ ∅ O O O O O O	O O O O O O O O

SKULL NO. 9 *(Chatham Island)*

The skull belonged to a male of about 40 years. It is characterized by a generally robust build. The cranial sutures are still open, but the preserved teeth have heavilly worn crowns.

The front in lateral view looks low and oblique, with medium-sized supraorbital arches and glabella. The depression of the nasion is not deep. The parietal bones are well curved in the sagittal plane, with a small flatness at the obelion. The upper part of the occipital squama is protruding and sharply breaks at the inion. The temporal lines on the frontal and parietal bones are weak, but the supramastoideal ridge forming their continuation on the temporal bones has been strongly formed. The postorbital constriction on the frontal bone is of average shape. Above the left frontal boss there is a pathological bone lesion, often found as consequence of bone tuberculosis, lues or bone carcinoma. In the norma verticalis the skull has pentagonoid shape. On the parietal bones the bosses strongly protrude. On the left and right parietal bones there are traces of healed injury. Between the parietal boss and lambdoidal suture, and partially also on the upper part of the occipital squama the surface of the bone is porous. Perhaps it is the result of an anaemic disease. Only one parietal foramen has been formed. It is simple, medium-sized and is situated on the right side. The lambdoidal suture is medium-complicated, but has no Wormian bones. On the occipital squama there is a broad, but not very outstanding torus occipitalis. Here we can see also traces of a healed injury. The squama temporalis is low, with a slightly arched upper edge. The mastoids are medium-sized. The fossa articularis is medium-deep. The zygomatic arches are strong. On the facial skeleton there are obliquely situated strong malar bones, influencing the width of the face. The submaxillar incisure and the fossa canina are deep. The orbital entrances are mesoconch. The nose is broad with a broad nasal root, weak anterior nasal spine and weak praenasal fossa. The maxilla is strongly prognathic. The upper palate is deep, without torus maxillaris and with a slight torus palatinus. From the roots of both first mollars there are lingually opened large fistulas. On the left side there are caries on the crowns of all three molars. On the right side there is tooth caries on the crown of the second molar. In the occipital view the skull has a definite "Hausform", with the parietal bones forming a roof.

SKULL NO. 10 *(Cadell River).*

In the neighbourhood of the archiac red echidna rock-painting there was a burial found in a rock fissure. The bones were laying there free, the red paint had not been preserved. They were covered with five big stones.

The skull is complete, only the lower jaw is missing. The upper incisors were ritually knocked out and the alveolar process is healed, showing that it happened long before death.

The skull is robust with strong supraorbital relief. The muscular relief in the occipital bone is well demonstrated and together with the big mastoids and styloids, with the strong supramastoideal ridge and with strong zygomatic arcs demonstrates that it is a male skull. The starting obliteration of the main cranial sutures and the heavily worn first left molar point to the age of about 50 years. In lateral view the skull is middle long, with low front and strong supraorbital relief, deep nasion depression and with very strong temporal lines. The skull is gradually vaulted, it has no postcoronal depression or lambdoidal flatness. The occipital bone is slightly bun-shaped (bathrocephal). The upper part of this bone is well vaulted, with a weak external protuberantia. When we look at the skull from lateral view, we can see strong mastoids and the supramastoid ridge. The temporal squama is middle-high, modestly vaulted. In vertical view the skull is elipsoid and of middle length. The parietal bosses are slightly visible. The parietal foramen on the left side is large and simple, on the right side small and simple. On the left parietal bone before the parietal foramen and on the right parietal bone behind the parietal foramen there is a healed trauma.

In occipital view the vault is roof-shaped. The maximum breadth of the skull lies low on the supramastoid ridge. In the lambdoid suture there are three Wormian bones. The external protuberance is small and the relief in the nuchal plane is strongly developed. In the skull there is an ovoid foramen occipit. magnum. The mandibular fossae are middle deep and the upper palate is broad and middle-deep. There is no torus maxillaris or torus palatinus. From this view the mastoids look middle-sized. In frontal view we see strong postorbital construction. The nasal bones are low, the pear-shaped opening is broad and the nasal spine is middle-sized. The malar bones are robust and there is strong relief on the maxillar bone, but there is almost no fossa canina. The submaxillar incisure is weak. The orbits are asymmetrical, low and large. The front is slightly keeled in mid-sagittal line. From the mandible only the right head and muscular process and the corresponding gonion are missing.

The mental prominence is weak and rounded, the mandibular body is strong. Both mental foramina are simple and of normal size. On the inner side of the symphysis there is a slight mental spine and above it in a shallow fossa there is a foramen. The digastric fossa faces obliquelly back down. The alveolar process and even the corresponding part of the mandibular body are missing. On the left side of the mandible we can see that the gonion was everted. The ascending mandibular branch is broad and the mandibular head was broken and healed. On the inner side there is a strong relief for the lateral pterygoid muscle. In general the mandible is a fairly robust one.

Both thigh bones are thin and long, with very strong pilaster. Gluteal tuberosity has the shape of a slight furrow and no trochanter tertius is formed. Both tibiae have slight tibial tuberosities and strong poplietal lines. The anterior tibial crest is curved in the shape of S and the cross-section of the shaft is strongly crested.

In arm bones the upper part of the shaft is very strong in the distal part the fossa olecrani is slightly perforated. The muscle relief is well presented. The intermembral crest is weak in both ulnae, though the muscle relief is strong enough. The prolonged radius crest meets radial tuberosity in both radii. The fibular shafts are strongly crested. Some of these bones are still red coloured. Near Upper Cadell River Crossing two thigh bones and two arm bones were found together with some kangaroo bones in a rock shelter. The right femur is complete with traces of cutting on the neck and on the trochanter maior. The shaft bears traces of red ochre. The gluteal tuberosity is large and rough. The third trochanter is not formed. The femoral pilaster is middle-sized. In left femur the head, trochanter maior and both distal epicondyli are missing. In left arm bone the trochlea is slightly damaged. Both shafts are rubust, with well formed relief. The fossa olecrani is not perforated.

Femur	right	left
Lat. subtroch. diameter	28	28
Anteropost. subtroch. diameter	25	25
Femoral head diameter	41,5	42
Lat. diam. of the shaft middle	24	23
Anteropost. diam. of the shaft middle	31	31
Circumference of the shaft middle	90	88

Tibia	Right tibia	Left tibia
Anteropost. shaft diam. in nutritive foramen	34	32,5
Later. shaft diam. in nutritive foramen	23	22.5
Circumference of the shaft middle	81	80

	Right humerus	Left humerus
Max. diam. of the shaft middle	24	24
Diameter of the humerus head	42	40
Epicondylar breadth	55	56

	Right radius	Left radius
Max. diameter of the shaft middle	13,5	13
Diameter of the radius head	22 (?)	

	Right ulna	Left ulna
Diameter of the shaft middle	16	15
Minimal diameter of the shaft	8	8
Minimal shaft circumference	31	30

	Right femur	Left femur
Anteropost. subtroch. diameter	23	25
Lateral subtroch. diameter	32	32
Anteropost. diameter of the shaft middle	27	29
Lateral diameter of the shaft middle	24	25
Shaft middle circumference	84	86
Femoral head diameter	45	—

	Right humerus	Left humerus
Arm bone head diameter	46	44
Epicondylar breadth	59	57
Max. diameter of the shaft middle	24	20.5
Shaft middle circumference	70	59
Greatest length	339	344

SKULL NO. 11 *(Cadell River).*

Under the rock overhang with the painting of the Burlung Rainbow Serpent there is a naturally hollowed log used by the Aborigines to deposit skeletal remains.

A male skull without mandible was inside. It is well preserved, only the right malar bone and the zygomatic arch are missing. The sagittal coronal and lambdoidal sutures have been obliterated and the teeth are considerably worn. We can find all molars, both premolars on the left side, and the second premolar on the right side. All these teeth are without caries. The first premolar and the canine tooth in the right side were lost — the canine intra vitam. Its alveol shows traces of a granulom. The canine on the left side was lost also intra vitam and the four incisors were ritually knocked out. Their alveoles are healed. The skull has a low front with strong supraorbital arches. The temporal lines are well visible.

In front of the parietal bosses on the parietal bones there is a shallow transverse depression. However, it is not a postcoronal depression. The course of the cranial vault in the median sagittal plane is even, the parietal bones are well curved. The upper part of the occipital squama is protruding, but no flatness have been formed. On the occipital bone there is a transverse, medium-sized torus occipitalis. The mastoids, the supramastoideal ridge and the styloids are also well formed. The zygomatic arc preserved on the left side is medium-strong. The temporal bone is medium high and well vaulted. On the left side we can see a small epipteric bone.

In vertical view the skull is narrow and oblong, its broadest place is in the region of the parietal bosses. The sagittal suture in its dorsal part is situated in a sagittal depression. On the right side we can see one small simple parietal foramen. The zygomatic arcs and the supraorbital arcs are well visible in this view. In occipital view the skull looks slightly roof-shaped and somewhat asymmetrical. The right parietal bone is a bit more vaulted than the left one. The maximum breadth of the skull is just above the mastoids. The nuchal plane is quite distinct from the upper part of the occipital bone. In the basilar view we can see a small ovoid occipital foramen magnum and small occipital condyles. The mandibular fossae are deep.

The relief of the supraorbital region is well visible in frontal view. The strong glabella connects the supraorbital arcs passing laterally to the trigonum supraorbitale. The orbits are wide. The medium-deep nasal root continues with medium broad not too high nasalia. The nasal opening is medium-wide and high, on its lower edge there are well visible fossae praenasales and a medium-sized anterior nasal spine. On the maxilla there is a medium-sized canine groove and a rather weak submaxillar incisure. On the upper part there is a strong alveolar prognathy. The upper palate is deep, without torus maxillaris or torus palatinus.

SKULL NO. 12 *(Bamyili).*

In lateral view we can see a high, slightly vaulted front with medium-sized supraorbital arches and medium-deep nasion depression. The vertex of the skull looks high and well vaulted in this view. The squama of the occipital bone is slightly protruding, but without lambdoidal flatness. The nuchal plane is flat and visibly distinct from the upper part of the occipital squama. Above the small mastoids there is an outstanding supramastoidal ridge. The styloid processes are medium-sized. The squama of the temporal bone is well vaulted and of medium height. In the vertical view the skull looks like a long and narrow elipsoid, with prominent supraorbital relief and zygomatic arches. The sagittal suture is medium complicated and the coronal suture has been completely obliterated. There is only one foramen parietale, on the left side and it is small. No parietal bosses have been formed.

In occipital view the vertex of the skull looks roof-shaped. The lateral walls of the skull are parallel and towards the base they are slightly diverging. It means that the maximum width of the skull is situated very low. The lambdoid suture has been almost completely obliterated. On the squama of the occipital bone there are strong nuchal lines and medium-sized external occipital protuberance. The mandibular fossae are deep. In frontal view we can see a medium-wide nasal root, in the supraorbital region there is a large trigonum supraorbitale and a narrow front with strong temporal lines. The nose is medium-wide, with well visible praenasal grooves, with a strong anterior nasal spine, and with medium-wide saddle-shaped nasal bones. The orbits are medium-high. On the maxilla there is a deep fossa canina, a medium-sized submaxillar incisure and strong prognathy. The upper palate is deep. On the not too large malar bones there is strong muscular relief. As far as teeth are concerned, only the right canine has been preserved in the maxilla.

The mandible is of smaller dimensions, with a heavily reduced alveolar process. From the teeth only the left canine has been preserved. All molars, incisives and second premolars have closed sockets. The chin is round and not very prominent. The mandible base is rocking. On the inner side of the mandible there is a strong mylohyoid ridge and a weak mental spine. The digastric groove is directed obliquely rearwards. On both branches of the mandible the gonions are slightly inverted, the semilunar incisure is medium-deep and the head of the mandible is small. The two mental foramina are simple and large.

The skull belonged to a male of between 50 to 60 years of age.

SKULL NO. 13 *(Bulman Gorge).*

Above the rocky Bulman Gorge, about 1 km against the flow of the Wilton River, on the left bank, near the river, there are rocky formations full of caves and overhangs. We can find here several simple ancient red paintings. It is possible to make out the paintings of two kangaroos, the other paintings are so weathered that it is completely impossible to decipher them. In the same rocky formation, some 100 m south-east, there is a large cave, in which we found three human skulls

and several separated long bones scattered with several kangaroo bones on the floor of the cave. The skulls were in a rock fissure and were partially buried in soil. Two of them were in a rather damaged state. We took for studium purposes one of them, that was in better state of preservation. It is a male skull without mandible. On the occipital bone there is a large defect. A large part of the occipital squama and the skull base are missing.

The left zygomatic arch has been broken off. The fact that the coronal and sagittal sutures are completely and the temporoparietal suture mostly closed, and the completely worn crowns of the teeth point towards the age of 50—60 years. The cranial bones are rather robust. The braincase is in general low, especially low and receding is the forehead, which is quite obvious from the index of the frontal vault calculated from the frontal sagittal arc and from the chord. In general the frontal bone reveals strong characters of Homo erectus. Above the orbital entrances there is a strong supraorbital torus with slight signs of central division. Laterally it forms quite outstanding processes, behind with follows a strong postorbital constriction. The well-formed temporal lines emphasize the narrow frontal squama separated from the supraorbital region by a typical depression. The parietal bosses are weak and along the sagittal suture there is a longitudinal depression. The shape of the skull is dolichomorph in general. In occipital view the parietal bones form a roof and the lateral walls of the skull diverge slightly downwards, so that the maximum breadth of the skull is situated low. Unfortunately due to a defect caused by corrosion it is impossible to follow the morphology of the nuchal plane, or the eventual torus occipitalis. Only on the right side can we see the sulcus supratoralis. The temporal squama is medium-high, the supramastoideal ridge is weak. The mastoids are small and the external auditory meatus is oval in shape, the glenoid fossa is shallow. The facial skeleton is wide. The nasion is deeply situated below the glabella. The nasalia are medium-high and medium-broad. The nasal root is broad. On the left side there is a deep fossa canina, it is missing on the right side. The lower edge of the piriform opening is not anthropine. The fossa praenasalis divided by an anterior nasal spine is of medium size. The incisors have been ritually knocked out, their sockets have been closed. The upper palate is shallow, without torus palatinus or maxillaris. The alveolar arc is almost U-shaped.

The description and dimensions of the skull show that it was of erectoid type. This type of the Homo sapiens has a series of primitive characters. The front, torus supraorbitalis, the low vault of the forehead, postorbital constriction, small mastoids, shallow upper palate and fossa praenasalis, etc. At this find, representing without doubt an extreme case of variability of the ancient Arnhem Land population let us recall the publications of Macintosh (1972) and of Thorne (1972), dealing in detail with the occurrance of erectoid characters in the prehistoric and recent populations of the Australian Aborigines. Naturally for following a similar topic one needs a large number of finds, nevertheless, our extreme find deserves special atention. Through its extraordinary erectoid character it supports direct phylogenetic links of the Homo erectus and Homo sapiens in Australasia. Of course, it is generally known that there was a sapient type in souteastern Asia in the early Upper Palaeolithic. If the dating of the find from the Niah Cave is correct (40.000 years), then it seems that this type existed contemporarily with the erectoid populations living in other parts of south-east Asia.

SKULL NO. 14 *(Goomadeer).*

Red ochred skull with mandible. As the main cranial sutures are closed and teeth heavily used, we consider this male individual 50—60 years old in the time of his death.

In lateral view we see mean supraorbital arches with a supraorbital transversal depression. The front is low and retreating with a slight coronal depression. Parietal bones are in this view well vaulted. There is no lambdoidal flattening and the upper part of the occipital squama is slightly protruding. The nuchal part is flat. The temporal squama is high, well vaulted. The mastoids are strong and big with strong supramastoid crest above them. Zygomatic arch is strong. On the frontal bone there are strong temporal lines.

In vertical view is the skull long with well seen zygomatic arches. The front is narrow with strong postorbital constriction and with robust supraorbital region. Parietal bosses are slightly marked. Both parietal foramina are single and large.

In occipital view the braincase is high and strongly heeled. The parietal bones form in the sagittal line a steep roof. The lateral walls of the braincase are parallel with the greatest breadth situated fairly low. The morphology of the robust occipital bone demonstrate feature which is transitional between occipital torus and protuberantia. On the nuchal plane there are rough muscular lines. The mastoids are large.

In frontal view we see the high front with the supraorbital arches of mean size united in the middle through a strong glabella. Here they are near to supraorbital torus but in lateral parts slight supraorbital trigonum is developed. Nasal depression is mean and nasal bones narrow. Nasal opening is broad with strong subnasal fossae separated by mean nasal spine. Maxillary bones are strong and flat with well seen canine fossa. Malar bones are small and laterally situated. Orbits are rectangular, middle high. Both upper incisors were ritually knocked out so that their sockets are well healed.

In basal view we see strong and deep upper palate. The occipital condyles are missing — a consequence of the pathological condition well seen in the skull. On several places (front e.g.) there is uneven bone surface demonstrating healed lessions.

As also postcranial skeleton shows this man died in advanced stage of syphilis or jaws.

The mandible is of middle size with rocking base. The mandibular heads as the consequence of the mentioned illness are small and thin. The gonion is slightly inverted. There is slight negative chin. Alveolar prognathy is seen in lower as well as in upper jaw. On the inner side of the symphysis there is transversal mandibular torus and slight mental tubercles. Mylohyoid ridge and mandibular gland impression are well developed. Mental foramina are large, situated under first molars in the middle of the mandibular body height. On the left side the first molar is missing and in its socket there is a large cysta. On the right side we see a middle sized carries of the first molar crown (distally) and a smaller neck caries distally.

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Even when these 14 skulls should be considered as additional material to some more profound future study, some conclusions can be drawn from them.

All of them have in more or less pronounced degree and in stronger or weaker frequency some archaic characters which we know in more complex and pronounced way from the south-east Asian Homo erectus finds and in some fossil australo-melanesoid finds. They are mainly: the morphology of the supra orbital region, the degree of postorbital constriction, the low frontal vault, the general braincase shape, the sagittal curve of the occipital bone, flatness of nuchal plane, the morphology of the tympanal plate, low situated maximal cranial breadth, the morphology of the ascending branch of the mandible, the morphology of the mandibular symphysis and many other not so obvious characters.

In our small collection is in this way very interesting the skull No. 13 from Bulman Gorge in which are these characters more pronounced and more numerous. Most probably we face here one case of morphological variability in Aboriginal population.

It would be interesting to trace with the help of more numerous material the mode and tempo in which the population variability is historically changing loosing its archaic characters (J e l í n e k, 1972).

REFERENCES:

JELÍNEK, J., 1972: Supraorbitale Morphologie, Torus occipitalis und Geschlechtsdimorphismus in der Entwicklung der vorzeitlichen Population Mitteleuropas. *Homo 72, H. 1/2, S. 90—100.*

MACINTOSH, N. W. G., 1952: Paintings in Beswick Creek Cave, Northern Territory. *Oceania, Vol. XXII, No. 4, pp. 257—273.*

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