

CHAPTER VI  
ARTIFICIAL CRANIAL DEFORMATION IN  
MELANESIA

PASSING eastwards from the coast of New Guinea, the group of islands which comprise Melanesia is the next district to claim our attention. We will begin with the Bismarck Archipelago which first attracted Western eyes in 1616, when Jacques Lemaire and his captain C. Schouten discovered it; although it is doubtless possible that the Spaniards had already sighted the islands at an earlier period. The population of the group is somewhat mixed and the practice of head deformation is not found uniformly distributed. The Baining people of the mountains in north-east New Britain do not possess the custom, neither is circumcision common amongst them.<sup>1</sup> In the southern part of the island the natives are accustomed to deform artificially the heads of their children, and in the district of Pulie and around Moewe Haven the practice is especially prevalent.<sup>2</sup> Wilfrid Powell, in his account of New Britain published in 1883, notes a number of interesting points regarding these peoples: he describes how babies are carried in a bag on the backs of their mothers and how the sling supporting the sack passes over the woman's forehead. Again he notes how circumcision is carried out by means of an obsidian<sup>3</sup> knife, thus indicating its ritual significance,<sup>4</sup> and then proceeds to discuss the practice of artificial cranial deformation. Speaking of the natives of Duportail Islands four and a half miles west of Long Point, he says that the men wore a head-dress that he had not hitherto observed

<sup>1</sup> Burger, p. 58.

<sup>2</sup> Stephen and Graebner (p. 176) suggest that possibly the older cultures are being gradually supplanted. Cf. Chinnery, 1.

<sup>3</sup> Cf. the ancient use of obsidian in Central and South America. See "Der Obsidian und seiner alterthümliche Verwendung in Mexico and Peru"; *Ausland*, 1870, Jahrg. 45, pp. 1142-1145.

<sup>4</sup> Powell, pp. 86, 217.

although it was frequently found further to the west. It consisted of a number of plaited cane rings edged with the small shell that in the north peninsula is used for money. These rings are pressed down tightly above the ears, each upper ring becoming gradually smaller. The first set of these rings is placed on a boy's head when quite an infant and is not removed until the age of 15 or 16. They are then cut off and others of a larger size are substituted.

The men's heads are compressed just above the ears, and Powell states that wearing the rings makes a ridge in the skull which prevents them from falling off. It would not seem, however, that the second set can be very tight, since Powell himself removed them from one youth and they came off "comparatively easily."<sup>5</sup> Again, Reche, writing on head deformation in New Britain says that distortion is effected by bands of bark fibre which are wound round the head and are not removed till the child "begins to run." Mental capability does not appear to be the least affected by the deformation, and Reche reports that individuals with deformed heads are both very intelligent and efficient labourers.<sup>6</sup> Similarly, Chinnery, in discussing life in the villages around Moewe Haven, reports that the natives deform their heads to such an extent that the name of "long heads" is generally used to distinguish the people from a point east of Gasmatta to the west of Arawi, the region through which the practice extends. The practice is also said to occur among the bush tribes inland from Gasmatta and Moewe Haven. Another point of interest is that the coastal peoples seem to have a language in common since they readily understand one another, which is not the case with the peoples further inland. Deformation according to this writer consists in binding the head of the new-born child tightly round with cloth, which is fastened in place with long strips of coarse fibre. The mother usually is the operator, and the binding continues for some months unless the child cries frequently, when it is abandoned. Deformed heads, it is said, "look good," while normal heads are called "big heads" by the natives.<sup>7</sup>

In certain parts of New Britain not only are the heads of the children bound up in order to elongate their skulls in an

<sup>5</sup> Powell, p. 221.

<sup>6</sup> Reche, 1, pp. 264, ff.

<sup>7</sup> Chinnery, 2, pp. 9, 19.

upward direction,<sup>8</sup> but also manipulation is practised. Grandmothers try to mould the heads of new-born children in order to fashion them into shapes approved by the more conservative of the population. Although cranial distortion does not seem to have been observed in the Anchorite islands, Lissauer reported in 1901 that hypsicephaly was admired in the Duke of York's Island, and artificial means were sometimes taken to obtain it.<sup>9</sup>

We now pass to the New Hebrides where the practice of artificial cranial deformation has long been known. The custom is one of the features of the southern part of Malekula, which distinguishes its culture from that of the east and north-east. In 1777 Captain James Cook reported his observations in Malekula and his views were most unfavourable regarding what he called "this ape-like nation." He was astonished at the fact that when the natives expressed their admiration they hissed like geese, and their personal appearance revolted him. "They are the most ugly, ill proportioned people I ever saw, and in every respect different from any we had met with in this sea." It is thus that he described their appearance and in conclusion he added that "they are a very dark-coloured and rather diminutive race; with long heads, flat faces and monkey countenances."<sup>10</sup> In 1778 J. R. Forster reported upon the antero-posterior depressions which characterized certain skulls from Malekula, and, like Cook, he compared the natives to "monkies" owing to their strange appearance.<sup>11</sup> In 1781 Blumenbach, when confronted with the problem of these head forms, declared that in his opinion the form of the Malekula skull was exceptional, and it was not until many years later that the true artificial character of the deformation was recognized.<sup>12</sup> In 1877, when writing some notes on a collection of skulls from Malekula and Vanikoro in the New Hebrides, Busk noticed the extreme flattening and depression in the specimens from Malekula,<sup>13</sup> and two years later Krause contributed a series of measurements of

---

<sup>8</sup> See Pl. XXVII, *b* (after Buschan, 1, vol. I, p. 64).

<sup>9</sup> Lissauer, p. 383. Deformed skulls are often reported as being found in Maï (Island of Three Hills, Api); see JAI, 1899, XIX, 53. It does not appear, however, to be known in Erromanga (see Humphreys, p. 146).

<sup>10</sup> Cook, vol. II, p. 34.

<sup>11</sup> J. R. Forster, pp. 242, 267, 268.

<sup>12</sup> Blumenbach, 1, pp. 65-66.

<sup>13</sup> Busk, 2, p. 202.

similar crania which he styled macrocephalic in form.<sup>14</sup> Similarly, Hamy, in describing a cast of a head reported as coming from the island of Malekula, noted both its remarkable deformation and its striking resemblance to specimens coming from Lake Titicaca in South America.<sup>15</sup> Commenting upon some of the modelled heads and artificially deformed crania from Malekula, Sir W. H. Flower, in 1882, noted that generally speaking the constriction was circular, and in consequence the skull commonly remained symmetrical and lacked any lateral bulging of the parietal regions. In some cases he noted that the most marked evidence of depression was to be observed upon two points upon the upper surface of the skull; namely the middle of the frontal bone and in the neighbourhood of bregma, whilst between these there is a more or less marked median elevation of the upper and posterior part of the frontal. According to Flower, therefore, constricting bands have passed round the occiput to (1) the middle of the frontal bone and (2) the neighbourhood of bregma, thus causing the double depression in the upper contour of the skull. Describing a similar form of deformation Boyd states that shortly after the child is born the mother binds the head with circular bands of sinnet, covering entirely the forehead. This remains in place for six months or even a year, during which time the poor child appears to be in continual pain with its eyes protruding greatly and continually crying.<sup>16</sup> The same circular compression was emphasized by Ponty who compared the form resulting from the pressure to that of a gourd. A detailed description was given him of how the women of Malekula produced the deformation. A somewhat broad band encircled the head several times, passing over the anterior fontanelle and above the nape of the neck, behind the mastoid process and under the occiput. The constricting band is kept in place by the help of a straw "hat," the crown of which is lacking and on which it is fixed. The device is also kept in place by a band passing under the chin.<sup>17</sup> It is this second band that is probably responsible for one of the depressions mentioned by Flower, and this part of the deforming apparatus seems to have been

<sup>14</sup> R. Krause, 1.

<sup>15</sup> Hamy, 2: *cf.* Cameron, who notes the extreme dolichocephaly of certain specimens (C.I. 64.21 and 64.32: Calvarial Height 58.4 and 55.7).

<sup>16</sup> Flower, 2, p. 77: *cf.* Flower, 3, and Virchow, 19.

<sup>17</sup> Ponty.

overlooked in the descriptions furnished by other authorities, although perhaps it ought to be pointed out that it appears that Ponty did not obtain his information from a resident native of Malekula.

In 1888 Rüdinger contributed a lengthy study of certain deformed skulls from the New Hebrides. He described them as cylindrical in shape and of surprising height, and went so far as to state that their cubic capacity was much less than that found in deformed crania coming from British Columbia and from the great necropolis at Ancon, Peru.<sup>18</sup> In commenting upon the state of the brain he noted that compensation was apparent in an upward direction, but, as would be expected, a certain inclination was given to the lobes, resulting, among other things, in causing the fissure of Sylvius to become almost horizontal.<sup>19</sup>

We can now turn to the records of other travellers who have described the process of deformation as occurring in the New Hebrides. In his account of the Labour Trade in the South Seas, the government recruiting agent W. T. Wawn graphically describes a child who was submitting to artificial cranial distortion in Malekula. "It was a male child not a year old, probably only a few months," he writes. "Around its head, just above the ears, several bands of plaited bark were tightly wrapped, each of them half an inch wide. These would effectually prevent the skull from enlarging laterally. The top of the head was covered with a black semi-liquid substance, having the appearance of tar, being also protected by leaves. It was thus rendered so heavy that the child could not hold it up without its mother's assistance. The desired conical shape was already produced, and the child's eyeballs protruded as if a shake of its head would cause them to drop out."<sup>20</sup> Reinicke again, while mentioning that preliminary steps have been taken from the earliest days to produce in the head the desired form, states that at the age of three-quarters to one year old high tight hats of plaited pandanus leaves and coconut fibres are fitted to the heads of children and that

---

<sup>18</sup> Virchow, in describing a couple of crania from Niue and the New Hebrides, stated that they might have been taken as coming from Peru. See Virchow, 10, p. 153, and cf. Cameron's account of two remarkable skulls.

<sup>19</sup> Rüdinger, 3, pp. 372, 381, 389, 393, &c.

<sup>20</sup> Wawn, p. 78.

these hats enclose the whole head. He is of the opinion that the constriction affects the intellect adversely,<sup>21</sup> a view inquired into by Miss Grimshaw, but without any evidence being adduced in its favour.

Describing the heads she had observed in the islands she states that a conical head when really well produced rises upwards to an extraordinary point, and at the same time the forehead retreats to such an extent<sup>22</sup> "that one is amazed to know the owner of this remarkable profile preserves his or her proper senses—such as they are." Miss Grimshaw was unable to discover that the practice was supposed to affect the intellectual faculties to any extent. Describing the process she says that deformation is produced by winding strong sinnet cord spirally round the heads of the children. First of all a piece of plaited mat is put upon the head and then the cord is coiled over this leaving the crown of the head to grow in an upward direction. One mother whom she saw had no head deformation herself, and had married a person of no importance; but the couple were careful to deform the head of their child who was both fretful and crying. On the other hand another woman whose deformed head was strongly marked had succeeded in getting a chief for a husband.<sup>23</sup>

Similarly, François describes in a dedicatory volume to Professor A. Giard how skulls are deformed in the New Hebrides, and he divides the types into sugar-loaf, ovoid and cylindrical. Both sexes, he says, are deformed, and before the cap is placed in position above the bandages the heads of the children are anointed and rubbed.<sup>24</sup> Again, Speiser, in commenting upon the custom, says that the process is commenced by rubbing the head with grease or soot, a fact also noted by Count Le Gouz de Saint-Seine, who says that the head of the new-born child is massaged and compressed with bark.<sup>25</sup> A cap of braided pandanus fibre is then put on, which is very tight, and only allows the head to develop in an upward direction. When this cap becomes too tight then it is cut off and another larger one is substituted, and this continues until the parents are satisfied with the shape of

---

<sup>21</sup> Reinicke, p. 142: Speiser denies this adverse affect. See Speiser, 2, p. 181.

<sup>22</sup> Cf. Beaune, p. 55.      <sup>23</sup> Grimshaw, p. 258.      <sup>24</sup> François, p. 232.

<sup>25</sup> Le Gouz de Saint-Seine, p. 440; Speiser, 3, p. 239, &c.



their offspring's head. This process, according to Speiser, does not appear to have any injurious effect on the intellect, and he states that in later years the peculiarity of head form becomes less noticeable, although a man from South Malekula is always unmistakable.<sup>26</sup> Mr. Martin Johnson comments upon the same custom in his work on *Cannibal-land*,<sup>27</sup> and illustrates a mother and her child, which may be compared with a photograph of a similar group from among the Mangbetu. (See Pl. XXVII, *a*, and *cf.* Pl. XXIII, *d*, and Pl. XXIV.)

In his account of degree-taking rites in South West Bay, Malekula, Mr. J. W. Layard describes and discusses the practice of head deformation in the island. Mr. Layard's account is the most complete I know; I therefore take the opportunity of quoting it in full. "Four fruits of the *na-ai molo*i are placed in the fire till the shell drops off and the kernel is burnt black. Then they are taken out of the fire and cooled for about a couple of hours, after which they are rolled in the hand so that they break. The hand is then scraped with a shell called *netu-ndong*, so that the black juice of the fruit collects in the hollow of the shell. The mother sits on the ground with legs stretched out in front of her and one foot resting on the other, and the baby is laid on her lap with its legs towards her. She dips her right forefinger in the juice which is in the shell, and puts the shell down by her side. Lifting up the child's head with her left hand, she smears the juice all over it, so that it is quite black. She then binds it with the white fibrous part of the midrib of a banana leaf, and secures this with string called *nabwir*. This is then covered with a plaited cap called *no-on t-tetap*. This is done twice daily till the child begins to go out of the house, and then once a day until it begins to talk and walk. Then it is taken off."<sup>28</sup>

In this account by Mr. Layard one point is especially interesting and shows how careful inquiry will clear up doubtful points which are passed over by less accurate investigators. It would appear that the black semi-liquid substance reported by Wawn, and the "soot" mentioned by Speiser, are really the black juice of a fruit with which the baby's head is smeared. The method of binding the head with the fibrous

<sup>26</sup> Speiser, 1, pp. 227-228.

<sup>27</sup> Johnson, p. 142.

<sup>28</sup> Layard, p. 220.

portions of banana leaves is also interesting, although, unfortunately, Mr. Layard does not say how the string is tied which secures the binding.

From the accounts of travellers printed above the general methods of head deformation in Malekula are quite clear. After anointing and massage the child's head is always, or at least sometimes, smeared with the black juice of a fruit and then it is bound round with various materials. Finally a plaited cap is placed on its head, the binding beneath being kept in place by a band or string which one author reports as occasionally being passed under the chin.

As regards the typical form of the Malekula skull, Sergi has published a good account of such a specimen which is perhaps worth consideration. This particular skull was brought by Junk to Italy and now rests in the Anthropological Museum in Rome. The frontal plane is suddenly and markedly inclined backwards above the orbits to a point about 2 cm. anterior to bregma; after that the inclination is much less and is continued up to the apex. When the skull is orientated in F.H. the apex is found to be at the extreme posterior position of the vault,<sup>29</sup> so that three-fifths of the sagittal suture lie anterior to it and two-fifths posterior. From this it appears that the vault of the skull starting from the supra-orbital ridges rises by two different degrees of inclination, so that an unusual height in its more posterior region is achieved. The squama occipitalis falls obliquely from above downwards and from behind forwards, following a degree of inclination which is exactly equal to that of the posterior margins of the mastoid processes and the course of the lambdoid suture. Between the ascending plane of the vault and the downward inclination of the squama occipitalis is a small region corresponding to the posterior two-thirds of the sagittal suture with an antero-posterior oblique inclination from above downwards. Two transverse sulci, one 2 cm. from bregma and deeply cutting the frontal bone, and the other hardly noticeable on the parietals just behind bregma delimit a large transverse protuberance, which owing to its position can be called pre-coronal. Medially it is well accentuated whilst laterally it insensibly disappears. The parietal bosses are displaced somewhat forwards and down-

<sup>29</sup> That is to say relatively very far back.



wards due to the fact that the lateral part of the coronal suture itself also (as is apparent from the traces that remain) is displaced somewhat forwards, in this way affecting the coronal margins of the parietals. Under such conditions a line drawn diagonally from pterion to lambda is elongated and similarly a line from bregma to asterion is shortened. The higher portion of the squama occipitalis which lies along the margin of the lambdoid suture where it meets the parietals rises to form a protuberance in the lambdoidal region of the occiput. Laterally the squamous part of the temporal bones unites with the parietals to form together a large protuberance which has its greatest expansion along the line of the temporo-parietal suture originating in the point about pterion. Sergi points out that from these appearances it is clear that the skull (C.I. 74.09) has been submitted to a very strong pressure principally over the frontal region, the parietals suffering a similar pressure along the anterior two-thirds of their surface, whilst the squama occipitalis has been compressed from the opposite direction.<sup>30</sup>

Now in considering the practice of artificial cranial deformation in the New Hebrides it is noteworthy that the custom is absent from east and north-east Malekula, and that in these districts certain other odd practices are also absent. Thus the custom of pressing the septum of the nose in order to give prominence to that feature is unknown, and in material culture the making of effigies is also lacking. Mr. Layard has pointed out the importance that may be attached to the people called the Ambat when we consider certain aspects of the culture of the New Hebrides. These Ambat are said, according to native tradition, to be a fair-skinned people who once lived in Malekula and who brought with them a superior culture which they introduced to the inhabitants. These immigrants are connected with many stories which are told by the people of the island. Reference is occasionally made to a home in the sky when the Ambat are mentioned, and it is said that their servants possessed elongated ear lobes which remind one of the Easter Island statues with their immense hanging ears. The Ambat were so white that to the present day the word for "white man" is Ambat; and Mr. Layard's informant kept on looking at him

---

<sup>30</sup> S. Sergi, 2, p. 235.

and repeating the same phrase: "And they were all Ambat just like you." Since the other customs we have mentioned above are absent from east and north-east Malekula and since in those localities no tradition of the Ambat are current it might perhaps seem a plausible hypothesis to suppose that the practice of artificial cranial deformation was either brought in by the light-skinned immigrants, or was one of the results of their visit, since the native population may have endeavoured to imitate certain of their physical peculiarities whilst absorbing their culture. Had more detailed inquiries been attempted upon the practice of head deformation amongst the people of Oceania it is possible that the connection with the Ambat might be further developed, since throughout Oceania including Polynesia there are traditions of a light-skinned people with a home in the sky and a habit of gazing far out to sea. Thus, if we be right, there would seem some reason to suppose that this custom of artificially deforming the head was not invented by the aborigines of the New Hebrides in response to some innate human impulse, but was brought to them from without, and that now the true story of its importation is forgotten, and only a few shreds of a once important incident in their lives are remembered. Rationalization supplies a new explanation of this amazing practice, and thus the natives declare that they continue the custom because they think it is beautiful or because their ancestors did it.

Traces of the artificial deformation of the skull are also found in New Caledonia. As long ago as 1866, J. Barnard Davis noticed the peculiar shape of certain crania from this group,<sup>31</sup> and four years later Montrouzier published a paper in which he stated that the practice was known in the Solomon Islands, New Caledonia and Woodlark which lies between the Solomon Islands and the Louisiade Archipelago. In New Caledonia two types of deformed heads are said to be admired. In order to produce the one type the head of the new-born child is flattened laterally and in the other the flattening is fronto-occipital.<sup>32</sup>

Sometimes it is said attempts are made to lengthen the

---

<sup>31</sup> J. B. Davis, 4, who noted the extreme dolichocephaly of skulls of New Caledonia.

<sup>32</sup> Montrouzier, p. 35; cf. Kleiweg de Zwaan, 3, p. 51.

chins of boys, and in the case of girls the chins are often pressed upward in order to make the face rounder. The nose also is manipulated and the limbs are gently stroked and rubbed.<sup>33</sup> Saraisin rightly points out that the methods described by Montrouzier and Lambert can have had but little effect, and he adds that these manipulations are usually performed by the older women of the tribe, which is what we should expect in a community where the custom of artificial head deformation is dying out.<sup>34</sup>

Similarly, in the Loyalty Islands, babies are said to be gently rubbed all over with warm wood ashes. The heads of children are also pressed between warm leaves into a shape conforming to popular ideas of beauty, and noses are also pinched to make them more beautiful.<sup>35</sup>

Similarly, in Fiji the occiput is flattened in certain districts, whilst in others, especially amongst those tribes who observe the Nanga, it is the practice to flatten the sides of the infants' heads in order to narrow them. Among some of the tribes different methods prevail, and there is no doubt that the custom of keeping a Fijian baby on its back until it has the strength to turn itself may contribute to the occipital flattening which is so common in these islands.<sup>36</sup>

Before we pass to the custom of head deformation, as seen in the Polynesian Islands, a word must be said as to Micronesia. I have not succeeded in finding any reliable evidence that the practice is known here, although amongst my notes I find a number of references to other bodily deformations. Thus in the Caroline Islands we have the very curious castration operations<sup>37</sup> and a good deal of depilation and tatuing. Ear ornaments are also common but nose decorations are not usually worn, at least in Yap, although, at the same time, the septum is frequently perforated.<sup>38</sup> In other places flowers are sometimes thrust through the orifice thus made and are now and then taken out and renewed.<sup>39</sup> In Kusaie, where circumcision and incision are unknown, ear and nose

<sup>33</sup> Lambert, p. 102.

<sup>34</sup> Saraisin, vol. I, p. 39.

<sup>35</sup> Hadfield, p. 177.

<sup>36</sup> See Fison, p. 20: Deane, p. 10.

<sup>37</sup> The best description I know is by Cabeza Pereiro, pp. 130 ff.: see also Matsumura, p. 91.

<sup>38</sup> Wilhelm Müller, vol. I, pp. 24-25: Finsch, p. 29.

<sup>39</sup> Freycinet, vol. II, p. 99.

perforation occur, the lobes of the former being often much distended.<sup>41</sup>

In his brief account of some skulls from the Caroline Islands Van Hoeven found no evidence that any of them had submitted to cranial deformation, although he records that they were dolichocephalic in type, and Gulick notices that in natives from Ponape the frontal region seldom retreats to any marked degree and is often finely protuberant.<sup>42</sup> Again, in the Marshall Islands, where circumcision is unknown, the lobes of the natives' ears are sometimes expanded, and it is said these occasionally hang down until they reach the shoulders.<sup>43</sup> Here also the head of a mother is massaged after child-birth, and also her whole body, but the head of the new-born infant appears to be left alone from the reports that I have read on birth customs in the Marshalls.<sup>44</sup> Similar ear mutilations to those already noticed are common in the Mortlock and Pelew Islands, and in the Mulgrave Islands, Lay, who suffered an enforced stay in this group, relates how he became the sport of the more witty of the natives because his ears remained the normal shape and were not elongated.<sup>45</sup> Thus it will be seen that cranial deformation, along with circumcision and other bodily mutilations, are not found commonly distributed in the islands of Micronesia; and further research will be necessary before it appears whether any traces remain such as that of rubbing the heads of new-born children or similar practices.

Thus summing up the facts that we have gleaned upon the field of Melanesia it would seem that a very similar story is unfolded to that to which we have already listened in other parts of the world. Cranial deformation appears to be limited to peoples possessing certain other characteristic culture traits, and the custom itself may be said to be connected with an idea of nobility and chieftainship. Forms of deformation are different in various localities, as one would expect, but two chief types seem to predominate: the type in which the head is elongated upwards so as to produce a cone-shaped or cylindrical skull; and the type where fronto-occipital flattening is desired, the top of the head then being almost cuneiform.

<sup>40</sup> Sarfert, vol. I, pp. 75, 82.

<sup>41</sup> Gulick, p. 244.

<sup>42</sup> See Hoeven, 2: Gulick, p. 178.

<sup>43</sup> Hager, p. 71.

<sup>44</sup> Erdland, pp. 19, 124.

<sup>45</sup> See Lay and Hussey, p. 98, and cf. Keate, p. 213: Krämer, 2, vol. III, p. 20: Hale, 1, p. 79 (Pelew Islands): Kubary, 1, p. 234 (Mortlock).

PLATE XXVII.



*After*

*Johnson.*

*a*

Deforming the Head in the New Hebrides.



*After*

*Parkinson.*

*b*

A Boy from New Britain.