

Notes upon maceration, or the preparation of Crania in India / B. V. Henderson.

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Notes upon Maceration, or the preparation of Crania in India; and applicable in England in summer when the Thermom^r is at, or near 80.

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THE first principle to be attended to in the Maceration of Crania, is the extraction of the red particles of the blood, since upon this being completely effected, essentially depends the whiteness and beauty of the preparation; the second, is to employ a large body of water in proportion to the size of the subject; and the third, is to avoid the use of boiling or hot water in cleansing it after maceration, which, by melting the oily matter contained in the diploe and cellular structure of the bones, renders them greasy, and endangers their preservation.

mina of the Cranium previous to its being dried; from which, the remains of numerous blood-vessels and coagula will be by this means discharged.

The Incisores (front, or cutting teeth) and smaller teeth, which usually fall out during the progress of maceration, are to be carefully collected at the bottom of the vessel, and afterwards secured in their respective sockets by means of some strong mucilage, when the Cranium is dry.

The above process is applicable to every Cranium, of which the size does not render it inconvenient; thus the head of a Rhinoceros was prepared at Prince of Wales Island, August 1818, and the head of a male Elephant 6 feet in height, at Malacca, October 1818: the latter, notwithstanding its great bulk, became, by frequently changing the water, of a splendid whiteness, and formed a most beautiful preparation. Where the great size of the Cranium of an Elephant rendered this plan impracticable, the following mode was adopted with success;—the entire head was placed in the jungle, near some water collected in a hollow, where it was defended from the rays of the Sun; in two or three days, myriads of maggots were hatched from ova deposited by flies, which in 10 or 12 more, entirely destroyed the soft parts, leaving nothing but portions of tendon & ligament in fringes; these being washed away with repeated affusion of cold water, the preparation was completed by exposure to the air, occasionally sprinkling it with water, to promote the process of bleaching.

In the Alligator, which possesses but a small proportion of red blood, a simpler plan may be followed;—the head may be buried in some shady spot in the ground at the depth of 2 or 3 feet, and at the end of a month or six weeks may be taken up, when the soft parts will be found so slightly adhering to the bone, as to be easily detached by copious affusion of cold water. From the great length and size of many of the foramina in an adult specimen, the use of the Syringe in cleansing out the blood-vessels and coagula will be found particularly applicable to this preparation.

The most successful mode of obtaining beautiful preparations, free from all stain and offensive effluvia, is to dissect off the soft parts, whilst fresh, as completely as possible, and then to place the Cranium in a large vessel of cold water. For this purpose a common Barrel, such as contains the Pale Ale brought out to this Country, will answer very well, if the upper third is sawed off, (to be afterwards employed as a cover), or a Bucket with a close cover for small Crania, and a hole drilled near the bottom, and stopped with a wooden plug, to allow of the water being changed from time to time. For the first few days, this should be done at least once in twenty-four hours, until the water is no longer tinged with blood.

The Brain will now be found quite broken in its texture, and may be readily shaken out through the *foramen magnum* of the Occiput; when the water being again renewed, the Cranium may be left to macerate for a week or ten days longer according to circumstances, as, the heat of the weather, or age of the animal; at the end of which time, the soft parts will have lost all attachment to the bones, which are now to be removed from the vessel, well washed by repeated affusion of cold water, and being replaced in clean water to soak for two or three days, are to be then taken out; once more washed to remove any adherent mucus, and dried in the shade.

In order to render the preparation completely clean, it will be found useful to inject a quantity of cold water forcibly, with a common Pewter Injection Syringe, into all the cavities and fora-

-and is now in my Collection -presented to Mr. Farquhar, late Resident & Consul of Malacca.

Sept: 1818, at Malacca; the Cranium is now in my collection.

B. O. Henderson.

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Notes upon Maceration, or the preparation of Crania in India; and application of the Cranium to its use.

The first principle to be attended to in the Maceration of Crania, is the extraction of the red particles of the blood, since upon this being completely effected, essentially depends the whiteness and beauty of the preparation. To accomplish this, it is necessary to immerse the cranium in a large body of water in proportion to the size of the subject; and the fluid is to stand the use of boiling or hot water in clearing it after maceration, which in washing the only matter contained in the dices and without structure of the bones, renders them green, and endangers their preservation.

The most successful mode of obtaining beautiful preparations, from even all rain and all water, is to direct all the water, which is used, to consist of rain-water, and this is to be changed in a large vessel several times. For this purpose a common barrel, such as contains the Ale brought out to this country, will answer very well. It is to be filled with water, and the cranium to be macerated in it, for several days, and the water to be changed every day. The water, when it is changed, is to be poured out, and the cranium to be washed with fresh water, and the water to be changed again. This process is to be continued until the water is perfectly clear, and the cranium is of a beautiful white color.

The next step in the preparation of the cranium is to wash it with cold water, and to dry it in a shallow dish, in the rays of the Sun; in two or three days, a quantity of matter will be detached from the surface, which in 10 or 12 more, entirely detaches the soft parts, leaving nothing but portions of London & Hygentia in pieces; these being washed away with tepid water, all rest of cold water, the preparation was completed by exposure to the air, occasionally sprinkling it with water, to prevent the process of bleaching.

In the Alligator, which possesses but a small proportion of red blood, a simpler plan may be followed;—the head may be put in some sharp spot in the ground at the depth of 2 or 3 feet, and at the end of a month or six weeks may be taken up, when the soft parts will be found so slightly adhering to the bone, as to be easily detached by copious affusion of cold water. From the great length and size of many of the crania in an adult specimen, the use of the syringe in cleaning out the blood vessels and cartilage will be found particularly applicable to this preparation.

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