

Notes on Some Human Jaws and Teeth from "The Slitter", Cheddar

BY PROFESSOR E. K. TRATMAN, O.B.E., M.D.S., F.D.S.R.C.S., F.S.A.

The material on which this report is based was presented to the Spelæological Society by Gough's Caves in December, 1951. The only other human bones amongst the material are a few fragments of limb bones and skull. There is no more material available at Gough's Caves.

"The Slitter" (Nat. Grid Ref. ST46675389) lies behind "The Cave Man Restaurant" and consisted originally of a steep scree slope, partly grass covered, leading up to Long Hole Cave, which is sometimes spoken of as "The Roman Cave" because of the great number of Roman coins found there at different times together with much Romano-British pottery. Some of the coins and the pottery are preserved in the museum at the caves. The material here described was found while the base of the slope was being dug back to rock face in preparation for the building of the restaurant in 1934. At an earlier date this same deposit yielded a bronze palstave as well as Roman coins and pottery, etc.

The late Mr. Victor Painter, then chief guide to the caves, was present when the digging was done and he stated that the human bones came nearly altogether in one level with Romano-British pottery. "They had iron spears with them" and were lying in a confused manner with a number of large stones as if they had been attacking Long Hole Cave and had been killed by the defenders throwing down large stones from the cave mouth, over a hundred feet above. Mr. Painter also related that all the skulls and most of the limb bones were crushed and fractured, and thought that this had been due to the falling stones. There appeared to have been no attempt at burial of any of the persons represented.

The jaws here described are all fragmentary. None of the fractures show healing and all are ancient, thus supporting Mr. Painter's view. On the other hand the age range is from infants to late middle age though the majority are fairly young. It is probable that Mr. Painter's interpretation is correct but in the absence of evidence from well-conducted excavations it must be regarded as in part speculative.

At least fifteen individuals are represented by jaw fragments, and the age range is from 4 years to 45 years. In making the estimate of the age of the individual at time of death it is assumed that developmental changes took place at much the same rate in Romano-British times as they do now. In the older persons some allowance has been made for the well-known fact

that attrition of the teeth proceeds much more rapidly amongst primitive peoples than amongst, say, modern English men. It is possible that the allowance made is insufficient in the case of some of the older subjects.

Only one maxillary fragment is in the collection, that of a child aged about 4-5 years. All the remainder are fragments of mandible, including one of a child aged about 3-4 years. This mandible cannot belong to the same individual as the maxillary fragment as the degree of attrition of the teeth shows considerable variation between the two specimens. The development of the mental or chin region in the adult specimens suggests that the majority of the jaws are from males, though this development is not an absolute guide to the sex of a specimen. The chin form shows a strong familial likeness. It cannot, though, be asserted that all did in fact belong to members of a single family.

Comparatively few teeth remain in the jaws and those that are present, and also the isolated teeth all exhibit extensive attrition. Some of the teeth were lost *post mortem*, but in many cases the teeth were lost *ante mortem* and quite often long before death, so much so that the alveolus had had time to heal completely. The loss of the teeth is in general from behind forwards. Where the teeth remain there is evidence of considerable alveolar resorption though there is appreciable variation in the degree. Many of the teeth still bear deposits of calculus especially on their lingual aspects. In brief *pyorrhoea alveolaris* of the teeth must have been rife amongst this community accompanied by a state of chronic inflammation of the gum margins. The calculus, mainly on the lingual aspects, suggests that some form of tooth cleaning was habitually used upon the lip and cheek surfaces of the teeth. This view is supported by the presence of a typical tooth-cleaning abrasion facet on one specimen, $\frac{M18.12}{4}$.

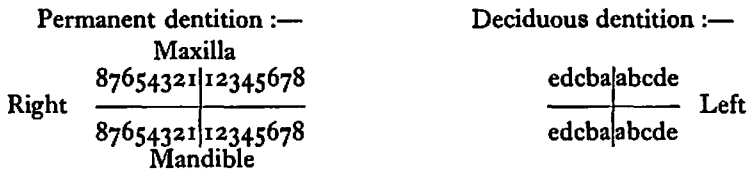
There are no examples of occlusal caries, which is a normal finding under primitive conditions associated with marked attrition of the teeth. Caries is represented by two small cavities at the gum margins of the interstitial surfaces of two molars, $\frac{M18.12}{4}$ and $\frac{M18.12}{9}$. The cavities are of the food impaction type often found in association with *pyorrhoea*. Reduction forms of the teeth seem to be common especially for the mandibular third molars. There are no maxillary molars for comparison.

The condition of the roots of two specimens, $\frac{M18.12}{2}$ and $\frac{M18.12}{8}$ indicates the former presence of chronic alveolar abscesses. In specimen $\frac{M18.12}{12}$ attrition had proceeded so rapidly that the pulp chamber had been grossly exposed. There is evidence of mild hypoplasia of the enamel of some of the teeth

of the type associated with disturbance, during calcification, of the general health and is probably the result of a bad season and therefore bad food supplies but could be due to a major illness also. A number of the jaws show robust muscle markings and some of these have a well-marked eversion of the angle of the mandible. The genial tubercles are usually well marked.

SCHEDULES

The standard dental notations are used in these schedules. The permanent teeth are numbered from the centre backwards and the deciduous teeth lettered in a similar manner. The right of the chart is the left of the specimen as the chart is always read held in front of the specimen.



a.m. = ante mortem.
p.m. = post mortem.

I

Museum no.	Specimen notes	Estimated age at death in years	Remarks
<u>M18.11</u> 1	Part of left maxilla with \overline{cde} present	5	Teeth show appreciable attrition
<u>M18.11</u> 2	Portion of right body of mandible with $\overline{6ed}$	3-4	\overline{e} is practically unworn. $\overline{6}$ is in its crypt with crown $\frac{2}{3}$ formed
<u>M18.11</u> 3	Two portions comprising most of body and left ramus of mandible	30	$\overline{3}$ is present. $\overline{54321 12345}$ lost p.m. $\overline{876 678}$ lost a.m. as sockets completely healed
<u>M18.11</u> 4	Two portions comprising most of body of mandible	40	Rather slender and narrow. $\overline{321 1234}$ lost p.m. Rest of teeth lost several years a.m. Those of right lost more recently than left
<u>M18.11</u> 5	Body of mandible from $\overline{5}$ to $\overline{8}$ and left ramus. Two pieces	40	$\overline{5}$ reduced to root. $\overline{321 1234}$ lost p.m. $\overline{678}$ lost long a.m. Robust muscle markings
<u>M18.11</u> 6	Body of mandible and left ramus. Two pieces	45	$\overline{87654 678}$ lost long a.m. $\overline{31 45}$ lost just a.m. $\overline{1}$ lost long a.m. Perhaps accident or tribal mutilation. $\overline{2 23}$ lost p.m.

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Museum no.	Specimen notes	Estimated age at death in years	Remarks
<u>M18.11</u> 7	Portion of right body of mandible	20-30	All teeth lost p.m.
<u>M18.11</u> 8	Body of mandible from $\overline{4 }$ to $\overline{18}$	35	$\overline{4321 12345678}$ lost shortly a.m. from <i>pyorrhoea</i> . $\overline{16}$ probably an abscess
<u>M18.11</u> 9	Mandible. Left body and most of ramus	20	$\overline{16}$ present. Calculus on tooth. Dentine exposed by attrition. Robust. $\overline{11234578}$ lost p.m.
<u>M18.11</u> 10	Body of mandible from $\overline{4 }$ to $\overline{18}$	25	Slender jaw. All teeth lost p.m.
<u>M18.11</u> 11	Part of left body of mandible from $\overline{11}$ to $\overline{18}$	30	Slender jaw. $\overline{1678}$ lost a.m. about 6-12 months. Remainder all probably lost p.m., but specimen much damaged
<u>M18.11</u> 12	Fragment of anterior part of mandible	?	Specimen much damaged p.m.
<u>M18.11</u> 13	Fragment of right body of mandible from $\overline{8 }$ to $\overline{4 }$	20-25	$\overline{76 }$ present. $\overline{854 }$ lost p.m. Robust. Well marked muscle markings. Calculus on teeth
<u>M18.11</u> 14	Fragment of left body of mandible from $\overline{16}$ to $\overline{18}$, and part of ramus	18-20	Relatively slender jaw. Perhaps due to youth. Muscle markings robust. $\overline{18}$ is scarcely worn. $\overline{16}$ shows much calculus. All molars show five cusps. $\overline{17}$ is smallest
<u>M18.11</u> 15	Fragment of left alveolus of mandible with $\overline{167}$	25	$\overline{16}$ has five cusps. $\overline{17}$ four cusps and is appreciably smaller than $\overline{16}$
<u>M18.11</u> 16	Miscellaneous fragments of mandible		These probably represent at least three more persons

II

<i>Individual teeth</i>		
<i>Museum no.</i>	<i>Tooth</i>	<i>Remarks</i>
<u>M18.12</u> 1	$\overline{6}$	Calculus on lingual aspect
<u>M18.12</u> 2	?	Root of mandibular premolar. Pulp chamber exposed by attrition. Tooth had a chronic abscess
<u>M18.12</u> 3	$\overline{6}$	
<u>M18.12</u> 4	$\overline{17}$	Abrasian facet possibly due to use of cleaning stick. Facet has not form found if only finger used. Small disto-cervico-marginal carious cavity of food impaction type
<u>M18.12</u> 5 & 6	$\overline{11}$ $\overline{11}$	Calculus present on labial aspect near neck. Incisal $\frac{1}{3}$ enamel shows hypoplasia. Probably a pair
<u>M18.12</u> 7	$\overline{21}$	
<u>M18.12</u> 8	$\overline{71}$	Marked irregular exostosis of cementum on mesial root suggesting the presence in life of chronic paradontal abscess
<u>M18.12</u> 9	$\overline{81}$	Roots markedly curved. There is an enamel extension on to root buccally. Small cervico-marginal cavity mesially
<u>M18.12</u> 10	$\overline{17}$	Robust tooth, four cusps. May be $\overline{16}$. Much calculus present and cementum of roots rather rough
<u>M18.12</u> 11	$\overline{18}$	Five cusps
<u>M18.12</u> 12	$\overline{41}$	
<u>M18.12</u> 13 & 14	$\overline{515}$	Probably a pair. Much calculus at necks
<u>M18.12</u> 15	$\overline{31}$	
<u>M18.12</u> 16	$\overline{3}$	Side not determinable
<u>M18.12</u> 17	$\overline{13}$	Robust tooth. Much calculus near neck
<u>M18.12</u> 18	?	Root of tooth. Probably a mandibular premolar