

Notes on the Human Teeth and Jaws from Kilgreany.

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The teeth and jaws from the various levels in this cave do not present any features that could not be found amongst the varied population of any large English town ; it is true that in some cases the ascending ramus of the lower jaw is much wider than is commonly the case at the present day, but even this condition can be paralleled.

The teeth are well worn, so far in some cases as to cause the exposure of the pulps, and the destruction of the tooth down to the gum margin ; a condition never seen in the modern population unless accompanied by caries, which has become arrested and left the tooth in a condition that at first sight simulates the condition outlined above. In some cases the inner cusps of the upper molars are very much more worn than the outer cusps, a condition that is seldom seen at the present day, and then only in persons suffering from very chronic general periodontal disease ;

The pathology of a number of the specimens is of interest, and in this connection it is worth recording that there is only one carious cavity, and that on the mesial aspect at the gum margin of a left lower third molar from layer C. There is likewise only one erosion cavity observable and that also from layer C.

From the First Hearth, or layer B, comes a right horizontal ramus, shewing the loss of the second molar *ante mortem*. This has allowed the third molar to come forward into apposition with the first.

In layers C and D were a number of teeth and jaws shewing pathological changes. In skeleton "A" only $\overline{21} \mid 4$ were present in the lower jaw ; some of the teeth, namely $43 \mid 123$ had been lost *post mortem*. The jaw generally has a typical senile appearance, with the alveolar border completely healed posterior to the standing teeth, or the sockets of those lost *post mortem*, with extensive destruction of the bone. The left ascending ramus shews extensive absorption of the anterior border of the coronoid process due to an abscess originating in the third molar region and piercing the ramus to track upwards on the outer surface and eventually to affect even the condyle. The loss of the premolars and molars was due to chronic

periodontal disease, and the senility of the mandible is in marked contrast with the age of the individual, as indicated by the skull. There are also pieces of maxillæ which exhibit the almost complete absence of alveolar ridges so often seen in elderly persons who have suffered from chronic periodontal disease. Other lower jaws shew extensive abscess cavities, partly healed in one case, and loss of teeth in the molar region due to periodontal disease combined with the septic results of exposure and infection of the pulps due to the rapid and excessive wear of the teeth ; for though the formation of secondary dentine was of common occurrence the rate of deposition of this material was not as fast as the rate of wear.

In three cases upper molars still have adhering to them portions of the tartar that surrounded them on the death of the individual. There is also a piece of the right horizontal and ascending rami of a lower jaw of a young person shewing the third molar lying horizontally with the roots under the ascending ramus and the occlusal surface of the crown in contact with the distal surface of the second molar ; a form of impacted third molar common at the present day. In this specimen all three molars are large and in the first molar the anterior buccal cusp is subdivided into two.

Taken as a whole these teeth and jaws from layers C, and D, shew that the diet of the people was very gritty, resulting in excessive wear. Chronic periodontal infection with its attendant evils is surprisingly rampant, and the osteo-arthritic lipping of a number of the vertebrae may be an end result of a general systemic infection from the mouth.

In the case of skeleton " B " from the Pleistocene levels there are a number of points of interest. The curve of Spee is exceptionally well marked when the teeth are in occlusion. The lower jaw shews the molars well worn and concave towards the centre. The rate of deposition of secondary dentine was not fast enough in the case of the second right molar, and the pulp became exposed resulting in a chronic abscess and bone destruction involving both plates of the alveolus.

In the upper jaw the teeth were all much worn, especially the palatal cusps of the molars. The pulps had become exposed in 31 | 345 with abscess formation and destruction of the outer alveolar plate in 3 | 45 regions, accompanied by extensive exostosis of the apical portions of the roots of the canines. In the case of the first molars the palatal roots are thickened and denuded of bone right

up to their apices, a condition accompanying very chronic periodontal disease in modern man. And here it is interesting to note that, whereas at the present day, periodontal disease usually attacks the incisor regions, especially in the lower jaw, first, in this prehistoric material it is the molar regions that have been attacked and the incisor regions that have escaped. This difference is also marked in the teeth from the late upper palæolithic site of Aveline's Hole¹ in the Mendip Hills.

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