

澳大利亚库布尔溪更新世人骨的颞孔高度

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库布尔溪 (Coobool Creek) 人骨是 1950 年乔·布莱克 (Black) 从澳大利亚新南威尔士南部的莫莱河流域中段的马兰 (Mallan) 镇附近发现的, 现在存放在澳大利亚的墨尔本大学解剖学系, 少量标本存在新英格兰大学史前学和考古学系。作者在这批人骨的下颌骨上测量了颞孔高度和颞孔处下颌体高度, 并用这两项数据计算出颞孔高度指数, 结果表明这三项数据的个体变异和左右侧变异都很大, 但三个项目的左侧平均数和右侧平均数之间均无显著差异。我们求出每一下颌骨的左右侧的平均数来进行统计, 还引用莫莱河流域的澳大利亚土著人近代组下颌骨的相应数据(引自吴新智等, 1986)进行对比, 列于以下二表:

表 1 库布尔溪和近代澳大利亚土著标本测量
Table 1 Measurements on the specimens from Coobool Creek
and near contemporary Australian aborigines

	性别 Sex	例数 No.	颞孔高 Height of mental foramen		颞孔处下颌体高 Height of mandibular body at level of mental foramen		指数 Index	
			平均 Mean	t-value	平均 Mean	t-value	平均 Mean	t-value
库布尔溪人骨 Coobool Creek	♂	18	16.60	1.07	36.88	3.31	45.09	1.70
	♀	11	15.96		33.65		47.22	
近代澳大利亚土著人骨 Near contemporary Australian aborigines	♂	24	15.56	0.91	32.58	3.92	47.99	2.74
	♀	25	15.21		29.76		51.14	

从表 1 可见, 在两性差异方面, 库布尔溪人骨与澳大利亚近代人骨表现不尽相同。库布尔溪人骨有两项没有显著的性别差异, 而近代组则仅有一项无显著的性别差异。

从表 2 可见, 在将库布尔溪组与近代组对比时, 男性颞孔高和颞孔高度指数在两组之间有显著差异; 两性的下颌体高和女性的颞孔高度指数在两组之间有极为显著的差异。仅女性颞孔高无显著差异。

库布尔溪人骨的发现者布莱克是一位农民工程师, 未受过考古学训练。他从库布尔

表 2 库布尔溪人骨与近代澳大利亚土著人骨之间的差别

Table 2 Differences between Coobool Creek and near contemporary Australian aborigines

颞孔高 Height of mental foramen				颞孔处下颌体高 Height of mandibular body at level of mental foramen				指数 Index			
♂		♀		♂		♀		♂		♀	
t-value	P	t-value	P	t-value	P	t-value	P	t-value	P	t-value	P
2.87	<0.01	1.42	<0.2	5.38	<0.001	5.48	<0.001	2.28	<0.05	4.13	<0.001

溪边的砂丘发现这批人骨时未作过任何地层学、考古学或年代学的记录 (Sunderland and Ray, 1959) 大多数骨骼外面包有一层不规则的碳酸盐厚壳, 石化程度颇深。彼得·布朗曾用单元和多元分析将其形态与近代的和史前的(距今 7000 年前到欧洲人进入澳大利亚时期之间)人骨进行比较, 发现他们之间是有区别的, 并且发现库布尔溪与科阿沼泽(Kow Swamp 经碳-14 测定为距今 13000—9000 年前)的人化石有共同的形态型式。证据表明, 在莫莱河流域中部, 早于距今 9000 年前和晚于距今 7000 年前的人骨人牙之间有着鲜明的区别。因此彼得·布朗曾经推论库布尔溪人骨的年代可能与科阿的相近, 即距今 13000—9000 年前之间。此外, 布莱士 (Brace, 1980) 曾比较过这两组化石, 发现两组标本在头骨形态和牙齿尺寸方面均有相似性。

吴新智在研究山顶洞人时曾计算出, 欧亚更新世的新人化石下颌骨 20 例颞孔的相对高度指数平均为 46.3 (吴新智, 1961)。库布尔溪人骨男性和女性的颞孔高度指数的平均值为 46.2, 与上述数字极相近。最近, 吴新智等报道, 中国南京的现代入下颌骨与澳大利亚莫莱河流域近代人下颌骨之间在本文所用的三项数据中除男性颞孔高度外均无显著差异 (吴新智等, 1986)。因此在颞孔高度方面, 库布尔溪向近代澳大利亚土著人骨的变化与欧亚更新世新人向现代中国人的变化是相仿的。如果颞孔高度在从更新世新人化石到现代人的变化在两个大陆有着同样的趋势, 则本文的结果有利于推论库布尔溪人骨的年代属于更新世末期。

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THE HEIGHT OF MENTAL FORAMEN IN PLEISTOCENE HUMAN SKELETONS FROM COOBOOL CREEK, AUSTRALIA

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Abstract

The human skeletons of Coobool Creek were found in 1950 by G. M. Black from the central Murray River Valley area of Southern New South Wales, Australia. The authors took measurements of the height of mental foramen and the height of mandibular body at the level of this foramen and calculated an index from these two items to indicate the relative height of this foramen. The results show that both individual variations and variations between both sides are large. There is no significant difference between the mean values of both sides.

The average of data of both sides is obtained to represent the figure of each individual. The statistical results shown in table 1 are based on these averages. The data of near contemporary mandibles of Australian aborigines in Table 1 are cited from Wu and Wei (1986).

The discoverer of the Coobool Creek skeletons, G. M. Black was an engineer and farmer, rather than a trained archaeologist. No precise archaeological, stratigraphical or chronological data are available for the material which he excavated. However, morphological and metrical comparisons with the Kow Swamp series (Thorne, 1976) suggests an age of 9000—13000 years B. C. (Brown, 1981). More evidences for inferring its chronology are needed. Wu (1961) had presented an average value of 46.3 for the relative height of 20 mental foramina of casts of Eurasian Pleistocene *Homo sapiens sapiens* in his article dealing with the study of Upper Cave Man at Zhoukoudian, Beijing. The corresponding mean value of male and female averages of Coobool Creek skeletons is 46.2 which is close to Wu's data mentioned above. Wu and Wei (1986) reported that no significant difference is found between Chinese and the near contemporary Australian aborigines for the three items mentioned in this paper except absolute height of male mental foramen. So the change from Coobool Creek to modern Australian aborigines is fundamentally similar to that from Eurasian Pleistocene *H. s. sapiens* to modern Chinese. If there existed a similar tendency in the change from Pleistocene *H. s. sapiens* to modern man for the relative height of mental foramen in the two continents, the results indicated in this paper support the inference that Coobool skeletons are terminal Pleistocene in age.