

古生物誌丁種館大號

第一冊

步達生著

甘肅河南晚石器時代及其屬史前後期之
人類頭骨與現代華北及其他人種之比較

中華民國十七年十二月

國民政府農礦部直轄地質調查所印行

(學術研究與國立中央研究院合作)



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英國步達生原著
灤縣裴文中節譯

此著爲專門人種學之研究，裴君原譯幾乎逐句翻譯甚爲完備，并承李濟之先生爲之校閱，但專門研究仍賴原文，欲窺大略提要已足，故僅爲節存敘言及結論二段，餘皆從略。

翁文灝附記

敘言

安特生博士自一九二一年至一九二四年於華北各省作了不少考古的工作，同時也採集了許多古人遺骸。至一九二五年十二月承地質調查所丁前所長文江及翁所長文灝二博士的好意，將安博士由甘肅採來這許多人類遺骸送我研究。本書所述即我研究的結果。

奉天沙鍋屯及河南仰韶期之人類遺骸，除頭骨外我已有專著研究。從河南仰韶期所採之人類遺骸中體骨與頭骨相連者爲數不多，惟至今尚未將其研究之結果出版。其未破碎之頭骨成年女性者一具，成年男性者兩具，其餘已破碎而可以修理拼湊者，有成年者七具，合計起來共有女性者六具，男性者四具。再與甘肅同時代之頭骨合在一起，即本書所謂晚石器時代系。

由甘肅採來之人類之遺骸我先已略有研究，且已發表，不過當時簡略的說明及不很確定的結論，是僅僅由我打開箱子修理及按排標本時所得的印象，其中難免有簡略之處。例如當時我說「遺骸共有一百二十多

具。」現在可確定的說說這次採集有一百三十三具，或爲整全頭骨，或爲頭骨之一部，皆能代表一個個人。這一百三十三具頭骨中有五十八具是成年男性者，十六具是成年女性者，保存得尙好，足供我們測量研究。再與由河南仰韶村所採者合攏起來，雖其時代不等，然皆在史前後期的各時期中，故本書中謂之爲「史前混系。」

各種機械工作如修理這許多頭骨，如描畫頭形圖，如頭形測量的記錄等，直至一九二六年秋季始行完竣。現代華北及亞外人種頭骨之觀察及測量，用以與本書研究之史前人頭骨比較者，至一九二七年六月尙未完成。各種記錄的按排，按性別的按年齡的預備簡表，採用標準，及畫成各部頭形圖等工作，直至同年十二月始云竣事。

最初我本想將河南甘肅頭骨的研究皆發表於中國古生物誌一冊之中，然研究的結果分成了兩部分，一部分是測量及鑑定他，一部分是更普遍的推論，所以分爲兩卷發表。第二卷包括各頭骨的原形，個人測量的詳表，頭骨及下牙牀之形態的說明，及幾個圖板，第一卷則記述測量及形狀的關係，皆以標本全體爲觀察點，以努力訂定與其他種族的確切關係。

本書中各頭骨的性別曾經我很仔細的識別。河南的頭骨或頭骨的一部，大部皆與體骨相連，所以其成年的頭骨性別很少有疑問，其未與體骨相連的，甘肅頭骨很少，我則謂爲「或爲男性」或「或爲女性」。在簡表中及其他簡略說明中，或爲男性者皆列入男性組，或爲女性者則列入女性組。男性包括着八十六個成年的頭骨，其中有七十七個所設的年歲平均爲 35.10 ± 0.76 歲，女性組中成年的頭骨只有十個，他們的年歲據說平均爲 39.50 ± 3.74 歲。

本處亦當述及安特生博士所分之甘肅河南之史前各時期。茲據其報告並附以所得標本可識別之性別，且足供本書研究之成年頭骨的數目列表如下。

紅銅器時代及銅器時代

(五) 寺窪時期(甘肅)——男性四具及女性四具

(四) 辛店時期(甘肅)——男性十具及女性兩具

晚石器時代

(三) 馬廠時期(甘肅)——男性三具

(二) 仰韶時期(甘肅)——男性二十七具及女性十具

(河南)——男性六具及女性四具

新石器時代末期

(一) 齊家時期(甘肅)——未採得遺骸

本書所謂晚石器時代系之頭骨或一部頭骨，共有三十六具。成年男性者從三個地方採得，能代表晚石器時代的兩個文化時期。又有十四具成年的女性頭骨，由兩個地方採得，只能代表晚石器時代的一個文化時期。本書所謂史前混系，共有六十四具成年男性頭骨或頭骨之一部，其採集地方皆能代表史前各文化時期，還有二十具成年女性頭骨或頭骨之一部，由四個地方採來，只能代表三個史前文化期。馬廠期及沙井期皆無成年女性頭骨。本書正篇中當可以看見這許多材料。

在拙著甘肅史前人種考中曾提及有三個頭骨，很值得注意。(兩個仰韶期採得，一個由馬廠期採得)當時我說『這三個頭骨與大多數頭骨不同的地方如下，(一)鼻額界點之下部不如大多數之窄及低，(二)

眶外面斜交正前面，換言之即額眶差別角較大，』雖說三個頭骨的其他形質與普通由甘肅所採者很相似，然在未找見他們與他種人種之確定關係之前，我暫名為「x派」。

此後我把這史前組又詳細的與一大組可以代表現代華北人的頭骨比較研究，我知道我所謂「x派」的頭骨，不是很清楚的代表。晚石器時代人種的一個支派，僅是晚石器時代人種的變異而已。

因為這派頭骨與其他大部分之區別，在於臉部扁平的程度。這樣扁平的程度在華北所採標本中，已能確定其年齡性別地方及種族者，亦為所常見的變異。故現在我把x派的頭骨列入晚石器時代中系。

關於本書所輯之現代華北頭骨用以比較者，此處亦當略加說明。這一系的骨，除少數外皆為協和醫院解剖室所解剖者，其省籍概為河北山西山東。為陝西奉天及河南北部者則有幾個。全體統計起來，許多現代人骨就其已知之年齡及產地等而論，不出華北範圍則可定論。

本書所謂亞外系共有二十六具，成年男性頭骨皆為歐洲人種，由英美購來，本是供學生研究用的。這許多標本，我狠可以肯定的說，沒有亞洲人種。當我測量各種頭骨以努力區別東方及西方人種之時，我覺得一系人種與他系人種相反的性质是很值得研究的。雖說所謂白色人種及黃色人種兩種人種的特性處，及許多精密測量，很可以區別西方及東方人種不受產地的影響。然而與本書所用之亞洲人種皆產於亞洲北部者相比，似當就西方歐洲人種中與以同樣的選擇。我對於亞洲系的材料雖很少，不敢說可以代表西方白色人種性質，然選擇之時則心嚮往之。

結論

由上述河南甘肅史前人種之頭骨與現代華北者之比較研究的結果，各系各組的測量的研究，及各系各組

的頭形關係，我們可以沒有什麼疑慮的說，史前人種的頭骨在物理性質方面很明顯的代表一種東方派的人種。

因爲史前及現代華北人種有許多相同之點，我們更可以謂史前人種爲中華原始人。

在史前各系人種之中，晚石器時代文化期的標本與現代華北人種相差較遠，而各史前文化後期的標本則與現代華北人種相差較少。而晚石器時代文化期者則與西藏B種人種及西藏甘姆斯人種（摩蘭氏所研究者）有許多形狀相同

最後則提及沙井期的頭骨。沙井期之頭骨，未經地下破壞而足供測量以計算種族相似係數者僅有七具。其餘十一具不能供如此測量，則待第二編中再行論及。此處所可說者即統論沙井期大部分的個人頭骨較其他各史前人種者，其面部形狀較平較粗。

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ERRATA .

- Page 5 line 5, for *thereofe* read *thereof*
line 15, for *norm* read *norma*
35 Footnote, for *expaess* read *express*
41 line 6, for *valves* read *values*
44 line 13, for *Benington* read *Bennington*
45 Table 16 Title, for *Coutours* read *Contours*
54 line 13, for *ambda* read *lambda*
55 line 18, for *arger* read *larger*
66 line 8 from bottom, for *palne* read *plane*
67 last line, for *Hsien Tien* read *Hsin Tien*
69 Table 19 Title, for *uſe* read *used*
Second last subdivision, for *subense* read *subtense*

A STUDY OF KANSU AND HONAN ÆNEOLITHIC
SKULLS AND SPECIMENS FROM LATER KANSU PREHISTORIC SITES
IN COMPARISON WITH NORTH CHINA AND
OTHER RECENT CRANIA.

PART I

ON MEASUREMENT AND IDENTIFICATION*

BY

DAVIDSON BLACK

INTRODUCTION.

The material on which this report is based was recovered during a series of extensive archaeological reconnaissances carried out over a period of years from 1921 to 1924 by Dr. J. G. Andersson under the auspices of the Geological Survey of China. A general account of the archaeological work in Kansu during the years 1923-24 has been published in Dr. Andersson's preliminary report on that research (1). In the introduction to the latter publication there will also be found a brief historical review of the work done in this field in China up to and including the year 1924. In December of the latter year the splendid collection of prehistoric human skeletal material from the Kansu sites was placed in my hands for study and description—a privilege for which I wish again to express my most sincere thanks to Dr. Andersson and to the Directors of the Geological Survey of China, Drs. W. H. Wong and V. K. Ting.

The human skeletal remains other than skulls from the Sha Kuo T'un cave and from the type Yang Shao site in Honan have already been described (4). Of the material recovered at the Honan Yang Shao site but few of the skeletons were associated with skulls in a good state of preservation and up to the present no description of these has been published. At this site one adult female and two adult male skulls were recovered unbroken and among the remaining material it has been possible to restore in some degree seven other adult skulls. These specimens (6 ♂ and 4 ♀) have been studied in detail and subsequently incorporated with others from similar Kansu

*Received for publication July 1928.

culture horizons to constitute the series designated *Æneolithic* in the present report.

A brief note on the Kansu skeletal material (5) was published with Dr. Andersson's preliminary report in 1925 (1), the meagre descriptions and tentative conclusions contained therein being based upon general impressions gained during the preliminary work of unpacking, cleaning and arranging the specimens. At the time the latter note was written the Kansu prehistoric collection was said to include "remains representing more than 120 individuals." This statement may now be supplemented by one to the effect that within this collection 133 individuals are represented by skulls or parts thereof. Among these, 58 adult males and 16 adult females are represented by skulls sufficiently well preserved to permit of measurement in whole or in part. These specimens (58 ♂ and 16 ♀) with those from the Honan Yang Shao site noted above, constitute the series designated *Pooled Prehistoric* in the present report, and their distribution within the various divisions of the prehistoric collection is described below.

The mechanical work in connection with the preparation of the whole series of prehistoric skulls and the routine of photographic and craniographic record was not completed till the autumn of 1926; and it was not until June 1927 that all the raw data of observation and measurement on the prehistoric skulls and on the recent North China and Non-Asiatic series used in comparison throughout this report were completely in hand. The arrangement of records on the basis of sex and age and the preparation of corrected tabular summaries of measurements together with the seriation of selected data and the construction of type craniographic contours was completed by December 1927. In bringing this phase of the work to its completion at that time much credit is due to the skill, care and team-work of my technical assistants of whom I wish to mention in particular Mr. Chao Han Fen for his preparation work on the material and subsequent accurate drafting of diagraphic and diopetrographic tracings, Messrs. Chao Te An and Hsieh Jen P'u for their work on summaries and seriation, Mr. Li K'ai Yuan for the preparation of drawings for publication, and my secretary Miss Olga Hempel for her painstaking and careful work on records.

The subsequent preparation of Part I of this report has been carried on during my absence from China on furlough and it is a pleasure to express here my thanks to Professors J. G. Fitzgerald and R. D. Defries of the Department of Hygiene and Public Health of the University of Toronto for their kindness in loaning me a Marchant calculating machine. I have also to thank Dr. Stewart Wallace for his courtesy in extending to me the privileges of the University of Toronto Library during the progress of this work.

It had originally been intended to include the whole of my report on the Kansu and Honan prehistoric skulls in one fascicle of this Journal. However, since the work falls naturally into two phases, one dealing with measurement and identification and the other with more general considerations, it has been decided to publish the communication in two parts. Part II will contain a protocol of all the skull material recovered, a list of the individual measurements from which the computations in Part I have been derived, a description of the morphology of the crania and mandibulæ in the collection, together with an adequate number of plates and illustrations. Part I, constituting the present communication, will be devoted entirely to a consideration of measurements and form relations treated from the standpoint of the material as a whole, in an endeavour to arrive at some definite and exact understanding as to its racial identification.

It is worthy of note that the state of preservation of the skulls recovered from the Honan Yang Shao site differs for the most part quite markedly from that of the majority of those recovered from Kansu horizons of whatever age. In general it may be said that the Honan material whether entire or fragmentary was mineralized and in a considerable proportion of cases this process had reached an advanced stage. Among the whole of the Kansu collection but two or three specimens showed any appreciable evidence of mineralization. On the contrary, the majority of the Kansu skulls were somewhat rarified as though through the action of an acid soil and the process had proceeded in many cases to a point where the teeth only were preserved. Had it not been for the excellent way in which all skulls and fragile specimens from the Kansu sites were reinforced in the field by the pasted paper method, few if any could have reached the laboratory entire. In the subsequent preparation of these skulls it became necessary in many cases to proceed by stages first to remove a part of the paper reinforcement and adherent loess and then after drying to apply a heavy coat of supporting shellac before proceeding to the further removal of the field wrappings.

Much care has been exercised in sexing the adult skulls forming the basis of the present report. In the case of the Honan material skulls and skull parts were associated in most instances with almost complete skeletons and no adult skulls of questionable sex were encountered. Under field conditions in Kansu it was not practicable to collect entire skeletons from each grave investigated. Of course in

many instances, owing to the advanced stage of bone disintegration this was impossible, but when a selection of material could be made Dr. Andersson endeavoured to preserve skulls together with associated pelvic and long bones. These additional parts together with Dr. Andersson's field records have been of great assistance in sexing the Kansu material. Among the adult Kansu skulls lacking associated skeletal parts very few specimens have had to remain in the categories "questionable male" or "questionable female." In the summaries "questionable male" skulls have been grouped with the male series and similarly "questionable female" specimens have been included in the female group.

It will be of advantage at this point briefly to review the relative chronology of the Kansu and Honan prehistoric sites as these have been determined by Dr. Andersson in his preliminary report (l. c.) and further to indicate the number and sex of the adult skulls available for the present study from each of the archæological horizons represented.

NORTH CHINA PREHISTORIC STAGES IN RELATIVE CHRONOLOGICAL ORDER

EARLY BRONZE AGE AND COPPER AGE	{	(6) Sha Ching Stage (Kansu) - 14 ♂.
		(5) Ssu Wa Stage (Kansu) - 4 ♂ and 4 ♀.
		(4) Hsin Tien Stage (Kansu) - 10 ♂ and 2 ♀.
ÆNEOLITHIC AGE	{	(3) Ma Ch'ang Stage (Kansu) - 3 ♂.
		(2) Yang Shao Stage (Kansu) - 27 ♂ and 10 ♀.
		(Honan - type locality) - 6 ♂ and 4 ♀.
LATE NEOLITHIC AGE	{	(1) Ch'i Chia Stage (Kansu) - <i>no skeletal material recovered.</i>