

“北京人”的发现与国际合作

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1954年12月27日,北京文津街3号中国科学院院部大会议室里,举行了“中国猿人第一个头盖骨发现二十五周年纪念会”。这是周口店“北京人”化石和中国古人类学研究史上第四次盛会,实际上也是第一次“纪念会”。以前的三次,都属于庆祝会的性质。第一次是1926年安特生在北京宣布周口店发现人类化石的庆祝会。第二次是1927年步达生研究了布林和师丹斯基先后发现的牙齿后,宣布了化石的性质和“中国猿人”学名的时候。第三次是1929年在中国人类学家裴文中发现了第一个完整的头盖骨之后,中国地质学会为此举行了一次特别会议,庆祝这一项重大的发现。

此后,经过了几乎整整25年,一直没有举行任何纪念活动。可能的原因是在这段相当长的时期内,没有适当的条件与气氛,使人想起需要纪念我国古人类学史上这个重要的事件。

从五十年代起,“北京人”的发现,曾数次开会纪念,即分别在1954、1959与1979年举行的25周年,30周年与50周年纪念会。会议都选在十二月份,作为纪念十二月二日已故裴文中教授发现猿人第一个完整头盖骨的日子。

在过去60年中,纪念“中国猿人”的日期有两个。一个在十月份,另一个在十二月。前者代表人类化石首次发现的年代1926年,后者是由于第一个头骨化石发现于1929年的12月。1926年10月的发现,代表了第一次真正从地层中发掘出的化石,确定了它的地层位置,并且是“中国猿人”的正式拉丁学名命名的日子(虽然这个名字现在已经过校正);而1929年的纪念则肯定了“北京人”化石在人类发展历史中的地位,确定了“猿人”是代表从猿到人(真人)之间的真实的过渡类型,使得人类起源于较低等的灵长类(高等猿类)的科学假设,得到实证。

上面的历史回顾,已可以见到周口店“北京猿人”化石发现工作中的国际合作情况。其中包括奥地利、瑞典、中国古生物学者发现的化石材料,加拿大学者的研究工作以及中国地质调查所的组织工作和美国基金会的赞助。所以,“北京人”的发现,确实是国际合作的产物。很有趣味的一个插曲是从1929年的庆祝会后,人们似乎忘记了这个重要的科学节日,直到1954年的25周年纪念。这还是在当时中国科学院任顾问的苏联土壤学家柯夫达教授的建议下由中国科学院组织举行的。

以上只是谈到了“北京人”发现的两个重要的里程碑。我们如果再稍仔细看一下发现经过的若干细节,和从标本发现后到它在研究工作上取得重要成果,和在国际上赢得较高的学术地位的过程,我们就可以理解到国际合作在科学研究进展上的重要意义了。

北京房山县周口店及附近地区,可能发现人类化石的最早时间,可回溯到上世纪末和本世纪初。德国慕尼黑大学古生物学家舒罗塞(Max Schlosser),他于1903年发表了

一批中国产出的脊椎动物化石。标本全部是哺乳类牙齿，这是另一个德国博物学家哈贝勒(K. A. Harberer)于1899年在中国旅行时从北京、上海等地中药店购买的。这批化石中有一个人类牙齿的化石，材料很少，确切的来历不明，但至少暗示了在中国，甚至在北京附近，有发现人类化石的可能性。

为中国古人类学研究真正作出历史性贡献的第一个学者是著名的瑞典科学家安特生博士(Johan Gunnar Andersson, 1874—1960)。他自称为是一个“矿业专家、化石采集者和考古学家”，曾于1914年至二十年代中，任中国政府矿业顾问。而实际上，除了矿业顾问的职务外，他从事大量地质学与古生物学的调查研究工作。并且从一个业余爱好者开始，从事史前考古学工作，后来成为一个成绩卓著的专家。除了他在考古学方面的贡献外，他对中国地质学、古生物学、新生代地质学等方面的许多贡献都是带有开创性和奠基性的。但在相当长一段时期内，他对我国学术工作的贡献被抹煞和曲解了(见[辞海]1979年版条目及其他)。这里除了由于编写人的无知与偏见外，把安特生的学术贡献主要局限于中国的先史考古学方面，并就一门科学在开创时期必然会存在的一些不足之处，和被后来的发现证明为不全可信的提法，几乎全盘否定安特生在考古学上的重大贡献。同时几乎全部忽略了他的更为重要的在地质学、第四纪研究和古生物学上的成就。这是极不公正和缺乏对历史的科学观点的。

1918年夏天，安特生受燕京大学一个美籍化学系教授吉布(J. M. Gibbs)的邀请，第一次到周口店旅行。1921年夏，他又与师坦斯基和美国古脊椎动物学家谷兰阶(Walter Granger)一同前往。他们找到了后来被称为“第一地点”的化石地点。当然，那时候谁也不会想到这个地点将成为一个古人类学的“圣地”，成为联合国教科文组织指定的一个“世界文化遗产地点”。1926年10月22日，瑞典皇太子(他是一位考古学家)伉俪来华访问。在为他们举行的欢迎会和学术报告会上，安特生代表乌普萨拉大学维曼教授报道了研究周口店化石材料的最新发现，宣布了师坦斯基在1923年发掘中获得的一个人类臼齿化石，并放映了标本的幻灯图象。

这一发现和活动，有力地推动了考察工作的继续，导致了后来的进展和重大发现，以至“新生代研究室”的成立。“新生代室”(简称，下同)领导人包括翁文灏(地质调查所所长)、丁文江、布达生(研究室名誉主任)。研究室有充裕的经费，主要由美国洛氏基金会赞助。研究室初建时，从事研究工作的主要专家为杨达生、德日进，杨钟健和裴文中等。另有布林(瑞典)、李捷、巴尔博士、卞美年、贾兰坡等也先后参加研究室工作，或短期参加工作。

由于有一个高水平的国际科学家集体的合作研究，和国际给予的经济资助，特别是有像翁文灏、丁文江和布达生那样的组织协调工作，在新生代研究室成立后不到五年的短时期内，取得了世界瞩目的成就，发现了新的人类化石，确定了石器文化的性质，用火的证据，以及通过地质学，各种动物与植物化石的研究，对“中国猿人”的性质取得了更令人信服的证据，并对猿人的文化、生活时的古环境条件与行为等都有了较深的了解。1933年，当步达生、德日进、杨钟健和裴文中四人合著的《中国原人史要》(Fossil Man in China)*一书

* 这是中国古人类学方面最早的一本权威性著作，也是最重要的经典文献之一。但是不少后来的工作者，似乎并未予以重视。

出版时，新生代研究室在当时确实很快成为国际古人类及有关第四纪研究的一个重要中心，而周口店猿人遗址则成为当时十分突出的一个国际知名的科学文化“圣地”。

象《中国原人史要》这样由四位专家合作的专著，在今天科技界是很惯常的做法。但是在五十年前这样的合作工作是很少见的，也是十分难能可贵的。这正好体现了“周口店”研究工作中的国际合作这个特点，甚至可以被认为是世界科学合作史上很少见的，十分成功的一个国际合作的范例。

从上面的历史回顾中，首先我们可以看到周口店确实是可以作为科学史上体现国际合作的重要性的一个难得的实例。尤其是象古人类学这一类的学科，一方面其探索的课题是一些已经无法见到和难以验证的历史过程，而由于研究者之间各人的背景、观察角度的不一致，对材料选择、采样的偏倚和几乎无法避免的对问题阐释的主观性等原因，当古人类学家们面对相同的，或类似的问题时，意见很难取得一致。但研究对象与课题的国际性与共同性又要求广泛和密切的国际合作与同行间和有关专家间的合作。在所有这些方面，周口店人类化石的研究都是一个成功的例子，不仅值得予以重视，并且可作为类似的科学项目进行合作研究的样板。

其次，周口店猿人化石的发现与研究（和“新生代研究室”）的历史与在短期内取得的成果与进展，似乎与国际交流与合作之间存在着相当的关联。我们可以充满自信地说：周口店实质上是一个国际科学合作的产物。这一说法似乎显得过于夸张，但是如果我们回顾一下二十年代当时国内各种条件，与国际上科学发展的情况，就会理解这一说法的意义了。我们完全可以深信，当时如果没有及时的、密切的协调一致的国际合作，特别是几位杰出的领导人的组织协调工作。很难想象在二十年代末能够在不到五年的短时期内，取得“北京猿人”研究上的高水平的，有许多重大学术价值的科学成果。实际上，当时世界各地已有几处人类化石发现，但工作进展都较缓慢。同时在中国各地，每年都有无疑包括人类化石在内的大量的材料，被磨成粉末当药品消耗掉。几个巨猿的牙齿能幸免于难，几乎是唯一的例外。

值此纪念北京猿人第一个头盖骨发现 60 周年之时，我们回顾周口店工作最初 10—15 年国际密切合作时期中的迅速进展和丰硕收获，更加相信，今后在整个国家开放政策的推动下，我们古人类学的研究工作将与世界上许多国家的研究机构与专家，继续开展广泛的交流合作，开辟一些新的研究方向，完成一些重大的综合性研究项目，使我国古人类学的研究进入又一个新的发展时期，并努力争取，不久后能与世界先进水平同步前进！

DISCOVERY OF THE "PEKING MAN" AND INTERNATIONAL SCIENTIFIC COOPERATION

Zhou Mingzhen*

On October 16, 1927 Dr. Birger Bohlin, a Swedish paleontologist, recovered at Zhoukoudian in Fangshan County a hominid lower molar tooth, the first tooth of the Peking Man to have been identified on spot in the field. The late Prof. Davidson Black, a Canadian anatomist and anthropologist, made a detailed study of the tooth, together with two teeth excavated previously from the same site by the Austrian paleontologist, Otto Zdansky during the field season of 1921 and 1923. The result of the study was published in the same year of 1927, as a fascicle in volume VII of the monographic series *Palaeontologica Sinica*. It was in this article that the first Chinese Ape-Man was christened as "*Sinanthropus pekinensis*", coauthored by Black and Zdansky, with Bohlin's lower molar as its type specimen.

Since the 50's, the Discovery of the Peking Man had been celebrated, successively, in 1954 (25 years), 1959 (30 years) and 1979 (50 years jubilee), supposedly to be on a day in the month of December, designating the recovery of the first skull cap, unearthed by the late Prof. W. C. Pei of IVPP (then the Cenozoic Research Laboratory) on December 2nd, in 1929, i.e. 60 years ago, the anniversary we are here gathering to commemorate.

Therefore, the Day in October designates the time that the hominid nature of the Peking Man was surely recognized; and the Day in December is worthy commemorating because the status of the Peking Man, as an important link between the Ape and Man, was not generally recognized until the nature of its skull became known. Therefore, each of the two days has its merit to be commemorated. And, nevertheless, the genuine value and significance of the findings lie in the role these materials played in the scientific interpretation and elucidation of the origin and evolutionary history of the mankind. It was from this angle of view the finding and studies of the fossils of the Peking Man had been monumental in the chronicle of learning of the history of Man and Nature.

Scientific investigation requires objectivity in the attitude of the investigators. But it seems difficult to be objective, or non-biased, in the pursuit of knowledge in a science such as anthropology, where and when Man studies the origin and history of his own self. Besides, there are other barriers, such as district or regional, and national boundaries to cross. Science in its essence has no awareness of the national boundary, but view points of the investigators are apt to be effected, often subconsciously. Personal feelings and emotion often tend to blur the true picture or patterns emergent from the factual data. Certainly, since after the World War II, especially in the past one or two decades, this kind of barriers are being removed gradually. And now, international contact and cooperation are not only becoming inevitable, but essential for the growth and in the daily activity of every profession and trade. To the science, and the scientists, the free exchange of information and cooperation are vital to its development, even to the very existence of the science.

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But even today, from time to time, we still find inconvenience, or difficulty in the free exchange of information and cooperation between countries and among nations and institutions. The situation was more serious and quite different a half century ago. But, the finding and research of the Peking Man seem to have been uniquely exceptional. It could be well to serve as a model case study. It was a masterpiece work of international cooperation in every aspect of its work from the beginning.

Dr. Johan Gunnar Andersson, the well-known Swedish scientist, who called himself a “mining expert, fossil collector, archaeologist”, worked in China during the middle of 10's (1914) to late 20's (1924, 1925, 1926). Andersson was, by all means, a key man and one of the scientists who had contributed most to the finding of the Peking Man. I would like to emphasize this here because Andersson's contributions to the geology, paleontology and anthropology, besides archaeology, had not only been pioneering, but in a number of ways foundational to the development of these sciences in China.

In the summer of 1918, he visited Zhoukoudian for the first time. In the summer of 1921, he went there again with Zdansky and Walter Granger, a paleontologist from New York. The Trio spotted the fossil site of Lao-Niu-Kow and toasted for the discovery of the locality, later named as Loc. 1, or the Peking Man Site. They certainly did not realize then that that place would someday become a site of world fame and an UNESCO WORLD HERITAGE SITE.

Now on October 22 of the year 1926, when the Crown Prince and Crown Princess of Sweden were visiting Peking, a scientific meeting was held in their honor. Before the end of this meeting of academic notables, Dr. Andersson announced the discovery of the fossil hominid from Zhoukoudian.

It was mainly at the incentive and inspiration of this news, that a major important cooperative project to study the Zhoukoudian Site was initiated and propheted the founding of the Cenozoic Research Laboratory, the precursor of the present IVPP.

Then, came the memorable year of 1927 when Bohlin found the molar tooth, based on which Black coined the name *Sinanthropus pekinensis*.

After this, came the monumental year of 1929. The Cenozoic Research Laboratory was officially founded under the Geological Survey with financial supports of the Rockefeller Foundation and W.C. Pei discovered the first skull of the Peking Man, which, together with other hominid findings, were intensively studied by Black. The status of the Peking Man (and the Java Man) as the link between ape and man were well justified. Along with the progress of study of the human fossils, other collaborated geological and paleontological work came along rapidly in pace. This included the geological investigation of the district by the Chinese geologist C. Li on topography, the French Father Pierre Teilhard de Chardin and C.C. Young on the Cenozoic geology and mammalian fossils, and Teilhard de Chardin and Pei, and Abbé Breuil on the paleolithic artifacts etc. Evidences of the use of fire by the Peking Man was also convincingly demonstrated. All the work of the Laboratory was under the masterly directorship of Dr. V. K. Ting, the Honorary Director of the Laboratory, and Dr. W.H. Wong, the Director of the Geological Survey, and Dr. Black who was the Director and coordinator of the Laboratory work. Other scientists who had worked here include M. N. Bien and L. P. Chia (both beginning in 1931) and George Barbour, a Scottish/American geologist, and Y. Y. Li (another Chinese geologist).

As a result of the efficient cooperative work of this international team, in 1933, that is in less than five years since the founding of the Cenozoic Research Laboratory, a volume summa-

izing the results of the paleoanthropological studies in China was published with the title of "Fossil Man in China: The Choukoutien cave deposits with a synopsis of our present knowledge of the late Cenozoic in China". This classical volume was coauthored by the quartet consisting of Black, Teilhard de Chardin, Young and Pei. This and similar forms of coauthorship nowadays have become a common place practice, but it was almost a novelty in the 30's.

From the retrospect of the history of finding and study of the Zhoukoudian site, I would like to turn back to the thematic point of my talk.

First, a science like paleoanthropology could hardly exist, or not be able to progress soundly without broad and close international cooperation and interchange of informations. The Zhoukoudian case sets a good example, and serves well as a model case study for future work.

Secondly, we can do justice in saying that "Zhoukoudian" is a product of international cooperation, or if there were no opportune, close and well-coordinated international cooperation, and above all the masterly directorship of the Institution in charge of the work there would have been no Zhoukoudian (in its context as we understand). These words seem to be very much exaggerated. But I would call attention to the fact by imagining how many fossil hominid and anthropoid teeth (such as those of *Gigantopithecus*) had been pulverized by apothecaries and lost to science for good, when they were not opportunely taken care of.

Thirdly, a brief historical review of the Zhoukoudian case shows that a research project, or a "laboratory", could progress much faster with closer and well-organized international cooperation. The brilliant results gained by the Cenozoic Research Laboratory in a possibly short span of time point clearly to such an inference. After 1979, when PRC opens its door to the west again, comes a period of revival of the partnership between Chinese scientists and those from the west. This has ushered a new boom in the paleoanthropological study in China.

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