



HELGA GEMEGAH

ALEŠ HRDLIČKA'S IMPACT ON ANTHROPOLOGY AND SOCIETY IN CHINA

ABSTRACT: Dr. Aleš Hrdlička's interest in China has remained unnoticed, as attention is focussed on his research in America. However, as he was seeking the origin of the First Americans in Asia, he also studied the relevant regions. A brief look at two decades of American-Chinese science transfer in which Hrdlička took part, not only reveals his contribution to introduce physical anthropology in Asia, but also the far-reaching impact of his concepts on the peopling of Asia and America, issues which still belong to some of the most controversial topics.

KEY WORDS: American-Chinese science transfer – Black, Davidson – Chen Hengzhe – Hrdlička, Aleš – Hu Shih – Peking Union Medical School – Peopling of Asia and America – Sinanthropus

AMERICAN-CHINESE SCIENCE TRANSFER

In 1938 Aleš Hrdlička received an invitation to attend a subscription dinner to be given by the China Medical Board, Inc., New York. The purpose of the invitation was to gather persons who had been connected with the Peking Union Medical College (PUMC) at any time in any capacity and the attendance of Mr. and Mrs. John D. Rockefeller, Jr., was expected (HP, NAA, SI, 33). Although Hrdlička could not attend the dinner, this letter mentions some of the most outstanding personalities of Chinese-American relations and it is an indicator of Hrdlička's connections to Asia, which began 20 years earlier. One of the invited guests of honour, Hu Shih (Hu Shi), was a prominent Chinese writer, literature reformer and ambassador to the United States. Hu Shih and other Chinese authors like Chen Hengzhe, who studied in the United States, created new forms of Chinese literature, experimenting on different

levels regarding style, contents and goals. Probably they did not know about each other then, but in 1916, when Hrdlička made his plans to visit China, Hu Shih was in America, commenting Chinese poems by one of the first Baihua-writers, Chen Hengzhe. Hu Shih considered the following two poems to be wonderful examples of great feelings and thoughts (Spatz 1990: 60).

Moon¹

The young moon covers behind a light cloud,
hidden in its cool it smiles,
not knowing that its light
reflects on the creek's clear water.

Wind

In the night you hear knocks at the window,
you get up and see the moonlight dissolving like water,
countless leaves are flying in a whirl,
the wild roaring storm sweeps off the pine tree seeds.

¹ Translation of the poems Gemegah 2003 (see also Spatz 1990).

In one of her narratives, "One Day"², Chen Hengzhe describes a day in an American University, probably based on her own experiences at Vassar College, Poughkeepsie, New York. She gives an impression on the subjects taught, she mentions the First World War and attention is drawn to students who voluntarily participate in medical missions for hospitals in France. This narrative is an interesting example of the early 20th century's student exchange between China and the United States of America.

Cultural and scientific exchange, however, was not only limited to poems, narratives or literary reforms, it was applied to nearly all fields of research and studies. Hu Shih had been a student of the American professor John Dewey, who taught in China from 1919 to 1922. Dewey's concepts influenced the Chinese society and the reform of Chinese education, which, based on the American system and on Western natural sciences, medicine and philosophy, was introduced in China in 1922.

THE PEKING UNION MEDICAL COLLEGE AND DAVIDSON BLACK

I am indebted to the Deutsche Forschungsgemeinschaft, Bonn (DFG GE 1130/2-1), for the support of a visit to the National Anthropological Archives (NAA), Smithsonian Institution (SI), Washington D.C., where I studied the Aleš Hrdlička Papers with regard to his research in Asia and America about the origin of the First Americans. Further studies of the Hrdlička Papers and the institutions Hrdlička visited in Asia are necessary and in preparation. The following correspondence only represents a first insight into the topics to be further investigated.

The Peking Union Medical College, which was supported by the Rockefeller Foundation, was part of the American-Chinese science transfer. Before Hrdlička travelled to Asia he wrote to the PUMC. In Asia Hrdlička intended to give lectures, to present the latest developments in anthropology as well as his newly founded American Journal of Physical Anthropology (AJPA), to establish a Chinese Museum of Natural History and, above all, to find the Asian origins of the First Americans. After his stay in Asia (January – June 1920) Hrdlička made recommendations to the Rockefeller Foundation for the future of the PUMC. He had the vision that it "would become a first-class medical institution, the foremost in China and whole eastern Asia, devoted, in a large measure, to teaching and hospital work, but at the same time leading medical advancement and research in those regions" and that "it would attract to its staff the best forces in the Far East and become truly an excellent outpost of American medicine" (Hrdlička to Vincent, May 14, 1920; HP, NAA, SI, 56). Hrdlička's correspondence with the PUMC reflects the college's early years and furthermore it provided him with access to scientific discoveries in Asia,

among them fossil records, which he commented in the AJPA.

During his stay in Beijing in 1920 Hrdlička lived with Davidson Black and his wife. The correspondence between the Black family and Hrdlička not only allows interesting glimpses on everyday life in China, but it also shows, like the following (handwritten) letter from Mrs. Adena Black, the very personal contacts:

Dear Dr. Hrdlička, Merry Christmas to you and yours – it was so nice to get your little note of sympathy this week. I made a wonderful recovery from my typhoid thanks to the skilful care I had, but it does take a long time to tone up to "pre war" strength. ... However I have rested now and am a wiser girl! We moved out of the south Compound to a newly built house near the East Wall and are in love with the privacy of our own little place. It is so sunny and bright with a darling little enclosed verandah for plants. I keep it full of flowers + enjoy it thoroughly. Just now it is a pale mist of pink plum blossoms + ferns, such a contrast to the riot of colors of last month when I had every nook full of big chrysanthemums. I am enclosing a snap shot of Davy when he was 20 months old. He is a bright happy soul and talks away in English and Chinese with the greatest impartiality. How I wonder if our wanderings this summer will lead us near you or no. ... Yours sincerely Adena Black. (Adena Black to Hrdlička, December 22, 1922; HP, NAA, SI, 14)

Most of Hrdlička's correspondence was with Davidson Black and other staff of the PUMC on various scientific topics or the introduction of the AJPA in Asia. Interestingly, Hrdlička had previously been involved in the employment of Davidson Black, as becomes obvious in the correspondence between E. V. Cowdry and Hrdlička:

Dear Doctor Hrdlička: Referring to our conversation of December 22nd, I would say that I have been on the lookout for suitable candidates for the Chinese position which we discussed ... and I would be greatly obliged if you would give me your opinion regarding them: Dr. Sullivan, American Museum of Natural History, Dr. Davidson Black, Western Reserve Medical School, Dr. T. Wingate Todd, Western Reserve Medical School, Dr. E. A. Hooton, Peabody Museum, Harvard University, Dr. E. W. Hawkes, Public Museum, Milwaukee. If it would not be troubling you too much, I would like to learn the results of your own inquiries. Plans for China are maturing rapidly and the outlook is excellent. I do hope that we can manage to make use of our opportunities in anthropology. I remain, Yours sincerely, E.V. Cowdry – EVC/LC. (Cowdry to Hrdlička, January 15, 1918; HP, NAA, SI, 19) See also Spencer (1979: 774).

Cowdry informed Hrdlička about Davidson Black's employment, and offered his cooperation regarding the distribution of the Journal:

² Translation Chinese-German (Spatz 1990: 23).

My dear Doctor Hrdlička: I want to acknowledge with thanks the receipt of the prospectus of the American Journal of Physical Anthropology. I am very much interested in the future of the Journal and will cooperate in any way I can to make it a success. ... I have asked the Rockefeller Foundation and I enclose herewith my personal check for \$5.50 so that I may have copies of my own. My address ... will be Department of Anatomy, Union Medical College, Peking, China. It occurs to me that I may be of some help in getting subscribers in the Orient, where I expect to travel rather extensively, inspecting medical schools in Japan and other places. I am glad to say that I have secured Dr. Davidson Black of Western Reserve Medical School as Professor of Histology and Embryology. He is a first rate anatomist and has received training under Elliott Smith, Arthur Keith and others and is, like me, very enthusiastic about the development of anthropology. ... We shall look forward with the very greatest pleasure to a visit from you, which will do infinitely more than anything else to get our work started along profitable lines. I remain Yours sincerely, (Signed) E. V. Cowdry. (Cowdry to Hrdlička, April 29, 1918; HP, NAA, SI, 19)

One day later Hrdlička wrote regarding the employment of Davidson Black:

I am glad to hear that you have services of Doctor Black, of whom I have heard nothing but good. I wonder if it would not be feasible for him before he goes to spend a week or ten days with me in order that I could give him little instruction for such work as he could readily undertake in connection with his regular duties. (Hrdlička to Cowdry, April 30, 1918; HP, NAA, SI, 19)

The invitation for Hrdlička to visit Beijing and to lecture at the PUMC came from Cowdry and Black. This at first caused some inconveniences with the Rockefeller Foundation, as also noted by Spencer (1979: 485). Hrdlička, however, succeeded in realizing his trip to Asia.

400 YEARS SINCE THE INVENTION OF THE IDEA OF AN "ASIAN" ORIGIN OF ALL FIRST AMERICANS

One of Hrdlička's goals in Asia was to find the origin of the First Americans and this is nicely stated in a letter of courtesy by Charles D. Walcott, secretary, Smithsonian Institution:

To the friends and Correspondents of the Smithsonian Institution. I take pleasure in introducing to you the bearer, Dr. Aleš Hrdlička, Curator of the Division of Physical Anthropology in the Museum of the Smithsonian Institution, who is visiting Hawaii, China, Manchuria, and Japan, for the purpose of making anthropological investigations for this Institution, particularly relating to the origin of the

American Indian. Dr. Hrdlička will also, as far as opportunity will permit, make collections for the Museum. Any courtesies or facilities extended to him in furthering his mission will be highly appreciated by the Smithsonian Institution. Charles D. Walcott Secretary. (Walcott, January 15, 1920; HP, NAA, SI, 108)

As early as 1920, however, sufficient empirical investigations on the populations in Asia had not yet been performed. What was the reason, then, for Walcott and Hrdlička to be so convinced about an Asian origin of the early inhabitants of the Americas, that they decided to insist on Hrdlička's trip to Asia? At that time the only known source for the idea of an Asian origin of the First Americans were the Spanish Jesuit José de Acosta's writings (1589). Acosta propagated that the First Americans had come walking over a land bridge from Asia to the Americas. Acosta's concepts, however, are fictions, based on religious ideas and 16th century Spanish political cartography, which described America and Asia together as one landmass (Gemegah 1999: 97; 250). Until the 18th century such erroneous geography even led to the assumption that the shores of the Great Lakes were the shores of the Pacific and that Michigan was China. In spite of the discrepancies, Acosta's theory was also repeated by Hrdlička:

A remarkably sensible opinion on the subject of the origin of the American Indians is met with as early as 1590 in the book of Padre Acosta, one of the best informed of the earlier authorities on America. (Hrdlička 1935: 2)

Following Hrdlička's example, the citation of Acosta became a tradition, and often authors used to cite the statements from each other, as these few examples show:

E. N. Wilmsen notes in his excellent review "An Outline of Early Man Studies in the United States" (1965) that Fray José de Acosta postulated in 1590 a land bridge or narrow strait in high northern latitudes, over which small bands of hunters first entered North America; the hypothesis remained a favoured one for the ensuing three and a half centuries (Hopkins 1967: 3).

The theory of their origin which is unanimously accepted today by archaeologists and anthropologists, was first proposed in 1590 by Fray José de Acosta, a Spanish priest. (Fiedel 1992, 2) ... You may recall that, as early as 1590, Fray José de Acosta suggested that the ancestors of the American Indians had come from northern Asia. Today there is virtually unanimous support for this theory among anthropologists (Fiedel 1992: 39).

Acosta's concepts on the "Asian" origin of the First Americans had already been studied by Alexander and Wilhelm von Humboldt in the 19th century. Alexander von Humboldt investigated the morphology of Asian and American skulls. He was, however, not agreeing with Acosta, as he came to the conclusion "that the morphology

of the American skull was considerably differing from the Tatar's with regard to the zygomatic apophysis, the direction of the facial line and the doglike crista of the frontal bone" (Humboldt 1806: 197). Alexander von Humboldt's doubts on Acosta have been neglected, on the contrary, an increased acceptance of Acosta's statements could be observed (Gemegah 2003). Also Hrdlička compared Asian and American skulls. It is possible that Hrdlička considered the quantity of the skulls investigated by Humboldt as not sufficient for a thorough examination of the supposed similarities between Asian and American morphologies. It is probable that the discussions regarding Acosta's concepts led Hrdlička and Walcott to the decision to deepen the research regarding this question. However, it is obvious that before Hrdlička's trip to Asia in 1920 the idea that all First Americans had originated in Asia lacked empirical evidence, as the material he had at his disposal was by no means sufficient:

Since beginning his anthropological researches Hrdlička had noticed that the shape of the upper incisors in the American Indians was quite different from that encountered among blacks and whites. Where in these latter groups the incisors tended to be flat, in the Indians the incisors were folded inward producing a shape that Hrdlička likened to an ordinary coal shovel. ... Hrdlička suggested that the trait might in fact be of "racial significance", noting its high frequency among American Indians and Eskimos. ... Although at this time (ca. 1911) Hrdlička's collections at the National Museum were deficient in crania from Asia and Oceania, there is every reason to suggest, particularly in view of his developing commitment to the theory of the Asiatic origin of the American Indians, that it was his expectation to find this dental character expressed in the Mongolian and other related Asiatic groups. Indeed, it is conjectured that it was largely for this reason that Hrdlička was so anxious to reschedule his 1912 European tour to include a visit to Siberia and Mongolia to "search for," as he put it, "the vestiges of the race that had peopled America" (Spencer 1979: 478).

These shovel-shaped teeth as well as other morphological traits, however, which according to Hrdlička were a proof of all American Indians' descendency from Asia, are not as homogeneous as he assumed (Lahr 1995: 164). This shows that the supposed routes of migration had been fixed by Hrdlička (and Walcott) prior to empirical investigations.

Alexander von Humboldt's brother Wilhelm, also in order to find the American Indians' origin, was doing comparisons between Asian and American languages; the outcome, however, was not quite convincing. Hrdlička, however, followed the example of Wilhelm von Humboldt and compared Asian and American languages. He came to the conclusion that "the American languages ... speak for one and the same (though doubtless ancient and probably extra-American) parentage' and he referred to "grammar,

ideas of gender, formation of numerals, modes of plurality, prefixes and suffixes, relative values of the pronoun, etc." (Hrdlička 1917: 559). Such language comparisons, however, cannot serve as an argument for the determination of very ancient settlements and even less for assuming an "extra-American origin". The main problem here was that the interpretation of the linguistic phenomena was entirely based on Acosta's concepts, which were traded as a scientific "truth", thus obstructing the investigation of alternatives.

Also regarding the peopling of Asia, comparisons of languages have been used. In an early article of the AJPA it is stated that China was peopled from the northwest, that the ancestors of Chinese and Sumerians had been related and that future explorations might uncover inscriptions in a primitive hieroglyphic writing proving to be the parent of the Sumerian and of the Chinese writings and the skeletal remains, which might establish a definite relationship between the two peoples and those tribes which bear such close physical resemblance to the American Indians (Williams 1918: 211). Hrdlička announced William's article in a letter to Cowdry:

I wish to acknowledge with thanks the receipt of your subscription for the Journal. ... It will interest you to learn in this connection that the second number of the Journal will contain a very good article, by the Chief of the Far Eastern Division of the State Department on "The Origins of the Chinese People". (Hrdlička to Cowdry, April 30, 1918; HP, NAA, SI, 19)

There is, however, no convincing evidence for the assumption of a common precursor of the Sumerian and Chinese writings. [Personal communication 18/06/03: Prof. Dr. Hans Stumpfheldt (Stumpfheldt 2003), Faculty of Oriental Studies, Chinese Studies, University of Hamburg]

PLANS FOR A CHINESE MUSEUM OF NATURAL HISTORY

Hrdlička also planned to establish a Museum of Natural History in Beijing. His efforts towards this subject are mentioned as follows:

The idea of a Chinese Museum of Natural History has been brought to the Government's notice many times in the last few years, and Mr. Ting's idea in asking you to speak at the Central Park luncheon was to bring the matter once more in a forcible way before the officials. (Black to Hrdlička, November 29, 1920, HP, NAA, SI, 14)

A letter from E. V. Cowdry, PUMC, to Charles D. Walcott, secretary, Smithsonian Institution, also refers to the plans for a museum:

Through his initiative a strong movement has been started toward the establishment of a Natural History Museum in

Peking which will exercise a coordinating and centralizing influence upon scientific work throughout China. (June 3rd, 1920; HP, NAA, SI, BAE letters 1909–1950, Holsted-Hubbel)

Also Hrdlička's special contribution to physical anthropology in China is mentioned in a letter by the Acting Director of the PUMC, Henry B. Houghton to Charles D. Walcott, Smithsonian Institution:

Dear Sir, On behalf of the Peking Union Medical College I write to thank you for making possible Dr. Hrdlička's recent visit to Peking. His presence here at a time when physicians from every part of China had gathered in conference provided an opportunity for stimulating a keen interest in his special scientific field, – an opportunity which he utilized with the utmost enthusiasm. The College is greatly indebted to him for his service and to you for your cooperation in bringing it about. Very sincerely, Henry B. Houghton, Acting Director. (Houghton to Walcott, June 4, 1920; HP, NAA, SI, BAE, Houghton)

SINANTHROPUS

Twenty years later, when Houghton was President of the PUMC, he handed over the original remains of the "Peking Man" to Colonel William W. Ashurst, U. S. Navy in 1941. The remains were planned to be deposited at a safe place, as war was about to begin. Ashurst was leaving Beijing on December 5th, 1941 (Shapiro 1976: 205). Two days later Pearl Harbor was attacked by the Japanese. During the war the *Sinanthropus* remains got lost and since then they have not been recovered. Interestingly, maybe because of his contacts to Asia, it was Hrdlička who "as early as the 1930s warned Franklin Delano Roosevelt about Japan's intentions, and the day after Pearl Harbor he wrote to Roosevelt suggesting five steps to meet the Japanese threat" (Montgomery, Glenn 1996: 2).

Back in 1920, after Hrdlička's visit to China, his correspondence with the PUMC and its staff increased. Davidson Black wrote to Hrdlička about his plans to measure the students of various universities:

My dear Dr. Hrdlička: ... I have just returned from a very interesting trip to Mukden, where I went as College representative to attend the decennial celebration of the Japanese Medical School there. I am very favourably impressed with the institution and with the men in the school. I enclose a sheet, which may be of interest to you, outlining the measurements and observations which I expect to make on students here in Peking. Dr. Stevenson is going to help me I hope, and we are beginning with the students at the Teachers' college, of whom there are some 800. We will then begin on the students at the Peking Government University and also the Methodist University, so that in a few years' time I hope we will have some records worth

reporting on. Mrs. Black and Wee Davy join me in sending you our cordial regards, and I remain, very sincerely yours, Davidson Black DB/W. (October 19, 1921; HP, NAA, SI, 14)

The sheet Black mentioned is a questionnaire, with fields for the dates of birth (Chinese and foreign calendars), with measurements referring to body, head and miscellaneous; observations referring to skin, hair, eye-slits, Mongol. fold, nasion depress. and furthermore physiological data like pulse, respiration, etc. An extra block on this sheet is dedicated to the deciduous and permanent teeth. It is not noted, however, how such quantities of data would be organized and to what purpose they were gathered.

Black also became member of the editorial board of the AJPA. Through Hrdlička's continuous and close contacts with scientists at the PUMC, but also other institutions in Asia, he had direct access to scientific discoveries in Asia which he published in the AJPA. On the other hand he was also introducing the latest scientific developments in physical anthropology to the readers in the Far East.

Some years later, however, the correspondence between Black and Hrdlička was losing its friendly character. Davidson Black and others had discovered ancient fossils, Hrdlička, however did not accept their antiquity. There is an exchange of letters after the discovery, but it becomes obvious that there is no compromise between Black's and Hrdlička's opinions about the Chinese finds. This was also the case after the discovery of the following remains, communicated to Hrdlička by Max Mason, The Rockefeller Foundation, New York:

Dear Dr. Hrdlička: the following is an extract from a cable received from Dr. Davidson Black on Saturday: "Pei recovered at Chou-Kou-Tien uncrushed *Sinanthropus* skull entire except face." Dr. Black asked that this information be sent to you. Sincerely yours, Max Mason. (Mason to Hrdlička, December 30, 1929; HP, NAA, SI, 56)

Although Hrdlička was very interested in Chinese fossils, he did, however, not agree with Black's concepts about the origin of the Chinese. Black had tried to convince Hrdlička, but in vain. The following letter from Black to Hrdlička is an example for their discrepancies:

Dear Dr. Hrdlička: Thank you for your letter of May 1st which has just reached me. I cannot quite follow your reasoning when you say "Neither can I see that these specimens should be ancestral to the Neanderthals rather than connected with the same. There certainly is no indication that the Neanderthals moved from east westward; but there is plenty of archaeological evidence that the Neanderthals all over the west followed there upon and were evidently connected with older forms of men." From whence did they "follow there upon" if not from the east and who were the "older forms" with whom they were "evidently connected"? If *Sinanthropus* is a typical "Neanderthaloid" as you say would this not be a

contradiction to your statement that there is no evidence that Neanderthals moved from the east? *Sinanthropus* was flourishing out here long before Neanderthal man is known at all in Europe. In any case I did not say *Sinanthropus* was ancestral to Neanderthal man, but that the former could not be far removed from the type from which both the latter and modern man arose.

From your exhortation "just give us all the facts" etc. I gather that you must have overlooked the last paragraph of my letter to you of April 3rd last. With best wishes for a successful trip in Alaska, I remain, Very sincerely yours, Davidson Black. (Black to Hrdlička, May 29, 1930; HP, NAA, SI, 14)

Four years later, on the news of Black's death, Hrdlička wrote to his widow:

My dear Mrs. Black: A cable announces the sad news of your husband. Please accept my sincere condolences, and these are joined in by my colleagues of the Smithsonian Institution.

I saw Doctor Black and had a nice chat with him only a short time ago, on the occasion of the International Congress of Geology, and while a little peaked, he nevertheless seemed to be in good health. The cable, which we must believe is only too true, came to us as a real shock, for we expected so much more from his untiring energy and devotion. We were particularly anxious that the problems of the Peking Man be eventually cleared up by himself, one way or another. His death, we fear, may prove a calamity in this direction. I have never forgotten your great personal kindness to me and hoped often to see you once more in person, but circumstances prevented. My work now lies mainly in the Far North, in Alaska and the Bering Sea, where we are trying to find traces of the ancient migrations from Asia. ... The Doctor perhaps thought that I was a little antagonistic to some of his claims; but that was only because perhaps he was a little over enthusiastic at first in some directions. I had an implicit faith that when sufficient evidence was at hand he would himself set everything right. With the friendliest of wishes and respects, I remain, Sincerely yours, (Hrdlička to Mrs. Adena Black, March 27, 1934; HP, NAA, SI, 14)

The antagonism Hrdlička mentions here, however, was not only to some of Black's claims, it was against the whole existence of *Sinanthropus* and the assumed antiquity of the finds. Hrdlička's "implicit faith that with sufficient evidence he would himself set everything right" clearly expresses his conviction that Black was entirely wrong.

HRDLIČKA'S CONCEPTS ON THE PEOPLING OF ASIA AND EUROPE

Hrdlička had the conviction that the cradle of mankind was in Europe, from where he thought Asia and America were peopled. If Black was assuming early man in Asia,

then this was in direct contrast with Hrdlička's concepts. In an abstract Hrdlička writes:

The Peopling of Asia – The problems of the peopling of Asia involve those of the peopling of most of the rest of the world. They also touch very closely upon the question of Man's evolution as a whole. It is well known that the south east portions of the continent were the home of a series of species of anthropoid apes, and that it is in these regions where the highest pre-human form – the *Pithecanthropus*, has developed. But the rest of Asia and particularly the vast parts north of the Himalayas and extending ranges, have given us as yet no indication of the presence in them of the man of antiquity. Instead of this we see mankind developing from very early stages in western Europe. It is Europe that must be regarded as the cradle of man's development in the main, and it is from Europe that he spread in all directions. The peopling of Asia apparently belongs all to the latest Paleolithic and to the Neolithic periods, and has advanced in several waves from the west. Two such waves, the Australoid and the Negrito are recognizable in the south, and at least two main waves, the paleo- and the meso-Asiatic, may be discerned in the central and northern parts of the continent. Southwestern Asia and especially Asia Minor has a population history of its own connected directly with that of adjacent parts of Europe. From Asia in turn were peopled America and the islands of the Pacific Ocean; and the changing climatic conditions with increasing populations in Asia gave Europe its series of eastern invasions during the Christian era. (HP, NAA, SI, 9, no date)

But why was it not possible for Hrdlička to review his concepts and to accept the finds in China? Why could he not agree with various worldwide clusters of early man, which already had been discussed? On the contrary, during the years he had rejected one by one: In Africa he rejected the Taung find³, in America the remains studied by Florentino Ameghino/Argentina (Hrdlička 1918), those of Cuzco/Peru, La Brea/Calif., and Vero/Fla. (Hrdlička 1919), and even the rather late Folsom finds. And now it looked like he was strictly rejecting *Sinanthropus* in China.

SCIENCE AND BIBLICAL GENESIS

A closer look at the historical background of the first decades of the 20th century reveals that a new interpretation of mankind's roots was taking place. Although science had started to separate from religious ideas since the 16th century, Bible-oriented science was increasing again. One example was the Scopes trial, which was about the question whether to teach evolution or creation. Creation science,

³ After accepting the African remains, these were connected to the (Hrdlička-)concept of Europe-Asia-America-migrations, now known as the "Out-of-Africa" model, which rejects alternative early finds.

however, requires that all mankind descended from Adam, which in turn signifies monoregional origins. This does not mean that today's monoregional approaches are based on religious concepts, but such concepts formed part of education systems for a long time. Hrdlička, however, was no creationist and he mentioned this problem in the AJPA:

Nott and Gliddon published in 1854 a volume on the Type of Mankind, which by 1871 reached the tenth edition and in 1857 was followed by a volume in the Indigenous Races of the Earth, which also had a large circulation ... which exercised considerable influence on the public mind of their time. ... It is to be regretted that these publications, and particularly the Types of Mankind, were strongly attached to the biblical traditions, more than three hundred pages of the later volume being devoted to efforts at harmonizing the results of the rising science with the biblical Genesis. (Hrdlička 1918: 149)

This shows that he was fully aware of the disputes between evolutionists and creationists. After Hrdlička's death, however, in a newspaper clip of Slovak *Katolícký Sokol*, Passaic, New Jersey, of September 8, 1943, he is described as "anti-evolutionist":

The renowned Prof. Aleš Hrdlička died at the age of 74 years, was born in Bohemia and came to America at the age of 13 years. He was a very highly renowned student, whose studies discredited the Darwin theory, that man descended from ape. Hrdlička often wrote us and came at various times to meetings. He was a reader of our papers, and the news of his death saddens us. (HP, NAA, SI, 33)

The influence and presence of religious concepts in science is often neglected, especially in Europe, where attachment to religious concepts decreased in the past century. In Asian countries, however, the presence of missions often was the only contact for foreign visitors. Prior to his trip to China, Hrdlička requested letters of introduction by various missions in China. There is a list among his papers at the NAA with the American headquarters of missions in China:

Episcopalian:

The President, American Board of Commission for Foreign Missions, Congregational House, 14 Beacon Street, Boston, Mass.

Catholic:

The Society for the Propagation of the Faith, 627 Lexington Avenue, New York; N.Y.

Baptist:

The President (Rev. E. C. Morris), National Baptist Convention, Helena, Arkansas

Presbyterian:

Board of Foreign Missions of the Presbyterian Church, 156 5th Avenue, New York, N.Y.

(HP, NAA, SI, 108, no date)

A letter from Dr. Franklin, American Baptist Foreign Mission Society, Boston, dated March 30, 1916, confirms Hrdlička's plans to visit West China and Manchuria, stating that West China would be reached with letters of introduction to the missionaries before Hrdlička's arrival and that information was going to missions in Kiatingfu, Ningyuanfu; Yachowfu, Suifu, Chengtu; Swatow, Shanghai, Nanking, Hangchow and the China Baptist Publication Society, Canton (HP, NAA, SI, 108). It was a most convenient step to visit missionaries, as these not only spoke Chinese, but were also familiar with both the Western and Asian ways of life. Further necessary contacts would then be provided by the missionaries. Missions not only established schools and churches, but also hospitals. For Hrdlička it was important to meet persons who were trained in medicine and anthropology. A side effect, however, was the attitude of the various missions regarding evolution/creation, which from the very beginning also influenced the acceptance of multiregional or monoregional origins. Most religious institutions had and still have varying approaches regarding the interpretation of the Bible; these debates, however, also had impacts on Asia, which had experienced several waves of Western religion since the 16th century. Creationist approaches, therefore, made it difficult to discuss multiregional origins. Given the case that a more bible-oriented understanding of mankind's origins increased in the early 20th century, the question remains to what extent Hrdlička, who was not at all bible-oriented, was able to forward his own ideas and whether these could be accepted in spite of the revival of religious concepts.

EARLY MAN IN AMERICA?

At first Hrdlička had a very enthusiastic reaction to Florentino Ameghino of the Museo Nacional de Buenos Aires, who was of the opinion that mankind had developed in America. One does not have to agree with an American origin of mankind, Ameghino's approach, however, shows that there had been alternatives to the idea of a very late peopling of the Americas.

Dear Professor Ameghino, kindly accept my best thanks for your work on the "Diprothomo Platensis". I should have made the acknowledgement earlier, but the Division in my charge, with all its collections, was being moved from the old to the new Museum and that stopped all other work.

The subject to which you have paid so much attention interests me more and more, and I should like to ask you to favour me, if possible, with your earlier publications on the early man and his predecessors in South America. Perhaps I shall some day come to see the specimens themselves, but meanwhile I should like to read everything about them, particularly from your pen, that has been written. I take the pleasure to send you, under another cover, my most recent publication on the crania and bones of some

of our Indians. Yours very truly, (Hrdlička to Ameghino, Nov. 30, 1909; HP, NAA, SI, 6)

Three weeks later, Hrdlička still writes in a positive way, but he is expressing doubts:

Dear Professor Ameghino: Since I wrote to you a short time ago, I find that one of your most important works lacking in my library is the publication on the *Tetraprothomo*. I have also learned from Professor Schwalbe that you have casts of the specimens described in that publication. I should therefore add to my request in previous letter that for the above named paper and I beg you furthermore to furnish our Laboratory, if possible, with a copy of whatever casts you have of the *Tetraprothomo* as well as other specimens of ancient man in South America. The whole subject of geologically ancient man in South America has become of such interest that I am beginning to think seriously of coming one day to see all these precious specimens and also to satisfy myself on some points which the publications that I have been able to consult, left in doubt. I should be thankful to you for any information as to whether, in case of my coming, I should be able to see the different specimens, particularly those in your possession; and also as to what part of the year would be the most suitable for the coming to Argentina and visiting at least some of the localities from which remains of ancient man have been recovered. Respectfully yours, (Hrdlička to Ameghino, December 23, 1909; HP, NAA, SI, 6)

Hrdlička's doubts might have been caused by G. Schwalbe, Anatomisches Institut, Strassburg:

Lieber Herr College! Meinen herzlichsten Dank für Ihren liebenswürdigen Brief. Inzwischen sind Ameghinos Arbeiten über *Tetraprothomo* und *Diprothomo* in der kritiklosesten Weise von Buschan in der "Umschau 1909 No. 46, 13. November" als bare Münze veröffentlicht worden. Ich sehe mich genötigt, der sonst so guten Umschau eine Berichtigung zu senden, die ich aber wohl erst, aus Mangel an Zeit, in den Weihnachtsferien werde schreiben können. (Schwalbe to Hrdlička, December 3, 1909; HP, NAA, SI, 107)⁴

Was this a reason that Hrdlička later rejected to see Ameghino's finds in Argentina? On May 18, 1910 Hrdlička writes from Argentina to William H. Holmes, Smithsonian Institution:

⁴ Dear Colleague: My cordial thanks for your kind letter. Now Ameghino's work on *Tetraprothomo* und *Diprothomo* have been published in the most uncritical way as facts by Buschan in the "Umschau 1909 No. 46, November 13". I feel obliged to send a correction to the otherwise good Umschau, which, however, due to lack of time, I will only be able to write during the Christmas vacations.

Ameghino even went so far as to offer to go with us to some of the places, and to ask me to examine and report for him his last human finds – which however I thought best not to undertake. (HP, NAA, SI, 107)

This signifies that Hrdlička came to his conclusions without having seen the finds. Hrdlička's first positive reaction turned into a complete denial and rejection of Ameghino's work. Ameghino died in 1911. In 1912 Hrdlička published *Early Man in South America* (Hrdlička 1912) and in 1917 the discussion of an American origin of the First Americans was commented by Hrdlička as follows:

(a) Can the Indian possibly be regarded as a true autochthon of America? In other words, could he have evolved from lower forms on this continent? There have been those (and they included even such men of science as Morton and, more recently, Ameghino) who were inclined to adopt or who actually proclaimed this view. But in the present state of our knowledge it is easy enough to dispose of this hypothesis. The anthropologist of today knows definitely that man evolved from lower primates: there is abundant material evidence to that effect, regardless of other considerations. These primates must naturally have approached man in all important respects, a condition that could be realized only by advanced anthropoid apes; but no such forms have ever existed in any part of America. (Hrdlička 1917: 562)

The idea of early man in the Americas not only contradicted the concept of European origin of mankind, but also the biblical tradition that mankind developed from Adam. It is interesting that discussions in the scientific community on the early existence of mankind in America stopped at a time when the debates about creation were at their peak.

Although Hrdlička's concepts about the evolution of primates were in accordance with the science of his times, today, however, the separation between the common ancestors of man and "lower primates" is considered to have happened millions of years ago. "For the order Primates, molecular data calibrated with various external fossil dates uniformly suggest a mid-Cretaceous divergence from other placental mammals, some 90 million years ago" (Tavaré *et al.* 2002). Another important aspect is the role of continental drift in the evolution of early mammals. Although in this context details and dates still are in the process of investigation, it is, however, obvious that the existence (or non-existence) of "advanced anthropoid apes" as Hrdlička demanded, should not be used as a requirement for the evolution of higher primates or even man on any given continent, as the time scales for the evolution of mammals in general have changed considerably since Hrdlička's times.

After the 19th International Congress of Americanists, which took place in Washington in December 1915, with

Hrdlička as Secretary General, his influence and role in questions regarding the peopling of the Americas had been constantly growing. Most of the material which was found in the United States of America, but also in other countries of the American continent, was brought to him for investigation. Hrdlička, however, placed the beginning of the peopling of the Americas at a very late date. Even today there is a "time-limit" of approx. 15,000 years, and an earlier presence of man in the Americas is only reluctantly accepted, as it is limited to the assumed accessibility of the Bering Strait region, a route, however, which developed from Acosta's fictitious concepts (Gemegah 1999: 249 ff.). The question of possible autochthonous origins of the First Americans belongs to one of the strongest taboos in science and many finds have been rejected because they contradict the old, familiar image of a late entry from Asia. Similar debates are ongoing concerning the peopling of Asia and the antiquity of its inhabitants. These discrepancies have their roots in the past, when with the Chinese-Western science transfer the contemporaneous concepts and religious ideas were again introduced into China, like in the centuries before.

CONCLUSIONS

Hrdlička's idea of an Asian origin of the First Americans was based on the century-old tradition to follow Acosta's concept, which originated in Spanish religious and political strategies. Some of Hrdlička's methods to verify Acosta's ideas were focussed on linguistic and osteological comparisons. Most of these lacked empirical validity. It has to be considered, however, that Hrdlička had no choice, as such comparisons belonged to a commonly accepted procedure.

The reception of Aleš Hrdlička's concepts shows that his role within the American-Chinese science transfer was an important one. Through his American Journal of Physical Anthropology he brought new scientific knowledge to China and Asia and he also enabled readers in America and Europe to have insights into Chinese archaeology, history and society. The most important influence on Asian science, however, came through his concepts on the peopling of Asia and America. The current discussions about the antiquity of man in Asia and the subsequent denial of possible multiregional origins are also a result of Hrdlička's impact.

International scientific and cultural transfers are channels which are open to many aspects. Hu Shih's and Hrdlička's examples only show a part of the diversity of ideas and concepts which were exchanged between the countries. It is, however, necessary to re-examine from time to time the results of science transfers, as science is a changing process.

With regard to Aleš Hrdlička's personal scientific convictions, doubts remain whether he possibly had a more open approach to multiregional origins than he expressed in his later writings. The still on-going debates about mono-

or multiregional origins show that Hrdlička not only belonged, like Hu Shih in his respective discipline, to one of the architects of early modern studies of anthropology and society in China, but also to one of the most influential scientists regarding questions on the peopling of the world.

REFERENCES

- ACOSTA J. de, 1589: *De natura novi orbis libri 2 [Historia Natural y Moral de las Indias. Lat.] et De promulgatione Evangelii apud barbaros sive de procuranda Indorum salute libri 6*. Foquel, Salamanca. 640 pp.
- FIEDEL S. F., 1992: *Prehistory of the Americas – The Development of American Archaeology: a Brief Review*. Cambridge University Press, 2nd Edition, Cambridge. 400 pp.
- GEMEGAH H., 1999: *Die Theorie des spanischen Jesuiten José de Acosta (ca. 1540–1600) über den Ursprung der indianischen Völker aus Asien*. Dissertation (English Summary), Peter Lang, Frankfurt. 254 pp.
- GEMEGAH H., May 2nd, 2003: *Alexander von Humboldt und spanische politische Geographie?* (Oral presentation) Humboldt-Zentrum, Berlin.
- HOPKINS D. M., 1967: Introduction, In: D. M. Hopkins (Ed.): *The Bering Land Bridge*. Based on a Symposium Held at the VIIIth Congress of the International Association for Quaternary Research, Boulder, Colorado, August 30 – September 5, 1965, Stanford University Press, Stanford: 1–6.
- HRDLIČKA A., 1912: *Early Man in South America*. Washington Government Printing Office, Washington. 405 pp.
- HRDLIČKA A., 1917: The Genesis of the American Indian. In: F. W. Hodge (Ed.): *Proceedings of the Nineteenth International Congress of Americanists*. Pp. 559–568. Held at Washington, Dec. 27–31, 1915, Washington.
- HRDLIČKA A., 1918: Physical anthropology: Its scope and aims; its history and present status in America. *Amer. J. of Phys. Anthropol.* I, 2: 133–182.
- HRDLIČKA A., 1919: Announcement: Recent discoveries attributed to Early Man in America. By Hrdlička (Aleš) – *Bull.* 60, *Bur. Amer. Ethnol.*, 1918, 67 ff., 14 pl., 8 figs. *Amer. J. of Phys. Anthropol.* II, 3: 339–339.
- HRDLIČKA A., 1935: *Melanesians and Australians and the Peopling of America*. Smithsonian Miscellaneous Collections, 94, 11, Washington, DC. 58 pp.
- HUMBOLDT A. von, 1806: Ueber die Urvölker von Amerika, und die Denkmähler welche von ihnen übrig geblieben sind. (Lecture presented at Philomathische Gesellschaft Berlin). *Neue Berlinische Monatsschrift* 15: 177–208.
- LAHR M. M., 1995: Patterns of modern human diversification: Implications for Amerindian origins. *Yearbook of Physical Anthropology* 38: 163–198.
- MONTGOMERY L. G., GLENN J. R., (Eds.) 1996: *Register to the Papers of Aleš Hrdlička, Finding Aids to the National Anthropological Archives*. National Anthropological Archives, Smithsonian Institution, Washington, D.C. 79 pp.
- SHAPIRO H. L., 1976: *Das Geheimnis de Pekingmenschen*. Umschau Verlag, Frankfurt. 233 pp.
- SPATZ H., 1990: *Frühe Erzählungen von Chen Hengzhe, der ersten Baihua-Autorin Chinas*. (M.A. thesis in Sinology, Hamburg). 101 pp.
- SPENCER F., 1979: *Aleš Hrdlička, M.D., 1869–1943: A Chronicle of the Life and Work of an American Physical Anthropologist*

- (Vols. I and II). Dissertation, University of Michigan, Bell & Howell, Ann Arbor. 872 pp.
- STUMPFELDT H., 2003: Sumerian and Chinese writings [Personal communication].
- TAVARE S., MARSHALL C. R., WILL O., SOLLGO C., MARTIN R. D., 2002: Using the fossil record to estimate the age of the last common ancestor of extant primates. *Nature* 416: 726–729.
- WILLIAMS E. T., 1918: The origins of the Chinese. *Amer. J. of Phys. Anthropol.* I, 2: 183–211.
- ARCHIVES:
The Papers of Aleš Hrdlička, National Anthropological Archives, Smithsonian Institution, Washington, D.C. (Abbreviation in text: HP NAA SI, Box No.)

Helga Gemegah
Hamburg, Germany
E-mail: H.Gemegah@gmx.de