Inaugural Address, Congress of Primatology, Florence

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Ladies and Gentlemen,
Dear Colleagues,

I have the privilege to open the VIII International Congress of Primatology in Florence, the famous town of Arts and Sciences, with a short scientific address. You will not find me on the program. I have taken the place of Prof. Tobias, who unfortunately fell ill and was not able to come, and it is only since yesterday that I knew that I had to speak today. I had expected the Congress to be opened by a special performance of the Florence City Ballet: “Four chromosomes on a lazy afternoon in September,” but instead you have to listen to me. But this is a pleasure and an honor for me.

I was born before the discovery of Heidelberg Man, and by a number of fortunate circumstances I could follow intimately the whole history of subsequent discoveries. My best friend was the youngest son of the anthropologist Rudolf Martin, and already as a schoolboy my interests were influenced by our science. Fifteen years old, I visited with a friend the sand pit of Mauer near Heidelberg, where Heidelberg Man had been discovered not yet 10 years before, hoping to make a similar discovery. I naturally failed, but a kind workman presented me with a lower molar of a fossil Rhinoceros that he just had found. This very personal contact with a fossil Rhino, the schoolboy’s feeling of having a Rhino in his pocket, gave me my enthusiasm for fossil mammals, and this fascination still is unchanged.

So I followed the birth of Primatology as a special branch on the tree of science after the war. I attended the first congress in Frankfurt, and subsequent congresses in Zurich and Portland. Every time a new side-branch was added, and now, here in Florence, there are so many that a lot of “satellite symposia” became necessary to deal with the flood of lectures and information. Mainly interested in the Evolution of Man, I want to thank Professor Chiarelli not only for the organization of such a special symposium before the congress, but also congratulate him as founder and editor of the “Journal of Human Evolution”, now in its ninth year, with its main office here in Florence.

For this opening address I have chosen a subject from my own field of research, which adds a romantic touch to the bones and skulls, and at the same time is of highly important scientific value: the inside story of the discovery of Peking Man.

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The story begins in a Chinese drugstore in Peking. The most typical animal in Chinese art is the dragon, a mythical animal with supernatural power, ruler of the East. That it really existed is evident from the fossil bones and teeth found in many places in China. It is adorned with the antlers of a Miocene deer, Cervocervus, not rare in Central China. The remains of such mighty dragons must also be very powerful, and so dragon bones (lung ku) and dragon teeth (lung tse) had been introduced into Chinese medicine. Documents go back to the T'ang and Sun Dynasties, but their use might go back to prehistoric times. This medicine excavated from bone beds or caves and rock fissures, can be found also in practically every Chinese drugstore outside of China: Indonesia, Malaya, Philippines, Thailand and even in America. Just a few years ago, during the last Pan-Pacific Congress in Vancouver, we found typical Chinese drugstores not as independent shops, but in a far corner in the basement of modern department stores, complete with dragon teeth and other fossils.

As the dragon bones are less expensive than the teeth, skulls are broken into pieces and even the teeth were damaged to show the calcite crystals in the pulp cavity, as a sign that they are of good quality. They are sold in small quantities, ground and swallowed with some alcohol. They are sold according to weight and very expensive as is every medicine which is supposed to keep elderly gentlemen young.

Already in 1870 some teeth from the drug market in Shanghai reached the British Museum, but it was not before 1900, when during the “Boxer War” German troops marched into Peking, that a larger collection of dragon teeth was assembled. The collection was made by Dr. Haberer, a pupil of the famous German paleontologist von Zittel, for the Museum of Munich, and described by Max Schlosser in 1903. This, at the same time, was the first contribution toward the fossil mammalian fauna of China. Most animals were of Miocene age — typical guide fossil Hipparion, a three toed horse, of which the teeth are abundant. I myself have seen close to 50,000 Hipparion teeth in drugstores. The most important specimen in the Haberer collection was a very worn upper molar of human type, perhaps of a Miocene hominid! This tooth came from a drugstore in Peking, and it is that little tooth that touched off the search of Early Man in the surroundings of Peking.

In the 20s, the Swedish geologist and archaeologist Gunnar Anderson tried to find suitable sites for the discovery of remains of Early Man near Peking. With the help of Chinese colleagues he discovered Chou Kou Tien at the edge of the Western Hills, and the first excavations were made by Zdansky. Of human remains he only found two isolated teeth, unpacking his material in Uppsala. But later Davidson Black, anatomist of the Peking Union Medical College took over, and the Rockefeller Institution gave the money for large-scale excavations. On 16 October 1927, Dr. Birger Bohlin found a fine lower molar; he directly went to Peking to hand the tooth over to Dr. Black. He recognized the importance of that find — the tooth was different from all human teeth described till then — and he made it the type-specimen of his “Sinanthropus pekinensis”. Many colleagues would not believe that from a single tooth such conclusions could be drawn, but later in 1928, when Dr. Pei found the first skulls at Chou Kou Tien, it was evident that Black had been right.

Peking Man was a typical primitive hominid, with a flattened skull and a strong supraorbital ridge, formed like a ledge above the eyes. He was not only anatomically a man, but also a tool maker and had known the use of fire. He was a great hunter