MEDICINA NEI SECOLI ARTE E SCIENZA, 27/2 (2015) 629-652

Journal of History of Medicine

Articoli/Articles

"PRE-COLUMBIAN MOULAGES" HUACOS, MUMMIES, AND PHOTOGRAPHS IN THE INTERNATIONAL CONTROVERSY OVER PRECOLUMBIAN DISEASES, 1894-1910

MÁXIMO FARRO AND IRINA PODGORNY Archivo Histórico del Museo de La Plata, Conicet, Argentina

SUMMARY

"PRE-COLUMBIAN MOULAGES". HUACOS, MUMMIES AND PHOTOGRAPHS IN THE CONTROVERSY OVER PRECOLUMBIAN DISEASES, 1894-1910

By the late nineteenth century an international controversy arose referred to the probable existence of certain diseases such as leprosy, syphilis and lupus in pre-Columbian America. Led by the American physician Albert Sidney Ashmead (1850-1911), it brought together scholars from Europe and the Americas. In this context, certain types of Peruvian archaeological pottery and "mummies", along with series of photographs illustrating the effects of these diseases in contemporary patients, met a prominent role as comparative evidence. In this article we analyze how this type of collections were used as evidence in the debates about pathologies of the past, an issue that from a historical standpoint have received considerably little attention.

> How much greater must the difficulty be to determine the identity of one of these diseases whose representation is carved on the face of a small clay image by an artist who was not a medical man? Ashmead, 1895: 242.

Key words: Paleopathology - Albert S. Ashmead - Huacos pottery - Mummies

Introduction

In the main historical reconstructions on the development of paleopathology and bioarchaeology, since ancient times to the present¹, almost without exception the attention has been placed on skeletal remains collections in major museums and medical institutions, understood as the basis for various current areas of research. More recently, historians devoted to the study of plaster and wax models, in particular in connection with dermal pathologies and sexual diseases². Other objects that served or were used as evidence by physicians and pathologists alike remain, however, elusive to historical analysis due to the current disciplinary borders. Although the pathological study of mummies had deserved many monographs by historians and practitioners of pathology alike³, today it is almost forgotten that archaeological pottery from Latin America were used to discuss the history and geographical expansion of diseases such as leprosy and lupus. Little is known about how iconographic series and pre-Columbian pottery were understood as portrayals of pathological conditions, in a very similar way pathologists had started using wax models for stabilizing the external representation of venereal diseases. As we will argue in this article, these materials not only provide evidence of the permeability among disciplinary fields -in particular archaeology, pathology, anthropology- but also of how the natural history museum collections created an institutional space that brought together objects, physicians and archaeologists. In this paper we summarily shown the role played by archaeological pottery and records of early Latin American history in the internation-

al discussions towards 1900 about the diseases existing among indigenous societies of the Americas before the arrival of the Europeans.

Precolumbian Leprosy?

In 1886 Manuel Antonio Muñiz (1861-1897), a physician from the Peruvian Faculty of Medicine-Universidad Nacional Mayor de San Marcos, founding member of its students' scientific society named "Unión Fernandina," published an article in La Crónica Médica, Lima, on the existence of leprosy in pre Columbian times⁴. To prove it, he used textual evidence from the work Historical Discourse of the Foundation and Rights of the Hospital San Lazaro, Lima, by Bravo de Lagunas, published in 1761, and the testimony of Ricardo Parra, a Colombian physician who suffered from the effects of the disease, who claimed that the first notable Spaniard who caught leprosy was Gonzalo Jiménez de Quesada (1509-1579), one of the conquerors, through contagion stating that the disease must had been in America before the Conquest. As a Surgeon-General of the Army of Peru, Muñiz traveled extensively into the different regions of the country, amassing large collections, stored in his own home next to his library. They contained weapons, domestic utensils, articles of adornment, pottery, and a thousand crania, several of them showing traces of trephination. In 1893 he had presented his collections to the International Congress of Anthropology held in Chicago during the World's Columbian Exposition and attended also the Pan American Medical Congress at Washington. His skull collections were also discussed before the Anthropological Society of Washington, the Archaeological Association of Philadelphia, the Medical Society of the District of Columbia, and the Historical Club of Johns Hopkins Hospital⁵. In 1895 he published an article on the existence of leprosy on pre-Columbian times inferred from the lesions represented in his collection from Chira valley of anthropomorphic "huacos," i.e. delicate clay vessels very finely worked, related with ancient ceremonial practices, usually found in burial grounds, temples and ruins all along the central Andes and in the coastal region. If Muñiz were right, his assertions would prove either an independent origin of leprosy in the Americas, or contacts among this continent with the other possible centers of origin.

With a long, documented history and a probable, contested origin in Asia or Africa⁶ leprosy, a chronic infectious disease of humans caused by the bacillium *Mycobacterium leprae*, had been first identified in 1873 by Gerhard Armauer Hansen (1841-1912) of Bergen, in charge since 1875 of Norway's Leprosy Officer where he developed an effective control policy of the disease based on segregation⁷. The disease, as it is well known, affected mostly the skin, nasal tissues (septal perforation, erosion or destruction of the nasal bone, nasal spine and even the central maxilla, with palatal perforation and the consequent destruction of upper central teeth), peripheral nerves and mainly the small bones of the hand and feet and, to a much lesser extent, the long bones of extremities⁸. Thus, physicians had learnt to pay attention and record the occurrence of destroyed noses, lips, hands and feet in the living but also in the pathological collections of medical museums. Moreover, some studies started examining works of art in order to find out the hints of diseases in the past. Among others, German pathologist Rudolf Virchow (1821-1902) in 1861 saw leprosy traces in a painting of St. Elizabeth of Hungary by Hans Holbein the Elder (1460-1525 A.D)9. The works by Jean-Martin Charcot (1825-1893) and his students Paul Richer (1849-1933) and Henry Meige (1866-1940), on artistic representations of the ill, the possessed and the deformed, expanded in new directions the study of images, as represented by the Iconographie photographique de la Salpêtrière (1876-1880)¹⁰.

Almost simultaneously with the appearance of Muñiz article on the huacos that probably showed the effects of leprosy, Albert Sydney Ashmead (1850-1911), a physician and leprologist born in Philadelphia, began publishing on the same subject. Ashmead had received his M.D. from the University of Pennsylvania in 1869, taking there the auxiliary medical course as well as a post graduate course at Jefferson Medical College. In 1873, he was called to Washington to attend Prince Adzumo, brother of the Emperor of Japan. Ashmead was subsequently appointed Foreign Medical Director of the Tokyo Fu Hospital and also taught the first class of students at the medical school of the Tokyo Charity Hospital returning to the United States in 1876. This sojourn in Japan seems to had been a crucial step in his career to construct his image as an international authority on leprosy by asserting he had the opportunity to study on the spot, in one of the alleged disease's irradiation centers¹¹. In 1882, Ashmead moved to New York City to pursue his primary medical interest, the study of leprosy, to which he will be devoted to his dead in 1911¹². Probably, this interest and the zealous activities developed by Ashmead in those years in order to prove the idea of the non existence of leprosy in pre-Columbian America was based on the veiled objective to establish a hard control policy over the emigrants to the United States from Norway, Japan, China and Hawaii, countries in which the disease was rampant¹³. If leprosy was not autochthonous of the Americas and if it was transmitted by direct contact and not by heredity, then it was brought by immigrants: Ashmead was the driving force behind the proposition of an anti-leprosy *cordon sanitaire* through the Platt Leper Bill which came before the U.S. Senate in 1902¹⁴.

In 1895 Ashmead contacted Muñiz through Richard Neal, of the US Legation in Lima, asking for more accurate data and information to prove the alleged existence of leprosy in pre-Columbian Peru. Ashmead requested the following information: "1. Title and date of the publication of "Historical Discourse, etc", of Bravo de Lagunas?; 2. Date and place of the Peruvian physician who describes so graphically the torments of leprosy, and title of the work?; 3. Date of the "Recopilation des Indias"; 4. Title of Ulloa's work?; 5. Gonzalo Jimenez de Quesada?; 6. Old Colombia?; 7. Is there authority for the non-existence of the disease on the highlands of Peru (Incas and Aymaras)?; 8. Leprosy in the Incas?; 9. Works about early appearance of leprosy in Old Colombia?; 10. Date of the first introduction of African Negroes into Peru?; 11. Was leprosy before the Conquest¹⁵?" This was the starting point of a feverish correspondence through a network of researchers, physicians, museum curators, diplomats and

librarians in Europe and the Americas to whom Ashmead requested further data and photographs. Ashmead thought the question was of the greatest importance, for "if leprosy existed in America before Columbus, there surely must have been a connection between Asia and America. In no other way could leprosy have been propagated here, except by a migration of human beings¹⁶".

Thus, on 26 May 1895 Ashmead wrote to Rudolf Virchow asking his opinion about the existence on leprosy in pre-Columbian times and, as Muñiz stated in his paper, if there was any evidence on the pottery collections known to him showing marks that could represent the effects of leprosy¹⁷. Virchow answered tentatively stating that in principle these marks representing injuries could be due to both leprosy or syphilis, calling on scholars to attend Ashmead's concerns by inspecting the collections of pre-Columbian ceramics in scientific societies and museums, initiating thus a lively controversy in the international community that lasted until the early 1900s.

Museums, photographs, and the evidence of Pre-Columbian leprosy

During those years Ashmead reviewed the archaeological collections of the most important museums in the United States, France, and Germany, personally or through written letters asking for information and looking for objects that showed different pathologies in pre-Columbian populations. Curators and scholars sent to him in return excerpts from books and visual materials such as photographs and drawings. Many of them were physicians, trained in the observation of traces of diseases in living patients and moulages, skills he certainly used to study the anthropomorphic clay vessels.

Ashmead studied the museums' collections trying to solve whether the deformities shown in the "huacos" and mummies were of pathologic nature, and if so to which pathology or disease would it be attributed. The question of leprosy in the Americas as studied by Ashmead and others, connected collections from all over the world

"Pre – Columbian Moulages"

and turned archaeological, anthropological, and historical objects and documents into the evidence of the manifestation or visual symptoms of ancient diseases. Ashmead, thus, went to Philadelphia, invited by Dr. Daniel G. Brinton (1837-1899), to examine the antiquities in the University of Pennsylvania Museum of Archaeology and Anthropology. Founded in 1887, it included the collections of pottery and mummies mounted by Samuel Mathewson Scott in Chira Valley, Peru, the collections the Norwegian traveler Carl Lumholtz made in Chihuahua, México, and series of loose bones, mainly hands and feet, from Arizona, the mounds of Ohio, Sonora and Cave Valley that Ashmead studied carefully (Fig. 1). For the purpose of comparison with mummies' hands and feet - the most diagnostic elements of the disease - , Dr. Hansen sent him photographs of a leper's right hand in two attitudes. They were taken at Dr. Kaurin's collection of leprous preparations at Reknas Leper Hospital, in Molde, Norway (Fig. 2a



Fig. 1. Bandelier's huacos collection from Chan Chan and Champeco, Peru. American Museum of Natural History. Source: ASHMEAD, A. S., *Pre-Columbian Leprosy*. Journal of the American Medical Association 1895; 24: p. 851

Máximo Farro And Irina Podgorny

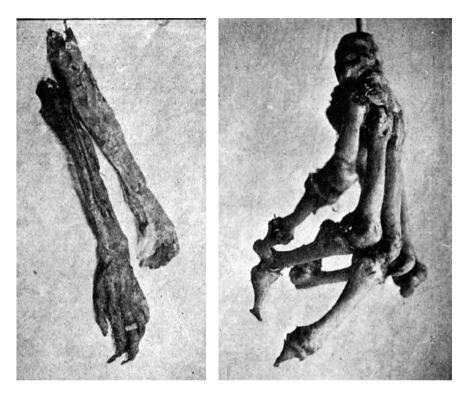


Fig. 2 a. Hands and forearm of a Peruvian mummy, Museum of Archaeology, University of Pennsylvania. Source: ASHMEAD, A. S., *Pre-Columbian Leprosy*. Journal of the American Medical Association 1895; 24: p. 624

Fig. 2 b. Photograph of a right hand with *Lepra Anesthetica*, from Dr. Kaurin's collection of leprous preparations at Reknas Leper Hospital, Molde, Norway, sent to Ashmead by Dr. Armauer Hansen for comparison with bones of Peruvian mummies. Source: ASHMEAD, A. S., *Pre-Columbian Leprosy*. Journal of the American Medical Association 1895; 24: p. 623

2b). It belonged to an anesthetic leper and, as Hansen pointed out in a letter to Ashmead "you can see the ossa metacarpi, especially the first and the fourth, atrophied, and also the distal phalanges; the curvatures of the fingers are to be seen too" ¹⁸. Also George A. Dorsey (1868-1931), an anthropologist disciple of Frederick W. Putnam (1839-1915) that traveled extensively in Peru, Ecuador, Chile and

Bolivia during the early 1890s, and assistant curator of Anthropology at the Field Columbian Museum, Chicago¹⁹, sent to Ashmead photographs of a mummy of Ancon, which he unwrapped and whose hands showed at first sight the melting of the bones very similar to leprosy,

I remember that you wrote me when I was in Cambridge enquiring as to whether I had any skeletons in which the phalanges presented a "fused" condition. I am glad to be able to report to you that in an "Ancon" mummy, which I recently unwrapped, this condition prevails to a very marked degree: the similarity of the conditions and that of the photograph which you then sent me, is very great²⁰

Even when on close investigation it proved to be not leprosy at all, this allows us to show that - as we have noted elsewhere - photographs, were both vehicles for communication of data for comparison and relational objects enmeshed in scientific collaboration networks. They played an active role within the international community of scholars engaged in physical anthropology, serving as evidence and stimulating lively debates²¹. Or as Scott Curtis put it for medicine, "the training in observational methods that physicians underwent careful attention, accurate description, and correlation across cases found in photography an amiable partner"²². As Curtis said, with the rise of photography and other representational technologies - such as the moulage or the wax models which, as photography, also provided rich texture and detailed images -, these methods could be applied to a "working object", in our case, leprosy. Curtis goes farther: with photography, one could create with relative ease a series of images. All these reasons, namely the combination of repeatability and detail, made photography one of the privileged mode of representation for nineteenth century medicine. As our case shows, photographs were also portable and could travel with the easiness of paper. Late in the 1890s, clinical photographs have been widely adopted to

Late in the 1890s, clinical photographs have been widely adopted to analyze morbid or pathological cases. But, as a medium, they were competing with other techniques also used in the controversy over pre-Columbian leprosy: namely with the series of anatomical preparations by the injection of preservation chemical compounds²³ and moulages²⁴. If, as Thomas Schnalke says, "moulages were pictures of disease in wax²⁵" that consolidated around 1880, then the huacos or Peruvian pottery took on the role of the moulages and were used as such: as the moulages, they were realistic, in colour, and some of them, life-size. This confronts us not only with the combination of different techniques for the medialization and stabilization of disease, but also to the expansion to the past to the techniques of the late nineteenth century.

Thus, Asmead, in the clay vessels or "huacos" series saw the representation of cartilaginous part of the nose and the upper lip as if it was neatly removed by pre-Columbian physicians using a knife, supposedly in order to stop a disease effects, showing then the septum and nasal bones and the soft tissues covering those remaining, and also the teeth. For him, some pieces showed a partial loss of the nose and upper lip partly cut off but, unlike in the common etiology of leprosy, in all the figures the hands were in perfect condition (Fig. 3). Adolf Bastian (1826-1905) and Wilhelm von den Steinen (1859-1934), of



Fig. 3. Huaco showing an alleged upper lip surgery, with the hands in perfect condition. Museo de La Plata, Martin García Merou's Peruvian huacos collection. Source: GAR-CÍA MEROU M., *Mis huacos*. Buenos Aires, author's edition, 1893.

the Royal Berlin Museum, sent to Ashmead photographs of a "huaco" from Chimbote, representing a head, in which the tip of the nose and the upper lip were destroyed, the cheeks "flown out" and furrowed with what could be interpreted as wrinkles or scars (Fig. 4). Ashmead forwarded these images to Hansen, whom replied: "that it did not present signs of leprosy. There are not tubercules on it and no phenomenon of anesthesia²⁶".

In the American Museum of Natural History, New York, Ashmead studied the collections Adolph Bandelier (1840-



Fig. 4. Drawing taken from a photograph sent to Ashmead by Adolf Bastian. Source: ASHMEAD A. S., *Testimony of the Huacos (Mummy-Grave) Potteries of Old Peru.* Proceedings of the American Philosophical Society 1903; 42 (174): p. 385.

1914), archaeologist and disciple of Lewis Henry Morgan, had made since 1892 during his trips to Ecuador, Bolivia and Peru supported by the railroad magnate Henry Villard and the *Century Magazine*. There, an object caught his attention: a Peruvian "huaco" that seemed to represent a human amputated foot (Fig. 5), the alleged disease showed by the toes of the clay figure being elevated from the ground, as if the sole of the foot was greatly swollen, with the bone protruding and the flesh cut away, just as would appear on a foot that had been amputated, for the flesh flaps must be thus provided to cover the stump of the leg. As in the case of mummies' hands, for comparative purposes Ashmead used a photograph showing a mutilated foot of a leper with only two toes remaining, printed side by side with that of the supposed amputated foot. The first belonged to



Fig. 5. Huaco pottery showing an alleged amputated foot, Bandelier's collection, American Museum of Natural History. Source: ASHMEAD A. S., *Pre-Columbian Leprosy*. Journal of the American Medical Association 1895; 24: 806

the photographs collection of leprous deformations amassed by the American dermatologist and syphilologist Prince A. Morrow (1846-1913) at the University Bellevue Hospital Medical College, and was taken to a leper in Molokai, Sandwich Island (Fig. 6). The main difference between these images was that in the Peruvian pottery the presence of every toe could be easily observed, while the leper foot showed but two toes remaining. Then, the lack of mutilation and amputation meant for Ashmead that it was not leprosy, which the potter wanted to represent. In this regard, Bandelier also thought that the figures represented without feet ought to be considered as amputated, so they were not relevant to the question

of leprosy. But the causes and origin of these amputations did not seem to be fully explained, so it was reinvigorated in the debate by discussing the textual evidence.

Beggars, punished criminal and the textual evidence

Juan de Dios Carrasquilla Lema (1833-1908), a Colombian physician, asserted that the mutilations observed in pottery vessels represented not leprosy or other infectious diseases, but the artificial punishments inflicted to criminals and beggars in pre-Columbian America. He presented as evidence brief passages from two books, *Los Chibchas*

"Pre – Columbian Moulages"



Fig. 6. Mutilated foot of leper, two toes remaining, from Dr. Morrow's collection of photographs of leprous deformations. Source: ASHMEAD A. S., *Pre-Columbian Leprosy*. Journal of the American Medical Association 1895; 24: 806

antes de la conquista española (1895) by Vicente Restrepo and *La Historia de Yucatán* (1889), by Eligio Ancona, referred to mutilations and corporal punishments. These arguments were also supported in Germany by Bastian and Ernst Middendorf (1830-1908). The fiercest opponent to these ideas, mainly due to the weakness of the evidence, was the botanist Helmut Polakowsky (1847-1917)²⁷ who had also published an article in the journal *Deutsch Medizinische Wochenschrift*, a devastating critique of the serum method for the treatment of leprosy devised by Carrasquilla and supported by the government that had deleterious effects on the patients²⁸. Over the course of sessions taken at the *Berliner Gesellschaft für Anthropologie, Ehtnologie und Urgeschichte*, Polakowsky²⁹, along with von den Steinen, Eduard Seler (1849-1922) and Alphons Stübel (1835-1904) collated the "old

literature" on South America, such as the works of Cieza de León and Garcilaso de la Vega not finding any reference or mention to such kinds of punishments. Moreover, the Spanish americanist Marcos Jiménez de la Espada (1831-1898) gave the question a new turn: albeit he did not believe that leprosy had been of pre-Spanish origin in Peru; there were no documentary proofs known to him which supported such an opinion. Also, he was not in accord with the aforementioned opinion of Carrasquilla, Bastian and Middendorf, claiming that they did not apply mutilations of the body as punishment, unless death was intended to follow them, and that there were no beggars among the Incans, due to their so perfect social order. According to his judgment, these vessels represented a disease special to Peru, a certain endemic variety of tuberculosis known as "llaga "or" huttauta". These different points of view became too blatant in the course of the First International Leprosy Conference, met in Berlin in 1897. There, Ashmead, as one of the most active promoters of the meeting along with Hansen, presented a paper with three photographs of huacos and skulls, in which he asserted:

there is no evidence of any bone that I have examined in America of any such thing as pre-Columbian leprosy; not a pharynx of a mummy shows a melting of bone, not a hand shows mutilation; no tuberculation of the tissues of the face, not a nose dropped in, nor can we find evidence of the importation of East Asiatic customs. Outside of the evidence on pre-Columbian potteries, deformations of faces, never of fingers and toes, is there the slightest evidence of the pre-Columbian leprosy [...] Whatever disease is represented in these faces must have been very frequently accompanied by some disease of the feet requiring amputation; and not of one foot, but of both. [...] In many of these faces, the nose has been eaten away, that is the cartilaginous part of it. In no instance does this eating away of the nose show any resemblance to the eating away of the nose by leprosy. The bones are never represented melted away, but are always present, only the soft part is gone. In many of these figures there is also a partial or total loss of upper lip, that is, the lip is eaten away, not drawn away by any cicatrization, as would be the case in

"Pre – Columbian Moulages"

leprosy. On one of these figures we see a drawing-back of the head; this is accompanied by loss of nose and partial loss of upper lip. Whatever disease appears in the face, it is reasonable to suppose afflicted the spine. Tuberculosis (lupus) alone could have worked in that manner. If it was not this, it was then syphilis; but it could never have been leprosy³⁰.

We should note here briefly that, as an unintended consequence of this pre-Columbian "leprosy issue", the growing interest by the part of scholars in "huacos" with alleged traces of pathologies caused an increase on the demand for such objects. This fact is adjusted to what Glenn Penny has termed a "doctrine of scarcity" that view indigenous peoples and his material culture as precious, rapidly disappearing commodities, increasing or decreasing its monetary value in proportion to their availability in the global market for museums³¹. Ashmead was in harsh competition mostly with European institutions, such as Leipzig's Museum of Ethnography characterised by an active, aggressive policy of acquisition³².

Taking advantage of this scarcity of pieces showing traces of ancient pathologies and his access to the collections stored in Museo de La Plata, Robert Lehmann-Nitsche (1872-1938), a young German physician in charge of the museum's Anthropology Section since 1897³³, showed ten clay pieces of a Peruvian collection in the First Scientific Congress of Latin America, held in Buenos Aires in 1898, which evidenced the same deformities as those of described by Ashmead and Virchow³⁴. This clay vessels belonged to two collections: one brought in 1885 by the first museum head Francisco Pascasio Moreno (1852-1919) to Arístides Martínez, a Chilean army general involved in the Pacific War, and the other belonging to the diplomat Martín García Merou, who amassed it in Trujillo while in Lima working as Argentinean consul and sent it to Moreno on loan in 1894 (Fig. 7). During the meetings in Buenos Aires, after examining the archaeological pieces presented by Lehmann-Nitsche, the Argentinean physica and sent it complexities and the store of the diplomat marking the archaeological pieces presented by Lehmann-Nitsche, the Argentinean physica and the store of the store of

Máximo Farro And Irina Podgorny

sician Baldomero Sommer (1857-1918) denied that the marks those pieces showed were representative of leprosy:

I state categorically that the cases represented in these potteries cannot be leprosy, since the nose appears destroyed, and the leper nose is not destroyed but is bulging, I also do not seem cases of common lupus, i.e. tuberculoses lupus. The regularity of the mutilation of the nose and the upper lip shows us that this is the by-product of intentional injuries, probably punishment, as told Doctor Lehmann that could also be understood. As to the members who are present, I think as the lecturer, that they do not represent cases of leprosy, since in this disease there is mutilation of distal and proximal phalanges, but never a full member, and in so net way. Returning to the face, it seems impossible to understand, if it is leprosy, how there can be disappearance of the nose alone, with not a single tuberculation, when precisely they are the first to attract attention³⁵.



Fig. 7 Martín García Merou's Peruvian huacos collection it was presented to the international discussion in 1898 by Robert Lehmann Nitsche, head of the Museo de La Plata's Anthropology. Source: GARCÍA MEROU, M. *Mis huacos*. Buenos Aires, author's edition, 1893.

In the Argentinean stage of the controversy Lehmann-Nitsche adopted an intermediate position rejecting, as Ashmead did, the idea of pre-Columbian leprosy, but sustaining at the same time the arguments put forward by Carrasquilla, Bastian and Middendorf: although he doubted that the deformities of the lip and nose were of etiological equality with those of the feet, he thought it were representations of deformed beggars afflicted with a facial disease or signs of punishments which have been applied to criminals³⁶.

Aftermath

Once discarded the hypothesis of pre-Columbian leprosy and the existence of artificial mutilations on punished criminals or beggars, towards the 1900s the debate began to wane and the attention was then focused on the etiology of other infectious diseases with quite similar physical manifestations than those of leprosy, such as syphilis, tuberculosis or lupus, and its endemic regional variants such as the "uta" or "spundia". During those years, it began to take hold the idea that leprosy was first introduced in Middle and South America by the Spaniards and Portuguese during the Conquest and to a lesser extent with the arrival of African slaves³⁷. During the first decades of the twentieth century were produced works such as those by Julio C. Tello (1880-1947) that compiled osteological, archaeological, iconographic, ethnohistorical and linguistic evidences, to prove that syphilis and "uta" or espundia were the main Andean diseases during pre-Columbian times and that trephination was an autochtonous chirurgical technique³⁸. With regard to this latter working method, we would note that currently it is often argued, as a serious methodological caveat that the paleopathologist who attempts to establish the antiquity of a disease must deal with the fact that the earliest available evidence is of literary and iconographic nature. For this point of view - that give priority to the advances and "evolution" of the discipline produced mainly by the adoption during the interwar years of modern methods such as radiology, histology, serology, and statistics -, while the works of art, photographs, archaeological objects and the written records are "of great interest", their interpretation demands "special caution because artistic license and the vagaries of linguistic practices commonly becloud the diagnostic certainty of the evidence"³⁹. These cautious prevailing ideas about the scientific value of such sort of proofs are also probably responsible for the absence of Ashmead's work in today's historical synthesis of paleopathology. Since its inception in the nineteenth century this field has a marked interdisciplinary and international character, developing methods for observing and creating the evidence that did not hesitate to integrate the contributions of medicine, art, archeology, history, ethnography and linguistics. As we intended to show here, physicians, anthropologist, archaeologists, historians, curators and diplomats were brought together by collections of pre-Columbian ceramics, mummies and series of photographs illustrating pathologies. In this sense, the international discussion generated by Ashmead and his colleages described here, wanted to contribute to the study the visual elements that late in the nineteenth century were defined as medical evidence.

BIBLIOGRAPHY AND NOTES

Acknowledgements

We thank the College of Physicians of Philadelphia-Wood Institute for the History of Medicine, especially to its director Robert Hicks and staff for the support given to visit its archive and library to study the papers, correspondence and manuscripts of Albewrt S. Ashmead.

This paper acknowledges the support of PIP 0116 (CONICET). This paper also acknowledges to the Max Planck Institute for the History of Science ILL service.

1. See, among others: JARCHO S., *The development and present condition of the human paleopathology in the United States*. In: JARCHO S. (ed), *Human paleopathology*. New Heaven and London, Yale University Press, 1966, pp.

3-30; BUIKSTRAJ. E., COOK D.C., *Paleopathology: An American Account*. Annual Review of Anthropology 9; 1980: 433-470; AUFDERHEIDE A.C. and RODRÍGUEZ-MARTÍN C., *The Cambridge Encyclopedia of Human Paleopathology*. Cambridge, Cambridge University Press, 1998, pp. 1-10; BUIKSTRAJ. E. and BECK L. A., *Bioarchaeology. The Contextual Analysis* of Human Remains. Massachusetts, Academic Press, 2006; GRAUER A. L. (ed.), *A Companion to Paleopathology*. Oxford, Willey and Sons, 2012; BUIKSTRAJ. E. and ROBERTS Ch. (eds.), *The Global History of Paleopathology. Pioneers and Prospects*. Oxford, Oxford University Press, 2012.

- 2. SCHNALKE T., *Diseases in Wax. The History of the Medical Moulage*. Illinois, Quintessence Publishing, 1995.
- 3. In 1852 Czech physician Johann Nepomuk Czermak (1828-1873) published the first microscopic examination of mummified tissue, identifying arteriosclerosis traces. CZERMAK J. N., Beschreibung und mikroskopische Untersuchungen von Mumien. In: CZERMAK J. N., Gesammelte Schriften, Erster Band: Wissenschaftliche Abhandlungen. Leipzig, Wilhelm Engelmann, 1879, pp. 114-156. See also UHLE M., Die deformierten Köpfe von peruanischen Mumien und die Uta-Krankheit. Verhandlungen der Berliner Gesellschaft fuer Anthropologie, Ethnologie und Urgeschichte 1901; 33: 404-408; RUFFEN A., Studies in the Paleopathology of Egypt. Chicago, Chicago University Press, 1921.
- 4. For comprehensive reviews on this relationship between diseases and Peruvian potteries stated in a pioneering way by Muñiz see: VÉLEZ LÓPEZ L., *Las mutilaciones en los vasos antropomorfos del antiguo Perú*. 1912. In: Proceedings of the XVIII International Congress of Americanists, 1912, T. II. London, Harrison & Sons, 1913, pp. 276-279. ESCOMEL E., *La uta y la espundia en la alfarería del Perú prehistórico*. Anales de la Facultad de Medicina de Lima 1920; 29: 185-189; PARDAL R., *Medicina aborigen americana*. Buenos Aires, Editorial Renacimiento, 1937, pp. 217-234; D'HARCOURT R., *La médecine dans l'ancien Pérou*. Paris, Malonie, 1939, pp. 35-42; PESCE H., *Lepra en el Perú precolombino*. Revista brasileira de leprologia 1951; 19, 4: 227-242.
- 5. MUÑIZ M.A, McGEE, W.J., *Primitive Threpening in Peru.Summary Statement*. Annual Report Bureau of American Ethnology 1897; 16: 4-72.
- See, among others: ZAMBACO D. A., La lèpre à travers les siècles et les contrées. Paris, Masson, 1914; KALISCH P. A. An Overview of Research on the History of Leprosy. International Journal of Leprosy 1975; 43 (2): 129-144; AUFDERHEIDE A.C. and RODRÍGUEZ-MARTÍN C., The Cambridge Encyclopedia of Human Paleopathology. Cambridge, Cambridge University

Press, 1998, pp. 141-154; LYNNERUP N., BOLDSEN J., *Leprosy (Hansen's disease)*. In: GRAUER A. L. (ed.), *A Companion to Paleopathology*. Oxford, Willey and Sons, 2012, pp. 458-471.

- PANDYA S. S., *The first international leprosy conference*, *Berlin 1897: the politics of segregation*. História, Ciências, Saúde Manguinhos 2003; 10 (1): 161-177.
- 8. AUFDERHEIDE A.C. and RODRÍGUEZ-MARTÍN C., ref. 1.
- 9. GRÖN K., *Leprosy in literature and art*. International Journal of Leprosy 1973; 41 (2): 249-283; ZAMBACO D.A., ref. 6, p. 101-102.
- CHARCOT J. M, RICHER P., Les difformes et les malades dans l'art. Paris, Lecrosnier et Babé, 1889, pp. 82-88; MEIGE H., La lèpre dans l'art. Paris, Masson, 1897; RICHER P., L'art et la médecine. Paris, Gaultier-Magnier, 1902, pp. 275-313. See also: GOETZ CH., Visual Art in the Neurologic Career of Jean-Martin Charcot. Archives of Neurology 1991; 48: 421-425.
- 11. PANDYA S. S., ref.7.
- 12. See biographical information and a detailed list of his personal papers on: http://www.collegeofphysicians.org/FIND_AID/hist/histasa1.html
- 13. ZAMBACO D.A., ref. 6.
- 14. PANDYA S. S., ref. 7.
- 15. Cf. ASHMEAD A. S., *Pre-Columbian Lupus (Uta) and its surgical treatment by amputation of nose and upper lip, as represented on the huacos pottery of Peru.* St. Louis Medical and Surgical Journal 1900; 79: 233-247, 239-240.
- 16. ASHMEAD A. S., *Pre-Columbian Lupus (Uta) and its surgical treatment by amputation of nose and upper lip, as represented on the hacos pottery of Peru.* St. Louis Medical and Surgical Journal 1900; 79: 233-247, 241.
- 17. I know that you have made a very profound study of questions of antiquity. It is also well known that your collection of ancient bones is of an importance impossible to overstate. Will you be kind enough to give me your opinion as to whether there exists in any ancient pottery anything that might be reasonably explained as a representation of leprous mutilations. I should of course, be much surprised at an artists choosing his subject among phenomena so very repulsive. ASHMEAD A. S., Vorkommen von Aussatz in präcolumbischer Zeit in America. Verhandlungen der Berliner Gesellschaft fuer Anthropologie, Ethnologie und Urgeschichte 1895; 27: 305-306.
- ASHMEAD A. S., *Pre-Columbian Leprosy*. Journal of the American Medical Association 1895; 24: 622-626, 669-672, 721-723, 753-754, 803-807, 850-853.
- 19. BROWMAN D.L. and WILLIAMS S., Anthropology at Harvard. A Biographical History, 1790-1940. Cambridge, Harvard University Press, 2013, p. 201-204.

- Letter from G. Dorsey to A. Ashmead, 11 June 1898. In: ASHMEAD A. S., Was Leprosy Pre-Columbian in America? Verhandlungen der Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte 1898; 30: 488-494, 492.
- FARRO M., Imágenes de cráneos, retratos antropológicos y tipologías raciales. Los usos de las primeras colecciones de fotografías del Museo de La Plata a fines del siglo XIX. In: KELLY T., and PODGORNY I. (eds.), Los secretos de Barba Azul. Fantasías y realidades de los archivos del Museo de La Plata. Rosario, Prohistoria ediciones, 2012, pp. 69-95.
- CURTIS S., Photography and Medical Observation. In: ANDERSON N. and DIETRICH M. (eds), The Educated Eye. Visual Culture and Pedagogy in the Life Sciences. New Hampshire, University Press of New England, 2012, pp. 68-93, 71.
- 23. PODGORNY I., Modern Embalming, Circulation of Fluids, and the Voyage through the Human Arterial Systems: Carl L. Barnes and the Culture of Immortality in America. Nuncius 2011; 26 (1): 109-131; ID., Changing the Dead to Statues of Stone: The Synthesis of Fossils, Petrifaction, Photography, and the Chemistry of the Gorgonean Arts. Nuncius 2012; 27 (2): 289-308.
- 24. SCHNALKE T., ref. 2.
- SCHNALKE T., Casting Skin: Meanings for Doctors, Artists, and Patients. In: DE CHADAREVIAN S. and HOPWOOD N. (eds), Models: The Third Dimension of Science. Stanford, Stanford University Press, 2004, pp. 207-234, p 207.
- 26. ASHMEAD A. S., ref. 15.
- POLAKOWSKY P. H., Discussion über Präkolumbischen Aussatz und Verstümmelte Peruanische Thonfiguren. Verhandlungen der Berliner Gesellschaft fuer Anthropologie, Ethnologie und Urgeschichte 1897; 29: 612-621.
- BARILLON L., Essais de Sérothérapie de la lèpre para la methode de B. Juan de Dios Carrasquilla. Mitteilungen und Verhandlungen der Internationalen Wissenschaftlichen Lepra-Conferenz zu Berlin 1897; 1(4):49-56. See also: ASHMEAD A. S., Antileprous Serum. Journal of the American Medical Association 1897; 28: 181; ID., "Poor Carrasquilla". Journal of the American Medical Association 1898; 30: 330.
- 29. Polakowsky lamented the "pathetic, almost childish 'proofs'" Carrasquilla had given to Lehmann-Nitsche and the trustworthiness this latter had on it, in detriment of the "most scientific" Ashmead assertions, POLAKOWSKY P. H., *Präkolumbische Lepra*. Verhandlungen der Berliner Gesellschaft fuer Anthropologie, Ethnologie und Urgeschichte 1898; 30: 486-488, 488, ID.,

Über Präkolumbianische Lepra. St. Louis Medical and Surgical Journal 1900; 78: 260-268.

- ASHMEAD A. S., *The Question of Pre-Columbian Leprosy: Photographs of Three Pre-Columbian Skulls, and Some Huacos Pottery*. Mitteilungen und Verhandlungen der Internationalen Wissenschaftlichen Lepra-Conferenz zu Berlin 1897; 1(4):71-75, 73.
- See PENNY H. G., Objects of Culture. Ethnology and Ethnographic Museums in Imperial Germany. Chapell Hill & London, The University of North Carolina Press., 2003; PODGORNY I., El camino de los fósiles. Las colecciones de mamíferos pampeanos en los museos ingleses y franceses del siglo XIX. Asclepio 2001; 53 (2): 97-115.
- 32. Ashmead complained: The Leipzig authorities in collecting specimens even killed a Guayaquí indian in South America to obtain his skull!. Their agent recently paid in Lima as high as one hundred dollars in gold for one of these little potteries, which I was myself trying to get possession of. There is not a pottery with deformed face now in Peru which can be brought. Leipzig has the market for them cornered. The finest collection of those pots, however, can never be obtained, as it belongs to a woman who will not sell. She has a thousand specimens, of which she has promised me photographs. ASHMEAD A. S., Testimony of the Huacos (Mummy-Grave) Potteries of Old Peru. Proceedings of the American Philosophical Society 1903; 42 (174): 378-396, 382-383.
- 33. On Lehmann-Nitsche, see PODGORNY I., Robert Lehmann-Nitsche. In: New Dictionary of Scientific Biography. Detroit, Charles Scribner's Sons, Vol. 4, 2008, pp. 236-238.; FARRO M., La formación del Museo de La Plata. Coleccionistas, comerciantes, estudiosos y naturalistas viajeros a fines del siglo XIX. Rosario, Prohistoria ediciones, 2009, pp. 137-170.
- 34. FARRO M., ref. 33.
- LEHMANN-NITSCHE R., ¿Ha Existido la Lepra en la América en la Epoca Precolombiana? In: Primera Reunión del Congreso Científico Latino Americano, celebrada en Buenos Aires del 10 al 20 de Abril de 1898, Vol. 4, 3^a Sección: Ciencias Médicas. Buenos Aires, Compañía Sud-Americana de Billetes de Banco, 1898, pp. 365-368, 367-368.
- 36. LEHMANN-NITSCHE R., ¿Lepra Precolombiana? Ensayo Crítico. Revista del Museo de La Plata 1898, 9:337-371; ID., Präcolumbianische Lepra und die Verstümmelten Peruanischen Thon-Figuren La-Plata-Museums vor dem Ersten Wissenschaftlichen Lateinisch-Amerikanischen Congresse zu Bueno Aires; die Angebliche Krankheit Llaga und Briefliche Nachrichten von Hrn. Carrasquilla. Verhandlungen der Berliner Gesellschaft fuer Anthropologie,

"Pre – Columbian Moulages"

Ethnologie und Urgeschichte 1899, 31: 81-99; ID., *Patología en la alfarería peruana*. Revista del Museo de La Plata 1904; 11: 31-35.

- ASHMEAD A. S., No Evidence in America of Pre-Columbian Leprosy. Canadian Journal of Medicine and Surgery 1899; 5:145-162; ID., Deformations on American (Incan) Pottery Not Evidence of Pre-Columbian Leprosy. St. Louis Medical and Surgical Journal 1901; 80:177-192; ID., Introduction of Leprosy into America from Spain: That Disease Was Not Pre-Columbian in the Western Hemisphere, but Syphilis Was. St. Louis Medical and Surgical Journal 1902; 83: 65-82; ID., Testimony of the Huacos (Mummy-Grave) Potteries of Old Peru. Proceedings of the American Philosophical Society 1903; 42 (174): 378-396.
- TELLO J. C., La antigüedad de la sífilis en Perú. Lima, San Martí, 1909; ALTAMIRANO ENCISO, A., Observaciones paleopatológicas a la tesis de bachiller de Julio C. Tello. Arqueología y Sociedad 26; 2013: 71-89.
- 39. AUFDERHEIDE A.C. and RODRÍGUEZ-MARTÍN C., ref. 1, p. 147.

Correspondence should be addressed to:

Máximo Farro

Archivo Histórico del Museo de La Plata, Facultad de Ciencias Naturales y Museo, UNLP, Paseo del Bosque S/N, La Plata, Argentina.

Email: maximofarro@gmail.com

Irina Podgorny

Archivo Histórico del Museo de La Plata, Facultad de Ciencias Naturales y Museo, UNLP, Paseo del Bosque S/N, La Plata, Argentina.

e-mail: ipodgo@isis.unlp.edu.ar