

Władysław Kluger (1849-1884)

Władysław Kluger, the donor of a rich collection of Peruvian artifacts now found among the holdings of the Cracow Archeological Museum, was an engineer by profession, specializing in road and bridge construction.

He was born on January 16, 1849, in Cracow, where he spend his childhood years. After passing his examinations with honors at the Technical Institute, he set out to Paris to further his education.¹ He first attended the Szkoła Wyższa Polska (Polish Hight School) in Montparnasse, and then transferred to the École des Ponts et Chaussées to which he was accepted in the first round; he finished with distinction in 1873, receiving the degree of civil engineer. During the Franco-Prussian War (1870-1871) he was in Warsaw, working in a construction office. During his stay in Paris, Kluger took an active part in the activities of the Society for the Exact Sciences, and even for a brief period served as the second secretary of this institution.

Immediately upon his graduation he found employment in Embrun (in the Département Hautes Alpes), laying the rail line between Paris and Marseilles. This job did not last long, however, since towards the end of 1873 — at the urging of Edward Habich,² who had a commission from the Peruvian government to recruit Polish engineers educated in Paris to come to Peru — he signed a contract to design certain specified constructions in the latter country. The first important task Kluger received from the authorities in Lima was to design and supervise the construction of iron pedestrian walkways in the ports of Callao (Lima) and Ancón, and the pier in Huacho. After supervising the work on the construction of a dam on the Rimac river, which flows through Lima, Kluger became aware of the eternal problem of water shortage afflicting the residents of the Andean foothills. He began a press campaign, whose goal was to urge the government to begin the construction of an irrigation canal on the Maure river. This construction would have allowed the river water to be directed from the east slope of the Andes to the west slope. Ultimately, the Peruvian government acknowledged that the investment was justified, and entrusted to Kluger the task of organizing the entire project. After conducting a field survey, he drew up a design and a cost analysis calling for the expenditure of 20 million French francs. This was an extraordinarily bold undertaking, the goal of which was to supply the department of Tacna with water, using a canal 185 km long, part of which was to run through a tunnel dug through the mountain chain at the altitude of 4,300 meters above sea level. Unfortunately, the Chilean-Peruvian War in 1879, which resulted in part of Tacna being transferred to Chile, interrupted the work in progress. The design was a unique one for its time, in terms of water construction, and so Kluger was sent to Paris to present it at the Universal Exposition in 1878. In the meantime, the Peruvian government named him Chief Engineer and Construction Inspector for two rail lines: Ilo-Moquequa and Arica-Tacna.

Kluger's greatest accomplishment, however, was to lay out and build (in 1878) the rail line from Peru to Bolivia, which to the present day remains the primary transportation link between these two countries. The route led through the Andes, beginning from Tacna at the altitude of 560 meters above sea level, through high mountains reaching 4,500 meters above sea level, and then falling to Lake Titicaca, where it ended on the south bank of the lake, at the Bolivian border. Throughout virtually all of 1877, Kluger conducted field tests for the new road. He organized an expedition to Tacna for this purpose, taking the opportunity to visit neighboring towns. An extraordinarily colorful account of this journey was published in Cracow, in the form of letters to a friend.³ Kluger presents in these letters the diverse customs of the Indian populace, and in a picturesque way describes the mountain landscape and cultivated fields, the flora and fauna. Of particular interest are his accounts of the visits he paid to the owners of huge landed estates, where the members of the

¹ The life and career of Władysław Kluger is described here primarily on the basis of the entry by Julian Samujłło in the *Polski Słownik Biograficzny* [Polish Biographical Dictionary] vol. 13 (1967-68), as well as the „Wspomnienie pośmiertne [Posthumous reminiscences],” *Czas* March 28, 1884), and an article by Stefan Nosek, „Władysław Kluger. Wspomnienie w pięćdziesiątą rocznicę śmierci (1884-1934) [Władysław Kluger: Recollections on the Fiftieth Anniversary of his Death (1884-1934)]”, *IKC* 132 (May 14, 1935).

² Edward Habich (1835-1909), Polish engineer, professor of mechanics at the Szkoła Wyższa Polska (Polish Hight School) in Paris. In 1875 he founded in Lima the first College of Engineering and Mining in Latin America.

³ W. Kluger, *Listy z Peruwii* [Letters from Peru] (Cracow 1877); *Listy z Peruwii i Boliwii* [Letters from Peru and Bolivia] (Cracow 1877); „Dzisiejsza Peruwia [Peru Today],” *Wędrowiec* 10 (1881).

expedition stopped for lodgings. While in Trujillo he organized an excursion to Chanchan, a mile distant. He describes it as follows: „... we came upon an enormous mass of ruins, walls, and mound-shaped gravesites, and somewhat further on, two large adobe walls belonging (so they told us) to the palace of King of Chimú, who, having broken free of the authority of the Incas, once ruled the entire coastal region, from Supe all the way to Tumbes. There they also showed us the barely visible remains of towers and temples, and above all numerous irrigation canals bringing water from far away to cultivate the sandy fields that surround the once populous, and probably also powerful city — since, as the chroniclers tell us, from the *huacas* here as many as 60,000 piasters of gold and silver objects were at times obtained.”⁴ In the years 1878-1880, Kluger completed many more jobs at the order of the Peruvian government. Among the most important of these were the construction of the coastal highway near Callao, an irrigation canal joining the Maure and Uchusuma rivers, and a water pipeline for the cities of Chorillos and Callao. Near the end of his stay in Peru, Kluger supervised the construction of large customs warehouses in Arica, and the prefecture building in Tacna. His last project was to prepare a final audit of the costs of the cathedral erected in Tacna.

Władysław Kluger was much appreciated in Peru, not only for his activities in the area of water and construction engineering, but also as an academic teacher. In 1876, he was offered the post of professor ordinarius in the Engineering and Mining School (*Escuela de Ingenieros Civiles y de Minas*) in Lima, where he held the chair of hydraulics and water and land construction, giving lectures to the end of his stay in Peru.

In 1880, Kluger had to return to Poland as a result of serious illness, pharyngeal tuberculosis, which he caught during his expeditions into the Andes. The Peruvian government, in a letter sent to the authorities of Cracow, stated that „by his accomplishments he has earned the gratitude of the nation.” More evidence for the respect in which Kluger’s activities were held in Peru is given by the fact that his name was placed on the monument erected to honor Edward Habich, which stood on the plaza bearing the latter’s name near the University.

After arriving in Cracow, Kluger immediately undertook jobs associated with his profession, especially since the Austrian government, in recognition of his merits and skills, granted him the title of authorized civil engineer, without state examination. Committed to the development of his partitioned country, Kluger drew up a design *gratis* for a theater hall and Catholic church for Krynica, a resort city he had visited in his childhood with his parents. In 1882, he was appointed to the Water Pipeline Commission of the City of Cracow, attempting to resolve the crucial problem of supplying water for the city. He developed two designs, neither of which, unfortunately, ever came to fruition.

Władysław Kluger died on February 29, 1884, in San Remo, at the age of only 35, and was buried at the Rakowicki Cemetery in Cracow. He left a substantial legacy of scientific publications, the largest of which (some 1,018 pages long, co-authored with Feliks Kucharzewski) contains a review of hydraulics (*Wykład hydrauliki wraz a teorią machin wodnych poprzedzonych wiadomościami wstępnymi z mechaniki analitycznej ciał płynnych* [A Lecture on Hydraulics, including the Theory of Water Machinery, Preceded by Elementary Information on the Analytical Mechanics of Fluid Bodies], Paris 1873). This work includes a list of sources written by Kluger, comprising 369 entries dating from 1643 to 1872. He also published the first Polish handbook, 600 pages long, on building materials (*Wykład wytrzymałości materiałów i stałości budowli* [Lecture on the Endurance of Materials and the Permanence of Structures], Paris 1876).⁵ During his stay in Peru he wrote and published an article in the *Przegląd Techniczny* in 1881, entitled „O zbiornikach wody deszczowej w górach Kordylierskich [On Rain Water Tanks in the Cordelier Mountains].”

After his return to Poland, as his illness progressed, he managed to send to press two works associated with his design to supply Cracow with water. In addition, Kluger’s legacy also includes a significant number of drawings, maps, architectonic plans, and reports, at one time preserved in the Cracow Municipal Construction Bureau.⁶

Kluger’s extraordinarily vigorous activities were not confined to professional matters. Fascinated by the richness of the relics of Peru’s ancient cultures, he began to collect vessels, textiles, mummies, and various handicraft products found by the local populace in areas once inhabited by pre-Columbian peoples. He sent

⁴ Kluger, *Letters from Peru and Bolivia*, pp. 92-93.

⁵ Cf. also W. Kluger, „Turbina Fourneyrona [Fourneyron’s Turbine],” [in:] *Roczniki Towarzystwa Nauk Ścisłych* (Paris 1872), and *Teorya turbiny Fontaine’a* [The Theory of Fontaine’s Turbine] (Paris 1872).

⁶ See „Posthumous Recollections” *Czas*, March 28, 1884.

an impressive archeological and ethnographic collection, numbering some 1,000 exhibits, to the Academy of Arts and Sciences in Cracow, where in return he was unanimously elected a correspondent member of the Faculty of Mathematics and Natural Sciences.

In reports from the meetings of the Academy we find notes on the reception of this collection in Poland⁷. The arrival of the first shipment, sent from Peru in April of 1876, was noted on June 20th of that year. It consisted of three crates containing 54 artifacts. From the enclosed inventory it can be inferred that the crates contained mostly mummies or fragments of the mummified human remains of adults and children, plus 18 pottery vessels and 5 figurines, along with diverse items of daily use, such as decorated wooden sewing needles, arrows, and one transparent shirt (poncho?) decorated with fringe.⁸ Kluger added here a note in which he explained the origin of these artifacts. He writes that, with the exception of the arrows and needles found by A. Babiński in Cerro del Pasco, and the figurine from Chancay, donated by K. Wakulski,⁹ he had personally obtained the remaining objects himself by way of excavation. All the mummies, without exception, had been excavated in Ancón, under Kluger's supervision. This is one of very few indications of the provenance of items held by the Cracow Museum of Archeology. Kluger writes in the same note that the vessels he sent had labels attached, showing the place and date of discovery, but only on a few artifacts have these labels survived to the present day. Among his remarks we find here an interesting piece of information on the history of archeological research in Peru. Kluger writes that sailors from the French admiralty ship *Galissonière* were digging at the same time as he, under the supervision of French naval officers.¹⁰

The next shipment, in 1878, contained 455 objects, including 7 publications on contemporary agriculture in Peru. The inventory, which contains 183 items, lists 5 human skulls, 60 pottery vessels, 1 wooden figurine, and 68 textile fragments. The remaining objects were weapons (arrows, bronze club heads, etc.), various daily use objects (e.g. spindles, wool reels, scissors, shears, etc.), and ornaments, in the form of beads made from mother of pearl and mussel shell, and bronze bracelets and rings.

The collection transferred to the Academy by Kluger aroused enormous interest among the members. Particular attention was paid to the mummies, which evoked a genuine sensation.¹¹ At a session of the Anthropological Commission on June 1, 1877, three Peruvian mummies were unwrapped to investigate the manner in which they had been wrapped, the position of the bodies, and the accompanying vegetative remains. These last were studied by the famous naturalist Professor Józef Majer, and presented at the meeting in question. The findings included primarily grains of maize and yew fruits (*Podocarpus*), as well as pumpkin and goosefoot seeds (*Chenopodium bonus-Henricus* L.).

In 1891, the Vienna Committee of the Madrid Jubilee Exhibition, on the occasion of the 400th anniversary of the discovery of America, approached the authorities of the Academy with a request to make part of its collection available. Among the correspondence regarding this shipment we find a document entitled „Spis zabytków wysłanych na wystawę kolumbowską do Madrytu [Inventory of the Artifacts Sent to Madrid for the Columbus Exhibition].” It lists 101 items, including 14 mummy fragments, 26 clay vessels, 1 figurine, 1 *huaca* (a clay figurine placed in a small basket with small reed spindles), and 59 textile fragments. The last information on these artifacts is a letter from the court superintendent of the Museum of Natural History in Vienna, dated April 12, 1892, in which he acknowledges receipt of the crates. Unfortunately, no documents confirming the return of the loaned exhibits have survived to the present day. In the inventory book of the Cracow Archeological Museum there are 233 artifacts from Kluger's collection, including clay and metal vessels, clay figurines, textiles, and painted wooden spindles with warp, along with diverse items of daily use and weapons. There are also numerous women's ornaments, such as bead necklaces and mother-of-pearl plates, and painted canvas amulets. From the grave goods of male burials there are slings woven from wool,

⁷ All materials regarding Kluger's transfer of Peruvian artifacts to the Academy of Arts and Sciences are kept in the Archive of the Cracow Branch of the Polish Academy of Sciences, under the file number KSG-164/1878.

⁸ This inventory, along with other documents regarding Kluger's collection — copied in the handwriting of his stepfather, Michał Zieleniewski — is presently located in the Archives of the Polish Academy of Sciences in Cracow, and bears the date of October 9, 1878.

⁹ Aleksander Babiński and Ksawery Wakulski were Polish engineers working on commission from the Peruvian government.

¹⁰ In this same note we read that the excavations were supervised on behalf of the French government by Charles Wiener.

¹¹ It should be recalled that there was only one mummy in Cracow at that time: an Egyptian mummy donated to the Academy's collection in 1834 by Ludwik Bystrzonowski.

cotton, and raffia threads, which were used for bird hunting and to herd grazing llamas, as well as fragments of net made of sieve tissue, in which mummies were wound before being deposited in the grave.¹² In 1953, an audit was conducted of the Kluger collection, as a result of which it was determined that over half the artifacts were missing. Presumably some of them perished during the numerous repackings and moves that had taken place during the two world wars, while some objects made of organic materials may have been destroyed under the influence of moisture.¹³

The Kluger collection was many times displayed at the Archeological Museum: for the first time in 1927, and later, after the Second World War, six more times, always arousing greater interest in the public at large.

In addition to the collection here under discussion, Kluger also donated to the Academy of Arts and Sciences 18 photographs presenting the pre-Columbian vessels from the collection of Dr. Macedo in Lima; these photos are still among the holdings of the Cracow Archeological Museum.¹⁴

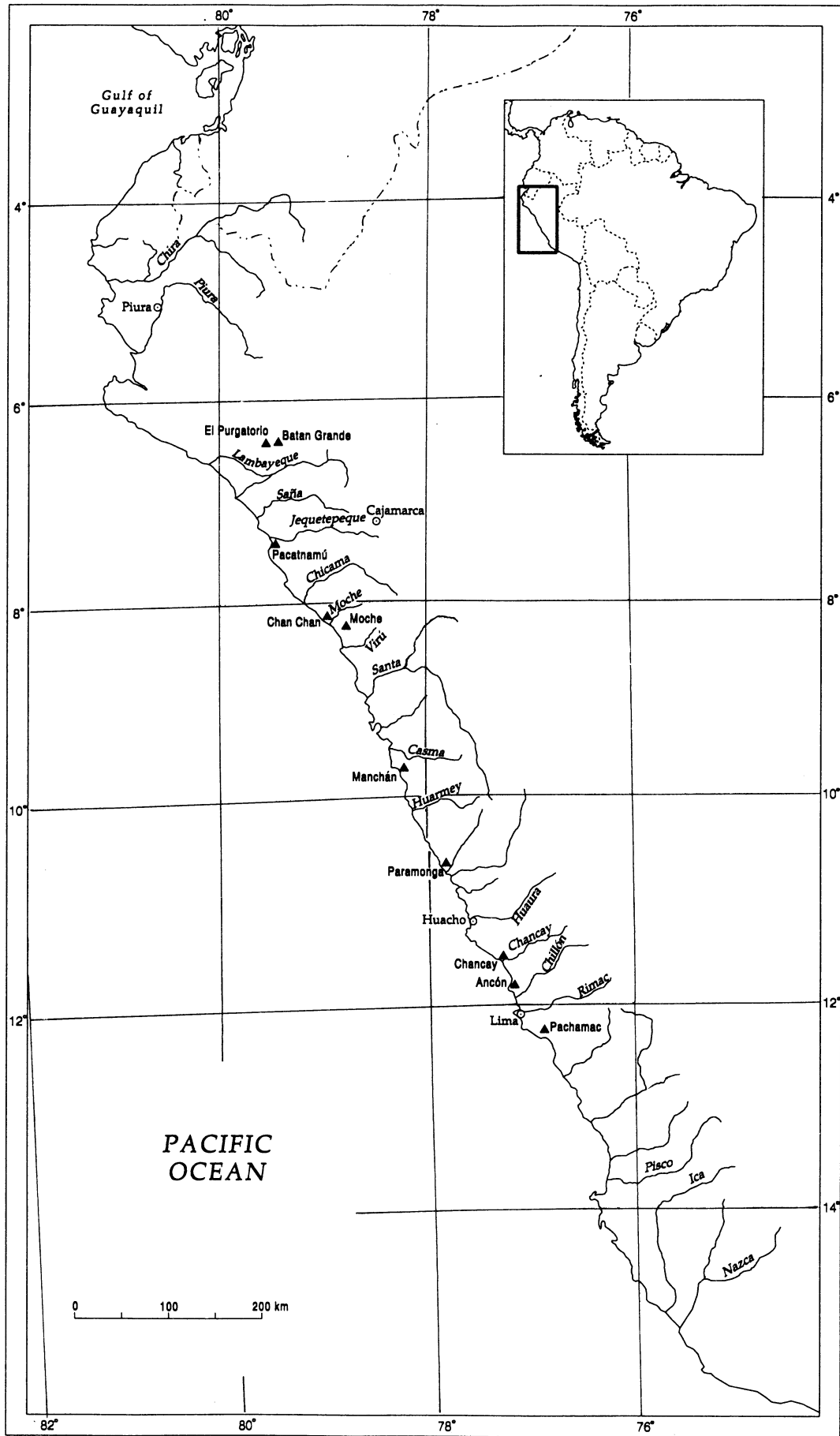
Władysław Kluger was a person of extraordinary education, who spoke fluent French, Spanish, German, and English. He was a lover of the fine arts and music. Thanks to his avocational interests, Poland obtained a collection from ancient Peruvian cultures worthy of other European museums.

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¹² The entry in the inventory book was made on the basis of a physical count. Unfortunately, the above mentioned artifact inventories, the only ones we have, do not make possible a definitive identification as to which of the objects sent to the Madrid exhibition returned to the museum collection.

¹³ See A. Kowalska-Lewicka, „Peruwiańskie zbiory archeologiczne z kolekcji Władysława Klugera [The Peruvian Archeological Artifacts from the Collection of Władysław Kluger]”, *Sprawozdania z prac naukowych Wydziału I PAN* (1965), vol. 3, pp. 51—54.

¹⁴ These photographs were exhibited at the Paris World Exposition in 1878.



Most important sites of northern and central coast of Peru
in Late Intermediate Period