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Abstract

The article addresses an issue in nineteenth-century archeology: the transformation of ancient American ruins into scientific evidence. It focuses specifically on the case of Palenque, a city discovered in the jungle in the late eighteenth century. The archeological exploration of this find, which occurred shortly after Central American and Mexican independence, entailed efforts to make these ruins portable. The article analyzes some of the means devised and used in their transportation.

Keywords: archeology; fieldwork; reproductions; nineteenth century.

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Received for publication in June 2007. Approved for publication in January 2008. From San Juan to Palenque is no more than 30 or 35 leagues in a straight line, but the route is across rough ground which we cannot dream of traversing. We have 70 enormous packages to transport! How many mules and horses would we need to haul all this baggage? It is assuredly a ridiculous amount of equipment to carry over these trails. I realized this and would certainly have preferred a simple trunk which would have allowed me to move about as I wished without having to worry about time and the route. But... so much was needed! But we were going to make moulds: we therefore needed bowls, paper, glue, flour, etc.; but we were also photographers: we needed our cameras and chemical products; engineer's equipment was also needed to make the plans; above all, though, we needed to eat among these ruins where we set to live for two months deep in the forest (Charnay 1885:55).

Simplify, simplify, this must be the axiom of any serious traveller. Little luggage, a few boxes, are the precondition for tranquillity and even safety (Lottin de Laval 1857).

The history of 19th century archaeology and antiquarianism has traditionally focused on reconstructing controversies or interpreting the ideological dimensions of discourses concerning the past. By concentrating on the context in which these reports were produced, historiography has tended to ignore the history of the practices leading to the formation of modern archaeology, allocating these practical dimensions a central role – proximate to that of history – in the construction of hegemonic discourses and legitimacies. It is precisely because of this emphasis on 'ideological distortions' that historiography has tended to overlook the historical processes involved in defining the criteria and techniques used to determine what could be accepted as reliable material evidence of past events. The national and international networks used for exchanging objects and information were a fundamental element in this process.

The process involved in the appearance of these scientific objects closely matches the emergence and consolidation of 19th century trade goods. As the American explorer John Lloyd Stephens wrote (1842:128): "Like other articles of trade, they (old cities) are regulated by the quantity in the market, and the demand; but not being staple articles, like cotton or indigo, they were held at fancy prices, and at that time were dull of sale." Ruins – like any other commodity – acquired a price determined by supply and demand and similarly followed the trade routes traced by local products. And just as the Patagonian fossils were exported along the routes and infrastructure used by the wool trade (Podgorny 2005), the Central American ruins followed the paths established by the commerce in indigo, cochineal, timber and livestock (cf. Wortman 1975).

Modern archaeological knowledge is defined in terms of two spaces: the 'field' and the cabinet/collection. From its outset the emergent discipline faced a particular problem: how to transport essentially 'immovable' objects – the ruins – to the space of the cities and their scientific circles. As Désiré Charnay and Victor Lottin de Laval described, the explorer faced the paradox of trying to turn essentially immobile elements into portable objects – or 'portable' at least within the parameters of 19th century communications and administrative structures. Another related issue was how to move the relics without

obliterating their meaning or their use value as scientific evidence. This preoccupation helps explain Flinders Petrie's comment from 1904 when he suggests that archaeology's purpose is to produce 'portable antiquities:' in other words, plans, photographs and drawings capable of connecting the objects to their place of origin (Petrie 1904). This idea reflects another defining feature of modern science: the emergence of 'immutable mobiles' that enable the transfer of information between the spaces of the field and the cabinet (Latour 1990). However, as I argue in this article, the acceptance of these transportable objects as an immutable element that truly represented the 'real thing' was far from being straightforward. This process of transporting the ruins to the cabinet in a physical condition as similar as possible to that encountered in the field depended on the creation of new technical procedures, but also on the use of pre-existing technological capacities.

In those regions favoured by scientific explorations, the 'field' was dominated by communication and transportation technologies powered by water and wind (canoes, small boats), animal-drawn vehicles (mules, carts, elephants, camels, boats) and, in some communication nodes, by paper (correspondence), steam power (steamboats, railways) and human brute force. These technologies lived alongside what Peter Hugill (1999), inspired by Harold Innis and Lewis Mumford, identifies as the dawn of the 'neo-technological era:' the technology of electronic communications, whose first breakthroughs date from the mid 1840s. This neo-technological era was characterized by the new transportation techniques enabled by electrical energy, the idea of individual mobility and the internal combustion engine: that is, the tram, the bicycle and the automobile, which became prevalent in urban areas from the 1890s onwards. One could say that the exploratory journeys of the 19th century involved the use of transportation networks based on technologies that the middle and upper social classes of modern cities were already gradually abandoning.

Focusing on the case of the archaeological exploration of Palenque after Mexican and Central American independence, this article analyzes how the 'Stone Houses' discovered in the jungle of Chiapas at the end of the 18th century became a scientific entity. In the first part, I discuss the general problems involved in the transportation of the ruins and some of the means created and employed by travellers to ensure that these objects could appear before the eyes of those wishing to observe them in their real dimensions. In this section, I describe the means of transportation and technologies available at the time. In the second part, I turn to the race between English, American and French explorers to obtain a reliable description of Palenque. The text focuses in particular on the reports written by Francesco Corroy, a French doctor living in Tabasco and a correspondent for various learned societies, taking his correspondence as our guiding thread for analyzing the exploration of the ruins. Lacking the picturesqueness of Waldeck, Stephens and Charnay – the explorers most celebrated by historiography – the little known figure of Corroy nevertheless sheds a clearer light on the material history behind the eventual recognition of Palenque in the 1830s.

Transportation of ruins

In 1885, the French traveller Désiré Charnay (1828-1915) acknowledged his debt to the work of Victor Lottin de Laval (1810-1903). Using the modelling techniques invented by

the latter, Charnay had succeeded in copying one hundred square metres of inscriptions from the ruins of Palenque in very unfavourable circumstances. This method, which enabled the reliefs of the monuments to be copied using papier maché, meant that the weight of the casts was reduced to 250kg from the 15,000 kg which would have been needed using plaster. The casts, photographs and plans of the ruins were sent to the Musée d'Ethnographie du Trocadéro in Paris, where they became part of one of Europe's most extensive collections of Mexican antiquities and 'ruins' (Charnay 1885, 1863; cf. Hinsley 1993, Barthe 2007).

Here we can record the collections, drawings, plans and reports sent to Madrid, Mexico and Guatemala by Spanish military engineers during the final decades of the 18th century and the first decades of the next (Alcina Franch 1995; Cabello Caro 1989; García Sáiz 1994; Podgorny 2007a). Due to the Napoleonic intervention and the downfall of the Spanish Empire, some of these reports and illustrations remained 'forgotten' in the archives of the colonial administration, only to be later exhumed and published in Europe following the intercession of foreign consuls, merchants and travellers. In 1822, for example, an English translation was published in London of the report on Palenque written by military engineer Antonio del Río (Del Río 1822). This provoked a kind of fever - lasting many years – among the antiquarian and geographic societies of the Old Continent, eager to find out what had become of these ruins, last seen in the previous century and buried in the archives of a now disintegrated empire. Palenque spurred endless debates on the origin of American peoples, the architectonic order of these ancient cities and the European or Asiatic provenance of their unknown builders (cf. Cañizares-Esguerra 2001). Neither the chronicles of the Spanish conquistadores or the testimony of the nineteenth century Indians were sufficient to understand or decipher these signs from the remote past. The enigmas generated were such that the Parisian Geographic Society set a reward of 2,400 francs for anyone producing a reliable description of the ruins (cf. Prévost Urkudi 2007). The expeditions of C. Nebel (1830), Juan Galindo (1831), Jean-Frédéric Maximilien Waldeck (1832-1833), John Lloyd Stephens and Frederick Catherwood (1839-1840), Patrick Walker and John Herbert Caddy (1839-1840), along with the reports sent by Francesco Corroy, the illustrations of Maximilien Franck (1831) and the photographic journeys of Désiré Charnay, all demonstrate the successive attempts to bring Palenque into the realm of nineteenth century science (Baudez 1993; Baudez & Picasso 1987; Barthe 2007; Cochelet 1831; Franck 1831; Hinsley 1993; Pendergast 1967; Warden 1831).

The Stone Houses of Palenque appeared to remain a particularly obscure object until the 1860s, not so much due to their hidden location in the forest, but because of the complex political situation in the states of Chiapas, Yucatán and Central America in the years following independence from Spain. The trade competition between Britain, the United States and France to impose their products and control the region's ports, was compounded by the series of independentist and interventionist political experiments in the region, frequently riven by civil war and the so-called 'caste war.' Located on the periphery of all these conflicts, the ruins of Palenque became even more invisible. The itineraries used to reach the site and obtain a realistic and transportable description reveal the inter-relationship between travel, trade and the real possibility of creating a scientific

object. Stephens (1842:120), referring to the ruins of Copán (latter-day Honduras), outlined the situation created in the exploration of the ruins: having reached them, explorers were forced to abandon the simple idea of "carrying away any materials for antiquarian speculation, and must be content with having seen them ourselves." The travellers therefore expressed their awareness of the paradox generated by these solid realities, which, to become acceptable as scientific evidence, had to be transposed to another, much less solid substrate, yet one capable of being presented elsewhere.

Transporting ruins to the museums entailed a series of complications. On one hand was their apparently immobile nature, which, in the case of the pre-Colombian cities, made them almost mountain-like in their immutability. Fragmenting the steles, smashing the walls and mutilating the statues were seen as viable alternatives only when sufficient funds were available to pay for the work of the labourers and move the pieces to a populated centre, leaving aside the obstacles posed by the road infrastructure. On the other hand, as Charnay discovered on his second journey, the nascent Central American national states had begun to control the traffic in antiquities and their exportation, effectively removing these objects from the trade sector (Díaz y de Ovando 1990). Consequently, although the pieces could reach the ports, they could still run into municipal regulations or the rulings of a judge disposed to enforce the nation's rights of ownership over the interests of science.

The invention of the daguerreotype in 1839 and the later introduction of photographic technology into archaeological explorations were very far from providing a solution to this problem. Although these inventions quickly led to the emergence of a legion of photographer-explorers travelling the world in pursuit of objectivity (Baudez & Picasso 1987), this new pursuit also produced more baggage and weight on both the outward journey and the return. The chemical substances and glass plate negatives – aside from being fragile – were a much more difficult cargo to carry than the ruins themselves. Charnay, for instance, needed to transport more than 8000kg to photograph the ruins of the ancient Mexican cities (cf. Baudez & Picasso 1987; Barthe, 2007) and be able to provide conclusive proof through "the inexorable precision of the machine, which affords a means of controlling the involuntary interpretation man gives to all the forms he reproduces" (Beulé, March 1864:189). Charnay (1863:I-II) justified the increased weight load as follows:

Surprised by the incomplete manner with which certain travellers had approached this important topic, it seemed to me that within such a vast oeuvre of text and engravings, everything had to be redone. Believing that the public indifference towards such an original civilization stemmed from the uncertainties obscuring it, I wanted to make sure nobody could doubt the accurateness of my work and so I turned to photography as a form of testimony.

For Charnay, this photographic testimony – an embodiment of objectivity – would corroborate that the objects seen by the traveller's eye had passed onto paper and glass without the mediations of the pencil and the iconographic traditions that skewed the designs. Palenque, though, remained hidden. On his first trip at the end of the 1850s, Charnay found the city covered in vegetation and was unable to 'reproduce' it as he wished (Beulé, March 1864).

Moreover, in the 1840s, before photographic techniques were perfected, the images were frequently distorted by framing and lighting, complicating factors which altered the

'real' object. Travellers preferred to make use of the 'camera lucida' as a way of obtaining greater precision in terms of proportion and details. Despite being relatively dependable for taking portraits, daguerreotype cameras created distortions that curbed any enthusiasm concerning the possibility of a mechanical and rapid reproduction of these non-transportable objects. Stephens (1843, p.175) described the problems involved as follows:

At times the projecting cornices and ornaments threw parts of the subject in shade, while others were in broad sunshine; so that, while parts were brought out well, other parts required pencil drawings to supply their defects. They gave a general idea of the character of the building, but would not do to put into the hands of the engraver without copying the views on paper, and introducing the defective parts, which would require more labour than that of making at once complete original drawings.

Nor were the plans, drawings and transcription of the inscriptions perceived to be a neutral medium, capable of transposing the solidity of the monuments to the lightness of paper. Aside from the time consumed and the need to rely on experts to produce plans and sketches, copying the inscriptions of the monuments from barbarian antiquity (sensu Burke 2003) involved the pitfalls entailed by the sheer foreignness of the images to be reproduced. An example was the controversial case of Waldeck (Brasseur de Bourbourg, n.d.; Baudez 1993), who had seen and depicted elephant trunks on the Palenque friezes and had also broken up the katuns of the Mayan steles in order to give them an unequivocal meaning (Angrand [1860]:VII-VIII; cf. Prévost Urkidi 2007). Despite his considerable experience of the barbarian antiquity of the Old World, Catherwood's pencil would become paralyzed for days when faced with the complexity of the Mayan glyphs. Far from being a mechanical process, the art of sketching and copying the ruins onto paper was contaminated by associations with the known world. Indeed European learned society acknowledged this problem when they observed that the illustrations produced by these authors were distorted by subjectivity and their own representational traditions, obscuring their relation to an object that, retaining its imprecise nature, failed to attain the status of a real entity.

Responding to these difficulties, in 1857 Víctor Lottin de Laval published a small but 'indispensable' manual for "archaeologists, painters, sculptors, engravers, architects, travellers, clergymen, tourists, collectors, cabinetmakers, manufacturers of bronze objects and enthusiasts" (Lottin de Laval 1857). Since 1835 Lottin de Laval had headed a series of archaeological expeditions in Europe and Asia, commissioned by the French government to study the ruins of Armenia, Assyria and Baghdad. His manual, he claimed, would solve the quadruple problem involved in making and transporting the casts: namely, ensuring the precision, solidity, lightness and speed needed to produce castings in a limited time span. Moreover, by using sesame oil or mutton fat, the cast could be rendered completely impermeable, a crucial factor in avoiding rain damage. Using this technique, which he called – somewhat immodestly – 'lottinoplastique,' one could reproduce everything from the surfaces of monuments to complex large-scale cuneiform inscriptions, solving the problems caused by the imprecision of hand-sketched copies. Using substances and elements readily available anywhere in the world – paper, gelatine, oils and fire – casts of an extraordinary lightness could be produced within a few days. This made it possible to

transport more than 10,000 square feet of monuments in a container measuring 1.6m x 1m x 0.5m. Lottin de Laval (1857) celebrated this momentous event in the history of art and science in the following manner: "I could already bring back, from the ends of the world, in a crate from my cantines, an immense series of monuments, which could then be reproduced by me in Paris in plaster, in Roman concrete and finally in zinc and bronze." Like a visitor from the future in possession of the secret of teleportation, Lottin de Laval would present strange 'real' size figures brought from 'deepest Asia,' removing them from a kind of cardboard fixed inside a crate weighing less than 10kg. A simple crate – just like the one desired by Charnay – was large enough to store the most colossal monuments from the remotest corners of the Earth. The only precautions indicated by the author were the need to find good quality paper to produce the casts and a label stating the origin and nature of the latter in order to avoid confusing monuments from different peoples placed in the same crate.

This technique would, the author argued, provide an economic solution to the study of distant antiquities, making the dispatch of artists superfluous and rendering the logistic support of the State or private patrons unnecessary. However, Lottin de Laval's invention was not as well received as expected. To begin with, it was valued at 1,800 francs, a price that he considered derisory given the advantages it would bring and which was effectively below the reward offered for obtaining images of Palenque. Lottin de Laval observed that moving a ruin inevitably meant mutilating the monuments and thus replicating the kind of damage inflicted by barbarism. The facsimiles, obtained through a 'faithful and perfect' procedure, would enable the monument to be transported in a form that respected the integrity of its actual state and ensured that their authors remained within the boundaries of civilized behaviour. Lottin de Laval compared the time and resources saved: the work he had undertaken alone, some eighteen hours per day for ten days and using only two hundred francs worth of materials, would have been equivalent – using normal casting procedures - to employing about ten sculptors for twenty years, transporting the casts in thousands of crates and employing an army of camels to carry them to the shores of the Nile, from there dispatching the cargo to France in a fleet of ships.

But the scale of these advantages generated doubts over the very plausibility of reproducing and transporting the monuments and bas-reliefs in one relatively small crate loaded on the back of a camel. The suspicion of fraud meant that the invention was ignored and the casts assumed to be merely the product of the creative skill of Lottin de Laval's atelier in France. Indeed fake objects flooded the 19th century antiquities market and undoubtedly aroused people's suspicions (cf. Angrand [1860]; Pradenne 1932). But aside from the phenomenon of falsification, the envy provoked by the inventor and the increasing adoption of photography, another factor almost certainly had an impact, arising from the same rhetoric as Lottin de Laval's and running against the grain of all the exploration reports: from Humboldt to Livingstone, a serious expedition implied enormous expenses and equivalent quantities of animals and transportation equipment. Lottin's insistence on the fact that he had transported his casts on a single camel contrasted with the extravagance displayed made by Charnay and other explorers of America, including the paradigmatic case of Humboldt, who crossed the Quindiu mountain range in New

Granada with a dozen oxen loaded with his equipment and a collection of objects that grew endlessly in weight and volume (Humboldt 1816:75).

While Lottin de Laval insisted on simplification, the practical manuals for travellers emphasized the precise opposite: to explore Africa, for example, the manuals recommended setting out with copious supplies, including trade objects, arms for hunting and warfare, food, medicines and observational instruments (Nicolas, Lacaze & Signol 1885:253). The opposite cases were abundant: the model explorations of the Portuguese Serpa Pinto took seventeen cases and a tea service. Stanley left for Lake Victoria with 18,000 pounds of equipment divided among sixty pack animals and three hundred porters. Stephens, describing the incidents befalling him in Central America, unashamedly mentions the mishaps suffered by his teapot. The list of objects recommended for the camp and as protection for the travellers from rats, snakes, ants, damp and mosquitoes, which includedbraziers, linen, cotton, silk or wool clothing to protect oneself from the sun and temperature variations, enable transpiration and avoid stings and bites, footwear, helmets and parasols, guns, food and drinks, all made Lottin de Laval appear to be a charlatan who had never left the cabinet where he had sketched his Asian statutes.

The lightness of the French inventor's proposal and the possibility of dispensing with large caravans revealed the forms of transportation available to the traveller and the conditions of absolute dependency generated on local resources and inhabitants, not always resolvable with money. The distance and submission created by the journey were compounded by the communication times: as the exploration of Palenque by Caddy and Walker reveals (Pendergast 1967), the letters between Belize and London took less time than the messages transmitted between Belize, Petén, Chiapas and Yucatán.

The need to rely on the pack animals found on each continent – a resource unfamiliar to the travellers – led to painstaking studies on the walking speed that each type of animal would impose on the caravans, their loading capacity and the advantages for the explorer. Thus African elephants, each capable of carrying about 500kg, could create more problems than donkeys and mules, more familiar to the traveller and much easier to manoeuvre (cf. Baudez & Picasso 1987). In comparison, donkeys and camels could support around 80kg, while the weight indicated for a human porter was no more than 30kg.

In the Americas, overland transportation consisted of mules, oxen, various types of carriages and porters. Using porters (transporting a load or a person on a man's back) was commonplace in various mountainous zones of America, a means of transport similar to the palanquin, kitannda and hammock of Africa and Asia. Transportation by chair – a cane structure tied to the back and held balanced by a device suspended in front of the porter – condensed all the conflicts that surfaced between the traveller and the local environment. Making use of human brute force generated egalitarian feelings but also fear and a complete dependency on the porter's body. As the African travel manuals reiterated when suggesting these human means of transport, "though one is reluctant at first, later one becomes used to it" (Nicolas, Lacaze & Signol 1885:268).

Lottin de Laval, for his part, proposed that the ideal expedition would involve the traveller dissolving into the environment, buying local materials, but also dressing and living discretely without standing out unduly from the country's inhabitants. Without

tea services to look after, the porters would become dispensable. On the other hand, this kind of voyage meant that the real object could be replaced by a technical procedure capable of transporting it to another space without significant weight or volume, yet complete. In contrast to the paradigmatic expeditions in which, despite the dozens of camels, elephants and porters, only a small sample could be taken, the lottinosplastic technique could transport the entire ruin. The collector should no longer be content with a part: the new technique would allow the whole to be shown in the cabinet in its real dimensions. Lottin de Laval's collection technique therefore took to an extreme the concept of completeness (*Vollständigkeit*) to which Benjamin referred (1991:271) – a constant topic and desire of the explorers, linked to the idea of 'saving' these forest or sand-covered stones from barbarism and oblivion, their use as a quarry for local raw materials or domestic adornments. Stephens (1842:115, 116), writing from Copán, expressed this as a question to be resolved with money, means of transport, technology and the zeal to possess the relics:

To buy Copan! Remove the monuments of a by-gone people from the desolate region in which they were buried, set them up in the 'great commercial emporium,' and found an institution to be the nucleus of a great national museum of American antiquities! But quere, Could the idols be removed? They were on the banks of a river that emptied into the same ocean by which the docks of New York are washed ... They (the ruins) belonged of right to us, and ... I resolved that ours they should be.

Perhaps because of this same desire for complete possession, the archaeological explorations made no changes to their logistics. Even in the case of those who, like Désiré Charnay, adopted the lottinoplastic technique, the expeditions to reach, see and bring back a few pieces, drawings, photos, casts or enormous fragments from the ruins continued to demand a considerable quantity of resources and means to travel and transport equipment and objects to the site and back. In the section below, taking the case of the explorations of the Palenque ruins as my example, I analyze the problem of the itineraries and means used to teach a territory located on the conflict-ridden borders of the states that emerged with the collapse of the Spanish empire.

The paths to Palenque

Surrounded by the Michol and Chacamas Rivers, the so-called Palenque ruins are located 10km southwest of Santo Domingo de Palenque, a town established at the beginning of the 18th century in the present day Mexican state of Chiapas. Until the end of the 19th century, the overland track leading from the homonymous town to the ruins was no more than a path amid the tropical vegetation, which had to be cleared by machete with each visit. This single path had been consolidated by the periodical visits of an inspector of ruins appointed at the start of the 1880s by the Mexican government (Charnay 1885).

As Colonel Juan Galindo described (1832), the geographical location of the ruins coincided with a border zone between two political entities: the Stone Houses were discovered on top of a mountain chain traversing the continent from east to west, close to an affluent of the Usumacinta, which – in 1832 – politically separated the Central American and Mexican republics. These mountains comprised a natural boundary between the warm

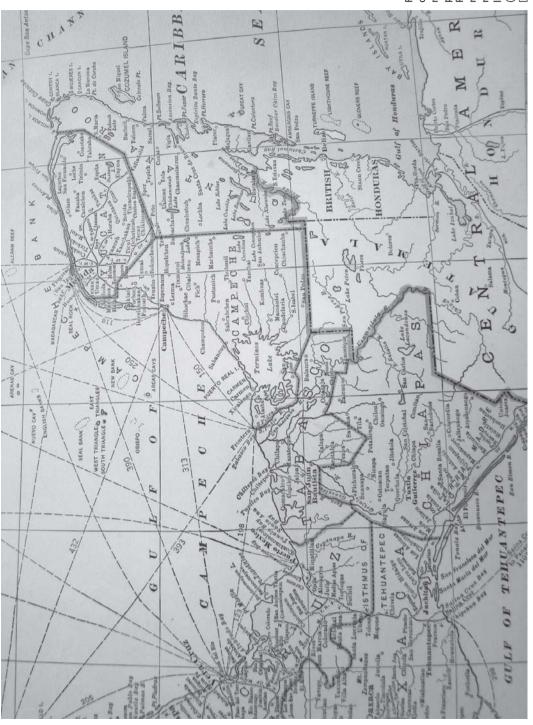
lowlands of Tabasco and the high temperate zones of Petén. Within this zone, situated to the east of the Tehuantepec isthmus, the state of Tabasco occupied the vast plains between the ruins and the gulf of Campeche. Ancient Palenque, located between the American continents and just one step away from the two oceans, occupied a key point of a network of navigable waters that crossed Tabasco, communicating with the Usumacinta River via the Chacamas River and Playas de Catazajá, and thereby offering abundant facilities and possibilities for trade (cf. Galindo 1834, 1835; Cochelet 1832) (Figure 1).

The communication between Central America and the rest of the world and the possibility of connecting both oceans by navigating the rivers, inland lakes and canals built especially for this purpose is a topic mentioned by all the explorers of the Mayan ruins – lost in the jungle and as invisible to the local populations as the wealth linked to navigating the rivers. Indeed, the reports of the national and foreign explorers in Central America, Chiapas and Yucatán closely link the discovery of the ruins with the exploration of the navigable routes, both of them actions synonymous with civilization and the creation of an interest that until then had been non-existent. The mule trails, mountains and porters seemed to reflect the attitude of indigenous and creole populations – ranchers, farmers and producers – towards the Stone Houses: conservative forces driven by superstition, blind to the value of the ruins and the benefits of trade and communication with the rest of the world.

Despite this apparent apathy, the competition launched by the Parisian Geographic Society was publicized both in Europe and in America, where the French doctor Francisco Corroy (cf. Fajardo Ortiz & Álvarez 2002) learned from the periodical *El Águila Mexicana* that Paris wanted details, dates and reports about the ruins (Corroy 1828). Corroy, born in France and eager for patriotic glory, also corresponded regularly with doctors in New York (Anonymous 1833). They communicated via mail sent in the Anglo-American brigs that anchored in Veracruz. The correspondence between Paris and Tabasco could take eight months to arrive, as happened with one of the letters of the Geographic Society written on the 10th May and received on the 31st of December 1830.

Corroy had visited the Stone Houses close to Palenque in 1819, considering them an 'American Palmira' and, in his view, a second Volney (Corroy 1828:198). From 1806 Corroy resided in the town of Tabasco, forty leagues west of the ruins, having married a native woman from the village of Santo Domingo de Palenque where family and friends lived. Captain Dupaix and the draughtsman Luciano Castañeda had stayed at his house on their visit to the ruins in 1808, sent by the viceroy Yturrigaray as part of the Royal Expedition (Dupaix 1834). Their visit also gave him the opportunity to see the plates they had produced. Corroy, eager to collaborate and in possession of fourteen sketches of the figures and 'hieroglyphics,' emphasized the difficulties involved in trying to transport the large stones with the sculpted figures, but also the problems faced in transforming them into designs: there were no painters or draughtsmen available for recruitment in the provinces. Furthermore, the forest would have to be felled and burnt to clear the path of snakes, bats and felines – work which could only be undertaken during four months of the year because of the bad weather, storms and northerly winds. These problems were compounded by the threat posed by the anthropophagic Lacandón natives and the distrust and jealousy

Figure 1 – Gulf of Mexico. The map shows the position of Palenque in regard to the region's rivers, lakes and ports. (Atlas Jackson..., [ca.1920])



of Corroy's new compatriots. Corroy (1831a:281), recording the obstacles and suspicions faced by Dupaix and Castañeda, remarked that the travellers were daunted by the region and that undertaking such an expedition would demand a lot more money and people. However, one of his contacts in Palenque had offered to send him two large stones measuring about three *varas* (yards) long by one and half *varas* wide by four *dedos* (two inches) thick. These would take about eight or nine months to arrive. Faced with the lack of draughtsmen, the only option appeared to be to mutilate the ruins and send them by boat to Europe or the American cabinets. As the works of Catherwood, Nebel, Galindo and Caddy show, all of them trained in engineering or civil and military architecture, the art of producing technical drawings and plans was an unavoidable – yet insufficient – prerequisite for the ruins to be 'seen' far from their original location.

On the other hand, Corroy was able to travel through these provinces thanks to his network of relatives and local contacts, as well as US contacts also based in Tabasco, who provided informants and lodging close to the Palenque ruins (Corroy 1832, 1833). The explorers of the ruins, we could say, circulated via social networks generated by their contacts and professional and commercial activities. Corroy, as a doctor with the ability to cure people through the use of medicines, gained the trust of the local populations and used this trust to glean information on the ruins or the archaeological pieces themselves. Stephens and Catherwood - though not medical professionals themselves - received many favours from the inhabitants of Chiapas, Yucatán and Central America by distributing remedies to the sick. Along with the symbolic power of the daguerreotype and photography in archaeological explorations from the 1850s onwards (Barthe 2007), we must also recognize the power wielded by explorers by curing locals through the use of drugs imported from the urban centres. The explorers used this knowledge - very often rudimentary - to obtain shelter, food or archaeological pieces, or merely as a source of prestige that functioned as a passport to gain access to the ruins. The local populations asked for remedies for their sick and moribund family members, demonstrating their trust in the visitors and the capacity for the resources of 'civilization' to enter and leave according to their own interests.

Stephens, in his capacity as US consul to the almost defunct Federal Republic of Central America, also circulated among the foreign consuls in Guatemala and the English-speaking traders, professionals and landowners, as well as the inner circles opened up by the letters of introduction provided by his government and, above all, the powerful Marqués de Aycinena family (cf. Floyd 1961; Woodward 1965). The letters from the Aycinena family opened the doors of the convents and the acceptance of the priests, who provided information and a place to rest. Waldeck, for his part, had arrived in Mexico in 1825 from Portsmouth, hired as an engineer by a British company as part of the expansion of the country's commercial strategies (Baudez 1993; Naylor 1960). Once in Mexico City, he came into contact with the German-speaking collectors and dealers, who placed their own collections at his disposal to produce plates and drawings (Baudez, 1993, p.56). Waldeck was not the only one to decide to live off Europe's sudden interest in a previously little known antiquity. M. Franck, born in Munich, sent to France a set of pictures lithographed in Bavaria. These 81 *in folio* plates depicted around six hundred objects from a variety of sources: a Mexican museum, the Philadelphia Philosophical Society, the private collections

of the Count of Peñasco, a Mexican landowner, Luciano Castañeda (Dupaix's draughtsman) and the English merchants Rich, Exeter and Marshall, resident in Mexico (Warden 1831; Franck 1831; Waldeck 1833, 1835a, 1835b).

Waldeck's journey to Palenque meant the arrival of another professional draughtsman in the Chiapas zone with considerable experience of lithography in London, including the work commissioned by Henry Berthout for the English publication of the illustrations for the 18th century report produced by Antonio del Río (Baudez 1993; Podgorny 2007a). As a result, Waldeck carried a series of previously known images around with him. Just as happened with the English architect Catherwood, experienced in drawing the ruins of Mediterranean antiquity, the lithographic images skewed his view of the ruins. These images also owed something to those produced by expeditions carried out by the colonial administration (cf. García Sáiz 1994; Podgorny 2007a). As I pointed out earlier, awareness of the interference caused by the draughtsman's models meant that the ruins remained hidden beneath the Chiapas jungle for many more years, despite being known and popularized in large part precisely because of their lack of 'real substance.'

The expeditions led by Juan Galindo (sponsored by the Central American government) and Lieutenant John Caddy of the English Royal Artillery and Patrick Walker, commissioned by the government of British Honduras, both took the form of official missions. Consequently, they were able to make use of circuits ensured by a large quantity of resources and government backing. The British exploration of Palenque that set out from Belize was the only one to reach the Stone Houses from the eastern side of the Yucatán peninsula: "up the River Belize via Peten on the lake of Itza to Polenki- By adopting this route, the actual position of the Lake of Itza will be ascertained by observation taken on the spot" (MacDonald to Lord Russell, cited in Pendergast 1967:31). This route was combined with the search for navigable routes that would allow the extraction of the hardwood timber needed to expand the railway systems in Europe. It was precisely in these zones that the search for materials for the development of transportation and production linked to the steam engine was enabled through the use of animal and human brute force. As they gradually lost contact with the capital of the 'Settlement,' Caddy and Walker penetrated ever deeper into a region controlled by technologies already abandoned in the capital of the British empire but still capable of providing the raw materials for consolidating the path towards the future.

Like Galindo, John Caddy – trained as an engineer and canon specialist – was able to produce plans, drawings and illustrations to scale (cf. Podgorny 2007a); the mission led by Walker, meanwhile, sought to analyze the political situation of Chiapas and Yucatán and weigh up the independentist or annexationist winds in relation to Mexico and other states. Hence although the venture was a race to describe the ruins in open competition with the Stephens/Catherwood expedition (Pendergast 1967), trade interests and the possibilities of navigating on the region's rivers were also at stake (cf. Taylor 1960).

On the Spanish side, use of the waterways had already been tried in the economy of the viceroyalty and the Royal Court: as occurred with the ruins of Palenque, the studies of Galindo and the French, American and British consuls had done no more than rediscover the description by military engineers and colonial administrators from the 18th century

and the start of the 19th (Podgorny 2007a, 2007b). Thus, setting out from Tabasco, Corroy proposed to reach Palenque travelling one hundred leagues by canoe, making use of the rivers and creeks. According to the doctor, the communications would be facilitated by the Chacamas River, located half a league from Palenque, and along a reasonably good path leading to Playas de Catazajá, a large freshwater lake plied by sixty-ton schooners coming from the Usumacinta River, navigable as far as Barra de Tabasco, San Pedro, Isla del Carmen and Laguna (Corroy 1831a, 1831b). Indeed, in 1821 a track had been built from Bachajón to Palenque and San José de Playas de Catazajá. The settlement of Playas de Catazajá had been established at the end of the 17th century as part of the dyewood extraction front and during the colonial period became a departure point for sending merchandise from Chiapas to the port of El Carmen (Campeche) by canoe, exploiting the region's many lakes and creeks. Since 1799 Playas de Catazajá had held the title of a *villa* (town) due to its importance as a coastal and international shipping port from which the dye was exported to Spain and France.

The French and English made ample use of this fluvial network. Stephens and Catherwood preferred to suffer the paths, porters and mules. Even in 1885 Charnay turned to the routes enabled by river navigation to communicate with the ports exporting the products of Chiapas and Guatemala, taking a journey that, even at that time, already started out with the railway and steamboat and subsequently continued via mule and human porters. Reaching Palenque therefore became a voyage that began with a means of travel proper to the 19th century and ended with the only force prevailing at the dawn of history: the force of the very men and women that time had left buried in the jungle. Leaving Palenque meant taking a path that, to justify the former, had to end up on paper.

The impossibility of 'medializing' the ruins on paper subjected them to the avatars of politics and the economic and technical capacity of the different explorers. Charnay would give proof of these aims and the remains that these explorers left behind as material evidence of the historical events of the 19th century:

A Mexican, Don Silenciario Rodriguez, appointed by the government inspector of ruins, came to oversee the transportation to las Playas of the stone cross taken from a Palenque temple; this famous slab, well-known to the educated world, had been through some singular adventures; it had been removed thirty years ago to a spot about one hundred metres from the temple by its abductor who, despite his efforts, was unable to carry it further. I had found it there in 1858, a recumbent slab covered in moss, and I had taken a fairly good photograph of it, surprised to find it such a distance from its point of departure. Afterwards it had been broken up and this had probably made its transportation easier and encouraged Rodríguez to bring it to las Playas to then ship it to Mexico, where the Museum would claim it (Charnay 1885:182).

Charnay himself reflected on the opportunity offered by the casts and the transfer of the ruin onto paper. It enabled the reconstruction of a whole, which had been lacking in reality due to the mutilation of the monuments and the lack of technical skill, curiosity and greed of the different explorers. Incapable of transporting the ruins whole, the explorers contributed even further to the monuments' invisibility by scattering their parts throughout the world:

We took a casting and today we have the entire monument at the Trocadero Palace, formed by three pieces, which, by strange fortune, have been scattered in various countries far from each other. Indeed, one of these slabs is still in place in its temple, the second is at las Playas and the third is in Washington at the Museum of the Smithsonian Institute; and to add to the strangeness of the adventure, two more slabs decorating the pillars of the same altar are today found embedded in the wall of the church of Santo Domingo de Palenque (Charnay 1885:182, 183).

It would be the castings, along with the different plans, photographs and drawings, which would ensure that the whole finally emerged convincingly at the end of the 19th century. Above all, the factor needed for Palenque to finally become recognized was the repetition of the features and the 'similitude' between the representations produced by a range of different explorers.

Final comments

Charnay, with an acknowledgement to Lottin de Laval, recognized one of the central problems for the observation and examination of ruins in the 19th century: how to produce transportable objects for study in the cabinets and museums where they could be seen by people who had never had the desire or opportunity to travel to the 'real' location of the ruins. The American ruins, one could say, could not count as evidence of themselves. Transforming stone into paper was the principle dilemma for the explorers of monuments from the century of progress. These remote objects once again stirred up all the problems associated with the authority of the witness and with the procedures for comparing different testimonies relating to 'the same thing.'

On the other hand, the reproduction techniques used by Charnay and others raised another closely related question: what was archaeology's object of study? What value did learned society give to the 'copy' in comparison to the reproduction? The value attributed to casts compared to the 'real object' was far from being univocal. But aside from their scientific value, the antiquities acquired a commercial and symbolic value to which some groups wished to lay claim. Whether this desire acquired real form depended on fortune, political relations and the availability of technical means for putting this desire into action. The copy would acquire value as evidence, a decorative or pedagogical object, capable of being reproduced as many times as demanded by bourgeois taste, albeit helpless in the face of the value attributed to the possession of unique and 'original' objects.

Studying the history of archaeology from the viewpoint of the exchange and circulation of ideas, objects, persons and information implies the need to connect history to the study of geopolitics and the information and communication technologies in a world integrated and fragmented by trade and the market. In this work I have tried to examine a way of uniting the ideas and practices of 19th century archaeology with the material infrastructure for transmitting information and the technology through which it is generated and processed. With this aim in mind, I propose that human agents and social networks will recover a role that the historiography born in that same 19th century concealed with its emphasis on the biographies of great scientists and the epic narrative of the progress of science.

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NOTES

- ¹ 'Central America' declared its independence from Spain in September 1821 with the capital based in Guatemala City, raising the question of whether it would unite or remain separate from the similarly independent Mexico. Chiapas was part of the general captaincy of Guatemala until shortly after the Treaty of Córdoba (August 1821), which recognized Mexican independence. It then severed ties with the City of Guatemala to form part of independent Mexico. The annexation of Central America to Mexico involved its subdivision into three general commands with capitals in Ciudad Real de Chiapas, Guatemala and León de Nicaragua. In November 1822, Chiapas included the Mexican province of Tabasco and parts of Guatemala such as Quezaltenango. Finally, in July 1823, the independence was declared of the United Provinces of Central America, a state that disappeared in 1839 (Kenyon 1961).
- ² The objects needed to produce the casts consisted of "a large and medium-sized sponge, a large tin plate 35 to 40 centimetres in diameter, a strong wild boar hair brush with a 30 centimetre handle, several wrought iron pans, a large flat brush called 'cod tail,' a strong paintbrush, two or three modelling chisels, a large pair of scissors, very lightly pasted Couronne Bulle paper, thick unpasted grey paper, yellow wax, aluminium sulphate, wheat flour, strong Givet glue, litharged oil, essence of turpentine and linseed oil" (Lottin de Laval 1857).
- ³ Lottin de Laval pointed out the poor quality of French paper. For the casts he recommended instead English or Russian paper, firm and elastic, obtainable in Vienna, Constantinople, Erzurum, Mosul, Baghdad, Shiraz, Isfahan, Damascus and Egypt.
- ⁴ Lottin de Laval travelled alone accompanied by a household assistant and the *chalewadars* (mule drivers).
- ⁵ Humboldt combined his reflections with information on the politics involved in this form of transport: he noted that the porters formed a kind of guild of free men who attacked any attempt to reform the paths allowing the use of mules and with this the step towards the extinction of their own work.
- ⁶ Stephens 'bought' Copán for fifty dollars (Stephens 1842:128)
- ⁷ Colonel Juan Galindo (1802-1839) acted as a corresponding member for Central America of the Geographical Societies of London and Paris. Galindo, in accordance with his military education, added a series of scaled plans and drawings of the human figures and glyphs taken from the ruins of the so-called Palenque 'palace' (Galindo 1832).
- ⁸ "But who, my God, could imagine that this innocent occupation, an integral part of my duties, could have been turned into a crime and a motive to accuse me of treason towards our rightful sovereign Fernando VII! Some idle residents of this city and born tyrants, taking sinister advantage of the fall of His Excellency Señor de Iturrigaray, suspected I was French which is untrue since I am Austrian in origin and birth and in league with His Excellency, in favour of France" (Dupaix 1834:10; cf. Podgorny 2007a). The 'attacks' by the local residents were one of the paradigmatic 'incidents' related by explorers of the ruins (cf. Stephens 1842, 1843).
- ⁹ M. Franck (1831:283 and 284) provided an interesting description of the social network of collectors found in Mexico City in 1830: "The monuments of the Museum of Mexico are merely objects disinterred in the capital and provinces of the Republic; they are sent by the governor of the provinces to the museum. The collection of the Museum of the Philosophical Society of Philadelphia was sent by the United States minister to Mexico, M. Poinsett (...), who has always consulted me about purchases, and indeed I have sold him several objects myself. The collection of the Marchioness of Silva Nevada is also composed of objects dug up in the presence of herself and her son, on their property situated close to the road from Mexico to Vera-Cruz. The priest of the Cathedral of Mexico, M. Posada, had loaned me the beautiful group of a mother with her child in obsidian.

M. Keating, an engineer from the United States, himself sent a large collection of antiquities to the Philosophical Society of Philadelphia, dug up in the vicinity of the mines of the American Society of which he was then the director."

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