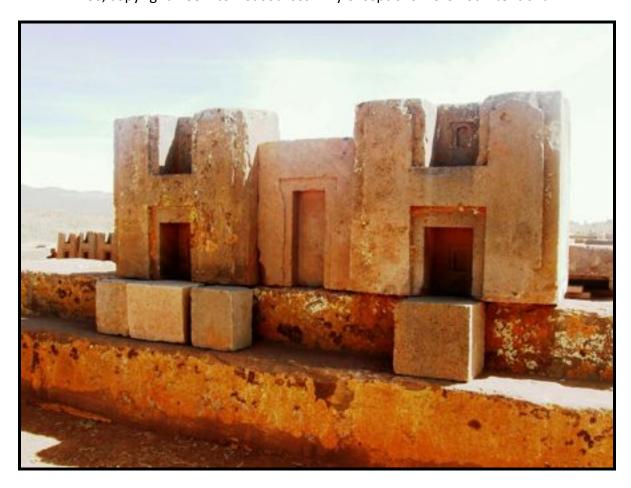


# **The Enigma Of Tiwanaku And Puma Punku:**

### **Unlocking The Mysteries Of Megalithic Wonders**

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Seemingly machined "H blocks" found in relative abundance at Puma Punku

# **Dedication**

How such an out of the way cluster of ancient and heavily damaged stone structures can attract so much attention intrigues me. Tiwanaku and Puma Punku sit, almost brooding on the high altiplano of Bolivia, just half an hour from the Peruvian border and a 5 minute drive from a major highway. Yet their mere

presence confounds the brightest of intellects, and is the bane of many archaeologists who try to explain the amazing and precise flat and compound stone surfaces as being the works of people wearing loincloths and having only bronze chisels and stone hammers as tools.

My thanks to the great minds that shaped the blocks with such intricate detail presumably thousands of years ago, and to those who have accompanied me in the present in exploring them. The list of the latter includes the brilliant engineer Christopher Dunn, authors David Hatcher Childress and Hugh Newman, as well as geologist Dr. Robert Schoch.

And to my dear Irene; who is as intrigued as I am...

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#### 1/ Introduction

An enigma is a thing, place or situation that makes the mind ponder, often for extended periods of time, about its origin, purpose, who or what was involved in it, and sometimes all three and more. Such are the subjects of this book. When one has at least a small amount of knowledge pertaining to the megalithic wonders of the ancient world, South America in particular and Peru and Bolivia specifically, Tiwanaku is usually on the list of the top mysterious places, but living deep in the shadows behind the famous "lost city of the Inca" Machu Picchu.



Location of Tiwanaku and Puma Punku

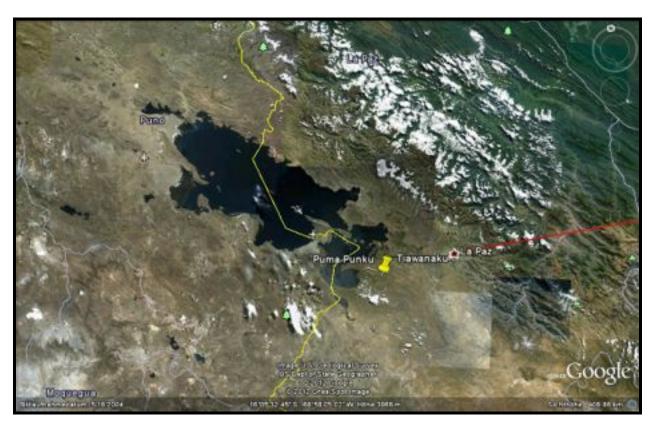
Located near the south shore of Lake Titicaca, the highest navigable body of water on the planet, and chilled by the high altiplano winds, Tiwanaku sits as a barren outpost of some seemingly lost culture, abandoned by its original builders, and then adopted by others.



Detail of the location of Tiwanaku, also written Tiahuanaco

According to most people's modern day guide to knowledge, via the internet; Wikipedia; Tiwanaku (Spanish: Tiahuanaco and Tiahuanacu) is an important Pre-Columbian archaeological site in western Bolivia, South America. Tiwanaku is recognized by Andean scholars as one of the most important precursors to the Inca Empire, flourishing as the ritual and administrative capital of a major state power for approximately five hundred years. The ruins of the ancient city state are near the south-eastern shore of Lake Titicaca in the La Paz Department, Ingavi Province, Tiwanaku Municipality, about 72 km (44 miles) west of La Paz. The site was first recorded in written history by Spanish conquistador and self-acclaimed

"first chronicler of the Indies" Pedro Cieza de León. Leon stumbled upon the remains of Tiwanaku in 1549 while searching for the Inca capital Qullasuyu. Some have hypothesized that Tiwanaku's modern name is related to the Aymara term *taypiqala*, meaning "stone in the center", alluding to the belief that it lay at the center of the world. However, the name by which Tiwanaku was known to its inhabitants may have been lost, as the people of Tiwanaku had no written language.



Satellite map of Tiwanaku and Puma Punku's location

"Stone in the Center" most likely refers to the place being the capital/center of a given cultural area, rather than the center of the world as a whole. This would be very similar to the Inca, the supposed offshoot of the Tiwanaku culture, who called their capital, Cuzco (or Cusco or even Qosqo) as the "Navel of the World." The Inca were of course referring to the center of "their world."

And of Puma Punku: again, according to Wikipedia, Pumapunku, also called "Puma Pumku" or "Puma Puncu", is part of a large temple complex or monument

group that is part of the Tiwanaku Site near Tiwanaku, Bolivia. In Aymara, its name means, "The Door of the Cougar". The Pumapunku complex consists of an unwalled western court, a central unwalled esplanade, a terraced platform mound that is faced with megalithic stone, and a walled eastern court. The Pumapunku is a terraced earthen mound that is faced with megalithic blocks. It is 167.36 m wide along its north-south axis and 116.7 m long along its east-west axis. On the northeast and southeast corners of the Pumapunku it has 20-meter wide projections that extend 27.6 meters north and south from the rectangular mound. The eastern edge of the Pumapunku is occupied by what is called the "Plataforma Lítica." The Plataforma Lítica consists of a stone terrace that is 6.75 by 38.72 meters in dimension. This terrace is paved with multiple enormous stone blocks. The Plataforma Lítica contains the largest stone slab found in both the Pumapunku and Tiwanaku Site. This stone slab is 7.81 meters long, 5.17 meters wide and averages 1.07 meters thick. Based upon the specific gravity of the red sandstone from which it was carved, this stone slab has been estimated to weigh 131 metric tons.

The three major questions about both Tiwanaku and Puma Punku are, clearly; when were they built, who built them, and how was the stone shaped? The latter is the most perplexing of all, because the precision of some of the stones, especially those of grey diorite, which is a hard igneous rock, as hard or more so than granite, supposedly coming from a source near Copacabana which is approximately 90 km away.



What clearly seems to be an engineered andesite or diorite stone at Puma Punku

The main reason why both Tiwanaku and Puma Punku are enigmas is that, for one thing, the people who live there now, the Aymara, have only been in the area for probably 1000 or so years, driving out the Inca, who were earlier inhabitants. Or, it is probably more correct to say the proto-Inca, because it is believed that the first true Inca, Manco Capac and his sister/wife Mama Occllo, were forced to leave the area as the result of a 40 year drought.

This fact, coupled with the somewhat worn out statement that "they had no written form of language" contributes to the fact that so little is known of either of these sites, and I do say either, because even a cursory inspection shows that they were not contemporary settlements. The one factor is the difference in stone used, and the level of craftsmanship, but the latter we will get to later.

Some people are under the false assumption that Tiwanaku was built by the Inca; far from it. An excerpt from Graham Hancock's watershed masterpiece, "Fingerprints of the Gods" clues us in on this. Of the few early chronicles written by Native people soon after the conquest by the Spanish, beginning in 1532, the works of Garcilaso de la Vega stand out. His mother was a full blood royal Inca, and his father Spanish. In his great book "Royal Commentaries of the Inca," still available, in English and in paperback, he recounts what Tiwanaku (and presumably Puma Punku) looked like when viewed by someone 400 years ago:

We must now say something about the large and almost incredible buildings of Tiahuanaco. There is an artificial hill, of great height, built on stone foundations so that the earth will not slide. There are gigantic figures carved in stone ... these are much worn which shows their great antiquity. There are walls, the stones of which are so enormous it is difficult to imagine what human force could have put them in place. And there are the remains of strange buildings, the most remarkable being stone portals, hewn out of solid rock; these stand on bases anything up to 30 feet long, 15 feet wide and 6 feet thick, base and portal being all of one piece ... How, and with the use of what tools or implements, massive works of such size could be achieved are questions which we are unable to answer ... Nor can it be imagined how such enormous stones could have been brought here ...

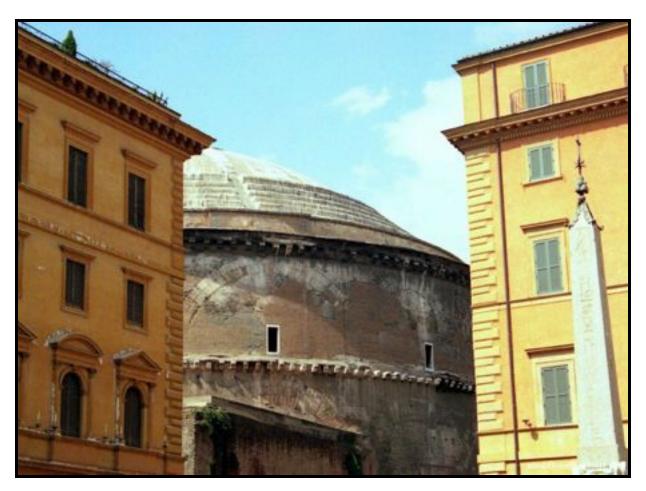
And Pedro Cieza de Leon, another early chronicler, of Spanish blood, who was an early visitor to Tiwanaku:

'I asked the natives whether these edifices were built in the time of the Inca,' wrote the chronicler Pedro Cieza de Leon, 'They laughed at the question, affirming that they were made long before the Inca reign and ... that they had heard from their forebears that everything to be seen there appeared suddenly in the course of a single night ...'

Presumably no looting of the stones of the sights had occurred to any great degree at this time, so both of these early writers were able to see Tiwanaku and Puma Punku more or less in their undisturbed "time capsule" state.

The stone used at Tiwanaku, at least the original structures, which were the large pillar-like obelisks, is andesite, while Puma Punku is a grey andesite and red

sandstone. The two sites are right next to each, and so many people regard them as being contemporary. However, the major difference in quality of workmanship most likely negates this idea. And why would mine be a preposterous notion? Many cities in Europe for example, Athens and Rome being classic examples, have the remains of buildings which date back at least 2000 years living in close proximity with ones made last year. Of course, in these cases the differences in building materials is obvious.

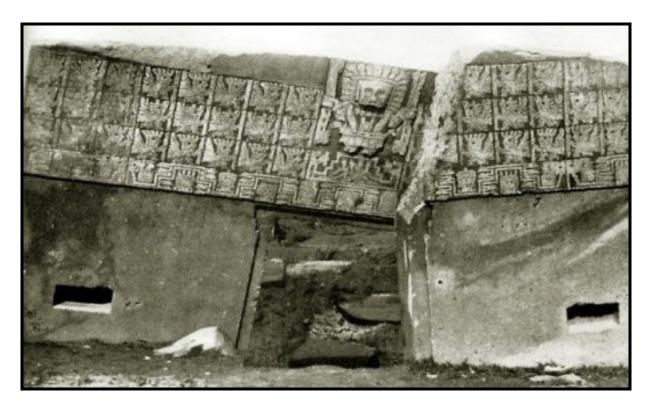


The Pantheon in Rome, Italy

The Pantheon, or at least the latest version of it, was completed supposedly about 126 AD; an earlier version of it had supposedly burned. But what makes this photo interesting is that here it sits with renaissance buildings right next to it; and shows that just because buildings are in close proximity to each other, does not mean they are of a contemporary age.

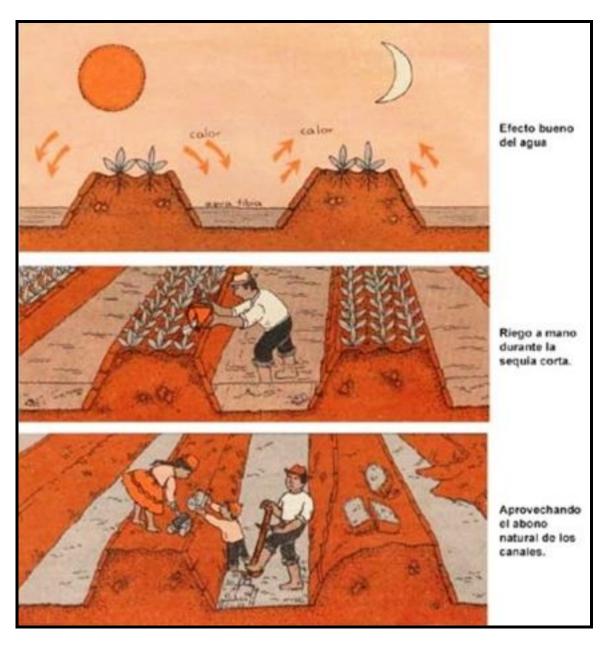
And so it would seem with Tiwanaku and Puma Punku. According to the conventional archaeological story, the area around Tiwanaku may have been inhabited as early as 1500 BC as a small agriculturally based village. (1) Most research, though, is based around the Tiwanaku IV and V periods between AD 300 and AD 1000, during which Tiwanaku grew significantly in power. During the time period between 300 BC and AD 300 Tiwanaku is thought to have been a moral and cosmological center to which many people made pilgrimages. The ideas of cosmological prestige are the precursors to Tiwanaku's powerful empire. (2)

As for Puma Punku, a radiocarbon date was obtained from the lowermost and oldest layer of mound fill. This layer was deposited during the first of three construction epochs and dates the initial construction of the Puma Punku at 1510 ±25 B.P. C14 (AD 440; calibrated, AD 536–600). Since the radiocarbon date came from the lowermost and oldest layer of mound fill underlying the diorite and sandstone stonework, the stonework must have been constructed sometime after 1510 ±25 B.P. C14. The excavation trenches of Vranich show that the clay, sand, and gravel fill of the Puma Punku complex lies directly on the sterile middle Pleistocene sediments. These excavation trenches also demonstrated the lack of any so called pre-Andean Middle Horizon cultural deposits within the area of the Tiwanaku Site adjacent to the Puma Punku complex. (3)



How much of Tiwanaku and Puma Punku looked during early excavations

Tiwanaku's location between the lake and dry highlands provided key resources of fish, wild birds, plants, and herding grounds for camelidae, particularly llamas. The Titicaca Basin is the most productive environment in the area with predictable and abundant rainfall, which the Tiwanaku culture learned to harness and use in their farming. As one goes further east, the Altiplano is an area of very dry arid land. The high altitude Titicaca Basin required the development of a distinctive farming technique known as "flooded-raised field" agriculture (suka kollus). They comprised a significant percentage of the agriculture in the region, along with irrigated fields, pasture, terraced fields and qochas (artificial ponds) farming. Artificially raised planting mounds are separated by shallow canals filled with water. The canals supply moisture for growing crops, but they also absorb heat from solar radiation during the day. This heat is gradually emitted during the bitterly cold nights that often produce frost, endemic to the region, providing thermal insulation. (4)

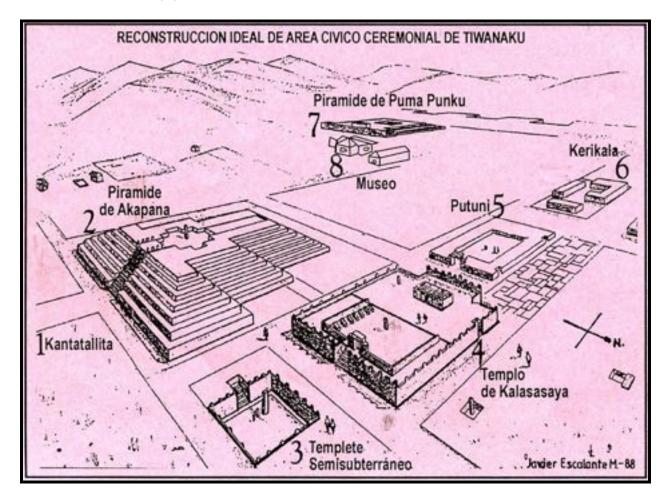


The Suka Kollu system, still used to this day

The above description is also thought to have included Puma Punku. So the dating of both sites, regarded by many as a single one, begins, in the conventional sense, about 1500 BC. But what the academics fail to answer, or seemingly even take into account, are the amazing levels of stone shaping prowess found at Tiwanaku, but even more so at Puma Punku. This we shall delve into later.

As the population grew in this area, it is believed that occupational niches were created where each member of the society had a job and relied on the elites of

the empire to provide all of the commoners with all the resources that would fulfill their needs. Some occupations include agriculturists, herders, pastoralists, etc. Along with this separation of occupations, there was also a hierarchal stratification within the empire. The elites of Tiwanaku lived inside four walls that were surrounded by a moat, supposedly. This moat, some believe, was to create the image of a sacred island. Inside the walls there were many images of human origin that only the elites were privileged to, despite the fact that images represent the beginning of all humans not only the elite. Commoners may have only ever entered this structure for ceremonial purposes since it was home to the holiest of shrines. (5)



Layout of the Tiwanaku and Puma Punku complex

It is theorized the Pumapunku complex as well as its surrounding temples of Tiwanaku, the Akapana pyramid, Kalasasaya, Putuni and Kerikala functioned as

spiritual and ritual centers for the Tiwanaku people. This area might have been viewed as the center of the Andean world, attracting pilgrims from far away to marvel in its beauty. These structures transformed the local landscape; Pumapunku was purposely integrated with Illimani Mountain, a sacred peak that the Tiwanaku possibly believed to be home to the spirits of their dead. This area was believed to have existed between heaven and Earth. The spiritual significance and the sense of wonder would have been amplified into a "mind-altering and life-changing experience." (6)

OK; but all of this is hypothetical. The last of the Tiwanaku culture is believed to have been the beginnings of the Inca, about 1000 years ago, replaced by the Aymara people, who populate the area to this day.

The so called city and its inhabitants left no written history, and modern local people know little about the city and its activities. An archaeologically based theory asserts that around AD 400, Tiwanaku went from being a locally dominant force to a predatory state. Tiwanaku expanded its reaches into the Yungas and brought its culture and way of life to many other cultures in Peru, Bolivia, and Chile. However, Tiwanaku was not exclusively a violent culture. In order to expand its reach, it used politics to create colonies, negotiate trade agreements, and establish so-called state cults. (7)

Force was rarely necessary for the empire to expand, but on the northern end of the Basin resistance was present. There is evidence that bases of some statues were taken from other cultures and carried all the way back to the capital city of Tiwanaku where the stones were placed in a subordinate position to the Gods of the Tiwanaku in order to display the power Tiwanaku held over many. (8)

One of these could very well have been Pucara, located to the north on the altiplano of present day Peru, at 3910m altitude, 61 km north of Juliaca, which is at the northern edge of Lake Titicaca. The story of culture Pucara dates back to 500 BC C., with the main background to the cultures Chiripa Qaluyo north and south of the lake, and so existed in full flourish long before the apex of Tiwanaku.



Sculpture garden of artefacts near the ancient site of Pucara

The community grew to urban proportions between 600 and 800 AD, becoming an important regional power in the southern Andes. According to early estimates, at its maximum extent, the city covered approximately 6.5 square kilometers, and had between 15,000–30,000 inhabitants. However, satellite imaging was used recently to map the extent of fossilized suka kollus across the three primary valleys of Tiwanaku, arriving at population-carrying capacity estimates of anywhere between 285,000 and 1,482,000 people.(9) This is lost to most visitors today, since the only structures left of any significance are the stone temple constructions. However, what is important to note is that the common people would have constructed their dwellings out of the alluvial clay/mud deposits of the area, essentially adobe mud bricks. The roofs would have been a straw thatch. Both the adobe and thatch still make up the majority of poor farmers' houses today, the odd one having corrugated metal or ceramic tile roofs.



Typical Bolivian houses of the area either under construction or abandoned

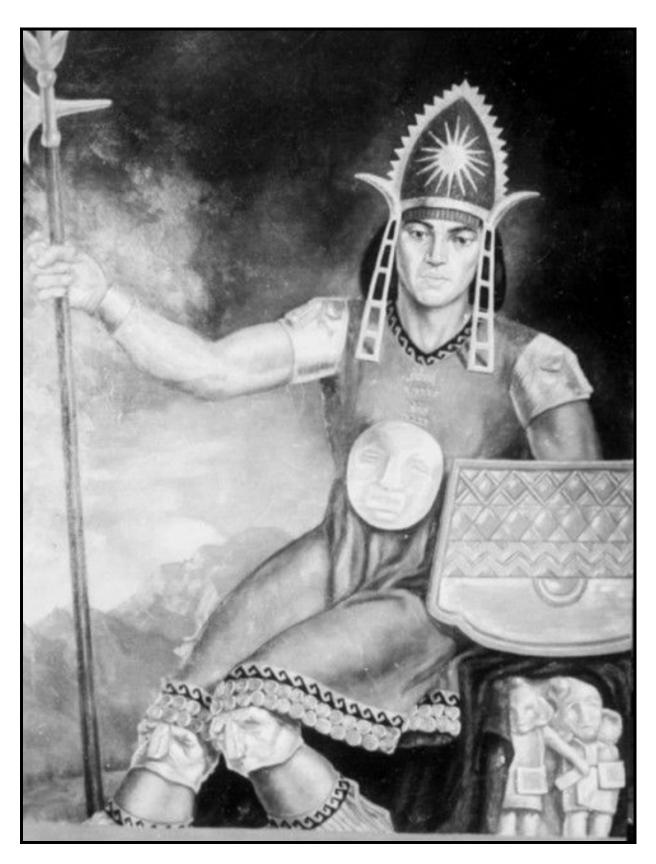
Over the years, once abandoned during the 40 year drought of the 10<sup>th</sup> century, the natural grass roofing would have given way due to solar and especially rain deterioration, and then the adobe would essentially dissolve back into the stratum. That is why very little of what could have been a city of 1,000,000 or more inhabitants now looks like a lonely cluster of stone ruins.

However, getting back to Tiwanaku when it was in its prime, it gained its power through the trade it implemented between all of the cities within its empire. The elites gained their status by control of the surplus of food obtained from all regions and redistributed among all the people. Control of Ilama herds became very significant to Tiwanaku, as they were essential for carrying goods back and forth between the center and the periphery. (10) The animals may also have symbolized the distance between the commoners and the elites, in that the elite clearly owned more!

The elites' power continued to grow along with the surplus of resources until about 950. At this time a dramatic shift in climate occurred, as has been discussed, which is typical for the region. A significant drop in precipitation occurred in the Titicaca Basin, with some archaeologists venturing to suggest a great drought occurred. As the rain became less and less many of the cities furthest away from Lake Titicaca began to produce fewer crops to give to the elites. As the surplus of food dropped, the elites' power began to fall. This is of course assuming that the so called elites were oligarchs, which is more of a European construct than that of a Native American one. However, it is typical of academics, especially those that are western trained, to impose their ideas of social structure on those of other cultures. The same is very true as regards the later Inca civilization, dubbed an empire by many scholars. It was in fact a confederation of states. This is covered in great detail in my two books: "A Brief History Of The Incas: From Rise, Through Reign To Ruin," and "The Inca; Before The Conquest." Both are available as e-books from www.hiddenincatours.com as well as through www.amazon.com.

Due to the resiliency of the raised fields, the capital city became the last place of production, but in the end even the intelligent design of the fields was no match for the weather. Tiwanaku disappeared around 1000 because food production, the empire's source of power and authority, dried up. The land was not inhabited again for many years and then so by the Aymara people, which we have already discussed.

Beyond the northern frontier of the Tiwanaku state a new power started to emerge in the beginning of the 13th century, the Inca Empire. In 1445 Pachacutec Inca Yupanqui (the ninth Inca) absorbed the Titicaca regions. He incorporated and developed what was left from the Tiwanaku patterns of culture, and the Inca officials were superimposed upon the existing local officials. Quechua was made the official language and sun worship the official religion. So, the last traces of the Tiwanaku civilization were integrated or deleted. This then ends a cursory overview of the site(s) and a cursory exploration of the culture(s) thought to have dwelt there. We now move on to architecture and art.



Drawing of the Inca Pachacutec