



Research Article

Volume 12 Issue 5 - February 2023
DOI: 10.19080/GJAA.2023.12.555847

Glob J Arch & Anthropol

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Discovering the Oracle. From a Military Garrison to a Temple and a Comparison with another distant Inka Structure and their Ritual Significance



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Submission: December 5, 2022; **Published:** February 01, 2023

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Abstracts

The present work aims to deepen the study of one of the structures that make up the archaeological site of Shincal de Quimivil, located in the Province of Catamarca, Argentina and relate it to a similar structure in its kind that we have found in the Inka archaeological site of Sondor, Peru. The idea that Inka society would replicate its constructions in several territories and at great distances had already been observed previously¹. The expeditions² were based on carrying out several post-excavation studies that I begin in Complex 19 from 2015. So far we have shown that the structure is cardinally aligned, in agreement with the Shincal, with several constructions aligned both cardinally and equinoctial; that many Shincal structures are copies of the buildings of the Inka capital and its surroundings and the existence of buildings of previous cultures. Complex 19 has an eastern-oriented ceremonial staircase that would allow ceremonies facing the sun, and between its mountains you can see the aligned structures of the Shincal center, including the Eastern and Western temples. It is important to bear in mind that all of the Astronomical and landscape characteristics, such as the relationship with the surrounding mountains and water sources, which constitute the sacred elements in the genesis of the Inka belief, correspond to "Complex 19". In terms of its orientation, the Shincal Ushnu is oriented towards sunrise at the medium temporal equinox and towards the west at Mount Pissis³.

The elements that at the moment have no answer regarding "Complex 19" are whether it was a temple prior to the constitution of the power center that we know as "The Shincal" and neither was it, as a centralizing element, precedent to the Ushnu. On the other hand, we do not know if the existence of "Complex 19" was or was not decisive in the installation of the system of temples and structures that make up "El Shincal" today. The north-south orientation of the temple and the ceremonial staircase to the east, by themselves would be sufficient elements for your Astronomical relationships currently accepted as rituals regarding the Inka question. Also, we discard that it was a military garrison. The beliefs originated in the first archaeological works played down the importance of the ceremonial possibility of the site and for that reason it was known as "The Watchtower", but this is an already overcome theory.

Also, we try to demonstrate that C19 is related to a similar structure in the Sondor complex, near Cuzco, in present-day Peru. The centers of power, the "New Cuzco's" contain Inkan cultural manifestations, but these are not copies or repetitions of their imperial capital, but they sought to adapt to particular situations of the conquered territories⁴. This last hypothesis has interesting elements. The construction of the structure in Sondor has similar architectural characteristics and its cardinal alignment and the undoubted relationship with the landscape and Astronomy, which in Sondor is constituted with the orographic chain, a lake, and a water source, forming again the Inka genesis in the same way as in Complex 19.

Keywords: Oracle; Inka; Shincal; Temple; Archaeology; Astronomy; Landscape

¹Hyslop [1],(Farrington, 1999).

²From nine different campaigns to the site

³Corrado et al. [2,3]

⁴Pino Matos [4], 2004

Presentation⁵

The current work aims to deepen the study of Inka archaeological site “Shincal de Quimivil”, Catamarca, Argentina, related to previous presentations on different Inka structures, their relationship with landscape and skyscape and aims to deepen the study of a particular one: The “Complex 19”, the

“Oracle”. “El Shincal”, was excavated from the 60’s. I will mention Rex Gonzalez, Rodolfo Raffino, and other professionals until today. According to current authors, in 21 hectares (About 52 acres), would have identified more than 100 structures, of which 22 can be toured by the public and visited (Figure 1).



Figure 1: “El Shincal”, main structures. The green mark indicates the Complex 197.

My work will briefly address the following elements:

- i. I’ll confirm previous theories about the alignment of Complex 19;
- ii. I’ll discard the previous theories that the hill has been a military garrison.
- iii. I’ll present my hypotheses currently under investigation related to the astronomical alignments and the relation with similar structures in Peru and their relationship with the Inka genesis.
- iv. I’ll establish new elements: Cardinal orientation of the North-South structure is complementary to the water source; and the existence of a ceremonial furnace oriented towards the Inka Waka. I’ll correct the previous idea about the orientation of the staircase by a proper excavation and finally determine that

Complex 19 is a temple.

I will refer to the “Ceremonial” use of certain structures or their alignments. This means that although it is known that the Inka culture mainly worships the Sun and other celestial stars, the orientations of their constructions are given above all to the temporal mean equinox and to the stones considered sacred, the “Wakas”. This point will be demonstrated in the development of the text.

Complex 19 (Figures 2 & 3) is a structure of approximately 34 x 8 meters built on a terraced hill six meters high. The starting point of the current work will be my discovery, in 2016, of a ceremonial oven or furnace in the center of the temple courtyard (Figure 3). The ceremonial oven was made with the mouth oriented at 48°, which indicated that whoever made any sacrifice in it was looked towards a place of importance.

⁵About Sondor site, the present work is based on information collected between the years 2015, 2018, prior to the fire that partially destroyed the archaeological site of Sondor (Peru) in December 2018. Last Campaign to Shincal was in 2021.

⁶Last four years I participated on six different campaigns and research groups, with Marco Giovanetti (UNLP) and his Team, Gustavo Corrado (UNLP), Sixto Gimenez Benitez (UNLP), and José Luis Pino Matos (UMSM), and made those three more myself. I’ll make some references about the information that was published separately for those authors. Also, there are more related works on “bibliography”.

⁷Map from Gustavo Corrado.



Figure 2: Complex 19 and some ceremonial orientations from the West.

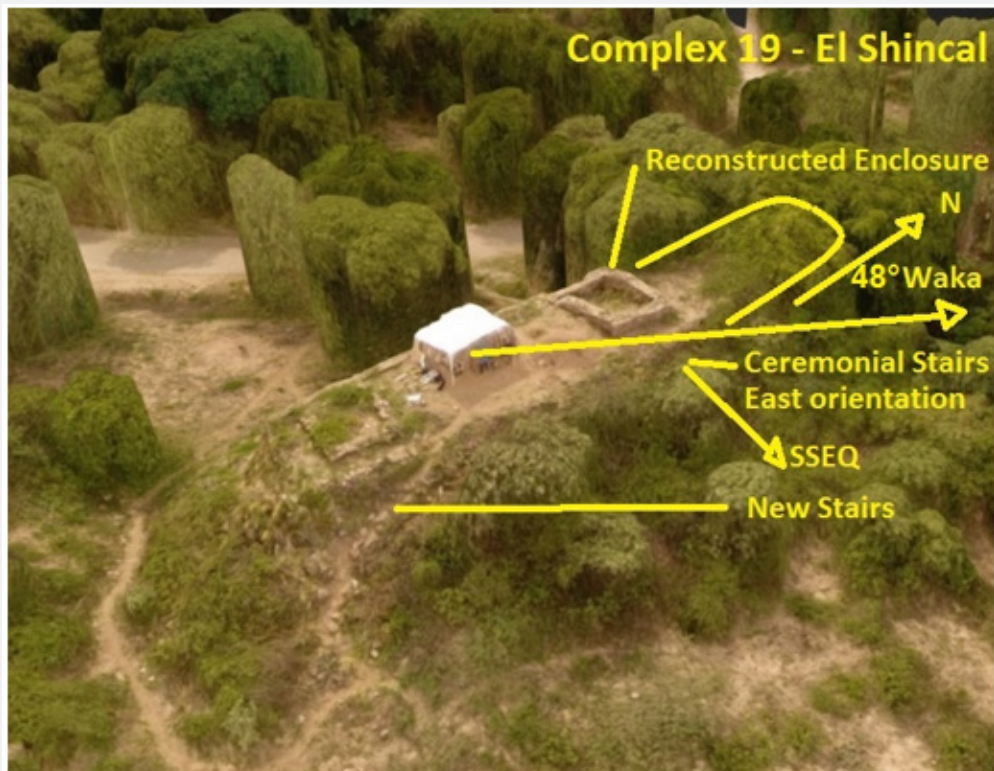


Figure 3: Orientations from SE.

The methodology for taking cardinal measurements is manually and presently on the site, through the use of a multi-zone Suunto Tandem, with the magnetic declination corrections through the data obtained on the NOAA website (U.S. National Oceanic Atmospheric Administration)⁸. To check a theory on

the orientation of the hill where the complex 19 is emplaced, I was authorized to make a brief prospection under colleagues the University of La Plata and La Plata Museum on a current investigation project (Figure 4).



Figure 4: ceremonial the furnace-oven. Note the 45cmts side first excavation.

When complete the first part of the excavation, that was a simple 1 meter square trying to find the basement of the hill, I we observed that there was a stone made structure that seems to be a ceremonial furnace. It was in December 2016. With the possibility that there was another structure and that the oven was a part of a ceremonial system, in February 2017 was authorized a new expedition to make an extensive excavation. When the work was completed by a team from La Plata Museum, we observed that the oven was part of a ceremonial system, and that on the stone, there was carved at least three holes to make libations and a large number of grooves and small tunnels excavated into the rock, which has the present appearance (Figure 5).

Ceremonial and fortune-telling were suggested and tests were carried out to indicate that the tunnels have different routes depending on the amount of liquid that is poured through them: 12 liters are needed to fill the furrows and makes the system is fully functional. I also experimented with several 'Sound experiments' the interpretation and results have not been evaluated as yet⁹. On the divination possibilities we supposed that there were quite possibly right¹⁰. On the other hand, the excavation of the central courtyard revealed a ceremonial staircase, with an equinoctial orientation, which did not appear in this way in the previous plans and draws of the site. Some of them containing the wrong location of the staircase were made by me before cleaning the site from vegetation and dig¹¹.

⁹The research was presented on EAA (European Archaeologist Association) anual meeting 2019 in Bern, Switzerland and is a part of a EAA study group called "Soundscapes" led by Angela Bella.

¹⁰Without having completely established the way in which the ceremonies were performed, we nicknamed it affectionately The oracle.

¹¹Plans from Raffino (2004) (Corrected), and other authors.

The staircase is important: It faces east, has a surrounding wall of about 35 cm Libertad 3068 D to 3, Florida, Provincia de Buenos Aires, Argentina's high, a "dress" or ceremonial decoration made to sacred places. In addition, its location is not casual:

Drawing a straight line between the middle of the first step, towards the southeast is the mouth of the ceremonial oven and to the northwest is the Waka of the Western hill that is the center of Inka Western temple (Figure 6).

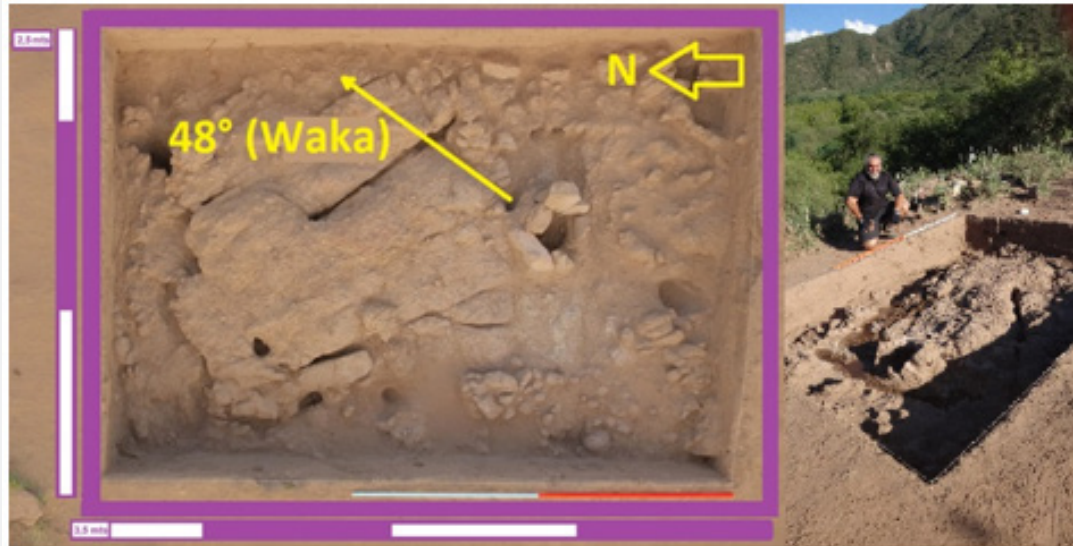


Figure 5: Orientation to Waka. Means Ceremonial use.

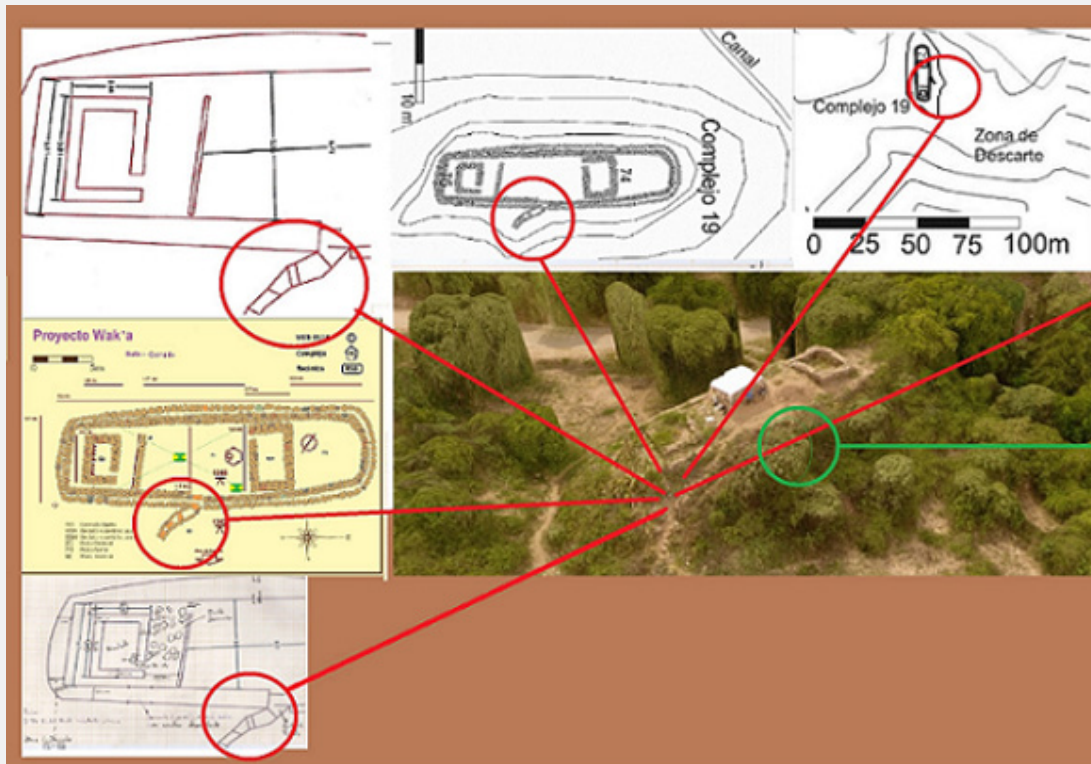


Figure 6: The staircase. Different opinions.

The relationship between the two Inka temples cardinally aligned, the stair of the Complex 19 facing east and the oven orientation to the give an idea of the continuity between the structures and the landscape. However, east-west alignments can be for reasons other than the equinoxes, although we know the importance of the equinoxes for the ceremonies of all sun-worshipping cultures. I consider that this hypothesis, although valid, can be extended if other reasons for the alignments of the Inka constructions towards the east cardinal point are determined in further research. Actually, the authors on Inka matter wrote little about C19, although it was mentioned by others. The general idea was to grant it a military function, but no explanation was given for this. As a result, the structure was called “El Atalaya, The Watchtower”, name chosed by the supposition that the structure has a military function¹².

Some opinions of interest:

- i. It is an elevation where two identical structures lie, symmetrical as some temples in Cusco [5].
- ii. Mentioned structures and rituals in Shincal, but never the “Atalaya” [6].
- iii. Also mentioned some ceremonial structures but not the “Atalaya”, Hyslop [1], (Matos Mendieta, 2015)
- iv. Describe the “Atalaya” as a watchtower or a defensive function [7].
- v. “It is built on a hill, consisting of two quadrangular fences. Raffino assigns it defense functions” [8].

Part of a sociologist study that I did, mentioned local people

interview saying that one of the first explorers of the site found an arrowhead in the place, after which it became generalized the idea that the structure had some military function¹³. I will comment Ian Farrington opinion, who invites us to look for similarities in other Cuzco temples. In my case I only found them in terms of the existence of symmetry, present in all Inka constructions type Kancha: Actually, I think Farrington was misinterpreted¹⁴, [10] and to determine it, the search of a temple made in an artificial terraced hill, “dressed” and with some ceremonial use, is part of my present research: To determinate this, in the last three years I checked files, plans and consulted catalogs in Argentina, Japan, Peru, the United Kingdom, and the United States.

Of the many consultations and interviews I have undertook, I found that there is an archaeological place where there could be two confronting structures, but that it wouldn’t be Inka¹⁵. This is why at the next opportunity, I participated in an expedition led by José Luis Pino Matos [11] through the Apurimac area, that is from Cusco (Peru) to the West. My research topic was to visit Sondor. We investigated different issues, on this Khapac Ñan road, and visited Tarawasi, Saywite, Tamburco, Curamba, Cochacaxas and finally Sondor¹⁶.

Now, let’s go back and make a brief relationship between the myth of the Inka genesis, the natural elements and the landscape: They are water, the sacred stone (Waka) and the Sun. These must be present in everything sacred, although the well-known Guaman Poma image “Idols of the Inkas” also indicates the Moon and at least one star (Venus or Alfa Centauri depending on authors¹⁷). The original Inka genesis place was located in Lake Titicaca, present-day Bolivia.

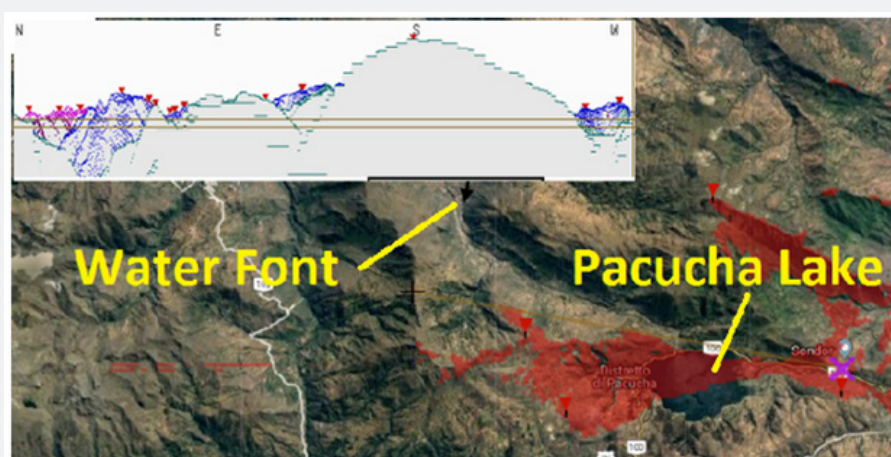


Figure 7: Sondor, Peru. The water font.

¹²“Watchtower” was choosing to suppose the structure have a military function.

¹³“El archivo como campo”, presented on “Población & Sociedad” Magazine ISSN 0328 3445, J Nicolás Balbi [9], Buenos Aires.

¹⁴This Idea was arising as a result of my communication with the author’s team, Australia, 2017.

¹⁵I contact and make an interview to Enmanuel Gomez, an archaeologist who was excavating several Pre-Inka sites in Andahuaylas area, Peru.

¹⁶Some materials that I got in Saywite is part of a current SEAC presentation, that I presented in SEAC 2018. The Intiwatana of Saywite (Peru) an archaeoastronomical investigation on the role of time marker of the gnomon, by Sylvia Motta et al, presented at SEAC 2018.

Returning to Sondor, Peru, I want to show the measurements taken from the Ushnu site, which is recognized as corresponding to pre-Inka Chakra culture and later occupied by the Inkas. Most important orientations (Staircase and Waka) are towards the lake and the font of water, and is also related with the mountains surrounding (Figure 7).

The ceremonial stair seems toward to the valley, possibly where the font of water arises¹⁸.

It is important to keep in mind that the Chakras were agricultural, with many solar cult elements. Anyway, I want

to highlight is this structure, that have many architectural coincidences with Complex 19 in Argentina, and here it is simply called "Sondor Complex".

The next picture was taken from the Waka and shows the Ushnu and Pacucha Lake (Figure 8). On the next image, I compare the architectural aspects of both sites. I took pictures at 80 meters high, to seen coincidences between Sondor Complex and Shincal Complex 19: Sondor Analysis is on the left and Complex 19 on the right (Figure 9). There are the coincidences:



Figure 8: Panorama from Sondor Ushnu.

The similarities:

i. Both were Built elevated but at low altitude, indicate being on a terrestrial Inka plane, suitable for making sacrifices, stairs with ceremonial orientation: In Sondor towards the font of water, in Shincal towards the Sun both are close as important Inkas constructions, near the Ushnu and with the same orientation.

ii. Double decoration wall, a "dress" (Indicate sacred place or "Waka")

iii. Symmetrical enclosures, with low walls (32 to 45 cmts)

iv. Central courtyard, without digging in Sondor, in Shincal with stair facing east.

v. Ceremonial oven in Shincal Oriented to the Waka, without dig in Sondor.

vi. Imbibe places (Libaderos) in Shincal, without dig in Sondor.

vii. Both were made in the same places as the Inkas constructions, near the Ushnus¹⁹

¹⁷Pino Matos (2004) Arcturus star also was considered.

¹⁸Ilaria Cristofaro (2018)

¹⁹Possibly those constructions preceded the Inka constructions. In Sondor it is known that was occupied by Chakra Culture, and in Shincal from Aguada Culture, both previous to the Inka occupation.

viii. Both sites, the southern compound was excavated, where no archaeological materials were discovered.

ix. The structure of Shincal is North South oriented, like others structures of the complex²⁰

x. Neighboring the structures and in both places there are discard zones, that is, an area with a large number of broken

pottery vessels. There are no recollection records in Sondor, but in Complex 19 the vessels are Inka, Belen and Santamaria cultures (original cultures neighboring the area)²¹

xi. These symmetrical structures only have similar in Sondor (Figure 10).

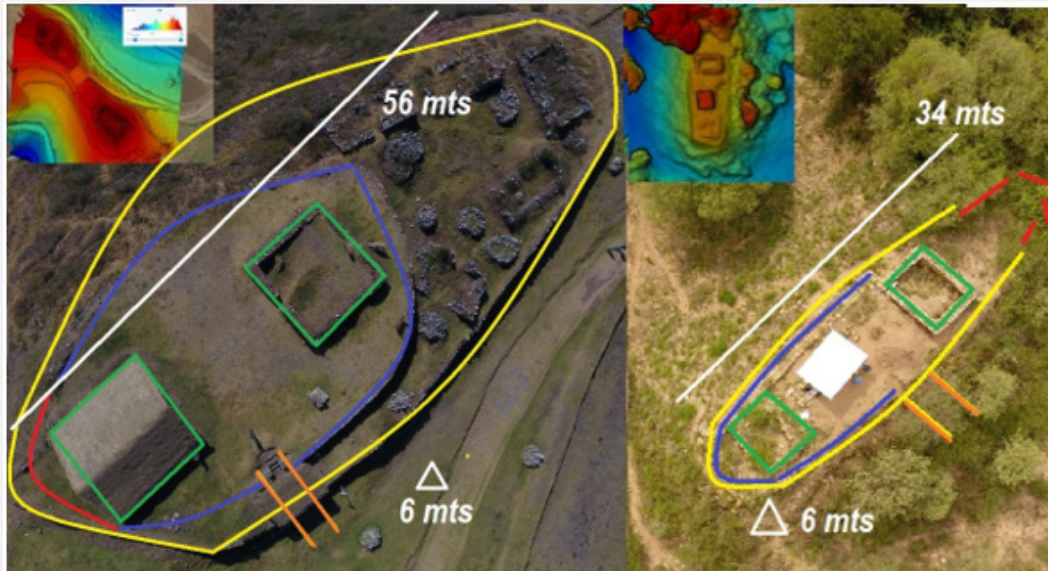


Figure 9: Comparative aerial pictures. Left Sondor (Peru) Right Shincal (Argentina).

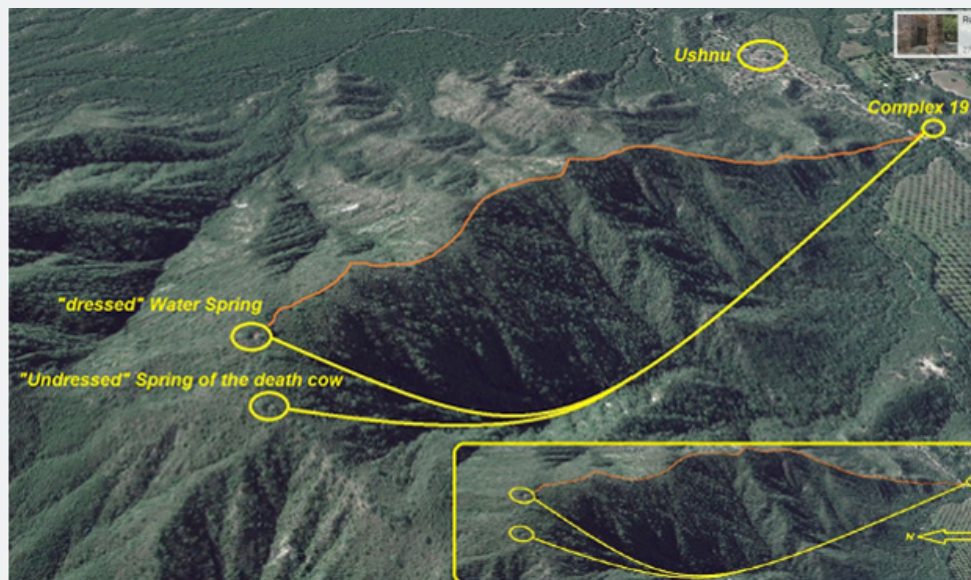


Figure 10: Shincal, Complex 19: The water font.

²⁰Corrado et al. [10,12]

²¹Giovanetti [13]

²²The water source is known as "Pozo de la vaca muerta", Death cow hole.

As an additional element, and looking for relationships with water, Waka and sun, and related with Complex 19 I have found a source of water. According to testimonial work, in the place marked on the map, there is spring water “dressed” with small stone walls which would indicate its sacredness. Two days expedition on animals is needed to find this place, and is one of my future projects. Firsts approximate measurements indicate only about 3° of deviation, towards the north, follow the cardinal line of C19²².

Before I make any conclusions relating to this site I will mention that in general, the astronomical measurements in Shincal were investigated related to Ushnu²³, but it is necessary to repeat them from the C-19 terrace [14-21]. On next figure some astronomical and landscape measurements taken from Complex 19. We must continue the measurements to determine the coincidences between Complex 19 and the rest of the structures (Figure 11).

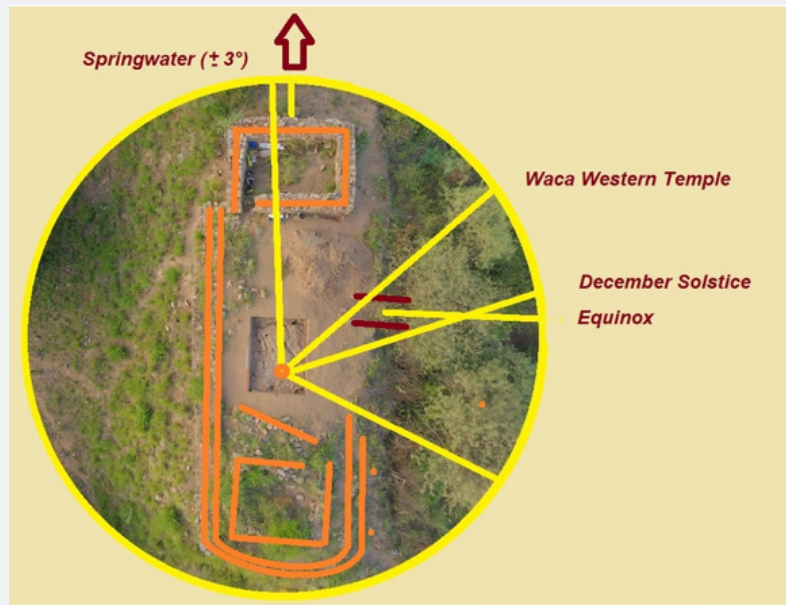


Figure 11: Main Ceremonial Orientations.

Recap:

I confirmed the previous theories:

- i. The complex 19 is also aligned cardinally as the Shincal
- ii. There are vestiges of previous cultures.

I discarded the previous theories:

- i. It was not a military garrison or a guard post.

Currently under investigation:

- i. Its symmetrical structures only have similar in Sondor.
- ii. I must confirm several astronomical alignments obtained for the Complex 19.
- iii. In same way as in Sondor, Complex 19 is prior to Inka occupation and consequently of its Ushnu [22-27].

I established new elements:

- i. Cardinal orientation complemented with the water source.

- ii. Ceremonial Oven with orientation towards the Waka.
- iii. I corrected the orientation of the staircase to the East.
- iv. The Complex 19 is a temple.
- v. Both constructions had similar architectural characteristics, there are cardinal alignment and the undoubted relationship with the landscape and Astronomy, which in Sondor is constituted with the orographic chain, a lake, and a water source, forming again the Inka genesis in the same way as in Complex 19.

Conclusion

Both the general idea and the official history of the archaeological site always interpreted Complex 19 as a Military Garrison, including the description of the functions of the buildings that give the guides of the archaeological site to visitors, for which reason it is informally called “Atalaya” “ Among other reasons, the surrounding walls, seen from below, give the impression of being a real fortress, added to the stories of the locals who confirmed this idea.

²³Corrado et al. [10]

The archaeological investigation determined that this structure was in fact a temple, and that the walls were not about such, but that they are a typical representation of the Andean sacredness: "the dress".

We made lectures and short courses for the guides of the archaeological site and clarifying and broadening publications of the works carried out to date, in order to finally establish and make public the true ceremonial function of the Inka temple known as "Complex 19".

Acknowledgement

I would like to thank to the members of the different expedition groups of the University of La Plata, with whom I made many of the expeditions on whose information this work is based.

To José Luis Pino Matos, for his guide and interpretations on the Inka and Andean culture.

To Ilaria Cristofaro, for his astronomical analytical support.

To Grace Cassar for her selfless support.

To all my archaeology and Archeoastronomy colleagues, that, years ago, when accepting me in those research team of La Plata Museum, encouraged me to start in the fascinating world of the Andean American culture.

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DOI: [10.19080/GJAA.2023.12.555847](https://doi.org/10.19080/GJAA.2023.12.555847)

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