

The subject of this study is the World Heritage City of Cusco, Peru, one of the oldest continuously inhabited cities in the Americas that was the former capital of the Inca Empire (1400-1532 CD). Archaeological research across an empire that stretched from Ecuador to Chile has provided a wealth of information on the form of their cities and the different strategies they used to conquer the Andes. The capital, however, lacks scientific excavations that can date its origin and transformation as their empire grew. Conducting archaeology excavations in the current city is difficult due to all the modern uses of the buildings and streets. When these excavations occur, what is found is usually disturbed from centuries of city construction. The proposed excavations are a rare opportunity to find intact remains that date to the very start of this city and empire. The proposed research examines the origins of Cusco as a unique route towards city and capital that is different from the contemporary cities of late medieval Europe, though with its own urban logic.

The present historic core of Cusco consists of Spanish colonial houses and churches built on the foundations of the previous Imperial Inca buildings. We have recently documented the exposed Inca architecture in the city. We have confirmed the basic shape of the city plan. Through careful analysis of the architecture, we found that the Inca city went through several stages of construction. These phases include an early form using local stone, a sudden and extensive expansion using a distant quarry, and a series of changes that probably related to the whims of different emperors.

This research seeks to examine the official historical accounts that Cusco existed only as a little town of modest materials before its redesign by the emperor Pacha Kuti Inqa Yupanki in the early part of the 15th century. After a thorough inspection of the city and the immediate surroundings, we determined that two sites, Cruz Mo'qo and Patallacta, could provide the proper data on the early formation of the city. Unlike the rest of the bustling historic city that is archaeologically disturbed from centuries of construction, these locations were not covered by later buildings. Our inspection of the sites indicates a strong potential for intact, accessible remains for the pre-and early Inca period (CE 1000-1400). Cruz Mo'qo's first includes a ruined temple with a dramatic overlook of the lower city. However, these modest buildings would become the start of one of the largest stone constructions in the New World. The second site is Patallacta, which signifies the "ceremonial center on a terrace" in Quechua. During the Inca period, it would have sat on the edge of the lower city. Here, the Spanish sources situate the revered mummy of the emperor Pacha Kuti Inqa Yupanki, responsible for the dramatic growth of the empire.

Research methods will include standard archaeological techniques, divided into three parts. The first is a non-invasive prospection using Ground Penetrating Radar (GPR), drone-based digital and laser recording of the surface. These computer-processed images will place excavations in areas most likely to give us information on construction stages and provide artifacts such as ceramics whose style change over time. The organics for radiocarbon dating and analysis will provide us with dates on the development of the early city, its iconic artifacts, and much-admired Inca masonry. Regarding the stonework, we will also implement a series of cutting-edge techniques involving the chemical analysis and three-dimensional imaging of the masonry.

By uncovering the form of these two sites and how they integrate with the rest of the Inca monumental city, this research will date the start and early development of a soon-to-be capital city. Crucial for understanding how the Inca grew from village to empire is identifying the origins and development of the symbolic objects central to their Imperial strategy and propaganda. The first is the standardized and highly recognizable Imperial Inca ceramics. These were used gifts to convince other rulers to join the empire and then formed a constant presence and reminders in their many ritual festivals. The second is the stonework that projected their power and set these events. Scholars consider both aspects of Inca society index markers of their presence and measure of control, but how, where, and why these tools developed remain critical, outstanding questions.