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Research Article

14,000 Years Old Atlas of Heaven and Earth: Andean Panel in Inca Sun Temple of South America and Its Root in Paleolithic East Asia

Thomas Tao*

Stanntron, Inc., Northborough, USA

Abstract

New findings indicated that the Andean panel in the Inca Sun Temple was a relic of an ancient drawing now dated 13,000–15,000 years old. The drawing was an Atlas of Heaven and Earth that contained astronomy, geography, weathering, calendars, and a stratified society. The atlas was seamlessly integrated with dualistic cosmology, religion, ideology, and philosophy. The atlas contained the "Five Divine Stars" of the Sun, the Moon, Rising Venus, Setting Venus, and Polar Star Vega in 12,000 BC. Its "Four Sacred Asterisms" on the ecliptic were the southern Bird, the northern Snake/Turtle, the western Big Cat, and the eastern Dragon. Since the atlas was created, the North Pole has turned 180 degrees on the circle of precession. In the east, there were mountains, monsoon, and thunder. In the west, an easterly running river drained a lake or lagoon into the sea. The atlas had several metaphors. Examples were Genesis of Seven Days Creation, Life Cycles, Andean Cross, later Mayan Eight-Sided Cross, and Chinese Yin Yang Eight Gua. Heaven was round, Earth was square, and the stratification of mankind was a mandate of the Creator. The two calendars had 13 months and four seasons. One of them was a Sidereal calendar with 365 days a year and used Antares for the start of a year and conjunctions with the moon. The other Solar Lunar Calendar had three Leap "Back" Months for alignment with the solar circle. Fu Xi (ca 5,324 BC) composed Chinese dualistic religion presumably based on its drawing. Its contents were also found in China, Japan, Korea, Incans, Mayans, etc., and to some degree in Bronze Age Mesopotamia, India, and Egypt. Its birthplace was assumed to be Paleolithic East Asia, but its exact location was unknown.

Keywords

Dualism, Genesis, Creation, Ancient Calendar, Ancient Geography, Ancient Meteorology, Ancient Numerals, Ancient Astronomy, Stratified Society, Paleolithic and Neolithic East Asia and Americas

1. Introduction

It was said that the Andean Panel was placed in one room as an altarpiece [3] in the Inca Sun Temple, Cusco City of Peru, South America, locally known as the "Qhelqa" of the Qori-kancha. This Sun Temple, named by the Ninth Inca, was the most important, the richest, and the utmost sacred Sun temple throughout the Inca Empire.

The drawing in the Andean panel was copied by Juan Santa Cruz Pachacuti in his chronicle ca 1613 [8]. Since then, the drawing has been interpreted in several ways. Overall, it was considered as a dualistic cosmology, religion, ideology, and

*Corresponding author: thomastaodr@live.com (Thomas Tao)

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philosophy of the Inca society (ca 1500 AD) and the Inca *Chakana* known as the Andean Cross [3, 10].

The panel's whereabouts were unknown, presumably lost or destroyed during the Spanish colonial period. It was a sacred relic for the native Andean people. However Spanish priests were determined to eliminate native paganism and to replace it with Catholicism. Only after the recent revival of local cultures, did the drawing in the panel start to attract local attention.

However, its study was largely limited to the local phenomenon of the Andean Mountains in South America, intermingled with Christian views. Nevertheless, some had pointed out it contained calendars starting in December which did not appear to be the Inca Calendars in circulation ca 1500 AD [3].

However, little was known of its relationship with East Asia where ancestors of these Andean people came from.

This paper focused on the origin of the drawing in the Andean Panel, now known as the Atlas of Heaven and Earth, its dating, its root in Paleolithic East Asia, and especially its relationship with Neolithic China.

The Incas or Andean interpretations were used as references.

2. The Study of Drawing on the Incas-Andean Panel

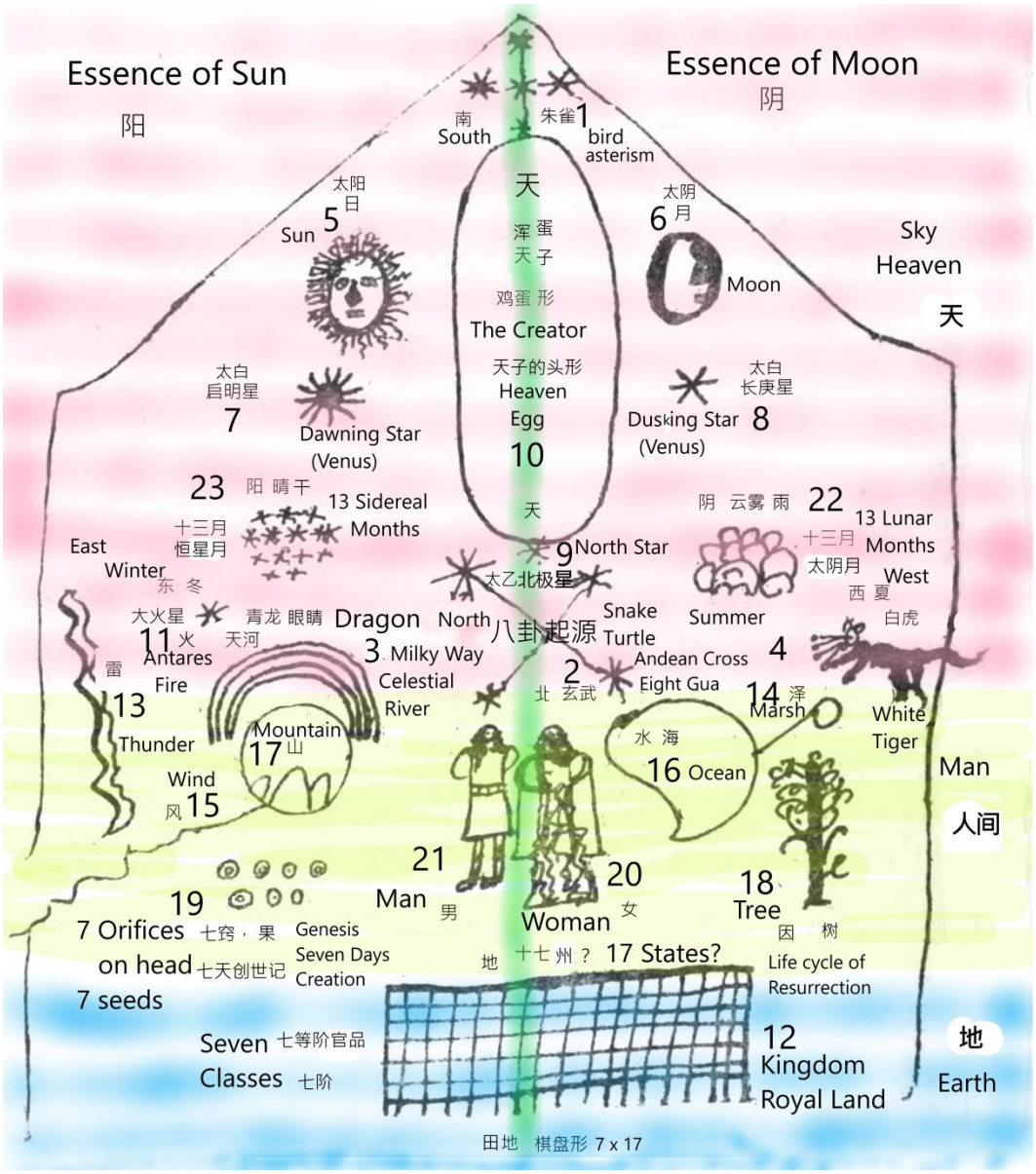


Figure 1. *Atlas of Heaven and Earth dated 13,000-15,000 years old. The Drawing of the Andean Panel in the Inca Sun Temple of South America and its illustrations in English and Chinese.*

Table 1. *Atlas of Heaven and Earth – Andean Panel of Inca Sun Temple in Cusco City.*

#	Item	Incas - Andean	Chinese	Original or Neolithic Representation
1		Orqorara. Meeting of Gods? Orion?	Vermillion Bird	Asterism for Sacred Bird. Vermillion Bird or Phoenix in China, Japan, Korea, etc., and Condor in Inca Andeans. Known as the "Asterism of Five Gods (#5, #6, #7, #8, and #9)" in ancient China. Denebola, Regulus, etc. in Leo. South
2		Chakana - Andeans Cross. Saramanka as Pot of Corn, Qoramanka as Pot of herbs.	Black Snake/Turtle	Asterism for Sacred Black Snake/Turtle in China, Japan, Korea, etc., and Snake in Andeans. Turtle referred to aquatic, snake referred to terrestrial or subterrestrial. Known as the "Asterism of Four Aides to North Pole" in ancient China. Alpheratz etc. in Pegasus. North
3		K'uychi, Turomanya: Sky's Bow.	Azure Dragon	"Dark Asterism" for Sacred Azure Dragon in China, Japan, and Korea, etc. A group of "dark" animals within the Milky Way when Vega was the North Star in 12,000 BC. From Scorpius, and Sagittarius to the southern sky of Norma, Circinus, Centaurus, and Crux, etc. East.
4		Qoa or Choqechin-chay -Luminous big cat, hails.	White Tiger	Asterism for the Sacred White Tiger in China, Japan, Korea, etc., and Puma in Andeans. The luminous big cat had Pleiades and Aldebaran in Tauris, Betelgeuse, and three stars in Orion as cat whiskies. West.
5		Inti - Sun	Tai Yang, Sun	Sun, God or Tai of Yang. Emperor of the Sun. The Rising sun in the east.
6		Killa - Moon	Tai Yin, Moon	Moon, Full Moon, Goddess or Tai of Yin, Queen of the Moon. When the Sun rises in the East, the full moon sets in the west. Rabbit.
7		Ch'aska Qoyllor, Achachi Ururi: Venus Dawn, 1st ruler	Tai Bai, Dawn Star	Venus in the east, Dawn Star. God of Bai or emperor of Dawn Star. Alpha male. King.
8		Choqechinchay, Apachi Ururi: Venus Dusk, 1st Qoya - queen	Tai Bai, Dusk Star	Venus in the west, Dusk Star, Goddess of Bai, or queen of Dusk Star.
9		No interpretation. Omitted by Andeans	Tai Yi, North Star	North Polar Star. God of Yi or emperor of the Polar Star. Center that the universe revolved around. Vega in 12,000 BC or nearby stars in 13,000 BC
10		Wiraqocha God, Pacha Yachachi: the Creator, Heaven	Heaven, Creator, Egg	A standing egg. Heaven. Origin of Heaven. The Creator in Genesis. Egg laid by Sacred Bird (#1) or Snake/Turtle (#2). A metaphor for the Head of the Creator being hatched into Seven Orifices (#19). Heaven was Round. One of Eight Elements in Andean Cross or Eight Gua.
11		Katachillay. livestock reproduction?	Fire, Antares	Fire. Antares, the Great Fire Star, the eye of the Sacred Azure Dragon. Its rise above the horizon marked the start of the year. Winter. One of Eight Elements in Andean Cross or Eight Gua.
12		Qolqan – pata, warehouse, terraces, representation of Sun Temple in Cusco	Earth	Earth. A metaphor for a stratified society in 7 x 17 matrix of squares. "7" Terraces to Heaven from Genesis (#19). "17" Administrative Units or States, which were a sum of Sacred Numerals of 4, 5, and 8. Earth was Square. One of Eight Elements in Andean Cross or Eight Gua.
13		Chuki llla or lllapa: Lightning, god of rain	Thunder	Thunder lightning. One of Eight Elements in Andean Cross or Eight Gua.
14		Pukyu: Springs or water holes creating lagoons	Lagoon	Lagoon, marsh, lake, or shallow water body. One of Eight Elements in Andean Cross or Eight Gua.

#	Item	Incas - Andean	Chinese	Original or Neolithic Representation
15		Pillkomayo: sacred river Vilcanota o Willka Mayu?	Wind	Wind. Strong winds, Typhon, Monsoon, hurricane. One of Eight Elements in Andean Cross or Eight Gua.
16		Mama Qocha Mother of Sea, in seashell	Water	Water. A big body of water – the sea. One of Eight Elements in Andean Cross or Eight Gua.
17		Pacha MaMa: the world or Earth	Mountain	Mountain. Three tall peaks reaching heaven. One of Eight Elements in Andean Cross or Eight Gua.
18		Mallki, The Tree. Ancestors on family tree	Tree	Tree. 17 branches referred to "17 states" on Earth (#12). Paired with seeds (#19) a metaphor for life cycles of rebirth. Family Tree.
19		Imaymana nau-raykunaq nauin. The Eyes as seeds, an-cestral gods	7 seeds or ori-fices	7 seeds. 7 hatched eggs each representing one of seven orifices on the head (eyes, ears, nostrils, and mouth). A metaphor for Genesis of Seven Days Creation when paired with the Creator/Egg (#10). Metaphor for Life cycles of rebirth when paired with Tree (#18). Metaphor for Upper and Lower Classes by Birth when paired with Earth (#12).
20		Qoya, queen, female	Queen, female	Queen, female. Daughter of God. Mother with a child.
21		Inca, king, male	King, male	King, man. Son of God. A metaphor for the ruling class of the kingdom when paired with Queen #20 and the life cycle.
22		Poqoy, winter, cloud, fog, calendar	13 Lunar Months calendar	13 Solar Lunar months calendar with three leap "back" months and four seasons.
23		Suksu, summer, cal-endar	13 Sidereal Months Calendar	13 Sidereal months calendar with 365 days in a year and four seasons. December (winter) was the start of the year which was marked by rising Antares. Opposite to the Andean notation of "summer".

Twenty-three symbols were found in the atlas as shown in Figure 1 and were numbered in Column 1 in Table 1. These symbols in Column 2 were iconographic drawings, and they appeared earlier than the earliest known writing systems. The illustrations of the atlas were presumably supplemented by knots on ropes per I Ching (1,000 BC) [7] before writings with characters were invented in likely neolithic China [18]. Later Chinese characters (5,400 BC? -1,000 BC) and Bronze Age proto-cuneiform characters in Mesopotamia (3,500 BC-3,000 BC) were iconographic too.

Some symbols in the atlas retained or evolved little in later Chinese and Sumerian characters. For example, the symbol of the star (#8, #9, and #11) was the exact form [1, 18]. Iconographic expressions for the "Heaven was Round" (#10) and the "Earth was Square" (#12) were evident in ancient Chinese and Sumerian proto-cuneiform characters too [21].

Iconographic analysis of symbols in the atlas was one of the tools utilized in this paper, in the same way, that ancient Chinese characters and Sumerian proto-cuneiform characters were analyzed.

In this paper, the atlas was further examined and analyzed or studied in multiple disciplines. The study was based on archeology, astronomy, geography, meteorology, calendars, numerology, ancient Chinese texts, Sumerians, etc.

Incas-Andean interpretations in the table included the original texts from the Spanish chronicler Pachacuti (1613) [8], later scholars, and writers) [10, 3]. However, Inca interpretations were a synthesis for illustration, not necessarily a comprehensive review of all known aspects. They were presented in Column 2 of the table.

The original or Neolithic Interpretations were findings conducted in this paper by integrating the Incas–Andean (Column 2) with the Oriental Chinese (Column 4) and they were listed in Column 5.

The Neolithic version of the atlas was known in Neolithic East Asia or later. It was identified as "He Tu", known as the "Atlas of the Sacred River" in ancient China.

In Andeans of South America and East Asia countries such as China, Korea, etc., the "Sacred River" was a dualistic expression for the "Heaven and Earth". In the sky, it was the Celestial River, the Milky Way. On earth, it was the "Sacred River" which flew in their kingdom. The Inca "Sacred River" in the Andean Mountains was the Urubamba River which ran by the ruins of Machu Picchu. In the Incas' society, the

Urubamba River was called the Milky Way [10]. In China, it was the Yellow River or simply "River" which was regarded as the sacred Mother River of China. In China, the "(Yellow) River" was called the Milky Way.

The "Atlas of Heaven and Earth" on the Inca Panel was named after its neolithic version "He Tu" the "Atlas of the Sacred River". Fu Xi, a dynasty, or a Neolithic king whose reign was dated by the author to be ca 5,324 BC [20, 19], constructed the Chinese Dualism of Yin Yang Eight Gua based on its drawing [6]. The neolithic Atlas of the Sacred River "He Tu" did not survive. However, its illustrations on texts survived and were found in numerous ancient Chinese writings as shown in this paper.

Thus, Chinese illustrations for the Atlas of Heaven and Earth in the Andean panel were listed in Column 4 in the table and were labeled in Figure 1 too.

2.1. Andean Panel Was the Atlas of Heaven and Earth

It was known that the Inca panel was divided vertically into two by "duality", the left side being "masculine" and the right "feminine". Horizontally it was divided into three realms of "heaven", "man" and "earth". Thus, some considered it to be Inca dualistic cosmology, religion, and philosophy [10].

Nevertheless, the drawing on the Inca Panel was an atlas that was oriented east on the left, as evidenced by the rising Dawn Venus (#7) in the east, and the setting Dusk Venus (#8) in the west [15], etc.

The atlas integrated Heaven, Earth, and Man into one drawing. It was presumably drafted by ancestors of the Andean people before they came to the Americas. Scenes on the Atlas were assumed from paleolithic East Asia including submerged continental shelves.

2.1.1. Section of Heaven

Those who made the section of heaven had sophisticated knowledge of the sky.

East was on the left and West was on the right in the Atlas.

The ecliptic plane on which the Sun (#5), Moon (#6), and Venus (#7, and #8) traveled was divided into four zones. Each zone was represented by a "star asterism". The four asterisms (#1, #2, #3, and #4) represented four directions on the ecliptic which were correlated to four directions in the sky. They were the "Four Sacred Animals" known in China, Korea, Japan, and other East Asia countries.

However, the Dawn Star (#7) and the Dusk Star (#8) were viewed as two different stars [15], not a single planet of Venus.

The Sun (#5) on the left was the rising Sun in the East. The Full Moon (#6) on the right was the setting Moon in the west.

The Andean Luminous Big Cat was identified unambiguously as the Oriental White Tiger (#4). Its iconographic symbol was self-evident. It consisted of Pleiades in Tauris, three stars in Orion as cat whiskies, etc. The big cat's body was intentionally highlighted as "luminous" in the atlas. The cat asterism had Aldebaran and Betelgeuse, the two red supergiants, and Orion Nebula. "White" in Chinese means "white hot" and "luminous". Coincidentally both Andeans and the Oriental descriptions suggested an outburst, its afterglow, or the extra brightness in the asterism.

The big cat (#4) was on the right and presented west of the ecliptic.

Andean Bow in the Sky (#3) was now suggested to be the Azure Dragon. It was on the left and represented the east.

The Star (#11) on the left represented the rising Antares in the east at dusk. Antares (#11), the Great Fire Star and eye of the Azure Dragon (#3) in the Oriental, represented "Fire", one of eight elements, in the Andean Cross and Chinese Eight Gua. Its conjunctions with the Moon (#6) formed the 13-month Sidereal calendar (#23). Its position after sunset marked the beginning (December) of the calendars (#22, and #23).

Identification of Antares (#11) and knowledge of its position on the ecliptic allowed one to determine the age of this atlas.

The Star (#11) was not Pleiades or Aldebaran in Tauris, which was opposite to Antares on the ecliptic. The Incas were known to use Pleiades to define their calendars [10].

Like in the atlas, Antares (#11) was used for the start of calendars by ancestors of the Shang Dynasty in Neolithic China according to ancient Chinese texts such as Tradition of Zou (ca 470 BC). It was the imperial symbol and national star of the Shang Dynasty (1,700 BC? -1,045 BC) too. Chinese scholars generally agreed that Fu Xi (ca 5324 BC) [20] who created Chinese Dualism [6] was related to the ancestors of the Shang.

The south was determined at the top, and the north was at the bottom of the atlas. This determination was consistent with all known ancient maps and atlases found in China and Mesopotamia, etc., but opposite to what we have today.

The Five-Star asterism (#1)  was placed at the top, above the Egg "The Creator" (#10). It was determined to represent the southern Sacred Bird on the ecliptic. This asterism was centered around Leo. The five stars were identified as Denebola, Regulus, Algenubi, Algieba, and Zosma as shown in Figure 2.

Its identity (#1) survived in ancient Chinese texts [23, 16]. This five-star asterism (#1) in Cross was registered as the "Five Gods Asterism" in the Classic of Stars by two Warring States astronomers Gan and Si ca 300 BC [23].

Chinese identification of the asterism (#1) tallied unequivocally the Andean Atlas.

In the Atlas, the Five-Star asterism (#1) was indeed a metaphor for the Five Gods, the Sun (#5), Moon (#6), Dawn Star – Venus (#7), Dusk Star - Venus (#8) and Polar Star Vega (#9) in 12,000 BC.

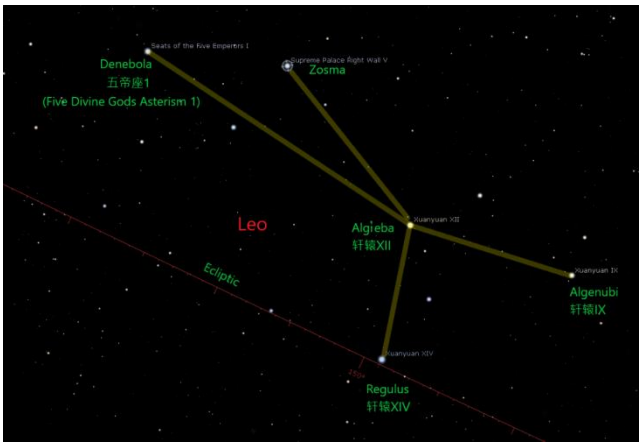


Figure 2. *Five Stars in Asterism (#1) were identified as Denebola, Regulus, Algenubi, Algieba, and Zosma in Leo as the Sacred southern bird. Its ancient Chinese name was "Five Gods Asterism" in Xing Jing (ca 300 BC) [23].*

Because of their different geographic locations and times, the Andean people of the Incas in 1500 AD might have used other southern asterisms such as the five stars in Orion for the asterism (#1) as some suggested [10].

However, in all oriental cultures of China, Japan, Korea, and other East Asia countries, the asterism (#1) was the southern Sacred Vermillion Bird [13]. This bird was the Andean Condor in the Incas of South America. In East Asia and South, Central, and North Americas, the Sacred Bird was known to take many forms such as eagle, phoenix, etc.

The Four-Star asterism (#2)  represented north of the ecliptic. It was placed below the Egg/Creator (#10). The Creator (#10) was in the south of the snake (#2). The Four-Star (#2) was centered around Pegasus near the Ecliptic. Incas named two of their gods after these stars. In Oriental cultures, this asterism (#2) was the northern Sacred Snake and Turtle, like the Andean Snake or the Aztec and the Mayan Serpents. In North America, the northern Sacred Snake may have survived in a few native tribes too. Examples were the Great Snake Mound in Ohio, USA, etc. At the Ohio site, three burial mounds were in the south of the snake mound [9]. Its orientation or its religious significance tallied the atlas.

The four stars in the asterism (#2) were identified as Alpheratz, Scheat, Markab, and Algenib in Pegasus as shown in Figure 3. This Four-Star asterism (#2) was assumed to be the "Asterism of Four Aides to the North Pole" known in ancient Chinese astronomy texts [24]. Xing Jing [24], the Classic of Stars (ca 300 BC), listed it as Number One on the register of stars and asterisms, a testimonial to its archaic prominence.

The Four-Star asterism (#2) was also a metaphor for four Sacred Animals. In the atlas they were the southern bird (#1), the northern snake/turtle (#2), the eastern dragon (#3), and the western big cat (#4).

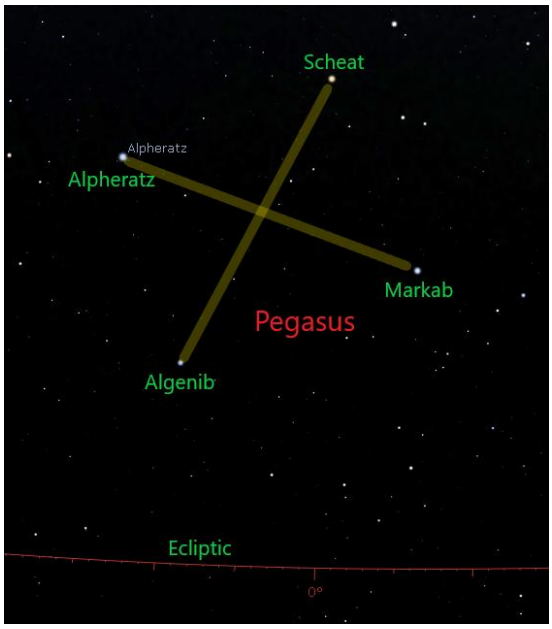


Figure 3. *Four stars in Asterism (#2) were identified as Alpheratz, Scheat, Markab, and Algenib in Pegasus. It's the symbol of the sacred snake and turtle in the north.*

The orientations of two asterisms (#1  and #2 ) shown in the Atlas were aligned with the Ecliptic plane.

The Atlas listed the Polar Star (#9) as the center around which the universe revolved. It was placed right below the Egg/Creator (#10). It was determined to be Vega in 12,000 BC or nearby stars in 13,000 BC. The Polar Star (#9) represented north in the sky. However, there were no Inca or Andean interpretations were found. In some scholarly papers, this star (#9) was unfortunately removed.

At the time this Atlas was made, the four directions on the ecliptic were aligned with the four directions in the sky. This was evident that the atlas aligned the asterism Sacred Snake (#2) of north on the ecliptic with the Polar Star (#9) of north in the sky to be the center of the atlas, or the middle.

Today the directions on the ecliptic and the directions in the sky as shown in the atlas drifted 180 degrees apart. This drift had altered the start of calendars too. The beginning (December) in the calendars (#22 and #23) of the atlas became June in the Incas religious calendar of 1500 AD [10].

2.1.2. Section of Man and Earth

This section of the atlas presented the geography, meteorology, stratified society, etc. of those inhabitants presumably in Paleolithic East Asia.

On the east side of their world, there were three tall peaks (#17). They were presumably connected to the sky represented by an iconographical circle of the sky. This symbol (#17) later became the Chinese pictographic character for the "mountain" when writings replaced knots on ropes [6]. The Three-Tall-Peak was also the "mountain" in Sumerian proto-cuneiform characters (3,000 BC-3,500 BC) [1, 18].

The symbol for the Mountain (#17) on the left was interpreted as "Mother Earth" by the Inca Society [10]. This Inca interpretation was a local alternation as Cusco City was surrounded by tall Andean mountains. One could easily spot this alternation because "Mother Earth" was "feminine", and it was not fit to be placed on the left with "masculine" male figures.

The "Mountain (#17)" was one of eight elements of the neolithic Chinese Eight Gua and Andean Cross. The "Mountain" (#17) was interpreted based on its iconography, and ancient Chinese texts, etc.

The Wind (#15) was a symbol of typhoons, monsoons, or hurricanes that blew from east to west in the direction of the Three-Peak (#17). This description matched typhoons or monsoons of East Asia in the Pacific Ocean. However, in Cusco City, which was deep inside the Andean Mountains, typhons were not local weathering. The local interpretation was ambiguous with some suggesting Inca Sacred rivers [10].

The "Wind (#15)" was one of the eight elements of the Eight Gua and Andean Cross. It was interpreted accordingly. Because its placement was on the left in the "masculine" section of the atlas, it referred to "wind with extreme forces", such as typhoons.

The Thunder (#13) roared in the eastern sky, which was consistent with the direction of typhoons in East Asia. The Thunder (#13) was also one of eight elements. Its Andean and Oriental interpretations were identical.

The Sea (#16) and the Lagoon (#14) were in the west, and an easterly running river drained the lagoon (#14) or shallow water body into the sea (#16). The "Sea in West" was not the prospect of a viewer from mainland China, but it suited Japan, Korea, Taiwan, the Islands, and the submerged continental shelf.

The Sea (#16) and the Lagoon (#14) were two elements of the Eight Gua and Andean Cross. Both Andean and Oriental Chinese interpretations were identical.

The Tall Tree (#18) stood on the right, implying high ground, etc., in the west. Eggs and Seeds (#19) were harvested on the left, implying savanna grassland, etc., in the east. Both Andean and Oriental interpretations were identical.

However, their earthly world (#12) was portrayed as a chess board [27] of a stratified society.

2.2. Calendars

The atlas contained two 13-month calendars with four seasons (#22 and #23). They were identified and named the Andean 13-month Sidereal Calendar (#23) and the Andean 13-month Solar-Lunar Calendar (#22).

Some researchers concluded that the calendars (#22 and #23) were a solar calendar starting in December [3], approximately Lunar November in the Oriental.

The two calendars (#22 and #23) were not two calendars used by the Andean people of 1,500 AD. Incas in the Andean Mountains were known to use calendars with 12 months, not 13 months. Their religious calendar for ceremonies and festivities, etc. started in June. Their utility calendar for agriculture, etc. started in August [10].

The deciphering of the calendars (#22 and #23) was based on their iconographical signs, modern astronomy, and prior arts [20, 17], etc.

2.2.1. Andean 13-month Sidereal Calendar (#23)

The symbol (#23) had 13 stars in four rows. Furthermore, eight of them were regular stars made of "crosses of four bars". Five of them had two or four extra bars.

Eight "regular stars" with four bars were interpreted as the lunar circle aligned with a star, the Sidereal Month when the Moon (#6) was in conjunction with the Star (#11). The Star (#11) was located right below the calendar (#23) and was determined to be Antares on the Ecliptic unambiguously.

Five stars with extra bars indicated extra days were added to the Sidereal Months.

The sequence of counting months was determined from top to bottom, from left to right, like today's.

The Sidereal Calendar had 13 Months represented by 13 stars, and four seasons represented by four rows with the winter as the start. The winter season had three months, the spring four, the summer four, and the fall only two. The seasons were assumed to be paleolithic East Asia, not the Andean Mountains in South America.

The Sidereal month, on average, had 27.322 days. Multiplying by 13 months in the atlas, 27 x 13 = 351 days, it was 14 days shorter than 365 days of a solar circle. The Andean Sidereal Calendar indeed had 14 extra days in five of their 13 months to make up the 365-day solar circle. These 14 extra days were two extra days each in the second, fourth, and sixth months, and four extra days each in the fifth and seventh months.

The Andean Sidereal calendar of 365 days matched the solar circle of 365 days. The Andean Sidereal Calendar was a Lunar-Stellar calendar in name, but it was effectively a solar calendar.

Its evolution led to 27 or 28 Lunar Constellations on the Ecliptic found in Neolithic/Bronze Age China, Bronze Age India and Mesopotamia, etc. [17].

2.2.2. Andean 13-Month Solar-Lunar Calendar

The symbol (#22) had 13 moons in three rows. However, the last three moons were stacked and hidden.

Each of these 13 moons presented one full moon circle. Thus, its lunar month did not contain solar components.

Like the Andean Sidereal Calendar, the Andean Solar-Lunar Calendar had four seasons, three months in the winter, four months in the spring, four months in the summer,

and two months in the fall. However, one month in the summer and two months in the fall were tucked as Leap "Back" months.

Its solar circle was indicated by the three tucked-in "moons" as Leap "Back" Month for alignment with the Sun.

One Lunar Month, on average, had 29.53059 days. In a 30-day Lunar month calendar, 13 x 30 = 390 days, it had 25 days more than the solar circle of 365 days. In a 29-day Lunar month calendar, 13 x 29 = 377 days, it had 12 days more than the solar circle of 365 days.

Instead of adding or subtracting days in their months like in the Sidereal Calendar, the Andean Solar-Lunar Calendar subtracted a full month by using Leap "Back" months. It was evident that one month in the middle of the summer, and two months in the fall were designated as the Leap "Back" Months.

Today's Solar-Lunar calendars in East Asia countries use 12 Lunar-month with "One Leap Month" by adding one extra month to align with the solar circle. The 12-month solar-lunar sexagesimal calendar of Neolithic China started in 5,234 BC which presumably was inherited by the Sumerians in Mesopotamia (3,500 BC) [20].

In a few pre-Qin states (before 330 BC) of China and the Mayans of Mesoamerica, 13 Lunar-Month Calendars were in use.

The 13-month Andean Calendars (#22 and #23) in the atlas predated both Chinese and Sumerians.

2.3. Determination of the Age of the Atlas

It was evident that the Andean Atlas of Heaven and Earth was archaic. Once its connection with East Asia was established, it became obvious that its age was older than the Neolithic Chinese civilization which was assumed to share the same Paleolithic root as the Andean people.

Chinese Neolithic civilization (ca 5,400 BC) was suggested to be the oldest among the ancient civilizations found in four river valleys in Africa and Asia [19-21], the Yellow River, the Euphrates and Tigris Rivers, the Niles River, and the Indus River. The Bronze Age Sumerians in Mesopotamia (ca 3,000 BC) were suggested to be linked to ancient Chinese and now appeared to the Andeans in South America too in its second derivative.

The age of the atlas was determined by various methods. Examples were nomenclatures, iconography, calendars, sacred numerals, the dragon, head deformations, and Antares.

2.3.1. Sacred Numerals

Neolithic numerals or numbers were chronicled [20] so that it became feasible to use numerals in the atlas to estimate the age of the atlas.

Numerals in the atlas were determined by counting how many stars, moons, circles, holes, branches, rows, columns, etc. These numerals were not inscribed in digits or characters that were invented or in use in the early Neolithic or later. These Andean numerals appeared earlier than any known numbering system made of inscribed numbers [20].

Numerals on the Andean panel were identified as 3, 4, 5, 7, 8, 13 and 17. These numerals and their associated connotations were regarded as divine and sacred. These sacred numerals survived in Oriental or Andean cultures.

The atlas did not have numerals that were known to be of divine significance or importance in the utilities of those Neolithic or later cultures. Examples were 9, 10, 12 or 24, 20, 60, 360, etc. These missing numerals were known to have appeared in the early Neolithic or later [20].

"Nine" was a numeral constructed from "four" plus "five", a divine numeral of East Asia, especially in Neolithic China [11] and Maya

"Decimal of Ten" was used by the Incas and Chinese, etc. In Neolithic China, the decimal known as the Heavenly Trunk was dated likely from 5,500 BC to 7,000 BC [20]. This decimal was invented by a female named Xi He [12] who used the Sun's ten positions or the ten-zone on the ecliptic [20], an improvement of the four-zone found in the atlas.

A vigesimal of twenty, obtained by multiplying "4" by "5" was the numbering system used by the Mayans of Mesoamerica.

Neolithic Chinese Decimal, Incas Decimal, and Mayan vigesimal were not found in the atlas. However, they were made of Divine Numerals of "Five" or "Four" in the atlas.

Numerals of 12, 24, 60, and 360 were divine numerals. These 12-based numerals were used exclusively for "space" and "time". Such connotations survive today. The duodecimal, the Earthly Branch, was based on Jupiter's 12-year solar circle on the ecliptic known as the 12 constellations of the zodiac [4, 20]. The Neolithic Chinese 12-zone (ca 5,324 BC) [20] on the ecliptic was an improvement over the ten-zone in the early Neolithic (5,500 BC – 7,000 BC) [20] and the four-zone (13,000 BC) in the atlas. The Chinese Lunar-Solar Sexagesimal Calendar was precisely dated starting in 5,324 BC which the Bronze Age Sumerians in Mesopotamia (3,200 BC) presumably used too [20].

Sacred numerals in the Inca Panel indicated that the Atlas was older than 5,324 BC, most likely older than 7,000 BC.

2.3.2. Andean Dark Animals in the Milky Way and the Azure Dragon

Three Sacred Animals of the Inca Andeans and the Oriental were unambiguous. They were star asterisms of the southern Bird, the northern Snake, and the western Big Cat. However, the eastern Sacred Animal was ambiguous in the Andeans. Their Oriental counterpart of the Azure Dragon had an unknown origin and today nobody can say with certainty what the Azure Dragon was.

Ancient texts and archeological findings in China indicated that the Azure Dragon "Qing Long" was associated with the Cloud in the Sky (#3). However, the dragon was known to have many forms made of objects, animals, and insects. It was portrayed as a composite of several animals too. "Qing" was

not a part of the light spectrum of the color azure. "Qing" meant the empty part of the sky without clouds, stars, the moon, and the sun. Chinese asterisms with the dragon's heart, etc. were concentrated around the Milky Way close to the Ecliptic.

The Andean people in the southern hemisphere or near the Equator identified and worshipped the "Sacred Dark Animals" made of the empty sky without stars within the Milky Way [10]. The southern sky contained the most brilliant part of the Milky Way. But this part was not in full view for an observer of the northern hemisphere at a latitude of 30–40 degrees north, from Beijing, Seoul to Tokyo today. However, the southern sky in 12,000 BC when Vega was the North Polar Star looked the same as the Incas of Cusco City 1,500 AD.

In retrospect, it became obvious that "the Andean Dark Animals" in the Milky Way were the Oriental Azure Dragon around 12,000 BC when the southern sky had its maximum exposure.

As the North Pole shifted per precession, the "Dark Animals" started to disappear on the horizon. Today, half of the southern sky of 45 degrees has sunk below the horizon since the Atlas was created. Thus, one could make an educated guess about the age of the Atlas if he knew when some "Dark Animals" disappeared. Several Neolithic archeological ruins, which were as old as 8,000 years old, were known to be related to the dragon in China.

The atlas was constructed when the "Dark Animals" in the Milky Way were visible. Its age was estimated to be older than 6,000 years but younger than 20,000 years old accordingly.

2.3.3. Cranium Deformation of Human Heads 12,000 Years Ago

An egg in a standing position was an icon of the Creator in Genesis (#6) as described in the atlas and in Chinese texts [28, 5]. A standing egg is a significant divine symbol in the Andean culture today. Visitors to the Middle of World city of Ecuador were treated with the task of placing a standing egg on the line of the equator.

The Andean elites, exclusively royalties and nobilities, who claimed to be sons and daughters of God, practiced deformation of their cranium at young ages, making their heads elongated like a standing egg [10]. Such a practice has been found throughout the world.

Nevertheless, the earliest appearance of cranium deformation indeed had its patterns. Paleolithic and neolithic archeological sites containing findings of human cranium (head) deformation were distributed in areas where the natives of Central and South Americas lived and where their ancestors of East Asia lived.

8,000 years ago, Lauricocha's inhabitants of highlands in the Andean Mountains of South America deformed their cranium [2].

The oldest cranium deformation was found in a boy's head, dated 12,000 years old [25] in Northeast China. Its location was in today's Amur River Basin which covered Northeast China, East Mongolia, and East Siberia of Russia. The Amur River exited into the Northern Pacific Ocean.

Neolithic people belonging to the Da Wen Ko culture in Shandong and Jiangsu provinces of China (4,300 BC-2,500 BC) performed cranium deformation [22]. The region was downstream of the Yellow River and Hui River on the east coast facing the Pacific Ocean.

Today the royalties in the world were more symbolic, wearing crowns or diadems, than physically deforming their heads.

The Andean people were known to genetically link to East Asians of Siberia, Koreas, Taiwan, etc. Cranium deformation shared by these people suggested that the story of Genesis told in the atlas was at least 12,000 years old.

2.3.4. Antares Revealed the Atlas 13,000 – 15,000 Years Old

Antares (#11) was one of two stars in the atlas. Another star was the Polar Star (#9) which represented the north in the sky. Antares was placed on the left in the atlas as a rising star on the Eastern horizon, indicating that it served as the east on the Ecliptic and the east in the sky. Here Antares (#11) served as the starting point of the ecliptic, or the start of calendars (#22 and #23) based on the ecliptic.

The observation of Antares was made after sunset when the Sun (#5) and Antares (#11) sat in opposite directions on the ecliptic. Night observation after sunset was a tradition in ancient astronomies for practical reasons [17].

Researchers [3] concluded that the Andean panel's calendars (#22 and #23) used December as the start of the solar circle.

Ancient Chinese were known to use their Lunar November (December) as the start of the year too. The Neolithic Chinese Solar-Lunar Sexagesimal Calendar was placed in circulation in the year 5,324 BC [20, 17] after the invention of the 12-constellation of the zodiac. Its solar circle started in Lunar November too [4].

Antares remained for telling seasons in Neolithic China. Their ancient texts recorded that Antares rose above the eastern horizon at the end of winter and the beginning of spring. In the Lunar July of Neolithic China Antares appeared on top of people's heads heading down to the west after dusk [14].

The atlas indicated that Antares and the Sun were in opposite directions, and they were 180 degrees apart on the ecliptic at the beginning of the calendar (December).

Today Antares had its conjunctions with the Sun on December 2nd when they were at their closest positions on the ecliptic.

The atlas indicated that the north pole had shifted 180 degrees on the circle of precession since the atlas was created.

Per precession, the winter sky of the atlas was dated as, 14,000 +/- 1,000 years from the present.

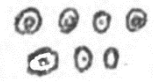
2.4. Genesis of Seven Days Creation

There was no ambiguity that the largest and the most eminent symbol (#10) of an oval-shaped circle, the Creator of Heaven, was metaphorized for an egg, said H. Zhang (78 AD －139 AD) [5] in a standing position.

"The Sacred Bird (#1) in the south, together with the Sacred Snake and Turtle (#2) in the north, produced a Sacred egg, the Creator of Heaven (#10) in the middle. In an image of a man, the featureless egg was hatched in seven days into a head with seven orifices (#19) (eyes, ears, nostrils, and mouth), one orifice per day. On the seventh day, the egg (#10) perished." Said Zhuang Zi (369 BC—286 BC) [28].

It was stunning that the Andean atlas and its associated Chinese texts survived from antiquity.

Not only did the Andean Atlas present a genesis that matched perfectly with ancient Chinese texts, but it also provided additional details.



The seven orifices (#19) on the egg were born in a strictly hierarchical order. The upper and lower classes were their birthrights. Its metaphor was further symbolized by the Dragon (#3) and the Mountain (#17) placed right above the orifices (#19).

For example, on Day One the 1st ear or nostril was born. The first four births formed the upper ruling class in Heaven. Its symbolism was that the Dragon (#3) in the sky had "Four Arcs". The last three births formed the lower ruling class on Earth. Its symbolism was that the Mountain (#17) on earth had "Three Peaks".

Zhou Pi Shuan Jing written before 100BC [27] said "The Earth was square like a chess board". Nevertheless, The Earth (#12), a chessboard of "7" Terraces with "17" Administrative Units or states, presented a stratified society mandated by the Creator.

The "seven" terraces in the Earth (#12) came from the Seven Orifices (#19), which meant exactly seven ruling classes by birth in a hierarchical order. The seven terraces were a metaphor for "the conduit from earth to heaven", symbolized by "Three-Peak" in the Mountain (#17) and by "Four-Arc" in the Dragon (#3).

Accordingly, their ruling government would have "two mansions" containing seven administrative levels, the upper Heavenly Mansion of "Four" and the Lower Earthly Mansion of "Three". Their ceremonial and religious sites would have seven steps, levels, or terraces.

One should not be surprised that in Neolithic/Bronze Age China the Heavenly Mansion and the Earthly Mansion were two royal ministries [26].

Indeed, in ceremonial and religious structures, the "Seven Levels" were commonly found in ancient China such as in their Pagodas and Mayans.

The "17" administrative units of their earthly world (#12) were representations of "four" Sacred Animals on the ecliptic, "five" Gods in the sky, and "eight" divine symbols in the Sacred Andean Cross or Chinese Eight Gua. On the ancestry Tree (#18) there were 17 branches too.

Their earthly world was symbolized by "17" royal states which had their "divine" lineage to Heaven.

The life cycle was symbolized by the metaphors of the Bird (#1)-the Egg (#10), and Seeds (#19)-Tree (#18), etc., a dualistic expression of rebirth from death, resurrection, and incarnation.

Genesis of Seven Days Creation and Life Cycle, etc. were perfectly presented in the atlas. The Egg became the symbol of the Creator's head. Andeans, East Asians, and later others around the world who claimed their heavenly linages, willingly deformed their heads in imitation of a standing egg.

3. Conclusion and Discussion

The Atlas of Heaven and Earth in the Inca Sun Temple panel illustrated a stratified society now dated to be 13,000 to 15,000 years old. Its society was assumed to originate in East Asia where ancestors of the Andean people came from.

This assumed Paleolithic East Asia society appeared to have the earliest known astronomy, calendars, counting, geography, meteorology, dualistic religion, cosmology, philosophy, a structure of family with man and woman, and states with rulers, etc.

Its paleolithic culture evolved and led to Neolithic, Bronze, and Iron Ages civilizations found in the old world. The new world of the Americas especially in the Andean Mountains, retained substantial heritage, perhaps due to isolation by the Pacific Ocean, desert, the Amazon Jungles, and Andean Mountains.

This Paleolithic society appeared to have 17 royal lineages or states. Each was presumably associated with the Sun, Moon, Dawning Venus, Dusking Venus, Polar Star, Bird, Snake, Dragon, Big Cat, Heaven, Earth, Fire (Antares), Thunder, Wind, Mountain, Water, and Lagoon, or a combination of them.

In East Asia, a land mass of the size of the entire Indian subcontinent was submerged and became a continental shelf after the last glacier ended. In just one thousand years from 14,600YA to 13,600YA the sea level rose 30 meters. The landmass on the continental shelf in the east where the sun rose disappeared. Coincidently, those Andean people claimed to be descendants of the sun.

It seemed that the ancestors of the Andean people were forced to migrate. They did so by involuntarily uprooting their entire society via the migration of En Masse. Many were assumed to have vanished, and their ancestral lineages became known only in the atlas.

However, many key questions remain unanswered. For example, where was this Paleolithic society or their states?

Where did this Paleolithic society originate? Where were their descendants in the old world? When, and how did they get from East Asia to the Americas, en masse? Single or multiple migrations? By ocean-going boats? How did the atlas survive so long? What else did these people bring with them from the old world, weaving and textiles? rafts with a sail? pyramid building? stone building? Quipus-knots-on-ropes? Stone and obsidian tools? Jades? Kites? Potteries? Hunting and Fishing? Weapons? Languages? etc.

Abbreviations

YA	Years Ago
BC	Before Christ
AD	Anno Domini

Author Contributions

Thomas Tao is the sole author. The author read and approved the final manuscript.

Conflicts of Interest

The author declares no conflicts of interest.

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