

Anthropomorphic Proportions in Pre-Hispanic Works. The Mesoamerican Canon

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ABSTRACT: *The Mesoamerican anthropomorphic figurines show a disproportionate head in comparison to the body. This article proposes an explanation for this phenomenon. We found that the number four was significant in the worldview of the inhabitants of Mesoamerica. Our interpretation is that the creation of anthropomorphic figures isn't based on the idea that "the measurement should be based on a number of heads" but "the figures shouldn't be taller than four heads". It is possible that for the inhabitants of Mesoamerica, a higher number of heads came in conflict with their sacred views. We define this as a Mesoamerican canon.*

KEYWORDS –Anthropomorphic, Art, Human proportions, Mesoamerica, Pre-Columbian

I. INTRODUCTION

The objective of this paper is to answer the question as to why the Mesoamerican anthropomorphic figurines show a disproportionated head in comparison to their bodies. The self-representation is an activity that provides human beings with an identity strength and an extracorporeal projection that copies their deities into their selves. Humans have represented their voices through narratives, myths, rites, songs, and poetry. They represent the movements with dances and performances. Ideas are represented through texts like novels, stories, and poems. In the physical space, architecture, and sculpture can serve the same purpose. This unfolding allows both the personal "I" and the temporal "we". As such, human representation changes according to the times and culture.

Moreover, referring to anthropomorphic representations implies that human traits must be incorporated, in symbolic or figurative ways. Furthermore, these traits must be recognized not only by the artisan but by the viewers of the piece. According to this paradigm, it's feasible to assume that the representation of a head should have most of these elements: eyes, mouth, nose, ears, and hair. The corporal image, on the other hand, would have some of these elements: Hands, legs, feet, neck, torso, and head with their respective attributes. In summary, the objective of this article is to explore how the inhabitants of Mesoamerica represented themselves through their sculptures and pottery. Furthermore, we will also look through the constants used by the inhabitants of the region between the years of 2000BC and 1500AD, what we designated as the "Mesoamerican canon". Finally, we want to move away from the Euro-centrist norms that traditionally define the representation of the human body.

Most experts consider the area of Mesoamerica as the territory that limits the north of Mexico and contemporary Costa Rica. Moreover, there is the temporal continuity of cultural expressions, despite the evolution, growth, and change, of the people that populated the region.

...Manuel Gamio, identificó los tres horizontes principales en Mesoamérica, a los que por lo común se les llama preclásico, clásico y postclásico. El preclásico abarca los dos últimos milenios anteriores a Cristo, en tanto que las grandes culturas del primer milenio de la era cristiana pertenecen al clásico,

seguidas a su vez, por la edad militarista o postclásica que terminó con la conquista. (Davies, 1988, p. 16)

Moreover, the historical importance lies in the fact that some of the most complex pre-Hispanic cultures and civilizations settled in this territory. Almost all the human groups (Olmec, Teotihuacan, Maya, Toltec, Mexica, etc.) that inhabited this area, shared a common worldview, the same foundational cultural roots, ideas that transcend time and space, that reflect concepts that were shared between the people of the area, cultural bases that were shared between these civilizations, according to different archaeological testimonies. Some examples of this claim are religion, myths, rites, and in many cases language. More particular practices like the Mesoamerican ballgame, human sacrifice, or the codices became common practices among the Mesoamerican people. One of these transcultural elements that have not been as researched as much, in comparison to other expressions, is the corporal proportion of anthropomorphic figurines made of clay, stone, or similar materials.

II. METHODOLOGY

With this in mind, using the pictorial archive from the Mexican Museo Nacional de Antropología ([Mediateca INAH](http://Mediateca.INAH) | El repositorio digital de acceso abierto del Instituto Nacional de Antropología e Historia de México), we analyzed the pieces using these parameters:

- We searched the terms “Figuras antropomorfas mesoamericanas” (Mesoamerican Anthropomorphic Figurines)
- We revised every figure that appeared until page 15
- We did not include those pieces that were not part of the period between the bloom of the Mesoamerican cultures and the fall of the Mexica civilization
- We only included the figures that were depicted as standing up or those whose head-body proportions could be easily determined
- We attached the figures that were complete or that could visually offer the head-body proportions
- The MID of the analyzed figures can be seen in Section 1¹
- When the pieces had an ornament, we considered them as part of the head
- We enlisted 100 pieces since the space would’ve been a lot more
- The photograph MID 77_20140827-134500:324692 was discarded since it lacked proper quality for this article
- The pieces come from different cultures and ages in the Mesoamerican region

Once the analysis was done, we detected that 96% of the figurines presented a disproportionated head, much bigger in comparison with the body. This quality does not appear in other human representations from other studied cultures, like Greece, Rome, China, or Egypt. In Figure 1 we have four different pieces that reproduce the head-body proportion closer to reality, but these are the exception to what has been found.



With this premise, we made this question: Why did these Mesoamerican cultures keep these distinctive

Figure 1. Mesoamerican figures that reproduce the human proportions. Left to right: MID 82_20140130-123000:25729. MID 82_20140130-123000:23157. MID 82_20140130-123000:23155. MID 97_20190121-184114:10-301512

¹used by the institution to number its pieces.

proportions for their anthropomorphic representations of humans?

This practice begins with the founding of the Mesoamerican cultures and ends with the fall of the Mexica civilization. In this period, the representations maintain the same characteristics that were mentioned beforehand. To confirm this statement, we can see in Figure 2 that, according to data from the webpage of the *Instituto Nacional de Antropología e Historia* (INAH), this piece is from the Middle Preclassic, dated between 1200BC and 400AD.

(https://mediateca.inah.gob.mx/islandora_74/islandora/object/objetoprehispanico%3A18976)².

Moreover, Figure 3 is a piece from the Late Classic period dated between 200AD and 900AD.

(https://mediateca.inah.gob.mx/islandora_74/islandora/object/objetoprehispanico%3A24548)³.

Finally, Figure 4 is a piece from the Late Postclassic period dated between 1,000AD and 1,521AD. (<https://mediateca.inah.gob.mx/repositorio/islandora/object/objetoprehispanico%3A20610>)⁴.

We can see that the three examples present a disproportionated head, bigger in comparison to the body, and are from different times, spanning 2,400 years.



Figure 2

Figure 3

Figure 4

To find the constants that explain the reason behind these proportions, we need to discard the Greek canon that states that the human figure with the ideal proportion must measure 8 heads of length and the Mesoamerican pieces are not close to this pattern. As such, Pacioli (1959, p. 157) states that “A este propósito decimos con los antiguos, especialmente con nuestro VITRUVIO, que la longitud total del hombre, es decir, desde la planta de los pies, base de dicha masa corporal, es comúnmente diez veces lo que va desde el mentón a la cima de la frente, es decir la raíz de los cabellos.”⁵

Vitruvius advised that architecture of temples should be based on the likeness of the perfectly proportioned human body where a harmony exists among all parts. Vitruvius described this proportion and explained that the eight of a well proportionated man is equal to the length of his outstretched arms. (Elam, 2001, p. 12)

We initially assumed that the proportions could coincide with the Golden Section, although there wasn't any reference that the Mesoamerican civilizations used or even knew of this measurement in the consulted sources. For the sake of precision, we need to mention that the Golden Section follows this procedure:

² MID 82_20140130-123000:11679

³ MID 144_20170307-175351:10-212841

⁴ MID 82_20140130-123000:23748

⁵ This is the 8 head measurement from the Greeks, since other sources measure from the top of the head to the tip of the chin and by multiplying it by 8, gives us the perfect measurements of the human body.

Si asignamos la cifra 1.000 a la longitud total de la línea⁶ que queremos seccionar, correspondería la cifra 0.382 para el trazo menor, y por consiguiente la cifra 0.618 para el trazo más largo; éste sumado al anterior daría la cifra 1.000 del total. (Balmori, 1978 p. 25)

To test this, we drew 4 basic streaks on top of figurines 2, 3, and 4, the measurements from left to right, right to left, bottom to top, and top to bottom. Not much else was needed since with enough Golden Sections we could start deducing a composition based on this canon. However, this could be a consequence of Pareidolia, which could divert the search for an explanation of the proportions of these anthropomorphic pieces. This way, we have figures 5, 6, and 7 contained in a frame and crossed with imaginary lines drawn on top of the pictures.

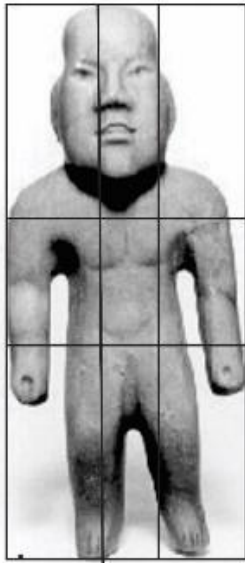


Figure 5



Figure 6

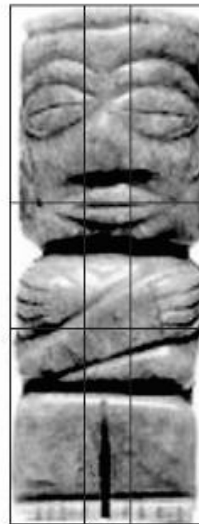


Figure 7

Individual descriptive analysis: Figure 5 in a Golden Section.

- The upper horizontal line, when crossing with the vertical line from the right, seems to coincide with the location of the heart.
- The lower horizontal line seems to coincide with the location of the navel.
- The rest of the lines and crosses don't seem to point at a specific point in the image.

Individual descriptive analysis: Figure 6 in a Golden Section.

- The upper horizontal line, when crossing with the vertical line from the right, seems to coincide with the location of the heart.
- The lower horizontal line seems to coincide with the location of the navel.
- The vertical lines, on the upper section, seem to frame the mouth of the figurine.
- These lines could also mark the pupils of the eyes.
- The rest of the lines and crosses don't seem to point at a specific point in the image.

Individual descriptive analysis: Figure 7 in a Golden Section.

- The upper horizontal line points at the division of the lips.
- The lower horizontal line seems to cross the pinky fingers of the figurine.
- The vertical lines, in the upper section, point at the inner section of the eyes.
- The rest of the lines and crosses don't seem to point at a specific point in the image.

At first glance, it may seem that the figurines have no relation with the Golden Section. Some points could indeed coincide, but we believe they may be a coincidence and not a conscious choice.

⁶In this case the height and width of the imaginary rectangle used to measure the figurines.

Despite this lack of anthropomorphic logic, in these images, the same human elements seem to roughly appear as previously stated: eyes, mouth, nose, ears, hair, hands, legs, feet, neck, torso, head, etc. In some cases, headornaments would appear on the human heads of the figurines. However, these elements do not deform or transform the concept of “human” that the creators tried to represent. It has been established that the model of human representation wasn’t significantly modified in the long period of existence of the Mesoamerican civilizations since craftsmanship tradition⁷ was inherited through generations and it survived despite the passing of time. In words of León-Portilla: “Como casi todas las grandes culturas, hablaban de sus maravillosos tiempos pasados, en los cuales todo fue bueno y hermoso: en ellos nació la Toltecéyotl, el conjunto de las artes y los ideales toltecas.” (1979, p. 259). Furthermore, he states: “... el artista náhuatl heredero de la gran cultura tolteca... que rumia, por así decirlo, los viejos mitos, las tradiciones, las grandes doctrinas de su religión y filosofía... se esfuerza y se angustia por introducir a la divinidad en las cosas.” (1979 p. 270).

Having said that, we believe that Mesoamerica coincided with other ancient cultures and civilizations by not only taking human anatomy as a reference to produce their craftsmanship but also intending to reflect the divine from their mythological worldview. Regarding these anthropomorphic creative expressions, the use of this paradigm based on corporal unity to maintain a standard becomes extremely useful since, in the same piece, they already had the base that determines the rest of the proportions. Simultaneously, we can see the patterns meant to be followed in Classical Painting when the human figure is depicted: “Al llegar a su desarrollo completo, a los 25 años, el hombre mide 8 cabezas. El ombligo se encuentra a 3 cabezas. El centro del cuerpo está a 4 cabezas o sea el pubis. Las tetillas a 2 cabezas. El extremo de la mano bien extendida a 5 cabezas, más o menos.” (Tosto, 1983 p. 224)

Regardless of if Tosto links human measurements with beauty and the perfect body, these proportions convey the base of the measurements in which they are produced. In other words, a craftsman can create his work based on the dimensions of a head or an arm. If it is a drawing, the artist looks to establish the base pattern and then reproduce the size at the necessary times to achieve a canon according to the spatial and temporal traditions of their reality. In the case of a tridimensional work, they calculate the space of their project and the materials he has, to achieve the canon. That way, it won’t matter if the measurement is in centimeters, inches, feet, meters, etc.

Returning to our main objective, we encountered this problem: What was the pattern used by the civilizations from Mesoamerica to produce their anthropomorphic works? Since the 8 head-canon and the Golden Section have been discarded, we restarted the analysis of the pieces to find the constant in them. Searching for a standard of proportions, we used Dehouve’s interpretation. He suggests “Al igual que numerosos pueblos, los mexicas basaban sus medidas de longitud en las partes del cuerpo humano, de manera que el tamaño de sus extremidades servía como patrón de referencia para las extensiones de la tierra.” (2014, p. 145).

In a table designed by Dehouve (2014, p. 151), we can see the corporal measurements from Mesoamerica that can be summarized like this: finger, palm, fingernail, a fourth, bone, foot, elbow, forearm, armpit, step, shoulder, heart, arrow, height, horizontal fathom, vertical fathom. Briefly, in Table 1, we describe each one of these measurements described by Dehouve on pages 152 and 162.

| Measurement | Characteristics | Applications |
|-------------------------|---|--------------|
| Finger | The width was considered, not the length | Discarded |
| Palm | The width of the fingers together | Discarded |
| Quarter and fingernails | The space between the thumb and the pinky with the hand open. | Discarded |
| Bone | Could be the ulna bone | Discarded |
| Foot | From the heel to the tip of the longest toe | Discarded |
| Elbow | It could be the length from the forearm to the extended hand | Discarded |

⁷We reserve ourselves the use of the term “Art”, to avoid sterile discussions regarding the cultural production of Mesoamerica and if it can be considered “Art” regarding certain contemporary parameters.

| | | |
|-------------------|--|--------------|
| Forearm | In some cases, it matches the elbow for traditionally female activities, like weaving | Discarded |
| Armpit | “Se refiere a la cara interna del brazo, entre la axila y el extremo de los dedos” (pág. 155) [Refers to the internal section of the arm, between the armpit and the tip of the fingers] | Inapplicable |
| Step | The distance between both feet while taking a step | Discarded |
| Shoulder | The length between the shoulder and the tip of the fingers | Feasible |
| Heart | From the center of the chest to the tip of the fingers with an extended arm | Feasible |
| Arrow | From the elbow to the wrist. In other circumstances, from the elbow to the tip of the fingers when the person is in an archer position | Inapplicable |
| Height | La altura promedio de un adulto, cuando está de pie The average height of an adult, when standing up | Inapplicable |
| Horizontal fathom | The length between the tip of the fingers from both hands when the arms are extended | Inapplicable |
| Vertical fathom | The distance between the extended arm, 45° to the sky, and to the opposite foot | Inapplicable |

Table 1. Made with data by Dehouve

To start, all the nonvisible measurements were discarded. For example, the “step” measurement was discarded since most of the figurines were in a static position with their legs together. Other measurements were also discarded, those that couldn’t be known due to the position of the limbs, like in the case of the elbow or where the hands are hidden in the figurine, which would be difficult for the craftsman to calculate the measurement for a simple, efficient, and fast project.

On the other hand, we need to remember that the measurement must be smaller than the entire body so that they can become submultiples of the complete length, thus the height and vertical fathom were deemed inapplicable. In consequence, we can assume that the measurements of the armpit, shoulder, heart, arrow, and horizontal fathom could be used as parameters for the Mesoamerican canon; however, in some cases, the use of certain measurements and arithmetic operations should’ve been used, which would make the job of the craftsman more difficult. That is why we consider that they weren’t used as a base for the pattern that we are searching for. So, we have only two possible measurements: the shoulder and the heart. However, a second review of the pieces made us discard them too. In Figure 8, the use of the shoulder measurements (the yellow line) and the heart measurement (the red line) described by Dehouve were easy to apply. However, in Figure 3 it is impossible to use them if we take into consideration their arms.

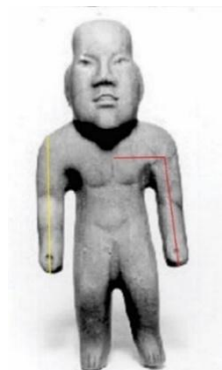


Figure 8



Figure 3

Once again we go back to the initial analysis of the figurines. We decided to make another try and divided the images in half, took the width of the piece, and extrapolate it from the top to see how many times the width was repeated. Thus, we arrive at Figure 9

(https://mediateca.inah.gob.mx/islandora_74/islandora/object/objetoprehispanico%3A20276)⁸, 10
(<https://mediateca.inah.gob.mx/repositorio/islandora/object/objetoprehispanico%3A20149>)⁹, 11
(https://mediateca.inah.gob.mx/islandora_74/islandora/object/objetoprehispanico%3A20134)¹⁰ and 12
(https://mediateca.inah.gob.mx/islandora_74/islandora/object/objetoprehispanico%3A20089)¹¹:



Figure 9 Figure 10 Figure 11 Figure 12

In each of these cases, a black frame was added to point out the width of the figurine. The blue line shows the half-point of the figurine and the horizontal yellow lines are the parts (width) in which the height can be divided. However, By dividing the four figurines, we didn't find a constant that could confirm that they used this kind of strategy to define the proportions in the ancient Mesoamerican sculptures.

In Figure 9 the half line marks the nipples, in Figure 10 it marks the chest, in Figure 11 the waist, while in Figure 12 it is below the chin. On the other hand, when we use the width to know the height of the image, we discover that in Figure 9 the height is 1.7 the length of the width; in Figure 10 the height is 1.74; in Figure 11 the height is 2.0; in Figure 12 the height is 2.45. We believe that the measurements obtained don't give us sufficient information to deduce any kind of proportional base in these anthropomorphic figurines from Mesoamerica.

At this point, we reevaluated the possibility to use a measurement that the craftsman could permanently use to create its productions. Once again, we revised the 100 pieces cited and we arrived to the conclusion that the elements that are always present are the face¹² and the head¹³. As such, we measured the face, the head, and we once again applied the measurements to Figurines 13, 14, 15, and 16, where the yellow rectangles represent the original measurement of the face, and the sum to get the total height of the figurine, while the red rectangles represent the head and their sum to get the total height of the piece. These are the results obtained:

⁸ MID 82_20140130-123000:23292

⁹ MID 82_20140130-123000:23161

¹⁰ MID 82_20140130-123000:23145

¹¹ MID 82_20140130-123000:23100

¹² The longitude between the chin to the start of the head.

¹³ The longitude between the chin to the end of the head, no matter if it has an ornament.

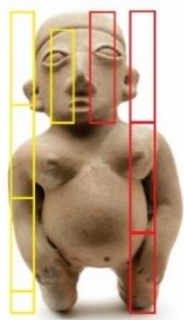


Figure 13

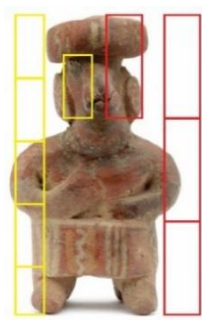


Figure 14

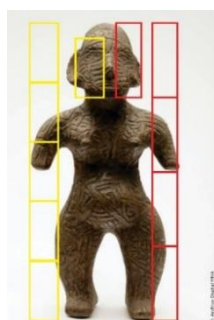


Figure 15

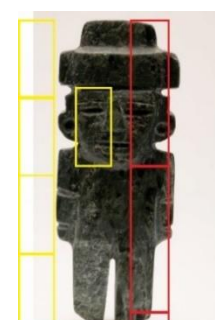


Figure 16

Once the measurements were done, we got these results:

| | Head | Face |
|-----------|--|--|
| Figure 13 | A height of 2.70 using the head as a measurement | A height of 3.25 using the face as a measurement |
| Figure 14 | A height of 2.90 using the head as a measurement | A height of 4.75 using the face as a measurement |
| Figure 15 | A height of 4 using the head as a measurement | A height of 5 using the face as a measurement |
| Figure 16 | A height of 2.08 using the head as a measurement | A height of 3.90 using the face as a measurement |

Table 2.

Next, we examined three texts that talk about Numerology, Philosophy, and legends from the region to decipher the Mesoamerican canon. The results of our bibliography revision can be seen in Table 3.

| Author: León-Portilla | | | | | Pages 90-127 / 155-178 | | |
|-----------------------|----|----|----|----|------------------------|-----|------------|
| Number | 2 | 4 | 5 | 9 | 13 | 52 | Other (11) |
| Mentions | 17 | 49 | 7 | 4 | 9 | 5 | 16 |
| Author: Florescano | | | | | Pages 17-324 | | |
| Number | 2 | 3 | 4 | 5 | 13 | 20 | Other (6) |
| Mentions | 10 | 15 | 38 | 15 | 3 | 4 | 7 |
| Author: Krickeberg | | | | | Pages 21-147 | | |
| Number | 2 | 3 | 4 | 5 | 7 | 400 | Other (25) |
| Mentions | 66 | 26 | 74 | 13 | 15 | 31 | 74 |

Table 3. Made with information taken from the texts of León-Portilla, Florescano, and Krickberg

By making a sum of all the repeated numbers, we found this information:

| | | | | | | | | | | |
|----------------------------|-----|----|----|----|-----|----|----|----|---|----|
| Total | 4 | 2 | 3 | 5 | 400 | 7 | 13 | 52 | 9 | 20 |
| The sum of the repetitions | 161 | 93 | 41 | 35 | 31 | 15 | 12 | 5 | 4 | 4 |

Table 4.

As we can see, the number 4 is the most repeated in the texts from all the authors. The repetition in the references is a consequence of different elements: the four creation deities, the fourth paths, the four corners, the four eras of humanity, etc. If we check the figurines analyzed in this text, we find that only two of them (14 and 15) go over the number 4 when measuring them with the face proportion. On the contrary, when the measurement is done using the height of the head¹⁴, the number 4 is never exceeded.

¹⁴We reiterate that we consider the head ornaments as part of the head.

We repeated this process with the 100 pieces analyzed and except the figurines mentioned, none other¹⁵ exceeds the 4 heads of height. However, the question is still not answered: why not more than 4 heads? Why do the figurines don't tend to have a more exact standard?

After reflecting and having some discussion about this, we deduced that the number 4 was the most important number in the mythological/religious worldview of the Mesoamerican cultures. This is present in multiple sources and many cultural expressions:

... pues tanto lo que se puede admirar como lo que no se puede ver, significan algo importante que era necesario precisar para no disminuir la carga mágica que se creía encerrada en la obra: el monolito de la diosa Coatlicue, y otras obras de un bloque denso y pesado, también están esculpidas por debajo, allí donde se apoyan y nadie puede contemplarlas. (Balmori, 1978, p 70)

The proof can be found in the fact that the number 4 is much more prominent than any other number, being present 68 times more than the second place. We believe that the questions presented can be answered when we break away from the Eurocentrist paradigm that states "it has to be", and we interpret the Mesoamerican perspective as "no more than". However, we consider it important to give a definitive answer to the question: why the number 4? We go through some highlights by authors that go through the number 4 as a symbolic element, as part of daily life or the mythology of the Mesoamerican cultures:

Florescano (2004)¹⁶: "Quizá los olmecas fueron los primeros en representar el origen del cosmos, los seres humanos, la naturaleza y los dioses mediante imágenes" (p 17). "El sol es asimismo una metáfora de la fecundidad, fuerza, valor y primacía del género masculino" (p 30). "Los mitos de la creación mesoamericanos narran el origen del cosmos, describen sus distintos niveles y ubican sus regiones en cuatro rumbos espaciales..." "Y se trajo la cuerda de medir y fue extendida en el cielo y en la tierra en los cuatro ángulos, en los cuatro rincones" (p 30-31). "Los cuatro rumbos del cosmos y sus cuatro esquinas..." (p 31-32). "...rodeado por cuatro semillas de maíz..." (p 32). "Ocupa el centro del mundo, como señalan los cuatro granos de maíz repartidos en los rumbos cardinales" (p 33). "... ubicados en los cuatro rumbos cósmicos..." (p 34). "...y las cuatro esquinas del cosmos..." (p 34). "...las cuatro regiones del cosmos..." (p 34). "...Jun Nal Ye ocupa un lugar tradicional en los mitos de la creación y es el protagonista de cuatro episodios cruciales..." (p 43). "...y que ese lugar oculto fue revelado a los dioses por cuatro animales..." (p 59). "...había cuevas que la vinculaban con el inframundo y cuatro árboles, en sus esquinas..." (p 62). "Eran los seres que significaban la enfermedad, el decaimiento físico, el sacrificio humano y la muerte" (p 63). "Siguiendo la tradición olmeca, los mayas representaron el inframundo en forma cuatrifoliada e identificaron ese diseño con la cancha del juego de pelota" (p 64). "Tecuciztécatl cuatro veces intentó arrojarse al fuego..." (p 77).

Krickeberg (1970): "Este dios y diosa engendraron cuatro hijos..." (p 21). "...sabían que cuando esto sucedió habían vivido cuatro clases de gentes..." (p 23).

El primer sol que hubo al principio bajo el signo de "4 atl" (cuatro-agua) ... El segundo sol que hubo está bajo el signo de "4 ocelotl" (cuatro-tigre) ... El tercer sol que hubo, bajo el signo 4 quiahuitl" (cuatro-lluvia) ... El cuarto sol, bajo el signo de "4 ehécatl" (cuatro-viento) ... El quinto sol bajo el signo "4 ollin (cuatro-movimiento) (p 23).

"...ordenaron los cuatro que se hicieran por el centro de la tierra cuatro caminos ... Y para que ayudasen en el levantamiento del cielo criaron cuatro hombres..." (p 24). "... comenzaron a hacer penitencia de cuatro días ..." (p 28). "...en los mismos cuatro montes hicieron penitencia durante cuatro noches ..." (p 28). "En este lugar el fuego ya ardía cuatro días ... Cuatro veces probó, pero nunca se osó echar ..." (p 29). "Luego se detuvo cuatro días... Durante cuatro días no se movió..." (p 30). "Cuando nacieron, se metieron en el agua cuatro días..." (p

¹⁵In some cases, either from the angle of the photograph, the stooped position, or because the piece presents a deformation, it becomes difficult to prove this statement. However, from a visual perspective, it is feasible to maintain this affirmation.

¹⁶Four elements are considered, even if they are not explicitly numbered.

32). “Solamente después de pasados cuatro años el difunto se va...” (p 36). “Del dios del agua dicen, que tiene su aposento de cuatro cuartos, y en medio de un gran patio donde están cuatro grandes tinajas de barro llenas de agua.” (p 39) “Después de haberle disparado cuatro veces, se volvió Mixcóatl y se fue.” (p 40). “... afligió mucho a su madre durante cuatro días ...” (p 41). “Contenía cuatro aposentos...” (p 44-45). “... y en sólo cuatro días compusieron pulque y lo recogieron.” “Pero los diablos le dijeron: “Has de bebe cuatro...”” (p 57). “Sólo cuatro días estuvo en la caja de piedra” (p 58).

León-Portilla (1979): “... entre los cuatro rumbos cardinales...” “...cuatro fueron los primeros dioses...” (p 94). “... con los cuatros hijos de *Ometéotl* entrarán de lleno en el mundo...” (p 95). “... los cuatro dioses hermanos, e hijos de Tonacatecli... se juntaron todos cuatro...” (p 96). “Situado en uno de los cuatro rumbos del mundo...” (p 97). “Porque ninguno de los cuatro dioses existe por sí mismo...” “Sus hijos, los cuatro primeros dioses...” “En cada edad de la tierra – en cada Sol – predomina uno de ellos, simbolizando a la vez un elemento – tierra, aire, fuego, y agua – y uno de los cuatro rumbos ...” (p 98). “... los cuatro elementos... vienen a coincidir con las cuatro raíces o elementos ... entre los periodos cósmicos y los cuatro elementos...” “El universo está dividido en cuatro rumbos bien definidos, que coinciden con los puntos cardinales...” (p 111). “Cada uno de los cuatro elementos (los hijos de *Ometéotl*)” (p 112). “Como en las cuatro edades anteriores actuó cada uno de los cuatro elementos, proviniendo de los cuatros rumbos...” “... donde existen las pruebas que deben afrontar durante cuatro años los descarnados...” (p 120)

We believe that these examples are enough to show the importance of the number 4 in Mesoamerican cultures. We can interpret that the respect these cultures had for the number 4 prevented them to exceed it in the proportions of their anthropomorphic figurines since the human-symbolic representations couldn't be put over their deities and most sacred mythical traditions. In other words, first comes the symbolic-religious-mythical charge of the number and then the “no more than 4 heads” to not exceed the bases of their worldview. These could explain the anthropomorphic proportions of the Mesoamerican piece that were created and reproduced over more than 35 centuries.

III. CONCLUSION

The Mesoamerican cultures were located in the area between today's northern Mexico and the South of Panama. According to experts, these civilizations had a span of 3,500 years. From their beginnings, human figurines were represented with human proportions outside of reality and this custom continued until the fall of the Mexica civilization in the XVI century. However, the subject of the disproportion in the measurements of human representations hasn't been heavily studied, in comparison with other elements of these cultures. To begin this research, we explored the webpage of the *Mediateca* from the *INAH (Instituto Nacional de Antropología e Historia)* and we searched for the term “*figuras antropomorfas mesoamericanas*”. We checked 100 pieces and we found that 96% of the pieces had a bigger head in comparison with the rest of the body. Then, pieces that represent the three different periods that divide Mesoamerica were selected to confirm that the pattern was used continuously, and we ratified that the same parameters were used. Furthermore, we used different methods to try to deduce the reason behind these canons. We discarded the method of the Golden Section; the one to measure the base with the “face” and the base with the “head”, as well as measure the height with the width. We considered different authors and their work was examined to find the numbers that were most used in the legends, myths, and religion of the Mesoamerican cultures.

We discovered that for some reason, the number 4 was especially important to them. At this point, we tried to move away from a Eurocentrist perspective and we interpreted that the Mesoamerican cultures were not ruled by the “it has to measure a determined number of heads”, but rather by the “it shouldn't measure more than four heads. Once this point was grounded, it is possible to assume that for a Mesoamerican person, using a bigger number than 4 in their anthropomorphic representations, could be the same as putting themselves on top of their deities or their sacred elements. As such, they always maintained the head-body proportions below the number 4. This is what we call the Mesoamerican canon in anthropomorphic pieces.

Section 1 MID of the analyzed pieces. The ones in red are the MID that are closer to the natural proportions of the head-body.

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|-------------------------------|-------------------------------|-----------------------------------|---------------------------------|-------------------------------|
| 108_20170213-104314:10-597045 | 82_20140130-123000:940 | 381_20170911-122718:15032 | 82_20140130-123000:26793 | 82_20140130-123000:23306 |
| 108_20170213-104314:10-631468 | 82_20140130-123000:25797 | 82_20140130-123000:11679 | 82_20140130-123000:11648 | 82_20140130-123000:24902 |
| 77_20140827-134500:229478 | 77_20140827-134500:229477 | 82_20140130-123000:25886 | 82_20140130-123000:25729 | 82_20140130-123000:11281 |
| 82_20140130-123000:7970 | 82_20140130-123000:7968 | 82_20140130-123000:7965 | 82_20140130-123000:26066 | 82_20140130-123000:25901 |
| 82_20140130-123000:24133 | 82_20140130-123000:23748 | 82_20140130-123000:23499 | 82_20140130-123000:23457 | 82_20140130-123000:23442 |
| 82_20140130-123000:23341 | 82_20140130-123000:23320 | 82_20140130-123000:23307 | 82_20140130-123000:23292 | 82_20140130-123000:23191 |
| 82_20140130-123000:23161 | 82_20140130-123000:23157 | 82_20140130-123000:23155 | 82_20140130-123000:23145 | 82_20140130-123000:23144 |
| 82_20140130-123000:23116 | 82_20140130-123000:23100 | 82_20140130-123000:22841 | 82_20140130-123000:22798 | 82_20140130-123000:22424 |
| 82_20140130-123000:11667 | 82_20140130-123000:11526 | 82_20140130-123000:11411 | 82_20140130-123000:11294 | 82_20140130-123000:11268 |
| 82_20140130-123000:11254 | 82_20140130-123000:11218 | 82_20140130-123000:1253 | 82_20140130-123000:1245 | 82_20140130-123000:1220 |
| 82_20140130-123000:1210 | 82_20140130-123000:1093 | 82_20140130-123000:627 | 82_20140130-123000:569 | 82_20140130-123000:26791 |
| 82_20140130-123000:26012 | 82_20140130-123000:25897 | 97_20190121-184114:10-301512 | 82_20140130-123000:7452 | 82_20140130-123000:36141 |
| 95_20160601-120000:10002 | 95_20160601-120000:10000 | 95_20160601-120000:9996 | 297_20161124-134654:TMP-1101-65 | 297_20180710-172914:10-413020 |
| 100_20160606-110000:12350 | 100_20160606-110000:12347 | 100_20160606-110000:12345 | 100_20160606-110000:12344 | 100_20160606-110000:12337 |
| 100_20160606-110000:12330 | 144_20170307-175351:10-650132 | 144_20170307-175351:10-647973_4_6 | 144_20170307-175351:10-581031 | 144_20170307-175351:10-212841 |
| 503_20180911-124215:16171 | 382_20150819-051500:3935 | 100_20160606-110000:11162 | 77_20140827-134500:324532 | 82_20140130-123000:26018 |
| 77_20140827-134500:410495 | 82_20140130-123000:7397 | 82_20140130-123000:26640 | 82_20140130-123000:26435 | 82_20140130-123000:26417 |
| 82_20140130-123000:26224 | 82_20140130-123000:26198 | 82_20140130-123000:26171 | 82_20140130-123000:26039 | 82_20140130-123000:25848 |
| 82_20140130-123000:25560 | 82_20140130-123000:25535 | 82_20140130-123000:12044 | 82_20140130-123000:11996 | 82_20140130-123000:11993 |
| 82_20140130-123000:11991 | 82_20140130-123000:11617 | 82_20140130-123000:11339 | 82_20140130-123000:7962 | 82_20140130-123000:7793 |

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