# Polo and Human Evolution. The Essentialisation of the Human Body

*Polo y la evolución humana. La esencialización del cuerpo humano*

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Abstract: A review of Leonardo Polo's thought about human evolution in light of the last three decades of palaeontological and archaeological findings and developments. The understanding of human evolution as the essentialisation of the human body allows for the integration of those discoveries and developments in his Transcendental Anthropology.

Keywords: Leonardo Polo, Human Evolution, Transcendental Anthropology, Human Essence, Human Body.

Resumen: Una interpretación del pensamiento de Leonardo Polo sobre la evolución humana a la luz de los descubrimientos y desarrollos realizados en paleontología y arqueología en las tres últimas décadas. La comprensión de la evolución humana como la esencialización del cuerpo humano permite integrar esos nuevos desarrollos dentro de su Antropología Transcendental.

Palabras clave: Leonardo Polo, Evolución humana, Antropología transcendental, Cuerpo humano.

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## Introduction

The present article reviews Leonardo Polo's thought about human evolution in light of the palaeontological and archaeological discoveries of the last three decades. It is an attempt to examine those recent discoveries and developments in light of L. Polo's scholarly contribution to the understanding of the human person. As he already knew, the human person is open to the future and knowledge is never static and it is always open to that future.

Human evolution is an area of study open by its very nature to new discoveries, which – unfortunately – have been the target of materialistic interpretations whereby any reference to variables, other than measurable ones, is looked upon as belonging to an ancient and overridden knowledge. Areas such as molecular biology and specifically DNA studies as well as palaeontological and archaeological findings, including primate cognition studies, among others, never fail to surprise us. They bring back achievements considered exclusively human such as burials, the use of fire, cave paintings, and the manufacturing of stone tools to a time when *H. sapiens sapiens* was absent and only *H. habilis* and *H. erectus* hominids inhabited the Earth. The latest studies in primate cognition seems to obscure the concept of intellectual cognition and see it as just another step of cognition development.

Polo affirms often in his writings that '*intelligence is not a product of evolution*' (Polo 1994, 2). This statement not only reflects the core of his philosophy: the act of being of the human person is not the same as that of the universe. It is also the key to understand his position about human evolution. The human person has a new principle of being that is different from the being of the universe including life. This new principle is the human spirit or person, which is what makes possible for intellectual organic beings to cease just being another individual of a certain species and become a unique relational being, superior to the species (Polo 1994, 43).

In his article *On Human Origins, Hominization and Humanization* (Polo 1994, 41-47), Polo understands full humanization being reached by *H. sapiens sapiens* with the advent of articulated language because of its symbolic and logical characters. Articulated sounds and complex grammar use are understood as the result of symbolic and logical thought. The article also links intellectual cognition to the size of the brain and the development of the hand. Polo grants human status to the manufacturing of tools within a medial

plexus, as part of an intentional plan where other instruments are also used. Humans share with certain animals the use of tools, and manufacturing of tools with others. Both can be done thanks to the imagination. Also, Polo sets the capacity for caring for others as another threshold in becoming human.

Polo also defended full humanization in *H. sapiens sapiens* because thirty years ago the palaeontological and archaeological evidence for human articulated communication, symbolic behaviour, complex artefact manufacturing and caring behaviour, pointed only to anatomically modern humans. However, much has been discovered and developed in those areas and also in animal behaviour in the last three decades that seriously question the apparition of intellectual cognition with *H. sapiens sapiens* or anatomically modern humans and include *H. erectus* and *H. habilis*. Evidence cannot, should not, be ignored and accordingly there is no other option but to rethink when exactly hominids became humans. Or in Polo's words, when incarnated spirits began their existence in our planet Earth.

In the first part I will briefly expound the main above palaeontological and archaeological discoveries and developments in the last three decades. In the second part I will attempt to explain how the same Polian philosophy can account for those samples of human manufacturing and behaviour dated before *H. sapiens sapiens*.

## 1. Discoveries and developments related to intellectual thought including abstract thought before the appearance of *H. sapiens sapiens*

In order to make the explanation closer to Polo's writings I will follow the three variables stated by Polo in his article of 1994 *Sobre el Origen del Hombre*, *Hominización y Humanización*. These variables are: Articulated sounds and complex grammar use as the result of symbolic and logical thought; the link between brain size and intellectual thought; and the manufacturing of tools within a medial plexus as part of an intentional plan where other instruments are also used. In other writings, Polo indicates caring behaviour as a sign of intellectual thought (Polo 1994, 41-47). Polo's understanding of *H. habilis*, *H. erectus* and *H. sapiens archaic* does not recognise human status/intellectual thought to these hominid species but he acknowledges them as biological predecessors of *H. sapiens sapiens*. They made possible for the human body to evolve in order to receive the spirit, for the latter to be incarnate, which is

what makes a human body possible, thanks to the development of the sensorial capacity of the imagination. There are four different types of hominids/humans: *Australopithecus*, *H. habilis*, *H. erectus*, and *H. sapiens*. This is the classification used by many well renowned palaeontologists such as Holloway, Leakey, Klein and others who I follow here. However, due to space constraints the evidence for the above variables will not be exhaustive.

The first hominid to show a great cranial capacity and therefore a bigger brain than those of great apes is the *Australopithecus* (Stevenson and Allens 2003, 336) yet smaller than *Homo*, roughly 400-550 cc. The earliest dates for them go back to around four million years ago. They have an early reorganization of the brain as seen from the study of their brain cast. This reorganization such as the hidden *lunates sulcus* or posterior cerebral organization is not present in pongids (Holloway 1983, 420). They are contemporaneous with Mode 0 or Lomekwian and later on with Mode 1 or Oldowan.

*H. habilis* is generally dated between 2.3 and 1.8 Mya though the dates vary. All the morphological features that are present in modern humans can be found in *H. habilis* even if not fully developed, some being: an absolute increase of 45.1% in the mean of the endocranial capacity from the *A. africanus* mean; a remarkable expansion of the brain achieving a mean of 640 cc as compared to a mean of 500 cc for *Australopithecus*; a remarkable transverse expansion of the cerebrum, specifically the frontal and parietooccipital areas and an increase in size of those same lobes; clear asymmetries in the right and left hemispheres of the brain; prominent enlargement of both the Brocca and Wernicke areas, a distinctive feature of *H. habilis*; and the sulcal and giral patterns of the frontal lobe are similar to those of modern humans. According to Tobias (1998 in Turbón 2011, 163-164) *H. habilis* needed language for survival reasons. The type of stone tools associated with them is Mode 1 or Oldowan.

Early *H. erectus* is an African species which existed between 1.9-1.7 million and 600,000 years ago. It is also the first species to expand to Eurasia as early as 1.8 Mya (Klein 2005, 85) and other places as well though evidence in Asia points to an earlier expansion. Soon afterwards the first Acheulean (hand axe and cleaver) industries appeared (Scarre 2005, 101). Its associated archaeology is Oldowan, Developed Oldowan, and early Acheulean. Some specific morphological traits or autapomorphies of *H. erectus* are as follows: a mean expanded cranial capacity of 920 CC or 30% more than the *H. habilis* mean. The increase in the encephalization would have required the neonate

to have been born earlier because of constraints in the birth canal, which began with *A. africanus* and continued with *H. habilis*, adding a progressive increase in the length of childhood beginning with *H. habilis* in order to allow the baby to reach the level of maturity that other primates are born with (Turbón 2011, 211); strong parietal bone thickness of 10 mm; well-developed supraorbital torus; well-marked temporal muscles; well-developed occiput area specific to the species. The Acheulean hand axe or biface is the archaeology first to emerge with *H. erectus* and it can be found in most of the sites where his fossils are found. *H. erectus* is also associated with Oldowan stone tools. Acheulean Mode of stone tools is also known as Mode 2 and it is characterised by modifying the core stone before flaking in order to detach the flakes according to certain size (Pelegrin 2005, 27-28; Foley and Mirazón Lahr 2003, 114).

There are two peculiar types of *H. erectus/H. habilis*. The first one *H. florensis* is dated 50,000 years ago, who due to gradual change in hominid morphology across time in the case of the Isle of Flores a setback happened which is shown in the reduced height of the *H. erectus (florensis)* with a height of 1.06 metres which is the size of a 3-4 year modern human child. They are associated with stone tools of Oldowan Mode which means they kept the cognitive abilities intact in spite of their new size (Baab *et al* 2012). The second is *H. naledi* from the Dinaledi Chamber in South Africa where hominin cranial remains representing multiple individuals were found. Their endocranial volume is comparable to *Australopithecus* and their external cranial anatomy is similar to larger-brained species of *Homo* such as *H. habilis* and *H. erectus* such as the organization of the inferior frontal and lateral orbital gyri. It is a population that existed 74 and 18 thousand years ago (Holloway *et al* 2018). They are not associated to stone tools but given the reorganization of their brain they may have manufactured stone tools of Mode 1 and possibly 2.

There are three acknowledged types of *H. sapiens*. Archaic *H. sapiens*, late *H. sapiens* and modern *H. sapiens* or *H. sapiens sapiens*. *H. sapiens* first differentiated in Africa between 0.8-0.7 Mya (Turbón 2011, 231) to become archaic *H. sapiens (rhodiensesheidelbergensis)*, 1225-1300 cc. They remain in Africa becoming *H. sapiens sapiens* in time. *H. sapiens (rhodienses-heidelbergensis)* expanded into Europe about 0.6 Mya. The first group or archaic *H. sapiens (rhodienses-heidelbergensis)* share morphological traits with *H. erectus* such as forwardly projecting face, thick supraorbital torus, receding frontal, frontal keel, and thick cranial walls, among others. Differences with *H. erectus* are as

follows: large endocranial capacity; double arching of the supraorbital torus; relatively large braincase; expanded parietals; and rounded occipital among others (Klein 1999, 308-309). Their associated archaeology is made of Late Acheulean hand axes and associated tools with early and non-modern *H. sapiens* such as flakes manufactured using the Levalloisian technique which would only become commonly used in the next period (Pettitt 2005, 132; McBrearty and Brooks 2000, 460-477; Turbón 2011, 233-234; Conroy and Pontzer 2005, 475; Klein 1999, 336). The second group or late *H. sapiens* lived in Africa and in Europe where they are known as *H. sapiens neanderthales* with their own distinctive features. In Africa they are characterised by distinct chins; shorter and flatter faces than the Neanderthal; some skulls are ruggedly built, with large brow ridges; prominent transverse occipital tori; pronounced bony crests or mounds in the occipitomastoid region. In general, the African skull tends to be shorter and higher than classic Neanderthal; and equal to or approaching modern skulls in basic vault shape (Klein 1999, 400). Neanderthals are associated with Mousterian or Mode 3. Modern *H. sapiens*, or anatomically modern humans, cranial features are as follows: cranial vault enlarged and elevated in the frontal and parietal regions; cranial bones reduced in thickness; occipital region rounded; reduction of supraorbital torus; reduction of prognathism; development of canine fossa; reduction in tooth crown and tooth size; reduction of mandibular robustness; development of a bony chin; average brain size of 1,300 cc with variation between 1,200-2,000 cc; brain and vocal tract fully adapted for speech, including the presence of cerebral asymmetry with language centres predominantly in the left hemisphere. Also, hip and lower limb structures are fully adapted to a striding bipedal gait; upper limbs are capable of very fine movements of the hand and thumb (Klein 1999, 485 and 490). They are associated with the apparition of Microlithics or Mode 5. I would like to point that the brain and vocal tract has been adapting to articulated speech since at least *H. habilis* as explained above. What we see in *H. sapiens sapiens* is a full adaptation of the brain and vocal tract but the process began much earlier.

There is a morphological trait directly associated with the area of caring mentioned above. It refers to total rotation of iliac crests of the pelvis from which the muscles that allow upright position hung. This rotation began with *Australophitecus* but full rotation only happens with *H. sapiens sapiens*. The birth canal was invaded by the iliac crests of the pelvis which brought problems during childbirth which obliges the unborn child to rotate twice to a total of

90 degrees in the birth canal in order to avoid friction with the aforementioned iliac crests. Also, the growth in cranium size aggravated the situation. As a result, the child is born backwards which requires help from the social group in order for the birth to be completed satisfactorily. In the case of *Austrlophitecus* and *H. erectus*, as the iliac crests are not fully rotated, meaning they do not invade the birth canal, together with a small cranium size, a transversal birth occur. In transversal births the baby rotates 45 degrees before entering the birth canal. In the case of chimpanzees, the neonate is born facing the mother and does not rotate to enter the birth canal nor while passing through it (Turbón 2011, 205-206). This is a very important trait during human evolution because the birth process in hominids from the *Australopithecus* to *H. sapiens* demands a great degree of social cohesion in groups as well as an intentional cultural transmission of birth knowledge (Turbón 2011, 206).

There are two more events recorded in the same area of caring. The first is the evidence of a *H. habilis*/early *H. erectus* fossil dated 1.77 million years ago with a significant lack of teeth due to gum infection early in life who however survived into old age (Lordkipanidze *et al* 2005, 717). He must have processed food for nourishment purposes early and late in life indicating the involvement of the social group for this purpose as well as caring for the individual during the initial illness. The second fossil comes from *Sima de los Huesos* in Atapuerca, Spain. It is a skull deformation known as craniosynostosis, or an early fusion of the cranial bones, dating from the Middle Pleistocene, 570,000 years ago. It belongs to a little girl who was around 8 years old when she died. This implies the support given by the social group for surviving those years in spite of her deformity and motor/cognitive disorders associated with this condition (Gracia *et al* 2009).

In regards to stone tool manufacturing the first recorded emergence of material culture goes back 3.3 Mya, and it is known as Lomekwian mode of stone tools. They are the earliest ever found and predate the Oldowan mode. Lomekwian mode or Mode O are not associated with any paleontological remains although they are contemporary to some, specifically *A. Afarensis* and Kenyanthrapus platyops (Harmand *et al* 2015, 310). They both emerged in the geological time scale of the Pliocene epoch. In my book *Cognition, Stone Tools and Aristotle* (Byrne 2020), I advocate the necessity of intellectual thought in the manufacturing of stone tools from the first Lomekwian Mode, including Oldowan or Mode 2, Acheulean or Mode 3, Mousterian or Mode 4 to Microlithics or Mode 5. The reason for this is that the abstract concept of

cutting is ingrained in the process of manufacturing, without this main goal the process of manufacturing stone tools would not exist. Also, there is a range of different tools in each Mode for different tasks, which means a medial plexus as part of an intentional plan. These ideas are well explained in my book above (Byrne 2020).

Symbolic behaviour is very difficult to detect in the palaeontological and archaeological record due to preservation issues, unless it leaves a chemical or fossilised-like clues behind. It makes its appearance also with *Australopithecus*. The Makapantagast jasperite pebble, found in the Makapangast cave in the Makapan valley of Northern Province (formerly Transvaal) South Africa, was associated with *A. africanus*, because it was found adjacent to *Australopithecus* fossils. It is a natural stone. The cobble bears several striking surface markings giving it the appearance of a head and face. It was picked from where it had come to rest, between 2.5 and 2.9 million years ago, and carried for at least 32 kilometres (or 4.8 km, according to another source) into the Makapansgat cave (Bednarick 2003; Jordana 2016, 123). There is another archaeological remain associated with *H. habilis*: the use of fire shown in concentrations of charcoal surrounded by burnt heated sediments at Koobi Fora, Lake Turkana, Kenya, and fragments of burnt clay beside Oldowan artefacts at Chesowanja, Kenya. Also, natural lava blocks clustered in a circle of 4-5 m in diameter in Olduvai Gorge Bed I, Tanzania, associated to Oldowan artefacts and fragments of animal bones (Klein 1999, 237). The use of fire is also detected within *H. erectus (ergarster)* context, 1.6 Mya, in different locations of Koobi Fora, Lake Turkana, Kenya (Wolpoff 1999, 507-508, in Turbón 2011, 213) which would have allowed them to expand to colder regions, to keep predators at bay, and to eat softer food by cooking it. In turn, less effort in the mastication process would have allowed for smaller jaw bones, smaller molar teeth, and less robust mastication muscles. It would also have allowed for a reduction of the supraorbital torus bone, the expansion of the front lobe of the cranium, and a reduction of the parietal lobe thickness (Turbón 2011, 213-214). In relation to burials, it is known now that Neanderthals bury their dead as well as that they had art cave painting. They also use mineral pigments and shells (Hoffman *et al* 2008). What seems to happen with modern humans is that their practise of burial, cave painting, personal adornment, etc. is greatly refined but it was already in existence before.

Several facts can be concluded from the above exposition in relation to Polo's variables for the apparition of humanity, as follows (Polo 1004):

- First: articulated sounds and complex grammar use as the result of symbolic and logical thought and the size of the brain linked to intellectual thought. Articulated sounds are very difficult to detect in the palaeontological record except for *H. sapiens sapiens*. What can be concluded from above is that brain size does not correlate with symbolic and logical thought, those capacities appear much earlier in the record, when the brain was already reorganised in a human way as seen by the necessary presence of abstract thought in the manufacturing of stone tools. Size varies in different hominid types including modern human types; our brain is smaller than those of Neanderthals. What is seen is a correlation between the reorganisation complexity of the brain and the sophistication of stone tools manufacturing. However, due to preservation issues and the random discoveries of archaeological and palaeontological sites it is very possible that in the future more evidence from the earlier types of hominids will come to light.
- Second: other symbolic behaviour appears before *H. sapiens sapiens* in the archaeological record with the Makapantagast pebble around four million years ago; the use of fire with *H. habilis* and *H. erectus*; burial, cave painting and the use of mineral pigmentation with archaic *H. sapiens heidelbergensis* and *H. sapiens Neanderthalensis*.
- Third: the manufacturing of tools within a medial plexus, as part of an intentional plan where other instruments are also used. The necessity of intellectual thought in the manufacturing of stone tools from the first Lomekwian Mode 0 onwards due to the necessary presence of the abstract concept of cutting in the process of manufacturing, without it the main goal – the process of manufacturing stone tools – would not exist. Also, there are a range of different tools in each Mode for different tasks, which means a medial plexus as part of an intentional plan.
- Forth: caring behaviour appears in the palaeontological record at least 1.77 million year ago with *H. habilis*/early *H.erectus* in Dmasani, Georgia; and 530,000 years ago in Sima de los Huesos in Atapuerca, Spain. Caring behaviour in mammals is usually linked to the maternal and social instinct of the group but, outside of these situations, animals do not care for outsiders and in these cases it does not last in time.

All the above facts question Polo's assumptions in regard to human evolution. However, is it possible to reconcile his Transcendental Anthropology with the above findings? This is the theme of the next section of this study.

## 2. Polo's Philosophy and Human Evolution

Polo's anthropology is a transcendental/spiritual one that explains how it is possible for the human person to operate in the material world if one of its principles is a spirit (Padial 2021, 3). For Polo, the human person is more than her actions, decisions, and conscious acts, which are located temporally and spatially. At the same time, he articulates the personal being with the acts through which the person freely avails of a nature (Padial 2021, 4) that is material but also endowed with life. Since life is an immaterial principle, it makes the nature capable of immaterial operations. The human person is also capable of operations beyond immaterial operations thanks to the action of the spirit, actions which refer to the subjective activity of the incarnated person. Person/spirit, subjective activity/essence and nature/body are the three elements involved in the intimate activity of the human person and which are articulated in the subjective activities it performs in the empirical world (Padial 2021, 4). The growth of the person through the subjective activities of her immaterial operations is known as essence in Polian terminology and it affects the body also (Murillo 2014, 212). It is because of the spirit that the other instances of the person can grow in an unrestricted way. Unrestricted growth is a concept linked to Polo's theory of knowledge thanks the concept of habit. It explains human essence as a result of the innate habit known as synderesis, which is manifested in the intellectual and willing capacities (Polo 2016, AT II, 287-288). The spirit/human person is capable of making the other instances grow, essence and body, through the innate habit of synderesis.

Would it be possible to explain human evolution as the essentialisation of the body? Essentialisation is understood as the inclusion of an inferior instance in a superior one, that is, the inclusion of the body in the essence of the person as dependent of it, but at the same time enjoying the free condition of the corporeal person (Murillo 2013, 123). This is the question that follows in the light of the above recent discoveries in human evolution, which point to the apparition of intellectual and symbolic thought before *H. sapiens sapiens*.

As explained above, the main concern for Polo in the area of human evolution is to acknowledge that there are two principles in the human person: matter and spirit. His philosophy is based in the understanding of the person from a dualistic point view. Dualism is a key question in his Transcendental Anthropology: the act of being of matter or the act of being of the Universe is different from that of the act of being of the spirit (Polo 2017, P y L, 83).

Dualism is a problem at the heart of current positions in various types of anthropology. The apparent simplicity of the person that we see with our eyes, the body, is the origin of the materialistic understanding of the human being. However, dualistic thinkers find it difficult to maintain the unity of the person when the existence of the body implies an ontological dependence on it and therefore breaks the unity of the person, introducing a new principle (Murillo 2013, 114).

Aristotle explained this new principle with his concept of Agent Intellect, which makes abstract/intellectual thought possible. Unfortunately, Aristotle granted divine nature to this concept but did not elaborate further. His ideas were developed later on by Thomas Aquinas, who granted the spiritual character of the human soul through his discovery of the difference between the act of being and essence (Sellés 2010, 560-566).

Later Aristotelian thinkers question the spiritual nature of the human soul according to Aquinas (Murillo 2013, 114). On the other hand, there are also questions in St Thomas regarding the intellectual capacity of the human soul, according to which he considers the human soul so weak that it needs a body as a means for knowing. This is due to the incapacity of the human soul to know the specifics of reality without the help of the senses (Murillo 2013, 116).

Polo further develops Thomas Aquinas discovery of the difference between the act of being and the essence. He understands the human soul as the essence, the instance of the human person that is the result of its growth due to the activity of its immaterial capacities of intelligence and will (Padial 2021, 6). Polo distinguishes the personal act of being from the essence. The personal act of being o spirit is endowed with different aspects, also known as transcendentals, and innate habits. One of these habits, the synderesis mentioned above, is what activates de the capacities of the intelligence and will. This explains de connexion between the person or spiritual act of being and the human soul.

What is Polo's innovation in this regard? Polo affirms that the dual aspect of the person is not an imperfection. Dualities appear in his study of the activity of the person as spirit and in the essence, not only as the relation between two members, one superior and the other inferior, but also in that the superior does not end its activity with that of the inferior member, rather it is open to a higher duality thanks to which the superior benefits the inferior. This is the case of the duality spirit-body (Murillo 2013, 120). More specifically, in the present case this duality refers to the one made up of essence and

body. The body is understood as the received life from the parents by the spirit, and the essence as the life added by the spirit thanks to the activity of its immaterial capacities of intelligence and will. In other words, the body belongs to the person in the same measure that it is received by the spirit. In the same way, the essence becomes spiritual in the same measure that the spirit receives the essence and at the same time inspires for further growth (Murillo 2013, 121). The body is proper to the person inasmuch as it is received by the soul and placed at the service of the manifestation of the person or essence. This reception of the body by the soul, and also as the manifestation of the person, is what makes possible for the body to connect with the freedom of the spirit and its openness to the future (Murillo 2013, 121). In this regard, the body participates in the growth of the essence but it is limited by what Polo calls the mental presence or the objects known by the essence's intellectual capacity. The body is opaque to the spirit because it can only be known by the person as a mental object. In other words, the light of the person only affects the body through the essence, there is no direct knowledge of the body. There are no habits that illuminate the body. Nevertheless, the body is illuminated – even if only partially – by the person and therefore it is capable of growth (Murillo 2013, 122-123; Polo, AT II, 276). Polo explains the growth of the body using an analogy of the concept of habit as growth but he does not grant it character of habit (Murillo 2013, 123).

Dualities such as the body and the spirit can work together, thereby keeping the unity of the human person. There is no need to choose one over the other. In other words, the act of the spirit belongs to the human person, and manifests itself in the body, thanks to the activities of the intellect and will. The activities of the intellect and will personalize the body, though not necessarily, as this personalization is subject to transcendental freedom. In this way the unity of the incarnated person is kept.

## Conclusions

Polo only granted the above status of person to *H. sapiens sapiens* and he only understands *H. habilis*, *H. erectus*, archaic *H. sapiens* and *H. Neanderthal* as hominids with no spiritual soul. His position was backed up by the palaeontological and archaeological records thirty years ago, which for the majority of scholars in these areas only included *H. sapiens sapiens* as showing reliable symbolic thought clues (Polo 1994). However, many discoveries and advance-

ments in Palaeontology and Archaeology in the last three decades have put in question the above assumption as explained in section 2 of this article.

In his Transcendental Anthropology, Polo explains the growth or essentialisation of the body as part of the growth of the human essence because of its relation with the essence. The body is the organic body of a being who is also spiritual (Murillo 2013, 123).

I think that there is a way to explain human evolution not only as preparation for an organic body to receive a spirit as Polo does. The human evolution of the body was only partially but sufficiently done when it received the spirit even if we go back to *H. habilis*. The reorganization of the brain and the prominent growth of the Brocca and Werneck areas; the development of the hand; the level of sophistication in the manufacturing of stone tools in a medial plexus, point to a body ready to receive a spirit. Even more, this human body was open to further growth as a result of receiving the spirit, which can be seen in the long, windy road of human evolution that resembles the complicated branches of a tree. *H. sapiens sapiens* is the result of that road and the only surviving one. It is my humble opinion that this growth is what we see in the archaeological record: a development in the spiritual manifestations as can be seen in the symbolic use of material culture such as the Makapantagast pebble; the use of mineral pigmentation; the use of fire; the burial of the dead; and cave painting among others. As well as in the development of the manufacturing styles of stone tools that require abstract thought and are made within a medial plexus, as part of an intentional plan where other instruments are also used. A growth that is analogical to the concept of habit without it being a habit.

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