

# Physical training in the environment: origin, evolution and reinterpretation modern times

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## ABSTRACT

Acuña, A., & Acuña, G. (2016). Physical training in the environment: origin, evolution and reinterpretation modern times. *J. Hum. Sport Exerc.*, 11(1), 89-98. In this article we reflect on the role that occupies the physical training performed in the natural environment as an alternative to maintain and improve the physical condition in our times, highlighting certain ancient, simple and natural practices, bearing in mind that not for being old they are no longer effective. On the other hand we will demystify all this modernist movements that draw public attention or attract the potential customers by being identified with the "paleo" or the "paleotraining" in our case. Before that, however, to have background information on the state of the issue, we will discuss what we know about the genesis and evolution of physical activity in prehistoric societies; as well as the role that has played this type of activity in the ancient societies, and still play in contemporary tribal societies. **Key words:** PHYSICAL ACTIVITY, NATURE, PALEOLITHIC, MODERNITY, PALEOTRAINING.

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## INTRODUCTION

The practical sense of an intelligent movement or a thought one in humans is obvious, the body is the vehicle of being in the world and is used in many ways depending on the purpose that it is intended. Understood as a tool, it is likely therefore to be technologically improved, as well as Marcel Mauss (1936) expressed in his famous essay on the "body techniques". We use it in social relationships, in the workplace, sexual, hygienic, health, leisure, inescapable we use it in all the facets of life, either as a form of expressing needs, innate emotions, thoughts or actions represent culturally coded, also as a transitive resource through exercises performed in a particular area pretending to obtain success. A third category of movement, as Buytendijk (cf. Le Boulch, 1985) indicated, belong, for example, dances with magical-religious nature intended to influence on the supernatural field, communicating with certain sacred entities to attract rain or procure a good harvest; and also physical training by doing continued specific exercises, developing certain qualities with which achieve maximum efficiency in sports competitions towards they are directed.

This last category of body movement or physical activity will be engaged in this work, on which we will reflect on the role that occupies the physical training performed in the natural environment as an alternative to maintain and improve the physical condition in the present, considering and highlighting certain ancient, simple and natural practices, that not for being old are no longer effective. In this line also we will demystify all this modernist movement, that try to draw public attention or attract potential customers, identifying their proposals in the field of nutrition, healing or exercise with the title of "paleo", or in this case the "paleotraining". Before that, however, and to have a background information on the state of the issue, we will discuss what we know about the genesis and evolution of physical activity in prehistoric societies; as well as the roles played in this type of activity in ancient societies, and is still played in contemporary tribal societies.

## THEORIES ABOUT THE GENESIS AND EVOLUTION OF PHYSICAL ACTIVITY IN PREHISTORIC SOCIETY

At this point we will use mainly the approaches of leading historians of the sport, of German origin, classics of the subject, whose reflections are still a significant benchmark.

According to Hueberhorst (1973), the origin and development of the physical exercise in prehistoric societies has a double theoretical guideline, the second of which is divided in two. On one hand we find a general theory that considers the instinct as the primary cause of the origin of physical activity, as part of the vital principle of unity between human beings and other animals (Neuendorf, 1973; Eppensteiner, 1973). And the other general theory, is the substantial difference between being human and animal, within which we can distinguish between the materialist position that attributes the origin of physical activity to work or military reasons (Eichel, 1973; Lukas, 1973). The idealist position interprets the origin as the result of a playful and cultural motivation (Diem, 1966; Popplow, 1973). Other authors such as Van Dalem, Mitchell and Bennett (1973) maintain an eclectic position about that.

Neuendorf (1973) considers the running, jumping and climbing the first exercises performed by humans as another animal specie, in order to survive, get support and stay safe; recognizing the throw (Eichel and Lukas, 1973) as the uniquely human quality. The dance is considered as a physical exercise practiced just for simple pleasure of rhythmic movement and with which, it is possible to release the excesses of energy, without further external purpose.

In that same line, Eppensteiner (1973) notes in first place the instinct of movement, followed by instincts of fighting and play, which are the source of spontaneous exercise, recognized by him as sporty instinct, differentiated of the sport culture that would appear later conditioned by historical, religious, social, political and military reasons.

Unlike the previous theories developed, Lukas and Eichel clearly differentiated involuntary body movements, reflexes, common to man and animal, from the ones that are only owned by human, which are a sign of distinction in his kingdom. For Eichel (1973), the primary function of body exercises is to increase job performance, the production process, which follows the warrior preparation for combat. In that sense, this author divides such exercises in three stages: throwing spear or javelin, followed by archery, shoot with harpoon, boomerang, etc. These techniques are identified as the first ones, characteristic of nomadic hunters. Community competitions in different places and seasons during social meetings and dance based on sympathetic magic, is typical of the sedentary peoples and farmers, which constitute the second stage. And the third part in the historic societies, estates and militarized, was the physical training that would be practiced both, for sport competitions and for the battle.

Lukas (1973) emphasizes the importance of work in the origin of the first exercise, but also points out other physiological and psychological reasons, pleasure for movement, vital impulses that are part of our nature. In this sense he highlights the race, the jump, the climb, the swim...exercises practiced by the first man and the magical dance with pretended success in the hunt.

Diem (1966) considers that the first exercise should had born center of the culture, motivated by the control of the nature. Thus, the dance, as well as the games and competitions focused to gods that govern events, to ask or thank for prosperity favors, would be placed with its symbolic character as the first manifestations.

With the same view, Popplow (1973) places the dance as an older exercise with intellectual activity characterized in the beginning by the external utility, ecstasy capacity and socialization, used in various forms and motivations: magic, warriors, erotic. The author rejects to link the first exercise exclusively with the struggle for survival and other serious aspects of life, highlighting especially its spiritual aspect and pleasure in itself.

Finally Van Dalem, Mitchell and Bennett (1973), american social scientists, consider that achieving security and adaptation to the physical and social environment was a key objective of the first exercise and so it was transmitted to future generations. The primal physical education therefore was not created just for one reason, but might had been supported in various purposes such as getting a good physical capacity for the survival of their own or their family, strengthening relationships and participation of the group components, and recreation, the release of energy and entertainment. Reasons that although the context has changed remarkably, are still maintained today.

## **PHYSICAL-SPORTS ACTIVITIES IN ANCIENT SOCIETIES**

The history of cultures from the most ancient times has recorded countless activities that we recognize now as physical sports, which have performed very different functions.

Although we can find examples of all of it in any region of the world, for the occidental civilization, the Classical Greece is the one which provides more documentation. We know that Greek body culture was part of a whole in which the physical aspect is in harmony with the spiritual and moral. The gymnasium in

the ancient Greece was an institution dedicated to physical and spiritual instruction, a training space for competitors in public games, and at the same time it was a place of socialization to find groups to share ideas. The regularly exercise practiced by the ancient Greeks were done in line with religious ceremonies, but also it was fitted with the ideology derived from the famous phrase of Juvenal: "mens sana in corpore sano", which shows the Greek interest for the integral development of the person. The competitions at that time were part of religious ceremonies, offerings to gods, especially Zeus and Apollo; and the competition was not interested in breaking records, achieve a lower mark or increase the distance, as they were not measured, but beat the rival with whom they were facing. All this was related to the model of society in which they were enrolled (Brohm, 1982).

The Olympic Games in Ancient Greece, as well as being a chance to compete in strength, speed, agility or endurance, met at Olympia a large number of writers, philosophers, historians, and definitively, great minds who spread their ideas to the great number of people that went there peacefully. When Greece become a province of the vast Roman empire, the games with religious connotations acquired a circus and spectacular character, being definitively prohibited in the year 394 of the Christian era because of the pagan sense attributed to them. From the exaltation and development of the body for the God veneration, it all changed to a perception of the body as a forbidden source of sin.

Changing of scenario, in the pre-Columbian America were extensively studied the ball games of the ancient Maya, the pot-ta-pok, which, in consonance of the significant presence of pitches in the cities, must had possessed great social relevance.

Played on a T-shape field with variable dimensions, the side had two stone rings placed at a considerable height. Two men's teams competed for the possession of a rubber ball, hitting it with different parts of the body, being banned other ones, trying to avoid to fall the ball to the ground and also trying to introduce it into one of these rings. Among the functions that are attributed to this famous game we could highlight the following: to serve as worship of the gods, with the execution of human and animal sacrifices; public entertainment; to appease the strife, to ensure stability among nations and replace the bloody war that might occur between them; as a way of predicting the future based on its dynamic and the final outcome; and for the economic benefit related to the bets that were made. (Lüschen & Weis, 1979). Functions that were given in combination one with each other.

Corresponding to the values, beliefs and lifestyle in general that each society developed at different times of their history, the physical and sports activities have been and are a good indicator to reveal many of those features. Having normally access for the population in general, and surpassing the physical aspect to connect to the economic, social, political, or religious aspects. In fact, Practices maintain a great analogy with the cultural contexts in which they occurred and also helped us to understand better the concerns and shocks of ancient societies.

## **PHYSICAL-SPORTS ACTIVITIES IN CONTEMPORARY TRIBAL SOCIETIES**

Diversity also can be found in the current tribal societies spread across the planet, whose physical and sports practices are an adaptive response to the environment and circumstances in which they live. The surplus of energy, the need for entertainment, the individual and collective catharsis, the achieving of social prestige, or the magical sense of the existence, are still functions performed by such practices, and the number and variety of demonstrations give an idea of the diversity of such societies more extended in the old times.

Regulated fights with the hands or with the use of a blunt implement are still seen among the Nuba of South Sudan, the Yanomami of the Upper Orinoco Amazonia in Brazil and Venezuela, and among many peoples of Polynesia; races of short, medium and long distance with or without additional burden, animal persecution or added difficulties, can be seen among the Kung of the Kalahari in Namibia, the Huichol Indians of the Sierra Madre in Mexico, or Brazilian Xavante of Mato Grosso. Other activities include the launch of objects with or without propellant as demonstration of the achievement of distant targets, are widespread. Many rites of passage are based on the demonstration of certain qualities or physical abilities: endurance races, jumping ability, fighting prowess, agility for climbing, etc. Dance, on the other hand, as an expressive, representative physical activity, has a great effect.

As a counterpoint to the future Olympic Games, hold in Brazil in 2016, from 23 October to 1 November 2015 took place in Palmas, capital of Tocantins, in Brazil state, the I World Games of Indigenous Peoples, under the theme or topic "In 2015, we are all Indians". It was attended by over two thousand competitors belonging to ethnic groups of 30 countries. In addition to the Americans, also came peoples from Australia, Japan, Norway, Russia, China and the Philippines. No doubt they would have been many more if the event would have become better known and economics factor for the assistance were not a problem, but the event highlighted the relevance and importance that such activities have for these people. A part of the event consisted on indigenous sports, divided at the same time into traditional Native games and demonstrative games for integration. The other part was based on occidental sports, which gave the chance to the different ethnic representatives to show their skills and their ability assimilating what comes from the outside. that may be useful in a global world. Together, the sport-playful traditional activities (such as launching with a bow and arrow, with a spear, pull-rope or a rustic speed race of 100 m., Sailing in a traditional rustic canoe tora race, personal struggles, xikunahati) and Occidental activities(football, athletics, swimming) claimed the same: share experiences, a greater interaction and mutual knowledge and also to stand out in the whole world. To achieve this and as usual, in parallel to the sporting competitions a huge array of cultural activities took place.

Beyond these macro indigenous events in the daily environment of these peoples usually attached to the land and integrated into the natural spaces where they live, in the physical activity, in addition to the work scope, the recreation has great relevance for the implications and consequences that flow from them. To be specific we can focus the attention on a case as a simple example: the ball race and rarámuri ariweta.

The Rarámuri, an Amerindian village located in the "Sierra Tarahumara" in Mexico, is internationally known for their peculiar way of running. They have the fact of walk and run very present since their childhood for his way of life based on agriculture and pasturage. During the year they organize great races in which men cover distances that exceed the 200 km. hitting a wooden ball during the tour, and the woman race exceeds the 100 km. also guiding a small ring with the help of a stick. To achieve it the preparation of runners is embedded in everyday life, without any regular and systematic training given, aimed at increasing resilience in race or accuracy with the ball or the ring. Only two or three days before the big test they rest from work activities, abstain from alcohol and sexual activity, they only eat chicken soup and are assisted by a owirúame (healer) to keep their souls in peace. The supplies for more than 20 hours of race is based exclusively on water and pinole (roasted corn crushed and diluted in water). This is a race in wich the economic bet is invariably present. However, even with the huge physical effort invested, the dream of achieve prestige with the victory and make gain the bets to their people, win or not is irrelevant. As they say, win or lost it is only one race and will be many more, do not worry about it. In fact, in the expression and attitude of the runners it is not clearly seen who has won or has not done as they should.

The traditional rarámuri race has different functions: a form of recreational and sports with nonviolent confrontation, de-dramatized competition, through which rival communities, in an exercise of collective catharsis that also includes a recreational characteristic. It makes possible the economic transactions, the redistribution of wealth, being an important community investment, but not without risk, relying on the logic of double or nothing. It promotes social meeting, exchange of experiences, performance of roles, while it is installed as a sign of inter-ethnic identity and distinction. And it serves as an ideological support, as ritual or symbolic act by which Onorúame is venerated (the creator God who is father and mother at the same time) and traditional beliefs of good against evil are reinforced, since the idea of a possible hex exerted on the corridors and to which they must be prepared is also present in the collective imagination.

"Who can not take it dies, disappears," "we must resist to live" they say. Without consciously pretending to, the rarámuris remain in this thought and reflect on the race with all its envelope their way of being. Not only a body displacement technique, but also a social fact and a symbol of resistance in a broad sense, understood as this, from a romantic vision of the culture, in the Raramuri case we could say that you need to run to live (Acuña, 2003).

### **PHYSICAL TRAINING IN THE ENVIRONMENT: MODERN REINTERPRETATION OF TRADITIONAL PRACTICES**

The relationship between human beings and nature have changed much throughout history, depending on the production mode and predominant mentality. At least since the Renaissance and in the course of modernity, the idea of progress and an advanced civilization was associated with distances from natural spaces, with the increasingly sophisticated and efficient domestication of nature. Trend observed at all levels of culture, and appreciated, of course, in sports with the use of technological and advanced materials tools to increase indefinitely the efficiency, and building of places for practice to reduce uncertainty and increase the control over the activity.

However, although the above named trend continues, in late modernity, where we are actually, a trend is being increasingly popular, partly compatible with the previous one, according to what, there is a return to nature. Giving value to attitudes and behaviors involving live in harmony with it, with the respect and consideration that it deserves for our own wellness. In front or in the other side from the idea of "producing and consuming", where global society is leading the market, it has been installed as a counterpoint to "not pollute and do not waste", at least in excess. Without denying or renouncing to the development, its sustainability highlights the need to maintain the ecological limits of the planet. The "eco", which has become fashionable, involves become conscious of the problem, to be in the vanguard must be eco or at least seem so. As everything that attracts followers, the market trades for customers. Nothing to sell well is away from the market and therefore must be consumed the eco, the organic products.

In the physical-sports field we can appreciate these circumstances: the adventure sports in nature constitute a fashion thing, from the first sports called "californians" (surfing, windsurfing, hang gliding, etc.) emerged in the 60s to the actuality we have witnessed the emergence of a host of activities, difficult to imagine in another era (bungee jumping, canyoning, paragliding, rafting, hydrospeed,...) with them it is possible to enjoy the stimulation that can be obtained from the diversity at natural environments; activities done with a wide range of tools, equipment and other commercial products. They maintain sufficient doses of uncertainty and perceived risk, and facilitate a comfortably and safely practice.

The concern for health, fitness, and personal wellbeing generally, makes a lot of people conscious of not to be influenced by the habits imposed by modern life: sedentary, the hurry, poor diet, etc. They opt for a healthier lifestyle with regular exercise and healthy diet. Go to a gym, in its new conception of large multipurpose conception, with a variety of services and fitness rooms for spinning, dance, combat disciplines, spa, etc., is usually a very requested alternative; and so is trekking alone or in group, spontaneously or organized, or simply the act of walk every day for an hour or two near from where you live. Somehow we must counteract the harmful effects of the modern life.

Sport activity or exercise routine aimed at maintaining and improving the physical condition has become in our time a necessity for the above reasons; and work it out in natural spaces is an option that progressively attracts more and more people. Thus, two lacks are satisfied: lack of contact with nature and exercise. Physical activity in the natural environment, which has been something normal in our ancestors, is presented now as a novelty, and it really is, at least in the embodiments, in that sense we could speak of a rediscovery.

Which peasant farmer or shepherd of early twentieth century, at the end of their working day, tired, would ever think in walk for an hour through the countryside or compensatory exercises to normal activity? In a context where nature and daily exercise abounds would be difficult to see that kind of behavior. Not so in ours, where we have lack of both.

In a personal thought, while working in reducing pollution and the waste of resources on the planet, familiarization with nature, to achieve a better understanding of the nature's performance and be in regular contact with it, constitutes a key to understand the ecological mentality and practice. This circumstance is complete if we add the desire for personal fulfillment, for a better understanding of the limits that each person has, strengths and weaknesses. It seems reasonable, as indeed, appeal to the knowledge of the most intimate that we have: the body.

Physical activity in the natural environment is proposed as a simple and economical alternative of wellness, development and improvement of physical qualities, strength, endurance, agility, flexibility, coordination and balance. Through natural exercises turning into obstacles and work out with the body, they do not require a complex equipment. Those who practice it argue that, to the physical benefits you can also add the psychological relief because of the environment where it is performed: open and natural spaces such as parks, gardens, mountains, beaches, etc. The practitioners also point the achievement of a more harmonious and comprehensive development of physical fitness than the obtained with the use of a sophisticated equipment, but that is a matter in which we will not discuss.

What we are going to analyze is the use, from our point of view inappropriate, of some terms, such as "paleotraining" to try to define this trend. Within the "eco-logical", the "paleo" is perhaps one of the latest novelties; some aspects of this trend can be found in minimalist costumes and especially in diet<sup>2</sup> and physical activity; we will focus on it the latter.

If we look in an internet server and we introduce the term "paleotraining" (defined as "a method of exercise and a primitive training for modern life"), we will find countless pages where activities called active tourism

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<sup>2</sup> If the "paleotraining" is a wrong expression, what about the "paleodiet", recommended or promoted by some people as a complement to the training. Does it mean that you have to starve? Or you have to eat as much as you can when the opportunity arises? Because in the Paleolithic it is likely that food was not always easy to get and times or seasons of abundant hunting were alternated with periods of famine.

are offered, including stays in hotels or residences near to the sea or to the mountains: "We have a great training program which ensures getting fit. From La Finca will be done a short trip to a training camp in Famara, where you are surrounded by stunning natural beauty. "Paleotraining regenerates both physical and emotional aspects lost in the modern life." Reports the Paleo Paradise hotel in Lanzarote (<http://paleo-paradise.com/es/entrenamiento/>).

Otherwise is also possible to find training systems with full exercise routines that give us a clear idea of what activity is: "130 exercise are combined through 27 different training sessions with different physiological end, all strongly anchored by the 5 principles the Paleotraining. "The training system contains jumping, push, lift, pull, turn, throw, hike, climb, crawl, sit, grouped, drop and rise, scale, load and move exercises. (<http://www.changewithpaleo.com/paleotraining-movimientos>).

All this information clarifies the range of activities that may be of interest to readers, activities whose contents have enough attractive to adhere to them, as they do. However, use an incorrect name that, because of it implications and content, is misplaced and has little to do with what actually offers.

By definition, "paleotraining" means training (physical) performed in the Paleolithic. A reasonable excuse for his use could be commercial, everything to be with paleo is exotic, involves the discovery of our remote past, a return to the nature; but beyond that, the term is inappropriate for what we express below.

Paleolithic (age of ancient stone) is the longest period of human existence (covering 99% of it) and extends from about 2,85 million years ago (in Africa) to about 12000 years to the present (Hall, 2005: 135-160). According to the process of humanization, it comprises the period of chronologically existence (and approximate dating) of the Homo habilis (between 2.5 and 1.6 million years ago), the Homo erectus (between 1.8 and 0.2 million years ago), the Homo ancestor (800,000 years), the Archaic Homo sapiens (between 500,000 and 200,000 years), the Neanderthal (between 230,000 and 28,000 years), and Homo sapiens sapiens or Cro-Magnon (between 40,000 and 10,000 years ago). (Fullola and Nadal, 2005: 64-65). Period in which the stone industry reached a broad development for the numerous silex carvings found (one face carved, bifacial, arrowheads, knives, scrapers, chisels); the subsistence economy was based on hunting and wild harvest, definitively a nomadic lifestyle. We have accumulated a lot of knowledge of our prehistoric ancestors, but there is too much more about that we don't have any idea and we have no other choice but to imagine or suppose.

In addition to the deductions made about their way of life based on bone fossils, cave paintings, stone tools, decorative objects, remains of fires, tombs and places of settlement; Deductions are also from correspondences made of the way of life of indigenous and tribal societies that still exist today, which continues closely linked to the land where they live. Well, in one way or another, and especially in reference with the inferences established with contemporaries indigenous adapted to different ecosystems, for Paleolithic peoples a fundamental principle of survival is clear: the saving and optimization of energy, the existence of a low entropy.

A Yukpa, an Amerindian of the Perija mountain, in the jungle in Venezuela, usually does not return empty to their village when they go hunting, or to prepare the conuco (crop land), or to visit a relative in a neighboring community; it is normal to come back with something useful, whether medicinal plants, wild fruits or firewood; custom that is present in many other towns of similar characteristics. Unless exceptions justified for other reasons, the energy consumption used in an economic activity must be less than the energy wasted to achieved it, or must be compensated with other thing that produce benefits, thereby



returning from the crop land to the village with wood makes the hike helpful and is used not to go again and specifically for it.

The Rarámuri mentioned previously, being excellent runners, considers, from the tradition, that it is something absurd to run without motive or a profitable incentive; in the past they chased deers or horses to catch them by exhaustion, and now they compete as usual with their traditional races, considering that the logic of it is based on the attachment (ball or ring) that is through continuously throughout all the tour. The economic bet, that is an inseparable part of their dynamics (also in the children's games are bet whatever you have on hand: a corn tortilla, a small mirror...). "Running for oquis" (for nothing at all), as they say, it makes no sense, it is how the coyotes and other animals, also watías (white men) run. rarámuri (means "runner on feet") run with balls or ariwetás, plus for the bet.

It is a widespread philosophy among indigenous peoples, applied to any other fact of the life, not just the fact of running or walking, and inferred by the people of the Paleolithic, which presumably took advantage of the energy resources (food, fire) and effort spent to get it.

The systematic and physical training to improve fitness has already existed since the Greek classical period in the cities to prepare for the competition and as a form of education, and especially present in modern society for many reasons (competition, health, image, entertainment...), but it is difficult to imagine a Cro-Magnon or a neanderthal taking some time for physical training in order to increase the hunting success, while it was normal to participate in the magical dances.

That is why talk about training (physical) in the Paleolithic, of paleotraining, is done without foundation. Training, if you want to keep the term at that time, must be integrated into daily life, as the long walks in the everyday rarámuri. The skills and motor skills would had been developed naturally by lifestyle: walking or running long distances, climb a tree or a cliff, jump an obstacle or launch a rock was part of those habits, without being necessary to repeat them deliberately and specifically, to train them literally.

Physical activity in the natural environment has enough persuasiveness to attract people and make followers, without the need of appeal to bombastic and inappropriate words to draw the attention. In the so-called "knowledge society" in which we are installed, with the rise of new technologies applied to any facet of life is important to look back at the past or to those who maintain a stronger link with it, to the traditional societies, to collect from them everything that might be useful and relevant in the present. In this sense, looking back to the nature and move physical activity to that space could be a refreshing exercise in counterpoint to the stresses of urban life, and the simplicity of the resources: the body and the elements of nature, available for everyone.

As seekers of the meaning and cultural interpreters who we are, this is simply a reinterpretation of physical exercises for people living in contact with nature, adapted to modern times in which we live dissociated from. A certainly and suggestive alternative, aimed to generate healthy habits, that just with the practice, with the personal experience, everyone would appreciate the dimension of its value.

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