58 - BODY AND CITY: A NEW ANATOMY

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ABSTRACT:
This article discusses the relationship between the body and the urban transformations from the analysis on the sociological questions of the body. Through the evolution of public health, accessibility and new means of mobility. It also requires debate on the new possibilities of this body, such as the cyborg body.
Keywords: body - city - cyborg

1. Body and city: a living organism

Thinking about the body, its free flow, its accessibility and its mobility, involves understanding the city and its traffic, as well as understanding how urban changes directly and indirectly affected the body's treatment. As Sennett (2008, 213) states, "modern man is, above all, a moving human being."

Sennett relates that it was with the emergence of William Harvey's work, De matu cordis, 1628, on discoveries concerning the circulation of blood, that the scientific revolution that changed the understanding of the body began.

This Harvey revolution favored changes in expectations and urban plans throughout the world; His findings on blood and breathing have led to new ideas about public health. According to Sennett (2008), it was in the Enlightenment of the eighteenth century that these changes began to be applied to urban centers. A city Imagined as continuous veins and arteries.

Words like artery and vein entered the urban vocabulary in the century cited above, applied by designers who took the blood system as traffic. Another concern was that air, water, and waste should also be kept in motion; Thus implying early care, "because accidental growth would only worsen the overburden and obstruction of the urban fabric of the past. "(Sennett, 2008, page 221)

The author provides a historical overview of the city's changes, its relationship with the body, hygiene and public health, and how they affect the city. This connection between the city and this new anatomy was established when these findings were applied to the skin. Sennett (2008, p.218) reports: "We owe the physician Ernst Platner the first clear analogy of circulation, blood, and nerve impulses to environmental experience. "

The dirt for the peasants meant protection, health; The fear of impurity is typical of the urban environment. Cleansing the body's faeces has become particularly urban and middle-class practice. Health came to be seen as individual responsibility, rather than a gift from God. In the reflection of Enlightenment thought, the city of the eighteenth century would help in the reproduction of this paradigm.

Before 1730, the importance of letting the skin breathe contributes to new dressing habits. Free to breathe, the body was healthier. After being abandoned in the Middle Ages, the baths returned to fashion. In 1740, the great European urban centers began to take care of the urban cleaning. These changes brought laws for public health.

1750 marks the use of disposable paper for anal cleansing after defecation. At this time, the pots were already emptied daily. At this time, in Paris, the Parisian was forced to clean excrement in the streets and sidewalks of the residences. This action was reflected in 1780, when it was already forbidden to empty pots in the streets.

Starting from the idea of a healthy, clean body, and moving with complete freedom, the urban design foresaw a city that would function in a fluid flow. From the early days of the Baroque period, the focus of planning was on the most efficient circulation possible along the main streets.

In the Enlightenment conception, the street was an important urban space, crossing residential areas or crossing the center of the city. The multicentered and multi - purpose city also reflected Enlightenment beliefs about the importance of displacement - circulation.

This new way of thinking the city and the body has the breath as something as important as the heart. The square is regarded as an urban lung. This urban lung should be used for social experiments.

Foucault (1979, p.86) points out that it was in the second half of the eighteenth century that the need was felt, at least in large cities, to "constitute the city as a unit, to organize the urban body in a coherent, homogeneous way, depending Of a single and well regulated power".

Urban medicine aims to control the circulation, not only of the circulation of individuals, but of air and water. Foucault (1979, p.90) states that in the eighteenth century air was thought to have a direct influence on the organism, hence the need to open long avenues in urban space to maintain the good health of the population.

After this body undergoes intense changes in its physical and urban anatomy over time, what are the possibilities of this body in the present and in the future? In the following section it will be possible to discuss a little about the body in the future, research on the subject and ethical issues around this subject.

2. The body and its possibilities

In the midst of many social and cultural transformations, the body is one of the topics that has been most modified over the centuries. Modeling and remodeling, created, adapted, amputated, with prosthesis, with plastic; In short, there are many possibilities for the physical body, the body of flesh.

According to Le Breton (2011: 349), in the modern view, the body is seen as a human condition, a cursed part, "part that technique and science happily agree to reshape, remake, , In a way, to rid man of his embarrassing rooting of the flesh. "

In contrast, on another axis, there is the search for resistance, for the exaltation of the feeling attached to the body, the care with its appearance; Including the obsession with form, and the preoccupation with joviality.

This market of the cult of the body, the beauty, the aesthetics, grows enormously. Allied to advertising and new media,

there is a body pattern, the ideal body, perfect measurements.

The history of the body in Western culture dates back to the Renaissance, according to Le Breton (2011). Still according to the author, in a technical and scientific view, he distinguished from man and involved him in gears and mechanical functions. Such technical and scientific progress has made the human body a "commodity or something like any other."

With the objectification of the body, the aura was lost through "technical reproducibility," says Le Breton (2011).

The more the body, considered as virtually distinct from the man it embodies, loses its moral value, but increases its technical and commercial value. The body is a rare matter. (LE BRETON, 2011, p.352)

Medicine, organ transplants, genetic manipulations, etc., have paved the way for new practices, giving the body new possibilities and invaluable value in relation to its new demand. Le Breton (2011) cites Vance Packard, where he states that sales, after-sales and services linked to spare parts may be the fastest growing industry in the world.

Le Breton (2011) also cites the organ and blood sales market, for example India, where men and women sell their organs to private clinics to secure the livelihood of their family.

The technological advances related to medicine have enabled the growth of researches, studies and thesis aimed at the body and its possibilities. According to Le Breton (2011: 355), "with anatomical research, medicine has made a first anthropological rupture, claiming, against the popular resistances, the right to make human remains a pure object ...".

Already the withdrawal and transplants of organs, brought the question of ethics to the center of the social debate. One is expected of an organism still alive a potential donor, someone who can remedy a gap, a physical shortage of another. The death of this possible donor is expected, so that the transplant is possible.

And this new body, the transplanted body, is no longer the same before the interventions to which it was submitted. In this perspective, Le Breton states:

Humanity is fragmented, life takes on the appearance of a mechanical power .... Each actor, donor or recipient, is promoted, according to circumstances, at the level of potential prosthesis ... The body, in this perspective, is no longer Entirely the face of human identity, but a collection of organs, a ter, a kind of vehicle from which man is served and whose parts are interchangeable with others of the same nature, through a condition of biocompatibility between tissues. (LE BRETON, 2011, p.356)

In addition to the vision of tissue biocompatibility, there is the psycho-compatibility between the donor and the patient. This notion, according to Le Breton (2011), makes impossible the conception of man as machine, anthropologically. There is in Western medicine the refusal of death. Then all the medical possibilities and resources are exhausted to keep this body alive for as long as possible.

Medicine, in this sense, brings more services in the medium to long term in order to have greater and better conditions to fight against death, with intensive treatments, with the help of devices, medicines and all kinds of technical interventions to keep this body functioning ; Such as resuscitation. With the techniques of resuscitation, the doctor has greater control of life and death, being able to fix the duration of the attempts of resuscitation as well as the fixation of the time of a death.

Even with brain death attested, even inanimate, the body still lives. In this scenario, Le Breton (2011) points out that the man as a patient is the hostage of his own body. Death is kept suspended so that the other organs are irrigated, and the fate of this body is decided.

The body becomes a puzzle, dissociated from the subject, as Le Breton (2011, 366) states, is inserted into an "intermediate realm, between animal and man," a new species. Retreats and organ transplants, the use of human material for research purposes, make man a means for man.

Le Breton also points out other forms of research with the body as the central research object: cloning, pregnancy outside the woman's body, rental uterus, manipulation to choose the sex of the baby, among others.

For Le Breton (2011: 376), the relation of man to his body is woven in the imaginary and the symbolic, the body is not a mechanism. "One can not touch it without moving psychological forces rooted in the most intimate of the subject, without asking for the unconscious, that is, the foundations of personal identity."

According to the author (2011, p. 378), the symbolic dimension is excluded, the residual unity is fragmented in it, the dissociated body of the subject is reduced to the degree of manipulable object, submitted to the domain projects that make human biology A set of mechanical data, devoid of value as such but, on the other hand, essential as a medium.

Another way of thinking the body, in this creation and recreation, is the logic of man and machine; The bionic man, as Le Breton (2011) calls it. According to Haraway (1994: 243), a cyborg "is a hybrid cybernetic organism; Is a machine and an organism, a creature linked not only to social reality but also to fiction.

3. The human body x the cyborg body

When the "human", fleshly possibilities are exhausted, medicine and scientific research return their efforts to heal the lack of the human body. Le Breton (2011, p.351) points out that if the body were really a machine, it would escape aging, frailty, and death. "Before the machine, the human body is only weakness."

According to Donna Haraway (1994, p.185) cyborg is "a hybrid cybernetic organism; Is a machine and organism, a creature linked not only to social reality but also to fiction. "The advent of the cyborg era, through its machines, made the difference between natural and artificial, physical and mental, among other distinctions, ambiguous.

Haraway (1994, p.262) states that "communication technologies and biotechnologies are the crucial instruments of readestration of our bodies." This maxim meets the reality of the person with disabilities, especially those who are going through the process of rehabilitation and adaptation to the new condition of their body; To the new bodily reality.

Santaella (2008) states that a prosthesis is the cyber part of the body. This prosthesis has the objective of overcoming some deficiency or limitation of the body. Like the prosthesis, the wheelchair can also be seen as an extension of the body.

In 1983, as reported by Ribas (2011, p.40), Manchete magazine highlighted a great advance in the United States. Paraplegics began to benefit from the "walking machine," which was an orthopedic device that was being developed at the time, and would be used in the lower limbs, from the waist down, with wires and electrodes attached to the cerebral cortex, which would emit electricity at Marrow, restoring some motor movements. Even today there is research directed to this end. In the Deficiente Ciente blog, it is possible to follow news of technological and biotechnological advances in this area.

Perhaps paraplegics and other people with serious physical defects may have (and sometimes have) more intense experiences of this complex hybridization with other communications inventions. (HARAWAY, 1994, p.279)

With the name of "Exoskeleton", the equipment shown below was idealized by neuroscientist Miguel Nicolelis. This equipment, created for the person with paraplegia, intends to give movement to the lower limbs to those who could not move without the aid of the wheelchair.



Figure 1 - Exoskeleton.

There was, in the early 1980s, some disapproval in the use of wheelchairs. For the medical society of the time, the paraplegics should be on their feet, and the medicine would exhaust all possibilities to allow the person with physical disability to leave the wheelchair. Researchers currently invest in stem cells to find out how these cells can replenish the cells and tissues involved.

For Haraway (1994), our bodies are maps of power and identity. Cyborgs are no exception. According to the author, the body of a cyborg is not innocent, it does not appear by chance. And you still have to adapt to the new, the new possibilities, the dexterity and the power of the machine. To this new body, the author Lucia Santaella (2008) names of bioscientist body.

Hybridization between the organic and the machinic culminates in the conviction, still according to Santaella (2008), according to which the human being is immersed in a post-biological, post-human era, in which the body needs, in addition to components Human, nonhuman, or technological means to survive. This body, the author also defines as "transhuman", that is, more than human.

João Ribas (2011, 42) brings a question that must be mentioned: physical disability, for some people, can be a key element in the process of building their identity. For the person who is deaf, the deafness element can be a determining factor in the construction of their identity process.

When speaking of identity, for the wheelchair, the wheelchair is an object that becomes the extension of its body. From this perspective, the author considers that:

The equipment used by people with disabilities has several positive meanings. They are the extension of one's own body, mediation with the world, the resource that leads to contact with other people, the medium that enables coexistence and interaction. The wheelchairs take us to study, to work [...]. These are equipment that has the real commitment to be the promoters of our independence and autonomy. (RIBAS, 2011, p.73)

In the scenario of the great technological advance, several equipments have been developed to promote the social inclusion of people with physical disability. For automobiles, there are already manual controls on the market, computerized clutches, electric steering controls (such as arrow, headlights, washers, cleaners and horn) that give people with disabilities the possibility to drive their own car. In addition, there are also ramps, winches and elevators that allow quadriplegics easy access to cars and various environments.

The prostheses, for people with lower limbs amputated, allow outdoor walking. In addition, there are wheelchairs, manual or motorized (including scooters and tricycles), with technology that have made them more agile and dynamic. Still in the testing phase, Turkish scientists are finalizing the TK project, which, according to the subject of the Deficient Blog, allows paraplegic patients to keep their posture upright and stand up.



Figure 2 - TK Project

Whether it is to complement some biological function that has been compromised (such as the pacemaker), to bring back the function of a limb (prosthesis) or to assist people who are unable to move (wheelchair), among many other possibilities, the cyborg body is Increasingly present in our social, scientific, medical and academic setting.

4. Final considerations

Throughout this work it was possible to perceive how impacting the city is on the body and vice versa. The thinking of the body, from the new demands that were generated according to the need of a city that understood this evolving corporeity.

Understand also that public health has impacted these two axes of this work. Understand that it is not possible to conceive the city without perceiving the body that transits and that flows by the urban ways. This body was found at the core of ethical and sociological issues, which has no limitations as an object of study of the numerous scientific researches.

There is still much to evolve in this body / city dichotomy. Both public health in the promotion and access of health care policies, as well as the area of scientific research on the body and its possibilities and also on the cyborg body, which meets a demand that goes beyond the human.

So it is possible to confirm that there are no limits to the body. Although there is the question of the fragility of the human condition, the fragility of the body, there are also other academic areas that are concentrating their efforts towards the greater understanding of the human body; Be it human in essence or transhuman.

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Keywords: body - city - cyborg

CORPS ET VILLE: UN NOUVEAU ANATOMIE

Résumé:

Cet article traite de la relation entre le corps et les transformations urbaines de l'analyse des questions sociologiques du corps. Grâce à l'évolution de la santé publique, l'accessibilité, ainsi que de nouveaux moyens de mobilité. Il est également nécessaire débat sur les nouvelles possibilités de ce corps, comme le corps de cyborg.

Mots-clés: corps - ville – cyborg

CUERPO Y CIUDAD: UNA NUEVA ANATOMÍA

Resumen:

En este artículo se analiza la relación entre el cuerpo y las transformaciones urbanas a partir del análisis de los problemas sociológicos del cuerpo. A través de la evolución de la salud pública, la accesibilidad, así como nuevos medios de movilidad. También es necesario debate sobre las nuevas posibilidades de este cuerpo, ya que el cuerpo cyborg.

Palabras clave: cuerpo - ciudad – cyborg

CORPO E CIDADE: UMA NOVA ANATOMIA

Resumo:

Este artigo debate a relação entre o corpo e as transformações urbanas a partir da análise sobre as questões sociológicas do corpo. Através da evolução da saúde pública, da acessibilidade, bem como novos meios de mobilidade. Se faz necessário também o debate sobre as novas possibilidades deste corpo, como o corpo cyborg.

Palavras-chave: corpo – cidade - cyborg