

The Production Circuit of Artisanal Fishing in the Metropolis of Rio De Janeiro (Brazil) and the Social Production of Space: Challenges of the Method

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Abstract: *The present article and result of the research project financed by the National Council of Scientific and Technological Development - CNPq. An analytical and problematic research of the work of artisanal fishermen in the metropolitan area of Rio de Janeiro, analyzing the production and distribution circuit. A research with methodology of field research: workshops, individual interviews, question reports and photographic records in the workplaces of artisanal fishermen and fish markets. The theoretical and methodological reference analyzes Brazilian and foreign authors, geographers, philosophers, sociologists and economists who contribute to the advancement of popular economies. This reference offers new methodological and conceptual tools that help in the construction of new readings on the social production of the urban space.*

Keywords: *Artisanal Fishing, Metropolis, Site, Popular Economy.*

1. INTRODUCTION

In the State's view, artisanal fishery refers to the work station that has characteristics such as the art of fish extraction and mariculture and also refers to the use of traditional techniques for the preparation of equipment and vessels. It is characterized by the professional qualification made from the oral family tradition and / or community. Artisanal fishing is an important job and economy in Brazil, standing out as a productive chain that is part of the national productive circuit, which also includes industrial fishing and aquaculture. In the case of artisanal fishing, the worker usually owns the means of production: the boat, the net, the equipment and the fishing technique. The production of fish and mariculture, processing, wholesale and retail sale, production of nets, vessels, repair of nets and vessels are part of the productive circuits. In the sphere of production, artisanal fishing can be considered as the one that makes up the bottom circuit of the fishing economy.

This work is a partner and produces a small-scale economy that is part of sustainable development, is part of the lower productive circuit and is part of the so-called urban cooperation. In the metropolis of Rio de Janeiro, there are thousands of male and female workers in the three major areas: Guanabara Bay, Sepetiba Bay and oceanic region. From the mapping of the collective life of these workers put into the space productive circuit it is possible to identify the implied relationship of this activity with urban life. But at the same time, this implication has very differentiated vectors and results: of socio-spatial cooperation and of conflicts. The problematic of the method appears as a challenge to understand the history of the present time and the dimension of the geography of the existences of the popular bases and for the understanding of the density of the concept of social production of the cities and, specifically, of the metropolises. A production that needs to be identified as plural and of great social, economic and political complexity.

2. THE STUDY AREA

The metropolis of Rio de Janeiro is located in the state of Rio de Janeiro, Brazil, is bathed by the Atlantic Ocean. It is considered the second largest metropolis in Brazil, with more than 70% of the population of the State of Rio de Janeiro and more than 80% of wealth (gross domestic product). As every developing country metropolis has strong social and spatial inequalities. The metropolis of Rio de Janeiro is a conurbation formed by more than 14 municipalities. For the development of the

research, we work with the fishing towns located in the municipalities of Rio de Janeiro, Itaguaí, Niterói, São Gonçalo and Mangaratiba.

3. THE RESEARCH PROBLEM

The present work discusses the contributions, antagonisms and forms of cooperation in the productive circuit of artisanal fishing, a good basis for a reflection that articulates the social production of space, with the possibility of thinking about the forms of existences and the everyday in the understanding of the forms of sociability that permeate this circuit in metropolitan contexts. The work is divided in two parts: the first search explicitly the conceptual and methodological bases that guide the analysis and the second interacting with the first, intends to present the productive circuit of artisanal fishing in the Rio de Janeiro metropolis.

4. DATA BASE AND METHODOLOGY

4.1 Thinking about methodological references to recognize inconspicuous circuits

The great challenge in contemporary times is to overcome the great frontiers imposed by the scientific production and the logics of rational and bureaucratic planning that make separate: the work of culture; the economics of understanding sociabilities; the urban geography, the economic geography and the geography of culture. With each higher degree of specialization as taught by Weber (2001), the greater our misunderstanding of the world. Says Weber (2006), the modern world, with methodologies of the sciences, and technological objects is not did increase our ability to conscience before the world. What happens is a growing tendency towards alienation and superficiality of literacy, in the face of a social reality that is increasingly denser and more complex (WEBER, 2001, 2006, 2000). The commodity fetish, taught by Marx (1989), still prevents us from seeing real processes in the spheres of production and distribution of wealth. It is a change of method that compromises the making of a more sensitive science and incorporates research methodologies introduce the "slow time" of understanding the senses of the actions of the social subjects involved in the phenomenology of research. Thus, the economist Zaoual's (2006) proposal helps us understand the complex dimension of local economies by going well beyond the narrow and classical field of economics as a science of wealth management. This African and Moroccan writer constructs a sensitive science that helps to see that not every market is capitalist, that not every economy is abstract, generic, or rationally neutral, as imposed by mass society and stock exchanges. The belief that every market is a capitalist market is dictated by hegemonic discourse and by the readings of modernity in the construction of a single Western thought, which prevents us from seeing the riches of the production of social life in contexts of peripheral capitalism. The human dimension, of societal relations, political games and ideologies impose an acceptance of a "rational order", thus constructing secularization and Westernization, which means the spreading of capitalism on the planetary scale. On this, Karl Marx (1989) had already problematized and faced this expansion with the analysis of political economy in the nineteenth century, seeking the foundations of the capitalist mode of production, that is, the understanding of the relation of production, as a social relation, therefore political and cultural, which imposes belief in the general order.

The deepening of the analysis from the markets in Africa, Zaoual (2006) impresses with its analytical narrative on the sites, whose meaning is not lablachiano, but the sites as analytical category that refers to the localities of the popular economies that generate the riches of African countries and we can also say of the Latin American countries. These are links between the modern actions imposed by the present time with the cultural heritages historically produced. Overcoming the old and outdated pair of informal-form concepts, the author adds to the understanding of economics: everyday life, collective life, forms of existing domination, but also forms of resistances and possible insurgencies. The proposal of valuing the analysis of Zaoual's local economies finds an affirmation in the analysis of Ribeiro (2006, 2005) that recognizes this approach as the bearer of a new episteme, for its "relational, dialogic, transdisciplinary and open nature - requiring investments in methodology and concepts ".(RIBEIRO, 2006, p. 10).

On the need for a new scientific doing, tackles Zoauál:

“In the approach of sites, “thought space” must correspond to the space in which men believe and live. This requirement presupposes the abandonment of the traditional social sciences cut-off and a much more flexible conceptual orientation towards “situational imaginaries”. It is a way of rethinking the “places” in their specificity, taking into account the systems of actors. As described in our approach, sites are not Euclidean geometric spaces and voids of meaning. It is not those “non-places” similar to large railway stations or mega-machine supermarkets of the economic society; are also not similar to the Internet’s virtual sites even though the latter corroborate, in the artificial world, the need for sites for humans.” (Zoauál, p. 31)

This analysis reminds us of Michel de Certeau's (2009) studies of ordinary man's trajectories, identifying his daily life practiced in the context of cities and the understanding of the common space, shelter space and slow men of Milton Santos (1994, 1996) in the context of the metropolises as the shelter of the poorest. We corroborate this approach, which allows us to change the research methodology and practices, forcing us to elaborate the fieldwork that incorporates the meanings of the fishermen's actions, and to understand their symbolic universes, their social boundaries their problems, as well as their yearnings. We use a method which problematizes social existences in the construction of collective life. For this reason, it shuns the reductionist statistics and seeks to understand the local economies, not as state action, which often denies the totality of these local economies, as is the case of economic geography that denies the different economic forms based on cultural relations.

Political economy and territory are conceptual, theoretical and methodological tools, when related to the analysis of the daily and the art of making the sites contribute to the analysis of the productive circuit of artisanal fishing in metropolitan contexts because they contribute to the understanding of the society-state relationship that interfere in the productive forces of the space economic circuit and identifies their relation with urban-metropolitan life (SANTOS, 1994). The concept of territory is an analytical category that identifies totality, as a socio-spatial dialectic, as Haesbaert (2006), Santos (2000) and Ribeiro & Silva (2004) teach, from the identification of the conflicts caused by large corporations and the State to the space and the history of places. It is the daily confrontation of actions between several agents that share the same geographic space: the metropolis (SILVA et al., 2010). The metropolis consists of the diversity of types of economic activities, of state actions, and of project disputes, where dominant rationalities and non-hegemonic rationalities coexist (SANTOS 1994, 1979; RIBEIRO, 2005; CERTEAU 2009). In the decades of 2000 and 2010, with the advent of new modernizations, the territory of the metropolis as a category of power and as a banal space assumes itself as a complex category, where it becomes necessary to understand it as totality, that is, to recognize the uses of space, and the conflicts and forms of cooperation inscribed by these uses (SANTOS, 2000, 1994). Allied to the understanding of the metropolis, with its intentions and actions of multiple agents, we recognize the double role of the State, or of expelling fishermen from the areas of great enterprises, and of guaranteeing their rights as workers. In this sense, it is fundamental to understand the labour market and the fisheries market to understand the political economy of the territory in which this circuit takes place, because in this way one can understand the limits and potentialities engendered in the relation of fishing with the State. In the search for this understanding, we have carried out fieldwork in local artisanal fishing, with application of workshops, interviews with questionnaires.

5. RESULTS AND DISCUSSION

5.1 Artisanal fishing space production circuit: the sphere of production and labor

The artisanal fishing is an activity of extraction and collection of fish and seafood, in which the fishermen act in the format of partnership, without employment bonds. This activity involves familiar relations and solidarity between acquaintances of the same sites. In general, fishermen own the means of production (vessels, fishing gear, equipment such as motor, GPS, vest, etc.).

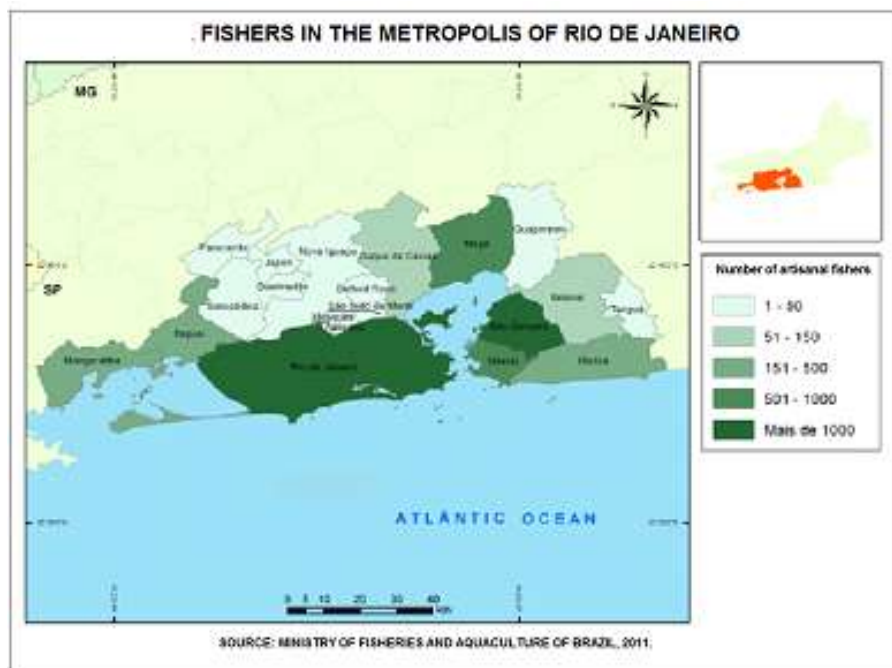
Undoubtedly, artisanal fishing is characterized by a type of work that is directly related to the artisan and historical techniques to the use of modern techniques, which integrate the material basis of the fisherman's work (technical objects, knowledge and crafts) to the city and urban-metropolitan collective life. The material basis of the work preserves their historicity, but adapts them to the

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possibilities of the present time, that is, the "tools" placed in the modern market, inserting them into the context of the global economy, such as: the network produced in Taiwan and is made of nylon or other petroleum-derived inputs; the use of cell phones already replaces the radios in the boats, the use of batteries and white bulbs replaced the lamps. The outboard from 3 HP to 6, 5 HP has been gradually replacing the oar and / or gas and diesel engines. In most cases fishermen own their means of production. But there is also the strong presence of partners who have no boat and work together on the boat.

The presence of vessels of up to 12 meters is very frequent in the metropolitan area of Rio de Janeiro, but in some localities the caícos (boats of up to 8 meters in the format of canoe), that work to rowing or to motor, stand out. It is common, in the bay of Sepetiba (Pedra de Guaratiba - in the city of Rio de Janeiro) and Guanabara Bay (Governador Island), Gradim, Itaoca (São Gonçalo) and Magé.

Map1.



Of these thousands of fishermen their activities in the spheres of production are divided into two types: the fishermen who use the caícos, these more numerous and the sinners who use the boats larger than 10 to 12 meters in length. A boat up to six meters in length accommodates up to two fishermen and can fish up to 200 kilos, depending on the capacity of the caíco and the engine employed. A boat of 12 meters in length, this, depending on the fishing, can accommodate up to 12 people and holds up to 10 tons. Being able to leave for their ability "to outside Barra," a term used for fishing out the bays and coves and may stay up to 15 days at sea. Thus, in the scope of production, there are also the equipment and work tools, which are usually purchased in Niterói and Seropédica and which included the cost of maintenance - boats, nets, ranch, etc. in this process.

In this process, the purchase or maintenance of inputs engenders a series of other activities, which end up bringing the production of artisanal fishing to the involvement of other professionals who work in the sphere of inputs: repair of vessels, rental of ranches, and commerce of fishing gear (net, motor, fuel, rowing, fishing clothes and vest). In this way, many other workers and small businesses live from the artisanal fishing activity. In the same way in the outboard sale, for example, that ends up involving brands of big national companies, such as Branco, Fortex, MWM and Yanmar, Agralle and Buffalo; and international companies, for example, Toyama, Yamaha and Honda - japanese and others such as North American Mercury Marine.

The sphere of production - extraction work - is complex and has a high degree of internal differentiation: vessels that get 10 tons at a time, require a more complex level of technology and

achieve a greater circulation and high profitability, and can do so part of the upper productive circuit. A small motor vessel means less effort than the circular process, and can follow a little further from the coast and the oar, with direct and present use of the worker's physical effort, prevents him from going too far to the coast. which means lower income capacity. This group of fishermen is part of the lower productive circuit, due to the great employment of labour, the low profitability, the difficulty of frequent updating of the techniques and technologies, and the capacity to produce originality and knowledge by the daily strategies (SANTOS, 1979).

Thus, in the spheres of production there is a great internal contrast. Who ends up suffering more intensely with the degree of pollution, lack of sanitation, the prohibitions of containment areas are exactly the ones that less power to go away if its port, as is the case of fishermen who work in these small rowing boats.

5.2 Work and access to public policies

The knowledge of the Fishermen is built outside school, in the relationships of sociability and daily practices of working in partnerships, the teaching of the technique brings together knowledge and practice that needs to be understood in dialogue with the demands of the modern collective urban life, such as relations with the market and State. The fishermen are considered by the State as professional fishermen, they have the General Fisheries Register - a document issued by the Ministry of Fisheries and Aquaculture, which guarantees access to the aid closed - period prohibited fishing of a species - by the Ministry of labour and social security rights (INSS).

In the metropolitan context, we also observed a set of conflicts: (1) conflicts as a function of other productive circuits of dominant agents, whether shaped by industrial modernization or by the agents engendering urbanization (residential expansion, self-segregation, and the expansion of slums, restaurants, trades and state actions) are reducing artisanal fishing areas in metropolitan contexts. (2) Conflicts with the high level of exploitation of merchant buyers. (3) Existential conflicts in which the family descendants (children and grandchildren) who do not want to be fishermen. The sphere of production of the productive circuit of artisanal fishing is thus marked by a productive process that lives with density the social production of space, in which nature is one of the fundamental elements of "production-extraction". The more polluted the environment means for fishermen, the escape of fish and greater expenditure of time and energy in fish collection, ie an increase in workload, which usually occurs late in the afternoon and in the early hours of the morning

5.3 The sphere of circulation

There are multiplicities of fish markets in the artisanal fishing circuit in the metropolitan area of Rio de Janeiro. In this way, we propose a pedagogical typology that allows the reader to understand the whole market.

The necessary typology - an essay of organization of ideas and production of pedagogy of complexity. Thus we line off the market in retail market, with internal divisions and the wholesale market, also with internal divisions:

Retail market

Retail market is conceived as the place of sale for the end consumer

Popular market - characterized by the presence of traders with low purchasing power. They are "the grantees" as they point out the fishermen, they commercialize in buggies, bicycles, carts by hand and in some cases in their own automobiles, in general, very old and beaten by the activity. All these "grantees" and have no fixed point, we can characterize as "peddlers" of the fish trade and are part of the lower circuit of the fishing economy.

Small fishmongers - consist of small traders who trade in small quantities, generally present in the most needy communities, in the popular neighbourhoods. In general the establishment is on the land of the fishmonger's house and the fish is packaged in Styrofoam and ice, with little technology.

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Fishmongers of the popular fairs - in this case the fishmongers are looking for the product that is marketed in trays in the fairs stands. We also consider, like small fishmongers to be part of the bottom circuit of the fishing economy.

Medium fishmonger- these already have technological structure, like small refrigerators, appropriate counter, with partitions and refrigeration for sale of fish. This market in general can buy direct from the fisherman and make purchase from the broker or the major wholesale markets. They are part of the upper intermediate circuit.

Great fishmongers - they appear mainly mediated by supermarkets. In this case, the product does not come directly from the fisherman, but from merchants who act in the Fisherman-dealer tip or already in the second-stage merchant-dealer. These are part of the high grade of the upper circuit of the fishing economy.

Wholesale Markets

We can consider them as selling large quantities of goods to the intermediate consumer, which differs from the final consumer, by not consuming the merchandise, as use value, but by having it as exchange value, in the quest to earn capital or income. In this case, the following stand out:

Small wholesaler market - are defined by the points, near the embarkation areas - in the rivers and beaches - in which the small trucks of the merchants await, in the days and times predefined, the fishermen - is the case of the channel of Magé , Itaoca, Praia da Luz in São Gonçalo. We can consider them as belonging to the lower circuit, whose profit is income-generating.

Medium wholesale market - this is the case of the Gradim market in São Gonçalo, with little technology despite having two ice factories, are hundreds of fishermen that daily, taking on average of up to 100 kilos per fisherman. In this case it is difficult to say that it is a higher production circuit or a lower circuit. Surely the fishermen in the sphere of production are within the lower productive circuit, but traders may or may not be in the upper loop. The biggest difficulty is in the large number of fishermen and the not-so-large number of vendors, some with refrigerated paths, others rely on the ice to store the product in small ways. The difficulty is also related to the great circulation of goods that occur daily when there is no dissemination of the quantity of fish that circulates there.

Large wholesale market - we observed two cases. At Fueling Central of the state of Rio de Janeiro, in general, the traders who work directly with the fisherman. It is a small presence of the fisherman in CEASA, because it needs to have a vehicle for transport and trays and pay employees (chargers and drivers), which ends up being a complex structure and the responsibility of the merchants. In general, the average quantity is according to the merchant's truck capacity, which can reach up to 10 tons. The second case of large market, linked to artisanal fishing is the case of Macaé market. Dozens of trucks with an average capacity of up to 15 tons receive from hundreds of medium-sized vessels - up to 10 tons. Many of these traders (traders - individuals and traders - legal entities) market in CEASA, in major markets of Santa Catarina and Espírito Santo. The major complaint of the municipal and state governments is that they do not pay taxes in the place of the withdrawal of the fish, but on arrival - in the second phase, thus benefiting only the recipient municipalities.

The cost-benefit ratio for the fisherman is small, traders gain by increasing the value of the final product, say fishermen.

6. CONCLUSION

The notion of political economy of the territory presented here is in line with the notion that Milton Santos (2000) exposes of territory used, and in which the methodological possibility of this concept to grasp the totality. In order to study the productive chain of artisanal fishing in metropolitan contexts, in the midst of diverse and intense uses, the territorial analysis of artisanal fishing activity is very important because it is a productive circuit in which the production stages are distinguished (collection), circulation (where traders are usually located at different stages of distribution) and consumption (wholesale and retail). Such activity has the environment as one of its productive forces and reference of inputs (existence and quality of the fish). It is a primary production circuit that is

highly dependent on environmental conditions. Therefore the analysis of the metropolitan context, the industrial modernization and the urban pressure is fundamental, because it is directly interfering in the productive chain of this activity.

The political economy of the territory thus contributes to investigate the metropolis in depth, to learn its complex collective life, to make known this metropolitan diversity that increases as the actions increase and the number of economic agents, engaged in their attitudes and attempts with that generate the conflicts of the places.

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