

The other side of the agricultural frontier: a brief history on origin and decline of Indian agriculture in *cerrado*¹

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ABSTRACT

Frederic Jackson Turner's thesis that frontiers had forged the American nature, ascending to private life through the development of democracy and economy, did not inspire Latin American critical studies because here the reality showed the other side of the frontier: a space to which dynamic centers' social conflicts were purged and exacerbated, as well described by Otávio Velho. In this process, the first confronts usually did not occur between the migrating population and the workers hired by the absent land owner, but between all people and the Indians. A lot has been written about these conflicts, but the focus is always the one more drastic and urgent: genocide. However, little is said about the subsidiary decline, that is, the decline of agricultural processes. This is even truer when we talk about the *Cerrado* Domain. This paper aims to offer a very short history of Indians' agriculture origin and decline in *Cerrado*.

Keywords: Agricultural frontier. Agrarian history. *Cerrado*. Indian agriculture.

1 Origin of agriculture

If the Neolithic represents to the human prehistory the moment of the great cultural innovations, the manipulation of the soil was, among all others, the most revolutionary one. It brings, at once, clay modeling and agriculture in such an inextricable way that is rare in Science to accept the existence of horticulturist populations that did not know the use of ceramic, or ceramists that still had not domesticated plants. (LEROIGOURHAN et al., 1981)

The motivations to the production of pieces and to the cultivation of vegetal species, however, were not the same. Ceramic items probably have their origin in artistic, mystical and religious manifestations – as in the case of *sambaquis* used for burials – or prevailed as efficient instruments in the cooking of food and as water reservoirs at home. But Agriculture was developed through the enlargement of the exploratory possibilities of food resources.

At a time when the polishing of stones allowed the development of effective tools for hunting, cracking or cutting of fruit and roots, and the world population was increasing, the demographic pressure and the rarefaction of basic consumption items (due to whether or anthropic causes) could have accelerated a process latent for thousand years, but not irrevocable reasons for the emergence of agriculture. Probably, its origin is in the manipulation of wild species next to dwellings, which eventually led to the formation of small accidental planters through the spontaneous sprouting of wasted grains and seeds. (MAZOYER; ROUDART, 2001) Wells (1991), however, does not rule out the possibility that the agricultural practice has developed, also, from mystical manifestations: savage seeds were casted on small land plots or mausoleums, resulting in provident resources.

Admitting any of the two possibilities, Wells (1991) and Mazoyer and Roudart (2001) agree that it would take thousands of years for such gardens to root as assisted vegetable gardens intended for food supply. Therefore, the diversity of ecological conditions and cultural heritage of different groups transformed agriculture into multiple and independent events, emerging in places and times distant from each other (LEROI-GOURHAN, et al. 1981): while the traces of spelt – a kind of domesticated wheat – sign the first agricultural sites in Syria-Palestine about 10,000 years ago, in the Andean region the practice of agriculture dates from 6,000 years B.P.¹ (MAZOYER; ROUDART, 2001) and, in Central Brazil, the small corn, calabash and vegetable plantations by the Una Tradition – the first *Cerrado's* ceramist horticulturist – are not earlier than 3,500 years B.P. (BARBOSA, 2002)

Also, the possibility of cultural diffusion cannot be discarded. Radiant poles were structured simultaneously in several spots of the Earth, such as the Center of New Guinea and the Center of the Near-East, 10,000 years ago, and influenced people who did not know how to cultivate the soil. (MAZOYER; ROUDART, 2001) This, however, does not seem to be the original cause of agriculture in *Cerrado*. This ecological domain was colonized by nomadic men, hunters/collectors that came from the Andes about 12,000 years ago, 6,000 years before the formation of the Andean Center of agricultural cultural diffusion. Unless we admit that during more than 9,500 years there has been human flow between the regions, which is unlikely, the emergence of agriculture in Central Brazil was independent of the Andean influence, even though this was the source region of the first Brazilian people. (BARBOSA; SCHIMIZ, 1998)

The main evidences that the Una Tradition – whose territorial domain goes from Brazil's Central Plateau to the Southeast Coast – developed its agriculture are based on vestiges of instruments not shared by any other tradition and in the absence of cultivation of bitter cassava, which was spread from the Bolivian Amazônia as a branch of the Andean Center. (BARBOSA, 2008) Carlos Borges Schmidt describes below how the Neolithic agriculture would have emerged in Brazil:

In the waste accumulated at the entrance of caverns or primitive dwellings [...] the first seeds or pieces of tubers fell, which the collector population had plucked from native woodlands and fields that, considering the excessive budding, served as a basic source of nutrition for the primitive humanity. They fell, germinated and grew out becoming adult plants. Together with those that already budded there, due to its magical value, they are deemed anthropophilous, which would never lack to the population living there [...]. (SCHMIDT, 1976, p. 92)

Regarding the Una Tradition, that was probably what happened in the rock shelters. However, other more recent Traditions, as Aratu/Sapucaí and Uru, 1,200 years B.P., and the Pintada Tradition, family of Tupi-Guarani, 1,000 years B.P., owe their agricultural practices to the cultural dissemination or fusion resulting from the low lands of Southern Amazon, Atlantic Coast or from the Una Tradition's Paleo-Indians themselves. Finally, they learned how to plant with other people. (ROBRAHN-GONZALES, 2001)

2 Indian deforestation and burn system

Regardless of the different origins and provided the temporal and geographical variation of the techniques, instruments and types of food cultivated, the Cerrado's horticulture Traditions converged in a fundamental aspect: primitive vegetable gardens and plantations developed mainly on scarce forest formations, despite the extensive grassland domains. Savanna riparian woodlands or forests between rivers represented the more productive sites of the Neolithic agriculture.

Una Tradition's rock shelters, normally placed next to riverbeds or lakebeds, sign high activity on corn, calabash and beans cultivation under riverine woodlands, and *cerrado* areas and fields are used for hunting and fruit gathering. Instruments typical of the culture of savanna lands were never found. (BARBOSA, 2008) Also in the villages made of perishable shelters – shelters constructed of vegetable materials – from the Aratu/Sapucaí, Uru and Pintada Traditions, agriculture must have occurred throughout the forested alluvial channels or in the interfluvial woodlands known as "*capões*".² (MACHADO, 1992; ROBRAHN-GONZALES, 2001) In these areas, glades created by the fall of dead trees, struck by thunderbolts or caused by humans looking for honey, use to constitute the agricultural zones (POSEY, 1997), made by physical work by cutting down some few trees with legal instrument and the pluck of herbs and bushes, sometimes also with a dig pole. The sowing was made by shallow drilling of the soil with pointed sticks or with human fingers, activity assigned to women. (SCHMIDT, 1976)

The use of fire by paleo-Indians to prepare these sites is uncertain. It is known that fires caused by man were frequent in *Cerrado*, with dates before 8,000 B.P., that is, way older than agriculture itself. Fires were probably associated with hunting and control of poisonous animals, or they were even used as a technique for handling vegetable species that, in large amounts, would make grass fields inaccessible for humans. (BARBOSA, 2002) However, it is possible that Aratu/Sapucaí, Uru and

Pintada Traditions already used fire on agricultural handling, if we consider the possibility that the current Kaiapó do Sul, Akwên-Xavantes and Avá-Canoeiros, which used to practice deforestation-burn, are, actually, cultural heirs of these Neolithic traditions. (BERTRAN, 2002)

The development of "deforestation-burn", technique of cutting down and burning part of the forest as a way to freely and objectively farm cultivation lands, is used, nevertheless, only by Indians of the postcolonial historical periods. This practice disseminated among the Indians, systematically documented by Europeans from 16th century, was very varied according to the region and tribe considered. (MORALES, 2008) In some cases, it regarded a simple procedure: before the first annual rain season, they used to set fire – through rotational friction (COOPER, 1987) – to the woodland part chosen, using only a naturally dry substance deposited on the soil as a fuel. Manual breakage of twigs or the thinning of bushes was also used, in other cases, as fuel, and was common to have men around the land to be burned in order to avoid the fire spreading. (LEONEL, 2000)

On the other side, in Indian nations as Tapuia and Bakairí, the preparation of the soil needed two work periods. First, entrances into the woodland used to locate, identify and cut down the big trees, burning the roots or slashing them with stone axes. The fall of these trees also brought with them other several small trees to the floor, opening glades, which would only be burned after the natural drying of the wood, forming the culture sites. (SCHMIDT, 1976)

Lévi-Strauss (1997) also describes several cares that many tribes belonging to the Jê group, dominant in *Cerrado*, used to take in order to preserve, inside the reserve, the trees with estimable esteem. The palm trees, whose leaves used to be used as ceiling to the huts or hovels, and those that used to have in its stalks and borders eatable caterpillars were protected with caved steel bars or hills of earth. Fruit trees, as araticum (*Annona crassiflora*), cagaita (*Eugenia dysenterica*) and mangaba (*Hancornia* spp.) or even species for medical purposes and used to control ants were also preserved.

In such conditions, the deforestation-burn cannot be accepted other than as a technical system that used to use a complex social organization, reestablished in the division of work. By studying nations, Kaiapó, Posey (1997) demonstrates that the agricultural calendar was ruled by elders, also responsible for choosing types to be planted; *pajés* used to be consulted to determine forest parts to be cut, indicating the species protected, while the warrior leaders recruited men to clean the woodlands and open steel bars. The permission to set fire, usually announced in festive events, was announced by the Indian chief and used to mark the transfer of agricultural responsibility to women, which assumed, then, the task to prepare the soil, sow it and gather the food produced.

Two cultivation groups formed the plantations. The first group was comprised by wild species that were preserved in an identical way to its type found in the wild nature, cultivated in order to increase the total production of fruits, leaves and roots collected. The second group, of acclimated plants, have superior qualities compared to its similar wild one, adding food productivity for having more suberous tubers, more juicy fruits or more amounts of grains per ear of corn or vegetable. (SAUER, 1997)

The soil cultured for clearing the land, mixing the cultivation of both groups, would be cultivated for 3 to 4 years, by opening regular holes with a pointed stick, which one receiving a few transplantation seeds or twigs. Weeds were controlled by manual root out, stakes and, rarely through legal shovels, which work only ended

when fruits or tubers were mature, to so be gathered and transported in baskets to the villages, inside which the separation of grains and clean of roots were made. After 4 years of planting, a new part of the forest replaced the site cultivated, which would stay resting for up to 5 decades. In these lands, the handling of medicinal and food plants was developed, as well as hunting attracted by assisted fruit species. (POSEY, 1997)

It is certain that the agriculture so developed showed efficient source of food supply. It is important to also consider that the diversity of ecosystems supported several extracting activities and affected the behavior of the group Macro-Jê (cultural lineage that comprises almost all nations of the Middle West and Northeastern *cerrados*), considering the example occurred with Gorotíre Tribe, which used to recognize more than 23 types of grassland and savanna formations. (POSEY, 1997) Based on itinerant cultivation systems and on seasonal gathering, Cerrado's erring Indians used to walk long distances inside their territories, and although they did not miss the opportunity to transplant piqui (*Cariocar brasiliensis*), urucum (*Bixa orellana*) and genipap (*Genipa Americana*) throughout the paths, in most cases, the hunting prevailed as the main food source. (LÉVI-STRAUSS, 1997)

Indian agricultural system of deforestation-burn is understood as aggregated to the systems of gathering and hunting. Dislocation of tribes is not only regarding the look for new parts of forests to be cut, but also regards the basic needs for nutrition, once there was no animal domestication, except monkeys, psittacidae, etc. (MISTRY et al. 2005) Zarur (1997) also believes that the majority of these Indian nations used to exercise the social function to reinforce the internal hierarchy of the group: hunting and protection of the territory, as activities of dexterity and courage, were performed by men, and gathering and horticulture performed by women.

3 Why forests?

Notwithstanding the level of agricultural dependence of each Macro-Jê nation, the cultivations occurred, mainly, in forest zones surrounded by a huge savanna forest. Why?

The fertility of soil on forest formations in the Cerrado is truly bigger than on grassland formations. (REATO; MARTINS, 2005) A long time ago, the Indians' experience may have led them to the same conclusion, choosing the woodlands as an environment adequate for cultivation. About that, Claude Lévi-Strauss quoting Steinen (1894), transcribes: [...] the Bakairís was known as a legend about the dumbness of the deer that tries to cultivate cassava in savanna [...] (STEINEN apud LÉVISTRAUSS, 1997, p. 21), exemplifying that *cerrados* had no agricultural purpose.

The ignorance with respect to the corrective means of the soil as pattern among Indian nations of the Middle West suggests that agriculture would be, due to this fact, restricted to the natural fertility zones. An exception is informed by the interesting report of Posey (1997), affirming that some Kaiapó tribes used to transfer soil parts of *cerrado* to the bottom of fruit shrubs, fertilizing them with residual leaves and sticks on which they placed ants and termite, believing that such animals could enrich it. Even though, this technique does not represent the formation of culture sites, but the treatment of orchards denominated Apêtê or "resource islands".

Even Lévi-Strauss (1997) and Posey (1997) refused to accept that in regions of relationships between cerrados and woodlands soil fertility could explain all preference under the second ones. Ester Boserup (1987) refers the productivity of the work: forests are easily handled due its more sensibility to fire; few men could open big glades and cultivate them without using instruments created or efforts to control the development of heliophila herbaceous species, factor that impose limit in savannas.

Indeed, provided that cerrado is a fire-based bioma, the use of fire tends to benefit the density of the herbaceous layer, naturally aggressive and dominant in open spaces. (HENRIQUES, 2005) The lack of knowledge, by the population, of instruments like legal hoe and spatulas, fundamental to pluck grass, sedges and dicots (LAMING-EMPARAIRE; BAUDEZ, 1981), lead them to not achieve the production threshold that would make the cultivation sites feasible as an alternative to gathering. (MORAN, 1994) Even considering the possibility of creation of these instruments, experiences of other agricultures around the world shows that a lot of people and exhaustive work would be necessary to cultivate the soil. (BLOCH, 2001) However, Zarur (1997) points out that Macro-Jê's lineage did not have high landforms, nor a work sufficiently organized so the agricultural practice could be suggested.

Thus, the easy disposal of instruments and use of few men to culture forest lands, originally more fertile, have made the agriculture under woodlands more profitable, and the forest agricultural system of deforestation-burn the prevailing system among the horticulture and savanna people.

4 Decrease in fallow time: colonial innovation

Even with preference to woodlands, the intense use of soils was not verified before the post-colonial historical period. Calculations of Mazoyer and Roudart (2001) estimate that in the tropical region a land of virgin wood cleared for 4 years could recover 90% of its original biomass after the 50 years of soil resting, sufficient to perpetuate the crop rotation regime. Even if the fallow time was reduced by half, 75% of the biomass would be restored and the 3 or 4 years of productive planting would be maintained with no need to intensify the work.

These high indexes of forest resilience, the low population density, the function of the *capoeiras* (type of vegetation) on the food supply associated with the fact that the agricultural among the Indians has never waived the hunting and gathering activities are good arguments to explain why fallows of up to five decades were sufficient to sustain the increasing indigenous population.

But all this factors are pertaining to a very important variable in the maintenance of long fallows: the availability of lands. In an essentially agricultural society, to each cultivated land at least other 15, with the same cultivable area, should be reserved in the forests or old *capoeiras* in order to assure the system turnover and the productivity of the work. (MAZOYER; ROUDART, 2001) Even if this is not the case of cerrado Indians, the territory resources would be even more relevant to the maintenance of the extractive, which, on its turn, did not excluded the deforestation-burn agriculture limited to the forest formations – that occupy about 12% of Cerrado Region. Maybe because of that, the Indians' territories often exceed 10,000 km², as noticed by Spix and von Martius in the 19th century. (SPIX e von MARTIUS, 1881)

Ester Boserup (1987) defends that shorter fallows only occurred, then, under high population density conditions established by the population increase or by the excessive decrease of lands. Bloch (2001), however, does not ascribe the same importance to the demography, believing that the change in crop rotation regime depends before of a combined set of factors as such access to territory resources, ecological conditions, new forms of division of labor, community organization, sharing of interests and institutional pressure, whose the extreme example arises from the cultural subversion after war confrontations.

It is not safe omitting any of these analyses in order to understand the decrease in indigenous fallow time, which all researches indicate, occurred only after the meeting with the settlers. (LEONEL, 2000) New cultural standards, brought from overseas, triggered a series of social and production changes in the Indian agriculture, establishing a true "agricultural revolution", driven by the competition for land, where the technical innovation can only be seen as primarily derived from cultural dissemination by contact or through ostensive institutional intervention.

In a acculturation process, in which coastal Tupi Indians, running away or taking *bandeirantes* to the Middle West spread their knowledge already distorted by the introduction of the iron axe and of the hoe (SCHMIDT, 1976), the nations of Cerrado that stand on the frontier of colonization and survived to its progress, assumed new attitudes with respect to the woodlands and fields. The extractive walking system was restricted by the settlement of farms and disjointed from the agrarian system, increasing the relevance of the forest formations in food supply. Accordingly, it was created the myth that the indigenous had adapted very well to the cattle raising: they forged their partial freedom, comparing to the coastal plantation.

In types of food planting, whether in the agriculture linked to raising fields or on the lands where the colonizing frontier had not been established, the practice of deforestation-burn persisted, motivation used by Sérgio Buarque de Holanda (1994) to say, repeatedly, that the Indians' plantation systems were preserved, virtually irreducible to the colonial intrusion. It is worth to highlight an extract of his narrative: "[...] In no case seems to be lawful to say that tools materially changed the using of the lands. Actually, the Indians' plantation system always shows unique perseverance [...]." (HOLANDA, 1994, p. 168)

To the first sight, this affirmative can contradict that the indigenous agrarian systems had been changed by exogenous pressures, however a critical reading clarifies the doubt and the argument cannot be other than the cultural inertia. Defined as resistance from a conservative society to the adoption of new ideas (BOSERUP, 1987), the cultural inertia is the manifestation of the agrarian heritage supported in values as tradition, social organization, division of labor and technical knowledge persistent to the mere assimilation of new instrumental elements. Mazoyer and Roudart (2001) go further: in a productive social organization, the introduction of similar instruments – more efficient inert means – only encourages the society to keep its "know-how" and its "how-to-do".

It is not doubtful, therefore, that the Indian – supported by his agrarian heritage – kept slashing and burning the woodlands the way he knew and did centuries ago, even more when the apparatus of iron increased the profitability of work. Also, it is hard to accept that analysis limited to the ways of production tempt the observer to assume that the use of the lands and the plantation system has been slightly changed, especially when the technical innovation was only a simple assimilation of similar artifacts.

Nonetheless, an examination of the agrarian system dynamic is enough to reveal the radical change occurred exactly in its main point: the reduction in the fallow time, as compensation to the persistence of the slash. (BOSERUP, 1987) If, with the dislocation of the walking system and with territory losses, were still possible to ensure a fallow of 20 years, each cleared portion would allow 2 to 3 years of cultivation keeping the rotation for many decades. In fallows of 10 years, each land could stand only 1 year of planting, compromising the plantation in medium term. If the reduction was more drastic, i.e., demanding fallows of 5 years, the thin *capoeira*, which does not represents more than 2% of the original biomass would not stand any cultivation, once that the inertial practices shall not be able to ensure the productivity of the work in progressively worn soils and more difficult to clear. This is what can be supposed based on the calculations of Mazoyer and Roudart 2001 and on the empirical studies of Ribeiro (2006).

To each indigenous nation, one among the possible cases of decrease in fallow time upon the excessive loss of lands from the colonial expansion can be supposed which extended or reduced drastically the sustainability of the Indian agriculture.

5 Decline of the system: agrarian crisis

The reduction of the fallow with no technical incorporation other than the simple absorption of similar instruments is the diligent cause of the decrease in the agricultural productivity. However, Mazoyer and Roudart 2001 analyze that the agrarian crisis only is confirmed in the cases which the productive social system – human, inert and institutional means – has proved itself incapable of generate a new cultivated ecosystem. But, how expect that the Indians' agrarian systems could react to the new access conditions and soil use, if in the midst of this process, they were whenever baffled by tribal disarticulation? The decrease of the fallow time, in this regard, was a consequence of deep changes to the productive social system.

This research is not responsible for the effort of bringing back the several systems cut off by the genocide that followed the Brazil's constitution, which by itself would already be enough to determine the decline of the Indian agriculture. But in order to try to understand the processes that lead to the agrarian crisis, even among the reluctant nations, a sample cutting limited to the testimonials that would represent the probable standard case is necessary. In this approach, it is fair to take into consideration that a small portion of Kaiapó, Kuiukúru, Xavante, Acroá nations, among many others, which still keep the systems faithful to their cultural heritage, are an exception to the rule. (MISTRY et al., 2005)

The story of the constitution of the Brazilian territory, pursuant to Antônio Carlos Roberto de Moraes 2002, was placed at the costs of spaces conquers by geographic ideologies of colonization and civilization and served, in different times to justify the possession of the land under the Indians domains. Almeida (1997, p. 234) stresses that the Indian himself, as human resource of work and catechesis, materialized the colonization, purpose and, because of that the "[...] the civilizing actions would have to necessarily be understood as capacities to sedentary work [...], in opposition to [...] any form of primitivism and nomadic indolence [...]."

Cordeiro (1999) stresses that three fronts contributed to set the indigenous: the pre action and the slavery in the big plantation, the *aldeamento* in canonical missions and the tension imposed by the spread of the cattle raising, all of them are, as noted by Almeida (1997), degrees of extermination of the indigenous

sovereignty. The two first fronts included the reductions and summary displacements of tribes, which, although with diverging purposes brought the same contra entry: the immediate emptying of the lands. While the third front clearly intended the progressive and continued land gain.

About the dislocation of the productive social system, Gilberto Freyre discussed that "[...] under moral and technical pressure [...] the Indian loses both the ability to grow independently and rise suddenly, by natural or forced imitation, to the standards proposed by the settler imperialism [...]" (FREYRE, 1994, p. 108) "[...] forcing them to a lethal inactivity for such active men, segregating them in the plantations or in the villages of large amount of people, by a criterion completely strange to the tribes used to the community life in small groups, and these, exogamous and totemic." (FREYRE, 1994, p. 146)

As a project of civilization, the Indians Directory, implemented in 18th century, controlled the "instructions" to the assisted *aldeamento*, to which the interceptors would be responsible for the organization of the agriculture setting the duration of shifts and services, formalizations to the assignment of workforce, regulation of the work conditions and sharing of the properties produced by the "fields of common", repressing the native agricultural manifestation. (ALMEIDA, 1997)

But the dislocation was not less sensitive among free nations suppressed by the progress cattle raising. The decrease of the land availability restricted the extractive walking system, confining them in settlements delimited by administrative concession or simply by territory tension and, although the hunting shortage has been a direct consequence of this limitation, the obstacle to the walking behavior also shaken, severely, the internal hierarchy of the groups: the men who fulfilled dual role as hunters and warriors, stayed longer in the villages more to safeguard them from new invasions than to actually expand their domains. In other circumstances, they risked vacate the few places left in order to offset territory losses moving forward over the enemies, exposing themselves even more to the disaggregated. (LEONARDI, 1996)

In one or another case, relying less and less in the possibilities of getting supplies in the gathering of spontaneous resources, the agriculture would assume a significant value in the nutrition and to the tribes that did not have developed it previously, it meant an insurmountable technique-organizational obstacle in short term. (CUNHA, 1992)

In a picture in which the recovery of territory resources was virtually out of question (RIBEIRO, 2000), the cultural inertia of the "docile" Indians, taken as corollary of the technical delay, gave rise to modest – nonetheless less comprehensive and impacting – action of rural extension aiming at the dissemination of more efficient agricultural practices. Such interventions did not stand, however, on oriented programs, but were found in the midst of missions with goals that were not actually committed to the agriculture, they were driven by the interest of catechesis and, specially, by the homogenization of the native groups under the doctrine of new sociability (CUNHA, 1992), which led to the constitution of the common Indian. (RIBEIRO, 2001)

In this welfare context, the indigenous which did not adapt to new agricultural standards replaced the "hunting of the ox", as an alternative to the shortage of wild animals, to become, themselves, pastoralists. (LEONARDI, 1996) Costa (1999) stresses that the Jesuit missions in Mato Grosso, between the 17th and 18th centuries, taught us to raise the *barresã* cattle on the natural fields and, among free tribes, Valverde (1981) affirms that at this same time in the north easterners

cerrados, the Indians introduced to the cattle raising established partnerships with farmers providing them services of peonage in exchange of 25% of all "curraleiro" cattle raised on an annual basis in the properties surrounding the villages.

Considering this situation a solution to conflicts, Saint-Hilaire (1975), visiting oppressed tribes by cattle expansion in the Middle West, has criticized the Brazil's governors a lot, in 19th century, stressing the urgent need of incentive to animals' domestication because they provide both food and fertilization, also assisting agriculture with more efficient equipment, without which they would starve. But the dominant interventionist way constituted, itself, the cause for cultural and population decline, as attested by Pohl (1976), passing through the villages of São José de Mossâmedes e Maria "[...] The *caiapós* live an undesired life. The shortage that most of the time only satisfies hunger, and hard work to which they are subject in the plantations are the causes of decrease and disaggregation... the Indian likes to hunt and fish, which, in the wild, constitutes his main food source... which they had to abandon here [...]." (POHL, 1976, p. 152)

The social system dislocation has gone beyond the reorganization of the work division. Darcy Ribeiro (2000) traces the fate of the main lineages of Macro-Jê nations: in 1800, Xavantes of the Tocantins River's left margin were dispossessed by cattle breeders, scaring them up to the Araguaia River, where, 50 years later, they would receive the Salesian missionaries who separated them from their children in villages directed to children's education. The same would happen with northern Kaiapó, in 1860, Xerente, in 1870 and Karajá, 20 years later. In 1910, it was the Bororo's turn: "[...] All former territory of Bororo do Rio das Garças has been donated to mission and constitute a land property, where Indian has lived in the aggregated condition. There, children have been also taken from parents and isolated to receive special education, out of the savage influences [...]." (RIBEIRO, 2000, p. 95)

The tribal ethos breakdown, from the contact rupture between generations, added to the forced work, has seriously jeopardized native cultures' longevity. (RIBEIRO, 2000) Boserup (1987) describes that, if many nations released due to the decline of the inventors institutions returned to its former systems, the majority succumbed due to the excessive loss of lands, social dislocation and non-productivity at work. Others accepted the new way for several reasons: disruption of the original productive system, new social opportunities, perception of the production potentialities, etc.

This was the most common case occurred among free nations which already practiced agriculture. Spix and Martius (1981), going through all Middle West and the Northeast "trays" in the 19th century, classified Indians in two categories: the wayward, which preserved their traditions, frequently seen as enemies, and the colonized, which already presented the "domesticated organization" due to cultural transmission. Authors themselves have not hesitated, therefore, to trace a prognosis about an Indian culture, suggested, also, to the agriculture "[...] the friendship made the Portuguese [Brazilians] which, maybe in a few decades, has lost all its characteristics [...]." (SPIX; von MARTIUS, 1981, p. 63)

The pacific approximation of the Indians with the settlers constituted, by the way, as attests Sérgio Buarque de Holanda (1994, p. 1998), the most probed alliance of race and customs. Domesticated Indians have accepted the presence of Brazilian man as a partner in the battles against enemy tribes – since this was the main reason to participate many times of the *bandeiras* and monsoons – subjugating beaten villages at the same time that, as they abandoned their own village for a long time, they contributed to the tribal organization dislocation, aggravating their

dependence on miscegenation. Carlos Borges Schmidt (1976) identifies these cases comparing what he calls "agrarian structure" of Indians with the *caboclos* small producers in the 19th century, only finding significant differences in terms cultivation choice.

Pohl (1976), at that same time, commenting on several tribes of cerrado, and this was the destiny of most of them, stresses that villages were no more than small nations where each Indian family had, now, its own field, cows, chickens and pigs, and as they already knew the marketing system, they sold and exchanged their products as the small squatters used to do.

Wayward tribes could only attempt to escape from the oppression of cattle breeders who competed for woodlands for the planting to supply farms or planting grass. Darcy Ribeiro declares, when commenting on the decimation of Xavantes groups in Mato Grosso, in 1930, "[...] They were always running away, cultivating fields that they could not harvest because they had to escape from new attacks, seeing their tribe decreasing in the number of people each day, due to the death of adults and children taken away by cowboys" [...]. (RIBEIRO, 2000, p. 102)

Such slaughters, in the twentieth century, are understood by Darcy Ribeiro (2000) as servant movements from ancient "civilization" actions. Incidentally, Cordeiro (1999) explains that, in the Republic manifestation, three parallel groups, each one with its own methods, saw the ideal of adding the barbarians to the national communion in different perspectives:

[...] In a first group there were the ones who sustained the need to use strength to coerce hostile Indians to accept the inexorable march of progress. In support of such tendency militated a naturalism pretentious scientism that judged Indians unable of embracing civilization. A second group was formed by the ones who continued trusting on the virtues of the catechesis and civilization system, binomial inherited from the empire, which privileged the participation of other religious orders in the conduction of the indigenous politics. The third group was formed by the ones who sustained the companionship of a new system of assistance to the Indian according to the republican institutions of a republican nature [...]. (CORDEIRO, 1999, page 58)

However, even this last group, which prevailed in the first decades of 1900, did not guarantee the productive social system of sustainability. The incoherence between "protection" and "cultural preservation" is patent in the indigenous political history itself. In 1910, it was created the Indian Protection and National Worker Location Service (SPILTAN), a body which mixes in only one place, the Indian and the no-land settler, as equal.

The dual nature of Indian settlements and agricultural centers established as SPILTAN's objective a territorial delimitation, their protection against invasions, the independence of habits and institutions and the respect to the tribes internal organization. As immediate contradiction to such callings, plantation should be stimulated, cattle raising should be brought in and technical instructions should be provided (CORDEIRO, 1999), as if the agrarian identity did not have any duty within the tribal organization.

And the SPILTAN's agreements were so many that, in 1928, it was replaced by the Indian Protection Service (SPI). It is not to be admired, however, that the SPI was equally inefficient, moving through the Ministry of National Integration, Ministry of Agriculture, Ministry of Labor and Employment, Ministry of Industry and Trade and, finally, Ministry of the Army, when the Indian protection was the obstacle to the

goals of "development", and therefore, at the time of, "[...] the discovery of any susceptible element of exploration [in Indian's lands]... is (would be) equivalent to the Indian conviction, which are obliged to evacuate it or are slaughtered in it"[...] by groups of several interests. (RIBEIRO, 2000, page 220)

The testimony of the Indian itself with respect to the official incursions is interesting, during the 40's and the 50's, in Xavante's territory: "now, *warazu* [white man] will get used, will learn the way and they will always come. After that, nobody is going to repel them anymore."(SEREBURÃ et al., 1998, p. 127)

In a rhetoric movement of the "civilized" institutional sovereignty, the repelled ones end up being the Indians, and the marginalization counterpoint from consecutive transfers of lands can be described by Darcy Ribeiro:

[...] the detribalization group seeks new ways to structure themselves with a feasible identity. In some cases, a temporary solution is found when the traditional patterns come back and they are fanatically fondness of them, which characterizes compensatory Indian identities [...] In other cases, Indians always reiterate unsuccessful efforts of becoming part of the white man's world. (RIBEIRO, 2000, page 454)

Only with the National Indian Foundation (Funai), created in 1967 – even though, only after the Constitution of 1988 – an assistance body finds legitimacy to exercise its main vocation, which stands, nowadays, exactly for the actions which aim to mitigate the higher historical vectors of agrarian crisis: the recovery and delimitation of lands, the identification and a retribalization of disaggregated Indians and the palliative basic supply of food.

6 The crisis summary: way of conclusion

The history of the Brazilian rural area can be summarized by continuous episodes of struggle for land, in which the border is only the most drastic stage of disputes. Marilena Chauí (1994) claims, in fact, that the most explicit way of noticing the presence of Indians in our society today is exactly through daily conflicts for demarcation and exploration of their reserves, and this is because, as Darcy Ribeiro emphasizes "[...] only the tribal territory provides the possibility to escape from the compulsion generated by the prevailing agrarian structure, which, otherwise, would force you to join the mass of no-land workers [...]" (RIBEIRO, 2000, page 220)

In this crisis context, the physical space is the basis for the maintenance of the cultural integrity, and if its absence does not annul the Indian ethnic identity, at least takes him away from his agrarian identity. After all, how many Indians are there today in Brazil? The latest demographic census of the Brazilian Institute of National Statics and Geography (IBGE), recorded in 2000 an Indian population of about 730,000 people, according to their own statements, which confirms the identity. However, studies by the Social and Environmental Institute (RICARDO; RICARDO, 2006) analyze that less than 400,000 – 0.25% of total Brazilian people – are divided into small reserves or small villages, exercising the various agricultural activities. Marilena Chauí's lessons must be validated (1994, page 12), alerting us to the fact that the villages should not be regarded "[...] as spaces where species and residues are preserved [...]", and much less that Indians not living in small villages lost their racial and cultural features, but it is interesting to the agrarian system studies emphasizing that the ethnic protection does not imply, necessarily, preservation of their social productive system in agriculture.

Darcy Ribeiro's speech defends that "[...] the Indian is irreducible in his ethnic identification... because they see themselves and suffer as Indians, and so they are seen and treated by people they interact with [...]"(RIBEIRO, 2001, p. 145) and this only confirms what Mazoyer e Roudart (2001) would diagnose: the indigenous systems are marked by a deep agricultural crisis, not only for being engaged in land conflicts, but specially, for being fundamentally supported (or abandoned) by exogenous institutions, and for representing if not model and minority forms of a fragile resistance to the ostensible and dominating agricultural systems, whose drama is even more patent in the advancing of borders, especially in the Cerrado Region. On the other hand, the 2006 Agricultural Census (INSTITUTO..., 2009) for the first time in history has accounted for the area of the rural facilities used in agroforestry systems: no less than 8.1 million hectares. But, what are SAFs, or should be, if not indigenous inspiration itself?

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Notas

¹B.P.- Before Present.

²"Capões" is the plural form of *capão*, from tupi *caa*: grass, *pãu*: island. They are truly "forest islands" inserted in the savany matrix. (SILVEIRA BUENO, 1998)

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