

“A Tree with Much Authority”: The Place of the Buriti Palm (*Mauritia flexuosa* L.f.) in the Sertaneja Culture of Terra Ronca, Goiás State, Central Brazil

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ABSTRACT

For more than 200 years, buriti palm (*Mauritia flexuosa* Linn. f.) has given structure to the environment of the inhabitants of Terra Ronca (TR). This time has been sufficient for the tree to imprint itself in the memory of these people, in their senses of touch and taste and in their strategies of adaptation to the environment, generating conditions for the construction a significant ethnobotanical knowledge about this plant. The present text discusses the place of buriti in the *sertaneja* culture of TR, highlighting the local particularities of the connections between the *sertanejos* and buriti and the context in which this palm is used. To obtain the data was collected bibliographic information on *sertaneja* culture of Central Brazil, as well as on the palms and specifically on buriti. Field work was undertaken between December 2006 and December 2008, and a combination of techniques and procedures used in qualitative anthropological research were employed to collect information, included participatory observations, field notes, examinations of life histories, and informal conversations using free and semi-structured interviews. Considered a “tree with much authority” by the oldest interviewees, the buriti has accrued significant historical and socio-cultural value and is respected and preserved in the cultural context of the region. In light of the economic and socio-cultural dynamics in the region, we suggest that the “authority” of the buriti should be rescue, for if it was traditionally a tree of life for the *sertanejo* because it provided “a house, food and a bed”, it has acquired even more authority today, not only as a potential source of income but also as a symbol of beauty, biodiversity and ecological services.

Keywords: Brazilian savannas, conservation, ethnobotany, ethnoecology, peasant farmers

INTRODUCTION

Among the many plants known and used by the human populations that live within the Cerrado biome (Brazilian savannas) – as is the case of Terra Ronca (TR) – the buriti palm (*Mauritia flexuosa* Linn. f.) stands out due to its striking presence as an emergent tree on *veredas* (swampy low plains) and in gallery forests, and because of its many uses (Corrêa 1984; Monteiro and Kaz 1993; Schettino 1995). The antiquity of the genus *Mauritia* on the South American continent (as indicated by pollinic records) and its cultural significance to indigenous populations, suggest a very old human-plant connection dating to pre-historic times. It is very probable that this human-buriti connection keep to in the “mameluco indigenous culture” of the *Homo cerratus* – the man of the cerrados – of Central Brazil (Diegues 1960; Ribeiro 1993; Bertran 1994; Ribeiro 2005; Ribeiro 2006).

Located in the center of the country, in the nuclear area of the *Cerrado* biome, the region of TR has a long history of human occupation, with vestiges of thousands of years of use by pre-historic hunters and gatherers. In the middle of the 19th century this region was occupied “in the rough style of large land owners” (Bertran 1978, 1994) by cattle herders arriving from the open lands on the banks of the São Francisco river in north-Central Brazil, transforming the region into *sertanejo* territory. Life during this period of occupation by the *sertanejos* was quite “rustic” (*sensu* Candido 2001), as the Portuguese colonist had to adapt to the biophysical and social realities of the region.

It is interesting that during this entire period (200 years or more) that the buriti palm was present “as a great master”,

in the words of the writer Guimarães Rosa (Rosa 1986), structuring the living environment of the habitants of TR. There is good reason to believe that this tree has been engraved in the memory of these people, in their sense of touch, in the tastes and smells around them, in their survival strategies and their adaptation to the surrounding environment – generating conditions for the construction of a solid base of knowledge about this plant – a *know-and-do* relationship, which Lévi-Strauss (2002) called the “science of the concrete”. A reverse effect can also be envisioned, as the long human-buriti relationship not only influenced the life style of humans but also affected the population dynamics of the plant itself (Alcorn 1995) (although this is not the principal question to be addressed here).

Given the premise that ethnobotany can be understood as the study of the “totality of the place of plants in a given culture” (Ford 1978), the present work sought to understand the “place” of the buriti palm in the *sertaneja* culture of the inhabitants of TR. More than just seeking to present a list of the many uses of this tree, we adopted a ethnoecological approach to try to understand the details of the local *human-buriti connection*, in the sense of Marques (2001) – as a study “of the thoughts (knowledge and beliefs), sentiments and behaviors that intermediate the interactions between human populations that hold them and the other elements of the ecosystems that surround them, as well as the resulting impacts”. We start from the premise that in order to understand the human-buriti connection one must grasp, even if only partially, the *context* (the history, geography, culture and society) in which the buriti is used; this understanding will be needed to meaningfully contribute to the development of proposals for local biodiversity conservation

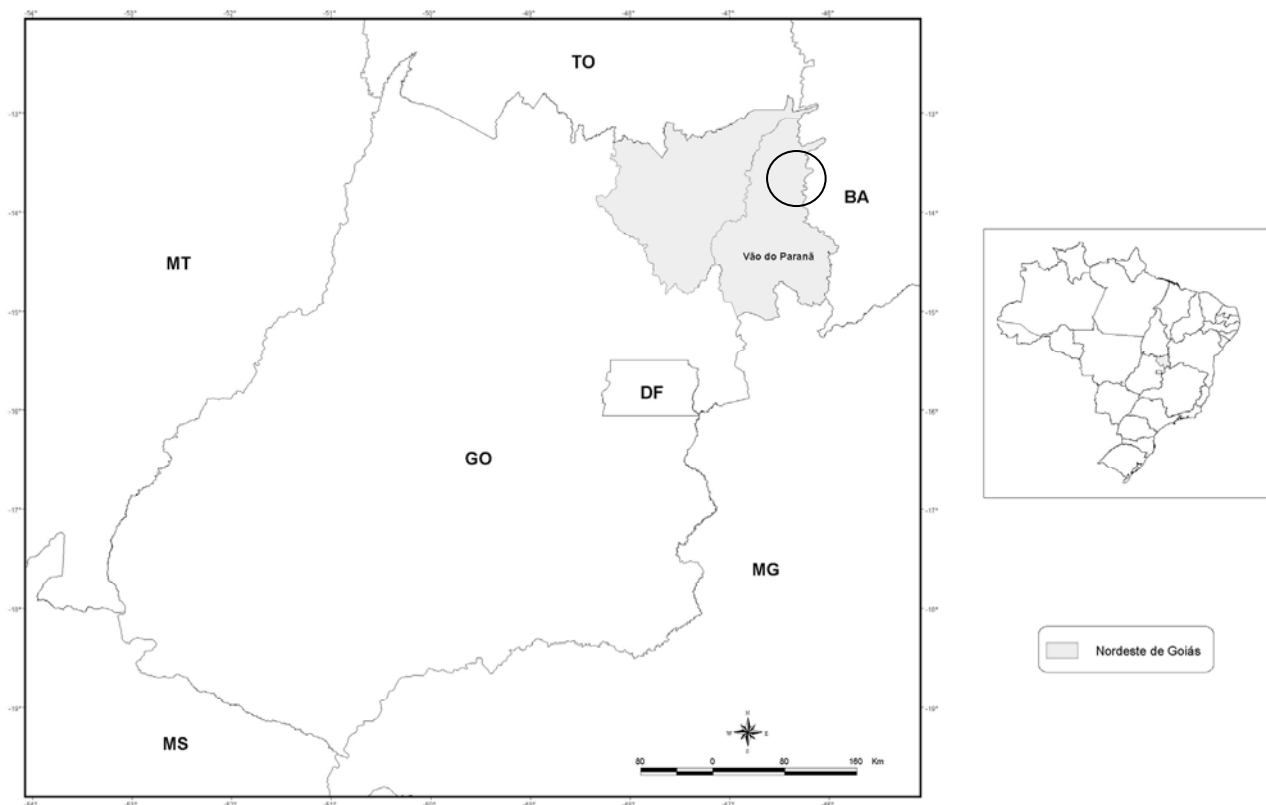


Fig. 1 Location of study area - Terra Ronca region (circumference). Vão do Paranã, northeastern Goiás State (in gray).

(Toledo 1992; Alcorn 1995; Davis 1995; Diegues 2000).

Several studies in recent years have demonstrated the existence of social, cultural, economic, scientific, esthetic and ecological values linked to this palm. Although it can be considered one of the most exuberant and representative palm tree species in Brazil, the buriti is little known by the general public, at least outside academic circles. Even in the latter case, the “officially” recorded knowledge found in scientific articles and data bases usually treats the buriti in a fragmented form, disconnected from other related disciplines. There are many gaps in our knowledge about this tree that will be needed to elucidate its intrinsic ethnoecological complexity and integrate human culture into nature and nature into human culture. This was, and continues to be, the challenge to the present work.

The present study discusses the cultural and social aspects of biodiversity with the intention of aggregating knowledge about, and value to, the buriti palm – a natural treasure of the Cerrado biome and of TR. As such, this text has the following objectives: 1. present an integrated view of the buriti palm describing its biological and ecological characteristics, as well as related sociocultural aspects; 2. discuss the historical, social, cultural and ecological factors of TR that determine why and how the buriti palm is perceived as a resource; 3. discuss how the social group perceives the buriti, how this perception influences the activities of the members of this group, and how those activities influence the buriti itself and the environments in which it occurs, and; 4. discuss the changes that are currently occurring and their implications for the conservation of this species.

MATERIALS AND METHODS

TR is located in the region of Vão do Paranã, in the Alto Rio Tocantins basin, in the rural zone of the municipality of São Domingos (46° 21' 15" W x 13° 44' 5" S) approximately 400 km from the federal capital of Brasília, Brazil. The region makes up part of the Cerrado biome and comprises an area of approximately 100 km² at the northeastern border of Goiás State with Bahia (Fig. 1). This research was undertaken with the families of peasant far-

mers that live in or near the TR State Park, in the village of São João Evangelista (the principal access route to the Park).

Field work was undertaken between December 2006 and December 2008 through multiple visits (lasting from 5 to 10 days each) staggered throughout the year (a total of eight visits were made). These multiple visits allowed us to accompany village routines at different times of the year and supplement information gained (or missed) on previous trips. A combination of common techniques and procedures used in qualitative anthropological (Titiev 2000; Laburthe-Tolra and Warnier 2003; González-Rey 2005; Oliveira 2006) and ethnobiological research were employed (Posey 1987; Alexiades 1996; Marques 2001; Viertler 2002) to collect information in the field; these included participatory observations, field notes, examinations of life histories, and informal conversations using free and semi-structured interviews.

Approximately 30 people were interviewed, ranging from children to old people of both sexes that were born and raised in the region. During the initial interviews (and under many diverse situations) we employed a “*data generating methodology*” to discover “*native categories*” (Posey 1987, 1992). In an attempt to diminish cultural differences we allowed the interviewees to speak freely about his/her life style, beliefs, and relationships with the natural world. The interviews, which were initially totally open, were gradually focused (in relation to the questions we asked and the people interviewed) as the research goal – the human-buriti connection – gained momentum and direction. The surveys of the life histories of the old people and key informants (a selected sample of seven people) were important sources that provided a better understanding of the historical and socio-cultural contexts involved in the use of the buriti palm and the perception of the community in relation to this plant.

The information collected was recorded in field notebooks or taped (Panasonic RR-US450, New Jersey, U.S.A.); when it was not possible to register occurrences immediately, the field notes were completed at the end of the day. Photographic records (Digital Camera, Canon Model PC1225, U.S.A) were also routinely made (more than one thousand images), which resulted in a greater approximation to the community and provided additional, concrete, and practical benefits. In order to collect as much historical, cultural and environmental information as possible about the area, a wide bibliographic survey was undertaken focusing on the serto-

neja culture of Central Brazil and palm trees (especially the buriti). Theoretical approaches to ethnobotany (Alcorn 1995) and ethnobotany as proposed by Toledo and Barrera-Bassols (2010) and Marques (2001) were used to interpret the human-buriti connection data.

RESULTS AND DISCUSSION

Tree of life

Revered as the most important “tree of life” by Alexander Von Humboldt, *Mauritia flexuosa* (Arecaceae family) is popularly known in Brazil as buriti, miriti, muriti, among other names. Buriti palms are widely distributed throughout South America (including in the Andes), especially in the Amazon region of Colombia (where it is called caranguche), Venezuela (moriche), the Guyanas (awuara and boche), Trinidad, Ecuador, Peru (aguaje) and Bolivia (kikyura and palm real). These trees occur widely in the Northern and Central-Western regions of Brazil and have been reported growing in the following states: Amapá, Roraima, Amazonas, Acre, Pará, Maranhão, Piauí, Ceará, Tocantins, Mato Grosso, Mato Grosso do Sul, Goiás, Bahia, Minas Gerais and São Paulo, as well as the Federal District (Corrêa 1984; Castro 2000; Lorenzi 2004; Goulding and Smith 2007).

Considered one of the most abundant native palms in the country, the buriti grows in shallow valleys between the plateaus and highlands of the Brazilian Savannas (Central Brazil), structuring the *veredas* – swamp forests usually found on the slopes of valleys along watercourses and surrounded by humid grassland rich in biodiversity – and populating gallery forests (Peixoto and Coradin 1993; Almeida 1998). In the Amazon basin it can be found in savannas, wetlands and flooded sites, often forming dense populations (called “buritizal” or “miritizal”) that completely dominate vast areas. Based on pollinic studies, Goulding and Smith (2007) reported that palms related to the genus *Mauritia* apparently existed when South America and Africa separated (pollen similar to that of the genus *Mauritia* has been found in Nigeria, in western Africa). These authors cited a study by Rull (1998) that reported the presence of pollen grains from *Mauritia* in South America during all of the Cenozoic era (from 65 million years ago to the present).

The long ancestry of buriti and its ample distribution throughout the neotropics indicate that this species is highly adapted to the climatic and edaphic conditions of the humid tropics (Uhl and Dransfield 1987; Ab'Saber 2001). But while the buriti is widely distributed, it is still restricted to a specific type of habitat. It can be found on various types of soils (sandy, clay, or rocky) from sea level to up to 1,500 m (in the Andes and in the Guyana Highlands), but it will only grow in humid or flooded areas along river margins or where the water table comes to the surface (Goulding and Smith 2007).

As a constituent element of the ecosystem, the buriti palm makes up part of an intricate web of ecological relations established over extremely long periods of time (considering the geological age of the species). The ecology of buriti must be examined both at the level of the ecosystem and the forest community into which it is inserted, as this species is not just a forest element but often a forest in itself. At the ecosystem level, Goulding and Smith (2007) called attention to the ecological importance of the inundated forests of *Mauritia flexuosa* in the midst of the enormously diverse Amazon forest. These authors cited numerous studies that demonstrated that the buriti forests serve as “pockets of abundance” for animals and also interact with other types of ecosystems such as upland forests, savannas and estuary forests. When these trees appear as structural elements in the landscape they often have key-species roles (Odum and Barret 2008) exercising dominant influences on the community structure and on ecosystem functions.

The functional role of the buriti is very evident in its relationships with animals, and it might be expected that

this species has evolved in consonance with numerous animal species over millions of years (although many may now be extinct). It is known that many species of birds, mammals, reptiles and fish feed on buriti fruits or live in communities dominated by these palms. Dead buriti palms are important for furnishing hollows that shelter birds and large varieties of invertebrates. In the Amazonian savannas and Brazilian savannas that have more open forms of vegetation many animal species depend on the buritis (dominant trees, often forming their own forests) to provide shade, food, and protection against predators (Uhl and Dransfield 1987; Villalobos 1994; Goulding and Smith 2007; Tubelis 2009).

There is yet another less evident but equally important role that buriti palms play in regional ecosystems: the protection of water resources. The intimate relationship of the buriti palm with water was described by Guimarães Rosa: “Buriti wants all that is blue, and will not be separated from water – it craves that mirror” (Rosa 1986). This link with water is present in the etymology of the species, for according to Barbosa Rodrigues (1898), buriti (burity or burity) is a corruption of the indigenous word *M'bority* – that which contains water/liquid – being a reference to the “wine” extracted from its trunk (*Mboró* – “that contains” and *ty* – “water”). As seu Abílio, ex-farmer and the oldest resident of TR (91 years) explained: “It's the nature of the buriti, to grow in wetlands”.

Water aids in the dispersal of its seeds, forming buriti forests (“buritizais”), and the formation of thick organic soils in these buriti stands (which can be more than a meter thick), together with the deep root systems of these palms, create natural filters regulating the flow of ground water to rivers and seasonally or continually flooded forests. In the Brazilian savannas of Central Brazil which contains the headwaters of many of the principal rivers in Brazil, the *veredas* (bottom lands) serve as collection basins for waters draining from adjacent plateaus, and they contribute to the perennial and regular water courses in that biome (Brandão *et al.* 1991).

The removal of the buritis or the devastation of the buritizais would almost certainly result in the drying out of these humid environments during the dry season because, according the inhabitants of TR, “the buritizais hold the waters”. On the other hand, any type of alteration in the water shed that would diminish the flow of water to the buritizais could be fatal to this species. These types of occurrences are being seen now in many regions, including TR, whether due to anthropogenic impacts (dams, alteration of drainage regimes, deforestation, mining or burning) or a combination of these factors with a general drying of the regional climate. The loss of these humid habitats would represent an ecological disaster for many species of plants and animals – including human populations that depend on the hydrological equilibrium promoted by these ecosystems for their well-being and survival (Goulding and Smith 2007).

The ample distribution of buriti palms make them well-known and widely used for the most diverse socio-cultural and ecological functions in both rural areas and urban centers. Interestingly the human-buriti connection reached our urban-industrial society by way of biotechnology – through the production of a variety of cosmetics made from the oils extracted from buriti fruits (Durães 2004, 2008). But what interests us a priori is the search for the origins of these connections, which probably date to pre-historic times. It can be assumed that humans used or at least interacted with buriti palms when they first entered the South American continent. Although it is not possible now to know how pre-historic groups interacted with these plants, we can still learn much from the indigenous groups that have inherited their ancient traditions.

Corrêa (1984) observed that buritis are one of the most important palms in South America and have been used by indigenous populations “since pre-historic times”, for they undertake their most important festivals and celebrate marriages in periods when their mature fruits are most available.

One of the first documented reports of the use of buriti palms comes from Gumilla (1791 *apud* Lévi-Strauss 1987) who noted their economic importance to the Warrau Amerindians (of Venezuela and the Guyanas). These palms furnished wood for their shelters, fiber for their clothes, ornaments, nets and other fishing gear, flour to make bread, sap to produce “wine”, fruits to make a type of drink, and leaves to make baskets. They would also extract large edible larvae from the rotting trunks of fallen trees.

There is a beautiful description was made by Ticunas indigenous school teachers of the Alto Rio Solimões region of the Amazon that illustrates the importance of the buriti to the physical and cultural survival of these people:

The buriti is a large palm, one of the most beautiful. Various buritis form the “buritizal”. The owner of the buritizal is *Wüwürü*. The fruits of the buriti come in bunches. When they mature they become dark and begin to fall. The people can then take the fruits and eat them. They can prepare the wine. And they can sell the fruits in the city. The fruits also feed the animals. With the new leaves of the buriti, the dancers can dress themselves for the festivals. With other leaves, the men can construct the *to'cü*. With the wood of the buriti, they construct the *turi*. With the buriti the women weave the mat of the *moça-nova*. The mask of *Mawü* is made with lengths of the leaves of the buriti. The children make toys from the buriti. The women reproduce on their *pacarás* the design seen on the fruit of the buriti. The buriti gave its name to a nation of the people. The *araras* make their nests in the trunks of old buritis. In time, the buriti falls. In the fallen trunk the *muxiuá* grows. The *muxiuá* feed the people and the animals (Gruber 2000).

What most draws our attention in this account is that the buriti is object of the traditional beliefs, knowledge and practices of the *Ticunas*, which Barrera-Bassols and Toledo (2005) called the *kosmos-corporis-praxis*, constituting part of the material and immaterial culture of the group. The symbolic appropriation (*kosmos*) of the buriti manifests itself among indigenous groups through myths and rituals. Perhaps the best known examples of these rituals are foot races while carrying buriti tree trunks among the *Xavantes* (wich means in their language *A'uwê Uptabi*) in the savannas of Mato Grosso State (<http://pib.socioambiental.org/pt/povo/xavante/1164>) (in Portuguese). There is also an interesting *Xavante* myth in which the buriti (called *uiwede*) appears as the sacred tree - maybe a *cosmic pillar* (Eliade 1993) - that support a mythic ancestor (*wapté* = substitute of the sun), in his climb to the sky.

I will tell you, I will tell you... In ancient times the *A'uwê* people lived in darkness. Before the moon. Before the sun [...] that's right! Thus came the sun. The *wapté* were playing in the lake. Playing to jump in the water *pu*. As all children play. They decided to climb into the trees. They started to play climbing in the trees – in what trees are you climbing? – We are climbing in the *uiwede*. He keeps climbing, climbing, very high. It's hard! It's very difficult! The stomach grows, increases, he exerts great efforts. It was all planned... his anus was growing. Becoming round, large, hot. The anus of the *wapté* grew. It left his body, altogether. It became fixed, brilliant in the sky. Red, large. As it is when the morning comes. Red and large in the sky. So beautiful! It became the sun. The true sun (Sereburã *et al.* 1998).

In material terms, the buriti stands out for its versatility of uses to humans. The indigenous people of South America learned how to take advantage of all of its parts, and it was considered by many groups to be the “tree of life” (Corrêa 1984; Boom 1986; Balick 1988; Milliken *et al.* 1992; Ribeiro 1995; Gruber 2000). The *caboclos* in the Amazon region and the *sertanejos* of the Cerrado likewise learned to take advantage of all of its elements. It is quite probable that they inherited this “know-and-do” technical knowledge of the use of the different parts of the plant (*corpus and praxis*) from earlier indigenous cultures, creating/adapting other types of knowledge, techniques and uses and integrating them into the logic of their own cultures and econo-

mies (Padoch 1988; Almeida 1998; Rigueira *et al.* 2002; Cymerys *et al.* 2005; Goulding and Smith 2007; Sampaio *et al.* 2008; Saraiva 2008).

The manners and degrees of utilization – the human-buriti connection and ecological contexts. As such, it would be almost impossible to mention all that is or could be done with the buriti. Only one thing is known for sure: everything from this tree – from the roots to the leaves – is useful and is used. In this way, the characterization of the buriti and its biological, ecological and socio-cultural aspects will serve as the basis of our investigation into questions raised about this tree in the specific context of the people of TR.

The historical and socio-cultural roots of TR

The presence of pre-colonial indigenous groups in TR date back many centuries, but this question has not yet been closely examined. This ancient occupation appears to have been significant, judging not only by the presence of rock paintings and archeological sites in the innumerable caves found in the regions but also according to the stories of the oldest inhabitants: “*this place was full of Indians, only Indians, wild game and ounces, later people came*”, related by seu Emilio, a 89 years old ex-farmer from TR. There are no archeological records, however, that point to the presence of large nations of indigenous peoples in Vão do Paranã. The most commonly accepted view is that the region was occupied discontinuously by pre-historic groups of hunter and gatherers who used the limestone caves as convenient natural shelters (Bertran 1994; Barreira 2002).

The arrival of the first colonists in TR was a result of the expansion of the cattle grazing economy in the northeast to more interior lands beginning at the end of the 16th century, and reaching northeastern Goiás State by the first half of the 18th century. Given its proximity to the semi-arid *caatinga* region of the São Francisco river valley, it is probable that TR was occupied in the mid 1800s by cattle owners coming from the pastoral areas of that large and important river system (Bertran 1978; Barreira 2002). The ecological (extensive natural high plain grasslands) and geographic characteristics (wide extensions of land and extremely low demographic densities) of the region favored occupation “in the rough style of large land owners” and the adoption of a rural lifestyle based around working on large cattle ranches.

The lifestyle that has predominated since that time was characterized by a self-sufficient economy based on free-ranging cattle breeding that took advantage of the availability of free/common lands (“*solta*”), the utilization of small, cleared forest areas to plant crops, and the exploitation of whatever else the natural environment might offer: local plants, honey, wild game, etc. Thus, according to the sociological categories proposed by Manuel Diegues Jr. (Diegues 1960), Darcy Ribeiro (Ribeiro 2006), Diegues and Arruda (2001), the lifestyle of these inhabitants could be considered a variation of the *sertaneja* culture of the Northeastern region of the country that became adapted over time to local conditions.

The human-buriti connections that became established in TR were related to the cultural context of this rustic *sertanejo* lifestyle, and even though it may seem significantly modified today, those appearances are only superficial. It was possible to ascertain during our field work that the inhabitants of TR retain many features of this cultural heritage that are reflected in their traditional economic activities (cattle breeding and small-scale agriculture), in their intimate knowledge about the landscape and the local ecosystems, and in their speech, beliefs and sentiments – for their very ways of thinking and acting where inherited from an older *sertanejo-peasant* lifestyle.

With this view in mind we will describe in more detail the ecological, social, and cultural factors that make the buriti palm and important natural resource in the study area.



“A home, food, and a bed”

The landscape around TR is dominated by high plains and low mountains. The former are traditionally known as *Serra Geral de Goiás* (with altitudes between 600 and 1.200 m), and the latter as *Serra de Calcário* or *Chapadões Calcários* (between 550 and 850 m high) (Figs. 2, 3). These two well-defined but interdependent features (or environmental systems) demonstrate characteristic transition areas between typical Cerrado vegetation (*sensu strictu*, savannas) and seasonal deciduous and semi-deciduous forests (dry forests) (Moreira 1995). From the perspective of the local inhabitants, these transition zones are characterized by differences in landscape relief, geology, soils, and principally vegetation, and are known for having two very distinct environments called *gerais* and *caatinga*.

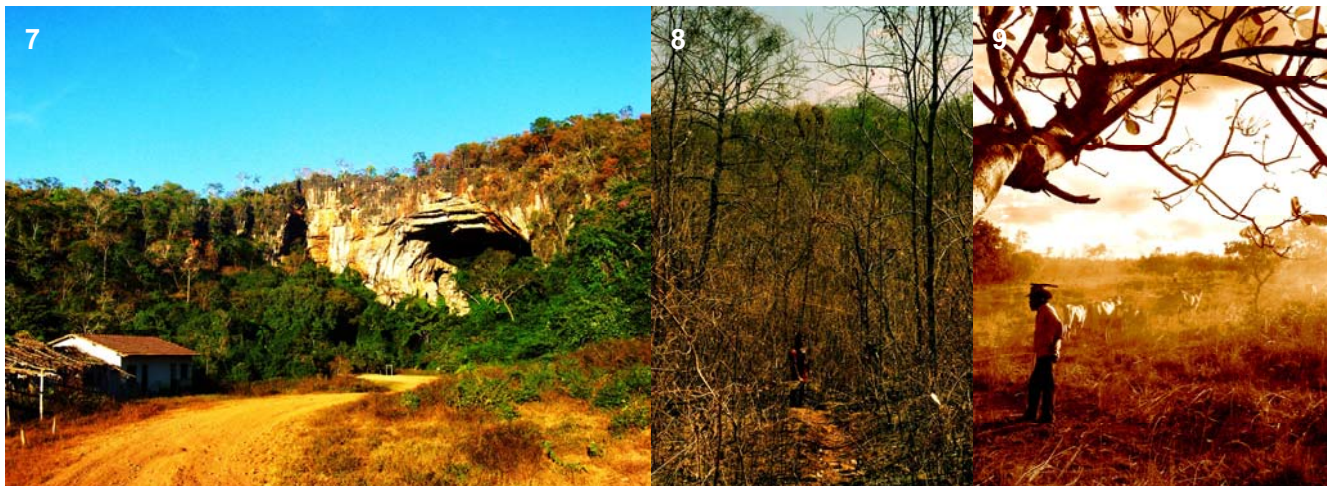
The *gerais* occupies vast areas in the *Serra Geral de Goiás* in the lands between the states of Goiás and Bahia, as seu Raimundo, 65 years small farmer from TR, relates: “Now, those that are in Bahia, call this place here Goiás: ‘I’m going to Goiás’, and you know they mean here. Them that are here say: ‘I’m going to the gerais’, and you know that it’s up there in Bahia”. The *caatinga* occupies the region in and around *Serra de Calcário*, in the mountainous areas of *Chapadões Calcários* with its Karsts landscape. For the inhabitants, the *Serra de Calcário* (also known as “*morreira*”, “*emparedado*” and “*tabuleiro*”) represents a transition zone between the *gerais* and the *caatinga*: “*caatinga* is from the *morreira* on. From the *morreira* this way, up till *Serra*, it’s *gerais*. It’s all one thing”, concludes Raimundo.

The *gerais* has an abundance of water and it is mostly covered by vegetation of the cerrado *sensu strictu* in the highest areas, with systems of *veredas*, buriti forests (buritizais), swamps and small forest areas in the lowlands. These

Figs. 2-3 The two major environmental systems of Terra Ronca. (2) Domain of *Serra Geral de Goiás* (at the bottom), popularly known as “*gerais*”; (3) *Serra de Calcário* (beginning of “*caatinga*”).



Figs. 4-6 The vast spaces of “*gerais*” of Terra Ronca. (4) Landscape of “*gerais*” of TR; (5) *Vereda São Vicente* - TR; (6) Buriti swamp forest (“buritizal”).



Figs. 7-9 The “caatinga” domain. (7) Karsts landscapes (TR cave entrance); (8) Dry forest; (9) Anthropogenic alterations by cattle raising.

are spaces traditionally used for cattle grazing, where the cattle were left to range free (“solta”) and the *sertanejo* “campiava” (to take care of the animals in the open natural pastures). The small forest areas with their more structured soils were places where pigs were left to forage, and places for hunting and planting manioc. These *gerais* were vast spaces where the *sertanejo* traditionally collected fruits, fibers, firewood, flowers, seeds, roots and medicinal plants – and places where buriti palms are found in large numbers. In ecological terms, these *gerais* areas are extremely important as they serve as collection basins for the waters absorbed by the *Serra Geral de Goiás* (Figs. 4-6).

The areas of *gerais* that extend to western Bahia (to the east of the study area) are known to the residents as “campina”. In historical times these were the routes of cattle drives that linked the Goiás northeast with cattle-producing zones in the states of Bahia and Minas Gerais. This region, which is dominated by vast open spaces (high plains and somewhat table-topped mountains) and vegetation that is predominantly savanna and associated with *veredas* and small forest areas, was largely composed of open lands with extremely low demographic densities. In the past, these lands were open commons where the *sertanejos* hunted and *campiavam* their cattle and were considered areas rich in biodiversity and harbored many wild animals.

The *caatinga* domain is characterized by the presence of savannas (*cerrado sensu strictu*), dry forests, and fertile lands (“calcareous lands”) as well as considerable amounts of good-quality wood, such as “*aroeira*” (*Astronium urundeuva*), “*cedro*” (*Cedrela odorata*), “*copaiba*” (*Copaifera langsdorffii*), “*pau d’arco*” (*Tabebuia* sp.), etc. These are environments associated with very arid conditions during times of drought, when the forests completely lose their leaves the vegetation takes on a uniformly gray, almost white, color (“caatinga”). The principal characteristics of this area are the Karsts landscapes (with well-developed cave systems), environments that are characterized by fertile soils (“culture lands” or simply “cultures”) that are traditionally transformed into small farming plots and, more recently, prepared pasturelands. These are excellent living environments, and the *sertanejos* often homesteaded there, subjecting these sites to significant anthropogenic alterations (Figs. 7-9).

Up until the mid 1960s the productive activities of the *sertanejos* were characterized by the use of all of the territories composing the *gerais* and the *caatinga*. The cattle were free-ranging (“solta”) and the system of transhumance (characterized as a natural form of cattle management that utilizes lands at different altitudes according to annual climatic dynamics) required the constant movement of the *sertanejos* through the *cerrados*, fields and forests, where they hunted, fished, planted and worked. The *veredas* in the *gerais* served as natural trails for the circulation of men and



Fig. 10 Ludic connection. Traditional musical instrument made of buriti (“Bandurra”).

animals, spaces of life and of work, becoming objects of both knowledge and belief to the *sertanejos*, “landscapes from the beginning of time”, in the words of seu Raimundo.

Under these conditions, the buriti palm was used as a food resource by the *sertanejos* and as a natural resource for the production and maintenance of their material culture. The buritizais forests were spaces where the cattle and pigs (known as “*curraleiro*”) were set out to pasture, as it appears in this statement: “I came to look after the cattle, you know what that is, don’t you, huh? Work with the cattle, make buriti, take care of the pigs just as my grandfather done”. During the cattle drives to Bahia “in the old times” to trade animals and leather for coarse salt, coffee and tools the *sertanejos*, according to seu Abílio: “made rope, harnesses, made everything from the stem of the buriti, tethers, harnesses, rope to tie the baggage”. As the buritizais were the natural habitat and food sources of many species of animals, they were also hunting grounds, as it can be realized by this Emílio’s statement: “those ‘tatu-peba’ armadillos (*Euphractus sexcinctus*) [...] sure caught a lot of them under the buriti palms, cooked up real good”.

It used to be very common for people to get together to collect buriti fruits in the *veredas*. Due to the fact that these fruits are very heavy, it was difficult to gather them over long distances and the fruits were often processed where they were found, thus creating a ludic connection – as it was also a leisure activity to travel, collect the buriti fruits, prepare them, and relax. As the fruits of the buriti were very popular in the region, this tree formerly served as a connecting element of strategies for living based on social solidarity ties among rural groups neighbourhood. Seu Gustavo, a small farmer states that: “those who lived here in the *gerais* used to go by horse or mule selling buriti ‘cakes’ in

Table 1 Major crafts of Terra Ronca made from the fiber of leaves and the petiole of buriti palm.

Fiber of young-leaf (unopened leaves)	Open leaves	Wood petiole
Rope/harnesses	Roofing materials for houses and other shelters	Beds
Mats		Furniture (chairs, sofas, clothes closets, etc.)
Hammocks		Baskets
Sacks		Toys
Hats		Musical instrument
“Tipiti” (to dry cassava)		Fences
Brooms		Brooms
Raincoat		Bottle stoppers
		Shelves
		Doors/Gates
		Shelters walls

the *caatinga*, would trade them for cheese”. Likewise the people who lived in the *caatinga* zone would travel to collect buriti in the *gerais*: “the folks from the *caatinga* used to come here to collect buriti in the forest, used to stay for weeks just collecting buriti. Dried out the buriti, dried it out completely. They would make it into sweets in the pot, sweets in syrup”.

Although the buriti palm in the region around TR grows most exuberantly in the *gerais*, these trees are frequently encountered in the *caatinga* domain in seasonally flooded forest, coinciding with important farming sites (“culture lands”). As these were sites where the *sertanejos* traditionally constructed their homes, the buriti palm resources were routinely incorporated into the production and maintenance of home economics, “home, food and a bed”, according to the words of one interviewees. The facility of access to this resource and the excellent cultural receptivity to the plant made the buriti “wood” (petiole), leaves, and fibers widely used resources for making furniture (beds, chairs, clothes closets, doors, brooms, “tapitis” mats, shelves, floor mats, hammocks, etc.) and, in older times, to construct crude houses and shelters.

The buriti palm was present in many aspects of the *sertaneja* culture and part of their everyday activities of work and leisure (which in many cases were not distinct). The “*carocha*”, for example, is a kind of raincoat made from the “cracked” fiber leaves of the buriti. It was used during long trips by mule through the *sertão* (and also served as a bed at night), while working in the planting fields in the rainy season, or when simply walking in the woods. Other interesting examples of the use of these plant resources involve ludic connections, such as making toys and musical instruments. It is worth mentioning here the “*bandurra*”, a string instrument made by hand from the bark and petiole of the buriti together with other materials such as sabaré resin (a wild forest fruit), cedro wood (*Cedrela odorata*), leather, and horse tail hairs (Fig. 10). The *bandurra* was played, according to interviewees: “during lots of *farrós* [a typical dance of the *sertão*] the whole night, and the people kicked up their heels, had a real fine time”. Table 1 presents these and other craft uses of the buriti palm in the material culture of TR, as discussed in this section.

These are just some examples that show that the use of buriti is a social fact in TR. It can thus be seen that the buriti is manifestly known by the local population as a resource in which social, cultural and ecological factors are interwoven. The versatility of uses of the buriti palm in the context of “home, food and a bed” are part of the processes of adjustment and survival of the *sertanejos* to their biophysical and social environment - and they have become regional traditions over time. The next section is dedicated to examining in greater detail the human-buriti connections, with the goal of more closely evaluating how this tree has become inserted into the social life of these people.

Connections and disconnections

The human-buriti connections in TR have been varied in

purposes interactive and, in a final analysis, are related to the biological and cultural interactions of the *sertanejos* with regional ecosystems. The food resource connection (trophic connection) may be considered the most deeply rooted, as it satisfies a basic and vital necessity (hunger), although it is permeated with cultural and social considerations (diet) that also have a influence on the disconnection with the plant. Cultural connections (crafts), however, appear to more closely follow the logic of socio-cultural dynamics – marked by “the old times” and “modern times” – more than any strict vital necessity.

1. The food connection

The food connection is probably the deepest and oldest – with indigenous roots – and was transferred during the process of miscegenation between Amerindians and Portuguese colonists as they adjusted to this new environment. According to Candido (2001) “animals and plants don’t constitute, in themselves, food from a cultural point of view. It is rather the humans themselves who make them such by recognizing, selecting and defining them”. Certainly, the buriti has made up part of the diet of indigenous societies for a very long time, with its plant components being transformed into food resources. Later, however, the methods of preparing and consuming these biological components were further adapted to the “cultural tastes” (Padoch 1988) of the colonists.

In addition to this indigenous inheritance, one must take into account that this region remained isolated from most commercial products for a very long time, and that eating habits are characterized by extremely close links with the regional environment. The *sertaneja* diet consisted basically of that which the land would produce – manioc, beans, rice, corn, sugar cane, coffee, etc. Although cattle breeding was always the principal economic activity in the region, the consumption of meat and milk was actually rare among most of the *sertaneja* population – with the consumption of bush meat and small animals (principally pigs and domestic birds) being more common. Given the harsh conditions of life in the past, farming and cattle raising did not always slake the hunger of these people (as their production was mediated by variable natural factors) and therefore other foods had to be taken from the resources the environment offered: “when was ‘hunger times’, the people had to eat small wild coconuts”, noted seu Emilio. As such, the resources provided by hunting, fishing, and gathering were essential to satisfy basic necessities, and these survival strategies became elements of the *sertaneja* culture.

The yellow or orange-red pulp of the buriti fruit has a strong taste, and although it contains a good deal of oil it is generally much appreciated in TR. This suggests that its strong and characteristic taste is recognized and culturally acceptable to the tastes (and stomachs) of the *sertanejos*. The pulp of the buriti fruit can be consumed directly while it is being collected – “sink your teeth in and start gnawing”, as the animals do – in informal situations while cattle breeding, planting crops, hunting or simply passing by a place where the fruits can be found. The pulp can also be

processed using traditional methods – using a spoon or knife to remove the outer skin and scraping the pulp from the seed – producing a thick “mass” that “can be set out to dry and used to make sweets any time”. The pulp can also be heated, becoming softer (“pound cake”) or just scraped from the seed and dried (“scrapers of buriti”). The “cake” is usually stored in cans while the “scrapers” are kept in plastic sacks, and they can be eaten at any later time in a number of different ways. The dried pulp of the buriti fruit is generally softened with cold or hot water and eaten mixed with sugar or milk according to the tastes of the local inhabitants.

Some of the families in the village collect and process the dry buriti pulp and sell it in the local or in nearby regions. The processed buriti pulp is sold by the liter or “on the plate” (plate = 3 L). Buriti sweets were not seen during the field research phase (just the “scrapers of buriti”) (Fig. 11) even though the task of making it is relatively quick and simple. This suggests a food-culinary disconnection, as the interviewees indicated that they very much liked these sweets. Another food-culinary disconnection was observed with the consumption of the “cake of buriti” mixed with “beiju” (a product of manioc flour) stated in this speech: “we’d make ‘beiju’, a ‘beiju’ with soft buriti pulp is really good, you scrape it off and put it on top of the ‘beiju’, with a little bit of sugar”.

The food connection linked to the consumption of “wine” sap from the trunk of the buriti is perhaps one of the most peculiar habits in the region. The oldest residents reported that they drank “wine of buriti” right out of the tree, or boiled down “just like sugar cane juice”; “it’s good for absolutely everything, it fortifies”; “it’s good for anyone with rheumatism” (suggesting that it also has a medicinal connection). The fact that the tree had to be cut down to extract the “wine” represents a disconnection factor both at internal and external levels, as the law does not allow one to cut down these trees: “but then you have to cut down the tree [...] that’s dangerous [...] its prohibited”, it is said in the region. On the other hand, the connection with the “wine” seems to be something of the past, which suggests a disconnection due to cultural dynamics: “it hasn’t been long that the people stopped using this [“wine”] because ‘things’ are easier now”, concluded seu Raimundo.

The consumption of buriti fruits has long been part of the complementary diet of the *sertanejo* and they were eaten within the rustic cultural necessities of life in earlier times. The traditional forms of processing and consumption remain the same even today (although at lesser levels of intensity). In the case of the buriti sweets, the products used to process the fruits are not longer obtained solely from the natural environment as they were in the past, and industrialized products (such as pure sugar instead of brown sugar made directly from sugar cane) are now commonly used.

2. The craft connection

Craft connections with buriti palms can be found throughout the region around TR and predominantly occur in the context of domestic economics and the activities of the rural *sertaneja* life. As it has close relationships with cultural aspects, the crafts connection accompanies the rhythm of the regional socio-cultural dynamics, as it can be realized by seu Abilio’s words: “Now-a-days people don’t use buriti to build their houses, things are more civilized”. One easily perceivable aspect is the general association of the crafts connection with the buriti as a thing of the past, when the region was more isolated and lacked other resources. This isolation obliged the *sertanejos* to absorb and use whatever the immediate environment offered with greater intensity.

The crafts connection operates within the rustic confines of the regional *sertaneja* culture and apparently only persists with any intensity among those inhabitants with limited economic resources and/or greater direct dependence on local natural resources to sustain their daily activities. This observation becomes quite evident within the



Fig. 11 Food connection. “Scrapers of buriti” on the “plate”.



Figs. 12-13 Domestic connection. (12) Hat, sofa, mat and wisp made of buriti; (13) Bed of buriti in a poor house.

context of domestic economics, as habitation is a reflection of the stratification of the social space and of human interactions with their immediate environments (Viertler 1988; Titiev 2000). The traditional homes in Goiás State were generally quite poor, without any external signs of wealth

and were built of mud and wattle (or at best with adobe bricks). The only element that truly differentiated the houses of the land owners from those of his workers was the material used to cover them: the “*tiled roofs*” of the owners and the “*thatched roofs*” of the workers (Diegues 1960).

This architectural pattern was more of a social/economic determination than an ecological one, as in the past only the better-off owners of cattle could afford to cover their houses with tiles - those who owned animals, slaves, and tools and who could afford to pay workers and to transport wood, stone and clay. As such, and from a social point of view, the crafts connection with the buriti was always more culturally associated with the poorer segments of the population (workers and sharecroppers) that had to construct their houses out of thatch and make their home furnishings out of the leaves and petioles of the buriti. This socio-cultural pattern linked to the crafts connection has persisted (although to a lesser degree) even today (Figs. 12, 13).

In conclusion: the human-buriti connections, varied in purposes interactive, follow the socio-cultural dynamics of the community as a whole, although in different degrees depending on the type of connection and the social-economic conditions of the individual or family. A similar pattern was observed by Balick (1988) among the Apinayé Amerindians, in the sense that “the degree of their involvement within the general economy, and consequently with the urban world was inversely proportional to their connection with the palms”. In the cultural context of TR, the buriti was an element of the ecosystem used in the maintenance of the domestic economy; it was responsible for the self sufficiency of these families in the past, but this link has atrophied with the availability of the products from urban civilizations - and this has in turn influenced their relationships with this plant. It can be seen that the strength of the human-buriti connection in TR is greater among families that have not acquired satisfactory substitutions of industrialized products.

A tree with much authority

During informal conversations about the buriti, or even in the midst of an interview with older interviewees, one would sometimes hear: “*Buriti? The buriti has much authority*” or “*the buriti is used for many things, is has much authority*”. Among the inhabitants of TR the significance of the word authority does not appear to be very different from the dictionary definition: someone or something that has influence, prestige, status, power. The interesting thing here is to note that the term authority does not refer to an institution, law or even a person, but to plants, to creatures and natural (or even supernatural) things that make up part of the living environment of the inhabitants of this area.

“*Everything has authority*”, but also “*for everything has the experiences*”, as “*God made the world and left everything written down*”, explains seu Emilio. In this case the category “*authority*” - which is also a corruption of the word “*utility*” - is linked to knowledge that is garnered within the context of social practices (“*the experiences*”). Cunha and Almeida (2002) noted that traditional knowledge with respect to nature is formed by interweaving suppositions (cultural truths) and practical experiences, “these two dimensions do not separate before they mutually inform and enrich each other”. The categories of “*brave*” and “*tame*” used by the rubber tappers in the Amazon forest, for example, are applicable to plants, animals and people, constituting “a superpositioning of classification schemes with work processes, which are a form of practice” (Cunha and Almeida 2002). Within the historical context of the practices and work relations on large ranches (between the owner of the land and cattle - “the owner of the means of production” and the squatters/sharecroppers - workers) it is possible that the representation of the buriti in TR as “*a tree with much authority*” is an also extension of a category of the social world to the natural world, in this case, a plant

species that takes on a human/social attribute.

From the point of view of the comprehensive ethnoecology of Toledo and Barrera-Bassols (2010) and Marques (2001, 2005), the word “*authority*” can be considered as a *meme* (Dawkins 2007), a linguistic/symbolic code recorded in the minds of the *sertanejos* and transmitted culturally from generation to generation. Dawkins (2007) defined a *meme* as a unit of cultural inheritance analogous to a gene, capable of being transmitted from one mind to another. According to this author, a *meme* may take the form of words, music, images, clothing styles, facial expressions, etc. The fact that the word “*authority*” only appears in conversations with old people points the loss of importance of this tree due to the dynamic cultural changes occurring in the region, and its subsequent remoteness from collective memory (*meme* threatened with extinction).

But what else can be said with respect to the significance of this category (or *meme*)? Beyond its practical sense as a corruption of the word utility might it not have a more pragmatic meaning - could this *meme* express a conservationist view?

In the specific case of the buriti, and according to what has already been said about the noble characteristics of this tree, the term “*authority*” would appear to signify respect or prestige acquired through long exposure to this plant and the perception of its many uses. It is important to note that the buriti is one of the most prominent trees in the lands around TR and is quite frequently present in backyards: “*here, says seu Raimundo, right in our backyard, there's a bunch of buriti, that's what we have, it's a tree that gives*”. Considering that this region has been occupied for at least 200 years this would seem to be concrete evidence that this is a favored species, in ecological terms as well as within the current cultural system.

As was empirically verified in field, the “*authority*” of the buriti appears to influence the behavior as well as the thinking and emotions of the individuals in that society. Even to the casual viewer the buriti is as obvious in the region as are beans and rice: “*I was born in the midst of the buriti, I've seen these buriti groves there all my life*”, says the people. These trees often grow in agricultural plots as if they were cultivated plants: “*a year after I built this dam here, a buriti seedling appeared, so I let it grow and helped it out a bit, and look at the size of it now, that one over there I planted*”, shows seu Raimundo in his land. Following the same pattern identified by Lévi-Strauss (1987) and Uhl and Dransfield (1987) of semi-cultivation of wild palm trees among indigenous population, the buriti is almost a semi-cultivated species in TR, and there is good evidence that the farmers take care of and preserve individuals when they clear new agricultural plots.

There were also subtle manifestations of this care in their conversations, such as “*that was a real crime, to cut down a buriti tree like that*”, as well as biblical memes “*to cut down the [unripe] bunch [of fruits] is a sin*”. In the latter case, this reference is associated with a food connection (trophic interaction) and is illustrative of a behavior that benefits the plant. The fact that there is a *meme* that indicates that “*to cut down the bunch is a sin*” associated with a biological observation “*the fruit on the ground tastes better, because it's more fatty*”, constitutes a success from the point of view of the dispersal strategy of the buriti (Villalobos 1994), for this strategy would not be successful if the bunch was cut down and buried while still green to later mature (a behavior mentioned by some interviewees).

These are only some examples that were implicit in the interviews, but there are many other traditional customs within that society that suggest that the buriti palm is respected and preserved within the context of the tradition cultural of TR. But the question of whether this is or is not a specific case of *ethnoconservation* (that is, if the buriti is a species conserved through cultural mechanisms) cannot be absolutely determined at this point - and is yet another situation in which we have to be satisfied with possibilities, not certainties.

A new context for conservation

If within the wider perspective context of tradition we accept the premise that the buriti is a favored species in terms of the social practices and the organization present within that territory today, it is still possible to identify a series of threats to its conservation. These threats have arisen in large part through progressive restriction and expropriations occasioned by the recent introduction of the agro-industrial production model in the region.

Beginning in the 1960s, and coinciding with the so-called "recent modernization", almost all of the *sertanejo* territories in the dominion of the Central Brazilian cerrados have experienced an intense reorganization. The linking of rural commodities production to international markets has erased the traditional socioeconomic structure, transforming land into a market, and eliminating the concept of open lands ("*solta*") and consequently with it the logic behind *sertaneja* production (Ab'Saber 1993; Aragão 1993). The consequences of this process began to be felt in the region around TR in the mid 1970s. The modernization of the highways and the transportation infra-structure in the region attracted outside agricultural interests, increasing the value of the land and simultaneously increasing the influence of the urban world on the rural zone. The large land owners that lived in the interior originally had life-styles that were not very different from their workers, but they were the first to move to the big cities seeking better educations for their children. Abandoning their farming life resulted in the interruption of their close relationships with the land and opened space for investors to acquire their properties and transform them into profitable businesses.

The lands of small property owners (the subjects of this research) also became divided among many heirs, and many of these people sold off their parts and migrated to the cities. The common lands became private lands and thereby diminishing the available space for planting and thus making crop rotation impossible, so that the same plot had to be cultivated every year and also used for grazing. The arrival of barbed wire dividing the formerly open lands together with new cattle production techniques (substituting the rustic curraleiro bred cattle for white cattle ["nellore"] for example) lent incentives to planting pastures in formerly wooded areas. The sale of the best lands to producers without any traditional links to the region (and much more interested in profits) favored predatory practices and the deforestation of large areas, including *veredas*, swamps and springs - the habitats of the buriti.

The common lands of *gerais* in Bahia State (above the *Serra Geral*) were open to the new agricultural frontier during the 1980s by way of monetary incentives, introducing a super-intensive commercial agriculture involving enormous investments by businessmen from the southern states of São Paulo and Rio Grande do Sul. Concomitant with these new agro-capitalist dynamics in the Cerrado, however, a strong environmental movement emerged in an attempt to offset the devastating effects of this development on the Cerrado vegetation. Within this context, part of the current study region was transformed into the protected area.

The creation of the TR State Park at the end of the 1980s consolidated the process of modernization of TR by setting aside some of these *sertanejo* lands as a conservation area (Matteucci 2003). The traditional *sertanejo* life-style, however, was not compatible with the interests of conservationists. Traditional activities linked to land use and cattle breeding began to be monitored (even prohibited) by the state and the *sertanejos* were faced with the prospect of one day having to sell their properties and leave their ancestral lands. Ecotourism did not consolidate itself as a new vocation or viable alternative economic activity for the local population, and these people continued their agricultural and cattle raising activities under the watchful eye of the state.

The traditional *sertanejo* lifestyle is thus suffering from a process of progressive erosion. In just a few decades, the

equilibrium established between the *sertanejo* and these lands and that was founded on the integral utilization of a territory whose limits were only defined by the mobility and necessities of its citizens became undone. The relationships between this culture and the territory it occupied became fragmented, first by the division of those lands (with barbed wire), which limited the free-ranging space ("*solta*") that served to fix the group to the land; later came the loss of the "commons" ("*commons lands*") and the loss of biodiversity and the marginalization of the small farmers due to the real possibility of one day having to leave the land of their ancestors - "guests of themselves" in the words of Matteucci (2003). The consequent intensification of pressure on the remaining forested areas diminished the capacity of these wooded areas to provide ecological services - with an increasingly arid climate and diminishing levels of water in the rivers and streams (or their complete drying) being the most visible signs of this process.

From the point of view of buriti palm conservation, these factors have directly and/or indirectly affected the species through two notable factors: fire and water; the first in excess, the second due to lack. It is known that fire is a natural element in savannas vegetation and many native plant species tolerate (even require) occasional burning although there is no available information in the literature concerning the impact of fire on buriti palms. The ancient existence of this tree in the Cerrado domain (Ledru 2002) and its deep root system and thick trunk all lead one to believe that this palm is resistant to fire (Uhl and Dransfield 1987). However, according to seu Batico, fires in swamps and *veredas* "weaken the production of the buriti, kill off the seedling and burn the leaves". Repeated burning and the intensification of cattle raising practices favor the occurrence of large burns that can eliminate both buriti and riparian forests.

The question of water resources elicits a general sense of alarm among the local inhabitants as many regional wetlands and rivers have diminished their flow or will even dry up completely during droughts: "rainfall here in Goiás is becoming scarce, it used to rain a lot more", pointed out one of the interviewees. The "shortening of the rains" and the more arid climate are well-known but so far uncontrollable causes, as seen in these speeches:

This Bahia here is done for. You walk around all over, and all you see is planted fields, they cut down all the trees and the irrigation pumps are sucking the water out of all of the rivers. And the fires also destroy everything, huh. The fires kill many trees, things dry out, it gets worse [...] and the trees used to call rains, didn't they (Seu Silvério, 84 years, *in memoriam*).

I figure that people found out about cutting down trees and the trees call the rains. Then came the charcoal merchants, knocking down the forests with big tractors, made it even worse for the rains to come up short (Seu José, retired small farmer, 85 years).

As Barbosa (2005) pointed out, the huge Cerrado aquifers, such as the Urucuia, that formed over millions of years are not being recharged sufficiently to sustain the springs that supply the rivers of the São Francisco and Tocantins basins. According to this author, more than half of the water (60%) that falls on this areas is absorbed by the roots of the native vegetation, recharging first the superficial water table, and then, more slowly, the subterranean aquifers. The occupation of the *Serra Geral* in Western Bahia by large farms and monoculture plantings have resulted in the elimination of large stands of Cerrado biome vegetation (with the destruction of its associated biodiversity and pollution by toxic agro-chemicals) and its substitution by short life-cycle plants with only sub-superficial roots that are incapable of aiding the infiltration of water in quantities sufficient to recharge the aquifer.

With the passage of time (*how much?*) these water sources will eventually dry up (and/or be polluted by agro-toxins), starting on the higher lands and progressing to the low land areas, until the water courses totally (and irrever-

sibly) disappear – as has already been noted by the older inhabitants. If this tendency of burning, deforestation, pollution and desiccation continue (or, worse yet, increase) it will surely bring disastrous consequences for the *sertanejos* and the buriti populations which are “*water loving plants, they only grow in the water*”, says Abílio.

Consequently, and in order to formulate effective strategies to conserve the buriti palm and the regions in which it occurs, one must promote the sustainable use of all of the *sertanejo* territories that has been transformed in conservation areas as well as the areas around them that are currently occupied by large-scale agro-industrial activities. The buriti can assume a new conservation status in this context, for if it was before “*a tree with much authority*”, and furnished “*a home, food and a bed*”, it has now acquired even more authority, not only through the possibility of generating local income (by re-inventing and re-discovering old customs and traditions), but as a symbol of beauty, water conservation, biodiversity, and ecological services.

CONCLUSION

The buriti palm is manifestly both a cultural and biological element. Far from being restricted just to its natural domain, it has been appropriated both materially and symbolically by populations that have long lived with it and have depended on it for their survival. The ecological importance of this plant to the inhabitants of TR and its versatility of uses in the context of “*a home, food and a bed*” have invested the buriti palm with a very significant cultural value. This significance is manifest in the phrase “*a tree of much authority*”, and expresses well how it is respected and preserved within the cultural traditions of the region.

Within the context of the accelerated social, economic and cultural transformations that have occurred in this region, the significance of the *meme* “*authority*” has become an appropriate metaphor that can be re-interpreted symbolically in the context of the present research. It will be necessary to recover the original significance of the “*authority*” of the buriti, first in a practical sense, as the opportunity to re-invent the traditional uses of this plant to generate income through ecotourism, and secondly, but not less importantly, as a word that synthesizes its qualities of beauty, biodiversity and ecological functions.

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