Necropolitical changes and repressive strategies on an Amazonian capitalistic frontier: Xambioá town, Tocantins, Brazil

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Abstract

This paper analyzes material changes undergone by the town of Xambioá, Tocantins State, Northern Brazil in a time of State terrorism. It argues that such changes were the product of the necropolitical approach materialized by a repressive system implemented and guided by the Brazilian Dictatorship along the lines of doctrines of national security. It focuses on the interaction between the town and the actions of repression undertaken against an Amazonian armed movement, the 1970s Araguaia Guerrilla, by which the Communist Party of Brazil aimed to bring down the military through a massive peasant uprising. For this urban archaeology of State terrorism, this work uses remote sensing, spatial syntax, and urban morphology, unveiling the material ruptures and terrorscapes that made up a new ontology established in the Bico do Papagaio region to instil fear, in order to control and silence residents.

Resumo

Este artigo analisa as mudanças materiais desencadeadas pelo terrorismo de Estado que assolou a cidade de Xambioá, no Tocantins. Argumenta que tais mudanças fazem parte de perspectivas necropolíticas materializadas em um sistema repressivo orientado à doutrina de segurança nacional implementada pela ditadura brasileira. Dá foco à interação entre a cidade de Xambioá e a repressão contra a Guerrilha do Araguaia nos anos 1970, um movimento armado amazônico organizado pelo Partido Comunista do Brasil com o objetivo de derrubar os militares no poder através de uma revolta camponesa maciça. Para uma arqueologia urbana do terrorismo de Estado, a pesquisa baseou-se no sensoriamento remoto, na sintaxe espacial e na morfologia urbana para desvendar rupturas materiais e paisagens de terror como novas ontologias estabelecidas na região do Bico do Papagaio que usaram o medo para controlar e silenciar os moradores locais.



Repressive and control strategies have a tremendous impact on landscapes. Large-scale and long-term material ruptures establish new meanings, make new places, overturn logic, and materialize fear. Based on the case of the violent repression perpetrated by the Brazilian military regime against the Araguaia Guerrilla during the 1970s on the Amazon's Eastern border, this paper aims to investigate how the repression strategies of an authoritarian State impacted urban fabrics and growth and how street plans materialize its control and discipline ideologies, instilling fear and producing terror that affected local civil populations' daily lives through landscape (Vecchi, 2014, p. 137). In order to do so, I explore the relationship between a military base placed near a riverine town, Xambioá, using the theoretical grounding of landscape capital in an urban archaeology of necropolitical changes. Methodologically, I turn to such tools of spatial analysis as remote sensing, spatial syntaxes, and urban morphology.

I follow philosopher Achille Mbembé's (2018) understanding of necropolitics to examine how Brazil's dictatorship materialized its repressive system through deaths and disappearances perpetrated by a State which, instead of fostering, killed and annihilated its civil population. Such subjugation of life to death unleashed deep material ruptures and gave birth to landscape ontologies strong enough to redirect an entire process of urban growth. I also follow historical ecologist Clark Erikson's (2008) definition of landscape capital, a concept that explains how later generations benefit from the accumulated work and knowledge left by their ascendants in the landscape, to interpret the prolonged effects of materialized repressions triggering painful memories.

As much as Latin America's interest in archeology has risen in the repression and resistance materialities of contexts of conflict and violence (Zarankin, Funari and Reis, 2008), we still have much to discover about the impact of State terrorism on our daily lives and the depth of its numerous psychosocial, political, economic, social, and material consequences. Scholars have resorted to archaeology's materializing skills to build material memories of concealed events as well as its analytical tools to reveal material discourses silently normalizing social relations (Salerno and Zarankin, 2012; Baretta, 2014; Poloni, 2014; Thiesen, et al., 2014; Silva and Martins, 2014; Souza, 2015; Anjos, 2015; Lemos, 2016; Fermín and Costa, 2018; Baretta, 2020). The focus of such studies in Brazil has been the urban contexts of capitals, often approached by spatial perspectives which mainly target architecture and enclosed spaces (Zarankin and Niro, 2010; Baretta, 2015) with less focus on the landscape (Baretta, 2017).

The emphasis on buildings used to clandestinely detain, torture, and kill during the Brazilian civil-military dictatorship, the longest Southern Cone regime of its type (1964-1985), shows how spatial representation and methods of torture sensorially impacted victims through the use of its prolonged effects to confuse and, therefore, to conceal. In this sense, landscape, space, and architecture orchestrate materialities related to order, power, discipline, and control, establishing terror-scapes and terror-places (Mullins, 2012; Mazucchelli, van der Laarse and Reijnen, 2014). Such spaces and places can disappear while destroying identities, dehumanizing through sight blockage, mobility constrain, starvation, submission to extreme weather conditions, and cutting communications (Ayán, 2008; Zarankin and Salerno, 2008; Zarankin and Niro, 2010; Lemos, 2019).

In Brazilian archaeology, the social meaning of architectural spaces and their role within repressive systems materializing ideologies in the spatial form are deeply influenced by Michel Foucault's (2008) philosophy and Maurice Halbwachs' (2004) sociology. Studies highlight the importance of investigating materialities in order to produce Halbwachsian "material memories" of architectures understood as Foucauldian "dispositives" made to destroy identities through direct practices targeting bodies and minds (Zarankin and Niro, 2010; Baretta, 2015). This approach has inspired several archaeological studies, especially on buildings that used to hold Departments of Political and Social Order, aka DOPS, one of the foremost governmental structures systematically used to apply coercive repressive methods (Souza, 2015; Baretta, 2015; Santos, 2016; Belle, 2017; Fermín and Costa, 2018). These buildings have mainly been analyzed through the gamma model, proposed by Bill Hillier and Julienne Hanson's spatial syntax (1984), a tool meant to look for flows, movements, and the boundaries of enclosed spaces.

In this paper I also focus on spatial variables, although emphasizing the landscape scale to approach the material changes observed since the establishment of an annihilation plan based on repressive strategies to annihilate the Araguaia Guerrilla, an Amazonian armed movement founded by the Communist Party of Brazil in the 1970s. The Armed Forces built an entire landscape in the Bico do Papagaio region, setting up several military bases strategically positioned to strangle the guerrilla while instilling terror into peasants and indigenous people who, in their eyes, would join a revolution against the State.

I focus on one military base, known as the Xambioá base, to which a high number of allegations of disappearances, tortures, arrests, and deaths converge (CNV, 2014). I search for clues in the terrain's history, while narrowing down to disappeared areas through archaeological surveys and excavations to look at the material dimension of its interactions



with the homonymous town nearby. I privilege remote sensing tools and data coming from topography, satellite imagery, and aerial photos intertwined with hodonymics, urban morphology, and spatial syntax to show how an urban archaeology of State terrorism can help decipher what the establishment of a military base meant to people living close by.

Repression in the Bico do Papagaio

From the 1960s to the 1980s, and largely in response to the Cuban Revolution, international capital financed a wave of civil-military dictatorships that devastated Latin America's Southern Cone. Brazil, Chile, Argentina, Paraguay, and Uruguay were hit hard by military coups supported by the US and France. Neo-colonial powers imparted knowledge on jungle warfare and disappearance strategies developed during the Vietnam (1955-1975) and Algerian Independence (1954-1962) wars to systematize transborder repressive systems willing to annihilate the so called "internal enemy" (Alves, 1987; Foard, 2003; Moreman, 2005; Bauer, 2005; Padrós, 2007; Cross, 2008; Martins Filho, 2012; Santos, 2014).

Believed to be everywhere while potentially being anyone (Coimbra, 2012, p. 8; Padrós, 2007, p. 43), such enemies, in reality, were embodied by those who either opposed to or did not fit into the white-male-western-Christian-elitist-heterosexual-cisgender conservative ideal model of citizen perpetuated by a militarized State ruled by the Armed Forces. Therefore, LGBTQIA+ persons, communists, indigenous peoples, peasant and black populations, poor urban communities, mental health patients, and the homeless, to name a few, were all under the dictatorship's radar.

The internal enemy was the main target of the national security doctrine, a biopolitical frame materialized through a series of structures, institutions, laws and practices building dispositives (Foucault, 2008), which functioned to oppress, suppress, and repress using terror and fear from the constant menace of death and disappearance. In this sense, Achille Mbembé's (2018) discussion of States who kill to maintain an order helps to better understand the repressive strategies applied in the region. Those strategies materialize structures oriented by biopolitical discourses entangled with technologies to control populations while naturalizing killable bodies and subsuming social existences to worlds of death. A necropolitics aiming to annihilate things, bodies, and minds of those who opposed and subverted the hegemonic order, the enemies of the State – in this case, mostly indigenous people, peasants, and communists (Araújo, 2014; Franco, 2018; Gonzalez-Ruibal, 2020).



Unlike its previous civilian counterpart (1930-1945), the 1964-1985 period of military dictatorship in Brazil was fundamentally of military nature, though it was widely supported by civilian neoliberal sectors of society. Its demise brought about a fragile democratic regime with no transitional justice mechanisms in place and a vigorous amnesty law which neither gave space to centralized investigations into missing persons nor dismantled the materialized structures forged in hand with the regime's internal enemy approach, like the Military Police or the Medical-Legal Institutes.

Several resistance movements took place over the course of those years (Silva, 2008, p. 12). The Communist Party of Brazil focused especially on the revolutionary potential of peasant populations struggling against endemic land conflicts and for basic civil rights under the constant violence and exploitation of security forces and big property landowners¹. The microregion known as Bico do Papagaio, (lit. parrot's beak) between the states of Tocantins, Maranhão, and Pará, in Brazil's Northern region, was chosen by the party to hold a guerrilla to engage with local peasants in a massive rural uprising against the dictatorship's oppression and lack of freedom (Gorender, 1987; Felipe 1993; Campos Filho, 1997; Nascimento, 2000; Gaspari, 2002; Morais and Silva, 2005; Sales, 2007; Mourão 2007; Morais, 2008; Peixoto, 2011; Sousa, 2011; Teles, 2011; Sá, 2011; Reiher, Neves, 2011; Nossa, 2012; Mechi, 2012; Peixoto, 2013; Campos Filho, 2013; Amorim 2014; Almeida 2015; Calheiros, 2015; Conglilio and Ikeda 2014; Teles, 2014). Such revolutionary potential was also perceived by the military, who, since the 1960s, declared the Amazon a matter of national security (Palmar, 2011).

The Amazon region was understood by the dictatorship as a civilizational and demographic void, inaccessible and uncontrolled (Marques, 2007; Balée, 2008). A frontier where the projects and worldviews of modernity - whether embodied by the military or militants, overlapped with those of peasants and indigenous communities. Submitted to developmental plans, the Bico do Papagaio was understood as a gateway to inner parts of the basin, targeted by capitalistic initiatives and financed by international funds to orient it towards a national integration plan, no matter the human and environmental costs involved (Nascimento, 2000, p. 46; Silva, 2008, p. 24; Mechi, 2012, p. 19). In fact, the Bico do Papagaio was also chosen by the guerrilla by virtue of its distance from urban centres where repressive forces were strongest (Figure 1).

¹ The PC do B (*Partido Comunista do Brasil*) was founded in the 1950's but its particular emphasis on peasant struggles and embrace of Maoist armed tactics caused it to further distance itself from the PCB (*Partido Comunista Brasileiro*), the *Araguaia Guerrilla* being one of its landmarks. The PCB also lost members to other guerrilla organizations under the dictatorship.



The military occupation of the Bico do Papagaio was therefore closely connected to expanding the capitalist frontier in the Amazon region. A new landscape emerged from ongoing land conflicts, bringing manning and logging companies, extensive cattle farms, military operations and the ensuing - and massive - socioecological destruction quickly degraded living and working conditions. An absent State, together with quick escalation of violence, pushed communities, particularly peasants, to support the Araguaia insurgency. Aware of such negative impacts, the Armed Forces later tried to change their public perception by offering basic needs and social services through the State's structures to build a populist agenda used to convince while coercing local inhabitants.

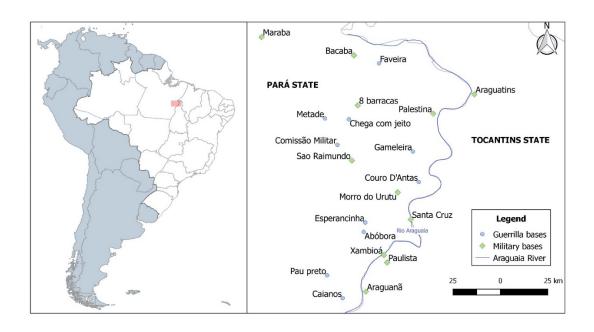


Figure 1: The Bico do Papagaio region with guerrilla and military bases (QGIS)

The first militants arrived in the area in 1966, planning for intimate engagement with local people and their environment (Gorender, 1987). Most inhabitants of the Bico do Papagaio were peasant migrants from the North-eastern semiarid hinterlands looking for better living conditions. The guerrilla established relationships with them through basic public services neglected by the State, working as pharmacists, medical doctors, midwives, and teachers. They cultivated their lands and interfered in episodes of direct State violence (Morais and Silva, 2005; Mechi, 2012). The environment, mainly made up of humid equatorial forests, should also be recognised as a major player during those years, as a

provider of natural resources, protection against airstrikes and air vigilance, as well as a concealer of trails.

On the one hand, the guerrilla built its resistance landscape by engaging with the forest. This went as far as influencing how the local population referred to the guerrilleros as "people of the forest" (povo da mata), especially after 1972, when repression pushed them further into the woods (Nascimento, 2000; Mechi, 2012). On the other hand, the Armed Forces established a fully-fledged repressive landscape using fear, terror, torture, killings, arrests, and disappearances to materialize terror-scapes while spreading its control strategies through the power and politics of death.

Expediently resorting to counter-intelligence apparatuses, the Army organized a constellation of military bases, probably related to an unknown number of smaller supporting spots to strangle the guerrilla's territory. Against 10 guerrilla bases the military placed 10 known bases while deploying a disproportionate military contingent (some say 10 thousand soldiers) to geostrategic areas (Campos Filho, 1997). The bases' spatial distribution triangulated in a way that each of the three detachments (named A, B, and C) formed by the guerrilla as a manoeuvre against the repression was surrounded by military physical structures.

Terror and fear were used to destabilize supporters, to intercept movements, to create uncertainty, and to break social bonds to annihilate and exterminate everybody and everything related to the guerrilla and its ideas. The terror manifested in the landscape turned familiar places into unfamiliar ones, increasing fears of unknown-though-usually-violent fates. Some bases compile many narratives of killings, tortures, kidnappings, and disappearances, one of the most iconic being the Xambioá military base. Built with organic materials, close enough to the town but far enough to not be easily seen, this base established ties with Xambioá through unspeakable horrors.

After 1974, and probably during 1975, Xambioá and other military bases were vanished ("cleansed") as part of military secret operations targeting evidence, archives, bodie,s and other material remains that could prove what had happened (Mattos and Swensson, 2003). Nonetheless, several bases vividly survived in local memory, materialized in landscapes, features and things left behind. In the case of the Xambioá military base, this was archaeologically attested between 2012 and 2015 in the scope of a governmental search and identification forensic team (Souza, 2019).

The end of repression against the Araguaia guerrilla did not mean the end of violence in the Bico do Papagaio (Mechi, 2011; Peixoto, 2013; Campos Filho, 2013). On the contrary,



it unleashed a wave of violence and human rights violations together with a still- ongoing ecocide based on deforestation, mining, and extensive livestock production. The number of capitalistic enterprises in the region rapidly increased, embracing former perpetrators and combatants who joined landowner's militias, politics, and extractive industries.

Such a boom demonstrates how much repressing guerrilleros, vanishing indigenous peoples, and exploiting peasants was required to expand the capitalistic frontier represented by the Amazon in the 1970s, an example of the cruel side of modernity, as described by social anthropologist Jean Franco (2016). Within these plans, several towns and cities were founded, oriented to control inhabitants and submit the forest through disciplinary spaces (Martins, 1996; Velho, 2009; Trindade Junior, 2011; Rosaneli, 2011; Boeing, 2019). One of them was Xambioá, designed along a hypodamic, symmetrical, gridded, regular, and hierarchical layout.

Materializing the arrival of cruel modernity in the Bico do Papagaio, Xambioá, and other urban centres was set to break old (colonial) patterns of spatial organization. They were now guided by urban logic, geared to developmentalist politics by the resocialization of migrant populations as a workforce and by the implementation and reproduction of the highway model to expand roads, trucks and cars instead of using contextualized forms of mobility such as rivers (Trindade Junior, 2011, p. 135). These towns were part of colonization projects that were used to set up hierarchical groups of planned urban centres connected to the countryside and to each other (Rego, 2016). This scenario was materially fit to the repression's panoptic needs, making it easier to watch and control through the urban fabric itself, which had few blind spots.

Methods

Few spatial analyses of landscapes forged by terror have been undertaken for repressive and dictatorial events in Brazil, searching for past experiences in their contemporary forms (Parcak, 2015, p. 2). Remote sensing, spatial syntaxes, urban morphology, and geographic information systems have not yet been used systematically to highlight unknown and hidden events, or for mapping and materializing concealed human rights violations in Brazil. Also, archaeology is rarely used as source by historians, social anthropologists, and journalists specialized in the military dictatorship.

Space-time data variables allow big data syntheses needed to understand what happened in the Bico do Papagaio and predictively guide search and identification



processes (Congram, Kenyhercz and Green, 2017). Approaching this data through remote sensing can provide unique views on the region's spatial and temporal dynamics (Herold, Goldstein and Clarke, 2003; Verhagen, 2018). Defined as a broad set of tools to remotely and thoroughly observe the surrounding world, remote sensing allows visualizing structures which would pass unnoticed since some materialities are revealed only in altitude (Myers, 2010; Raymond, Card and Baker, 2014; Di Maggio and Ferrara, 2015; Parcak, 2015; Weizman, 2017).

This includes satellite imagery, aerial photography, topography, soil penetrating radars, magnetometer, resistivity equipment, etc. – For the purposes of this article, I turn to the first three. Archaeologists using remote sensing recognize that human actions materially change the environment, impacting vegetation growth, soil colouring, producing shadows, altering topography, and expressing arrangements with regular and standardized geometry (Madry, 2006; Wiseman and El-Baz, 2007; Lasaponara and Masini, 2011).

One of the limitations of using satellite imagery in the Bico do Papagaio region is the lack of available images for this rural forested area on the Eastern Amazon basin border with no State interest in being seen or known. Due to this scarcity, I combined satellite images (Google Earth Plus, Google Earth Engine, USGS LandLook Viewer, UNAVCO SAR Archive, Sentinels Scientific Data Hub, NOAA CLASS, INPE Image Catalog, NASA Reverb, ARQGIS GLS 2010), aerial photography (Projeto AST – 10 USAF 1964-1967), topographic maps (IBGE, Geoportal do Exército Brasileiro, Visualizador do INDE, Topographic Map), historical atlas (FGV/CPDOC e Memórias Reveladas) and street maps (Open Street Map, Google Maps, USGS Landsat Look, Geoportal Analista, Via Michelin) to dive into the material relation between the military base and the urban plan of Xambioá.

To shape the repressive and the resistance landscapes built in the Bico do Papagaio, I plotted the known military and guerrilla bases using geoprocessing software QGIS 3.2.2 in order to make representations that could show how planned and systematic the dictatorship's interventions against locals were. Each of the 10 known military bases established by the dictatorship (Bacaba, Marabá, Araguatins, Santa Cruz, Araguaña, Palestina, Oito Barracas and São Raimundo) were understood as a place, a site of practices, materials and memories, significatively produced by humans' engagement with the environment and, therefore, part of the local social life (Criado-Boado, 1997; Zedeño, 2008; Zedeño and Bowser, 2009). Military bases are highly meaningful places of trauma with deep and long-term impacts on the life of guerrilleros, indigenous people, and peasants, despite their short occupational periods (two, three years or even less). Guerrilla bases, peasants'



farms, indigenous territories, rivers, forests, topography, and towns came together to materialize this landscape.

I used the analytical tools of spatial syntax and urban morphology's methods to propose how the town's materialities intermingled with repression. Urban morphology focuses on the main physical elements of an urban plan, such as its fabric, streets, lots, buildings, corners etc. (Cozen and Cozen, 2004; Kropf, 2018). It allows a better understanding of how the current landscape was shaped by repression including actors and processes engaged in its transformation, especially considering the material discourses subjacent to the logic of the geometric layout and the relation between quarters, flows and sociability (Smith, 2011; Rego, Meneguetti, 2011; Oliveira, 2015; Teixeira, 2015). Spatial syntax is a set of theoretical, analytical and conceptual tools developed in the 1970s to identify, compare and interpret spatial patterns through graphs and maps detailing connectivity and relative integrations in quantitative and qualitative ways (Hillier and Hanson, 1984; Hillier, 2001; Hillier and Vaughan, 2007; Hamaina, Leduc and Moreau, 2011; Ostwald, 2011; Carmo, Raia and Nogueira, 2012; Tencer, 2016).

Spatial syntax and urban morphology are widely used in urban archaeological studies to understand how different spatial configurations are materially related to social aspects manifested in spatial patterns (Dawson, 2002; Hillier, Vaughan, 2007; Smith 2011; Verdiani and Cornell, 2015). In Brazilian archaeology, spatial syntax was used in iconic studies such as Zarankin's 2002 research on 20th century school architecture, 18th century colonial houses (Zanettini, 2005), 19th century fortifications (Soares and Moreira 2015) and detention centres from the 1970s dictatorship (Baretta, 2014).

Nevertheless, the above studies focus on buildings, their floor plans, and contiguous spaces, using what in spatial syntax is called the gamma model. I will here focus on Xambioá's open spaces, its urban fabric, and streets' network, to examine the articulation between public urban elements in terms of permeability and circulation, considering size, proportionality, and hierarchies: the so-called alpha model (Hillier, 2001, p. 6; Teixeira, 2015, p. 39).

Using the alpha model of spatial syntax, I have produced axial maps that create abstract images of Xambioá's topology. Such topology was extracted from chronological sequences of aerial photographies and satellite images to highlight morphological changes and continuities of the urban plan. These changes were demarcated as morphological regions, perimeters which synchronically maintained similar designs (Cozen and Conzen, 2004; Rego and Menegutti, 2011). Geometrical differences and similarities have been put



together with qualitative attributes in a single image in which each line represents a street and similarities in layouts are framed by numbered quadrants.

The relationship between the names of streets and urban morphology was also used to link morphological regions to episodes of urban growth. I analysed Xambioá's hodonymy, the name of its areas of circulation, to find out how they cluster and tie with the histories of specific neighbourhoods (Caruso, Hilal and Thomas, 2017, p. 81). For such analysis, I used the Harris Matrix Composer and Google Earth Pro software.

Finding a concealed military base

The place orally referred to as the Xambioá military base is currently a pasture field placed around 1.5 km from the town of Xambioá. The former base's terrain can be accessed from the town through the Araguaia river by boat or through an earth airstrip used as a road. Airstrip and base, sited on the left of the BR-153 highway, meet the town at the port area, an intermediary neighbourhood formerly known as Vietnam.

Data from one aerial photography and 18 satellite images whose resolution allowed me to build a historical series from 1967 to 2017 (with gaps) were used to analyse the town's growth dynamics before and after the guerrilla period. It is worth noting that no image was found from 1968 to 1984 – coincidentally the dictatorship's most violent years.

In the 1967 image, shot around five years before the base's establishment, the completely forested terrain can be seen clearly, with a sparse vegetation cover to the East. The airstrip can also be easily visualized as a line in the landscape. There is, however, what appears to be a trail connecting the airstrip to the Araguaia river shores, where the vegetation cover is sparse and endsat a river beach. Such clues suggest the area's usage, at least for leisure. Undoubtedly, this points to both the airstrip and the river, the latter being an important route of access considering the region's lack of roads and bridges, as attracting factors for the base's installation.

After a gap of 23 years, the 1984 image shows the persistent airstrip and its connection to the port area, from where a highway now originates. The vegetation cover is scarce on the left of the trail, which connects the airstrip/road to the river. It is also clear that from the airstrip, earthworks were carried out, exposing soil. The vegetation cover is again scarcer at the centre of the image, where the military base was supposedly positioned.

Between 1967 and 1984, few material changes could have taken place: while in the 1960s there were only few trails to access the river, in the 1980s, the regularity expressed by



North-South straight lines and recurring exposed soils indicate the intensification of surface use. Since then, at least two linear marks systematically appear in all images: one related to the airstrip contour (which already existed in 1967) and another perpendicular to it (perhaps a fenced lot border). The perpendicular line appears in 1984 and seems to overlap a trail to the river already found in 1967.

Changes to the terrain's surface were also very few between 1984 and 2013. Since 1999, the soil exposed in the lower left corner of the images indicate erosion and/or earth movement that had been repeated, retracting and expanding. A rectangular area (33x66 m) aligned with the central left corner of the image appeared in 2004 around a mango tree, possibly related to governmental forensic interventions taking place at the time. This however does not eliminate the possibility of it having been caused by differential vegetation growth triggered by topographic alterations caused by the base. In 2009, a differential growth is seen in vegetation together with soil exposure between two linear marks (160m apart from each other) shaping a trapezoidal zone and a clear spot which overlaps the base's area.

In 2013, changes appear in relation to the multiplication of paths, cattle trails, and crop fields. In 2016, a major material turn takes place. An even higher number of paths and trails are visible, mostly crossing the terrain from East to West. The same can be seen in 2017, when a substantial number of changes can again be observed, with many subdivisions, spreading of paths, crop fields, and earthworks related to the foundation of a house, the first building erected on the terrain in almost four decades. The terrain finally leaves its latency following the increasing land use after 2016.

The airstrip, a persistent landmark that was already in place before the base's creation, acquires an even more prominent role as a potent element of materiality in attracting local human occupation, which becomes clear through its constant maintenance and use. On the other hand, it is also clear that, despite some changes on the surface land over the decades, substantial transformations have only occurred after 2013, probably when the property in which the base was located was finally parted, and mainly between 2016 and 2017, when the first house was built there.

The satellite images narrowed down an archaeological perimeter of interest of around 400m², where a detailed topographic map was produced (Figure 2). Transections for pedestrian surveys (oriented North-South, each 5m) were carried out to establish a systematic-geometric grid which located a set of potentially human-made features shaped as circular and ovoid depressions, suggesting anthropic changes resulting from the act of



digging and covering. Alongside surface objects, at least 33 of those features were located, from which 15 were excavated. Unfortunately, lack of political will and the rise of authoritarianism in Brazil have prevented the opening of all located features. The opening features later revealed to be garbage pits opened during and possibly after the base's abandonment, and a well. The remaining ones cannot be excluded as potentially containing human remains.



Figure 2: The base's terrain topographic map (Souza, 2019)

No building or structure was found during the fieldwork, the base having probably been erected fully out of organic materials. This would explain why oral narratives pinpoint functional constructions (pharmacy, kitchen, dorms) throughout different spaces within the same perimeter during exercises of spatialization of whiteness' memories. Organic material edifices produce floor plans flexible enough to be adapted and changed by moving buildings from one place to another over the years, or even within a period of months. This opposes witnesses' sketches and crosses narratives, especially regarding spatial references, creating incongruity, distrust of one another, frustration for not finding concrete places and things, and further uncertainty.

Whether or not this was part of a strategy used by the Armed Forces to hinder remembrances about the base is unclear. Archaeological studies on torture's spatial



dimensions have shown how victims' sensory abilities are affected by repression acts upon bodies and minds prolonging the effects that confuse to better conceal (Zarankin and Niro, 2010; Fermín and Costa, 2018; Lemos, 2019). Being trapped at the Xambioá base must have served similar purposes.

Xambioá's urban growth and stagnation

Technicians from the Geodesic and Cartographic Directorate of the Brazilian Institute of Statistic and Geography (IBGE) were at the base's terrain in 1975, right after the base likely ceased to operate. They produced a topographic map of the Bico do Papagaio containing a set of landmarks contemporaneous to the repression landscape in the town of Xambioá, such as the cemetery, the hospital, the church, the school, the gymnasium, and airstrips. Death, health, religion (priests aligned with liberation theology were often targeted by repression), education (a feared source of alleged communist propaganda), sports, and mobility (access), were the dimensions of daily life that were profoundly interfered with by the Armed Forces' plans.

The town of Xambioá, previously known as Xambioazinho village, was founded as a district in 1956, subordinate to the town of Araguatins, from which it became detached in 1958. Xambioá grew around the foundation of an isolated school which occupied land that was later donated to become an urban allotment (IBGE, 2020). The town was established at the junction between the Araguaia river and the future BR-153 highway (Belém-Brasília), both major drivers of agropastoral and human settlement (Bessa, 2015, p. 19). Placed in the river's floodplain, the town is surrounded to the Southeast and South by softly elevated areas. It is also enclosed by three large properties: the Sebastião Gomes farm (SW), the Santa Lúcia farm (S), and the Manchão do Meio farm (NE).

The topographic map (Figure 3) shows the location of Xambioá close to two airstrips, approximately 1.5 km apart, the first parallel and closer to the Araguaia river and the base, the second, smaller and further inland. The airstrip located closer to the military base connects the urban plan of Xambioá to the farm of Sebastião Gomes, where the base was established, with access to both the river port and the highway (BR-153). Its constant use as an airstrip but mainly as a road consolidated its material existence for at least 40 years, compacting soil and avoiding vegetation regeneration. In relation to the inner airstrip, it was apparently absorbed by the town after its urban growth, possibly becoming the Nossa Senhora Aparecida street.





Figure 3: Detail of Xambioá's 1975 topographic map (AHEX, 2020)

This double-airstrip setup is unique in the region and together with the presence of the Araguaia river granted Xambioá its special features, congregating different means of transport and mobility routes (roadways, airways, waterways). Used by elite landowners to access their lands, both airstrips and their association to large land properties are material expressions of the local powers. The 1975 topographic map also shows another 21 airstrips in the region, most recurrently in the South, the territory of guerrilla detachment C and part of B (Figure 4). These airstrips are spatially distributed as if surrounding the area, which would facilitate access to its borders but not to the area's core, where the guerrilla was. It is interesting to note that there are no airstrips close to the territory around detachment A, the closest being in Marabá city, a regional capital. However, there is a high incidence of roads.

The guerrilla settled its territory in an area where large land properties were many and close to one another: 314 of such properties appear in the area's topographic map. Their spatial distribution reveals two spots with no properties: one around the Indigenous Territory, Suruí-Aikewara (where the São Raimundo base was located), and one West of the villages of Pau Preto and Caianos. This scenario also explains the absence of airstrips there.

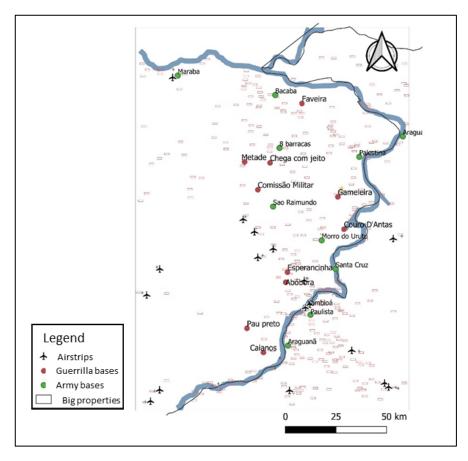


Figure 4: Guerrilleros and the military in relation to large land properties in 1975 (QGIS).

On the scale of the town, overlapping the historical series of images to draw a floor plan while using chronological ranges and hodonymics (the streets' names) as attributes has allowed me to delimit six historical quadrants (Table 1), which correspond to episodes of Xambioá's growth. Quadrant 1, the Old city, is the longstanding town's vicinity, connecting the airstrip and the base to the town via a street at the port. Quadrant 1 was basically what Xambioá used to be like during the repression against the guerrilla and, therefore, the town with which the guerrilla interacted, and which was sieged by the Armed Forces. In contrast, Quadrant 2 probably originated during or shortly after the repression, as an increase towards the Southeast.

Quadrants	Date	Streets	Limits	Area	Theme	Grid
1	1967	Vietnam Street, Araguaia Avenue, May 12th, September 7th, President Vargas, João Saraiva dos Santos/Pedro Ludovico, Rui Barbosa, May 13th, January 1st, April 21st, November 15th, Afonso Pena, Benjamim Azevedo, Jose Ludovico, Juscelino Kubistchek Avenue	From Araguaia Avenue to Jose Bonifácio Street; from Afonso Pena Street to April 21st Street	Old city	Historical dates, Historical characters	Regular
2	1978	Benjamim Azevedo, São Jose, Jose Bonifácio, Antônio Monteiro, Prudente de Moraes, Afonso Dutra de Carvalho, Darcy Marinho, Paulo Freire, Joaquim Vitorino de Assunção, Bernardo Sayão	From April 21st to Paulo Freire Street; from Araguaia Avenue to Ludugerio Santana street	-	Historical characters	Regular
3	1984	A, B, C, D, E, F, G, H Avenues, One, Two, Three, Four, Five Streets	From Avenue H to Avenue D; from Avenue A to Two Street	Western Sector	Letter, numbers	Regular
4	1999	Mato Grosso Avenue, Tocantins, Goiás, Ceara, Para, Maranhão Streets	From Two Street to Three Street; from Pará Avenue to Mato Grosso Avenue	Curicão Sector	Brazilian States	Irregular
5	2003	Girassol I, Vereador Napoleão, Jandir Malinsk Streets, Four and Five Streets		-	Historical character; numbers	Irregular
6	2010	One B, Two B, Three B, Four B, One, Two, Three, Six, Ten, Eleven Streets	From Juarez Forte Street to Araguanã Street	Dry Stretch Sector	Letters, numbers	Irregular

Table 1: Xambioá's quadrants shaped by street morphology and their hodonymics.

Figure 5 shows how Xambioá's urban plan grew largely to the East, sometimes to the Northeast, sometimes to the Southeast. The first urban expansion (1960-1980), beginning at the urban core of Quadrant 1, moved in the opposite direction of the airstrip/military base. After expanding to the Northeast, parallel to the Araguaia river, the town expanded to the South-Southeast (Quadrants 2, 3 and 4). This movement happened when Xambioá found higher topographic relief at the Northeast. Only in the 2000s did Xambioá grow West towards the military base (Quadrants 5 and 6).

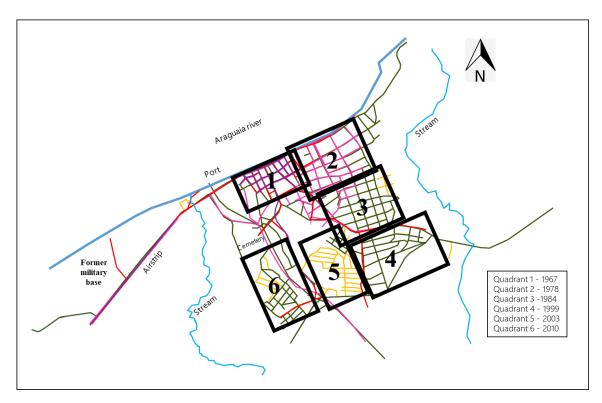


Figure 5: Morphological regions and urban growth in Xambioá

Xambioá preferred to grow towards elevated areas (Northeast and South) than to the only flat portion of its territory, Southwest, where the military base was set up. Its growth did not follow topographic logic, as it expanded into irregular surfaces instead of flatter ones. In 2017, Xambioá was finally seen to expand to the West (West-Southwest), towards the base's former terrain. Most of the time, however, its growth continued towards the East (South-Southeast and East-Northeast). All of this suggests that the town avoided the base's old land as if fleeing from a place of trauma. Indeed, the base's terrain was "abandoned" for decades, its owners having no interest in selling it, exchanging it, or event thinking about it.

Opposite Xambioá, on the other side of the river, is the town of São Geraldo do Araguaia, in the State of Pará. Significant differences appear when their percentual growth rates are compared and calculated from historical imagery series. The most obvious distinction can be observed, again, between the 1960s and the 1980s. While Xambioá's urban plan grew 12.5% between 1967 and 1978, São Geraldo do Araguaia - a humble line of wooden houses on the river's shore, considerably smaller than Xambioá in the 1960s - grew 450% for the same period. Xambioá surpassed São Geraldo again only between the mid-1980s and the 1990s. The trend lines (logarithmic) of Figure 6 show how slow the growth of



Xambioá was if compared to the rapid sprawl of São Geraldo. Its concomitance to the repression's years suggests that such motionless effect might have been caused by the ferocious violence perpetrated by the Armed Forces in the region.

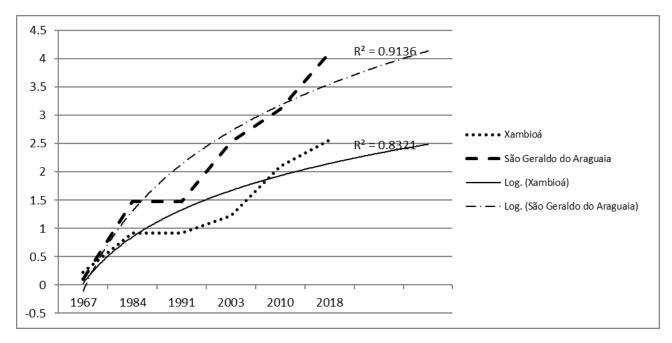


Figure 6. Line graph comparing Xambioá's and São Geraldo do Araguaia's urban growth (1967-2018).

Connecting the military base with the town

The military repressive strategy and the establishment of a military base in the vicinity of Xambioámaterially entangled base and urban plan. Such entanglement is expressed by the urban plan spatially "running away" from the base's terrain and its cloud of terror, but also by the urban fabric fitting the implementation of repression strategies. Gridded street plans, like Xambioá's, were means to control and oversee populations and symbolize control over the Amazonian landscape and its non-modern inhabitants (Grant, 2001, p. 219).

For a deeper understanding of how base and town were connected, the following axial maps (Figure 7 to 10) were designed to represent the town during its dictatorship years (Quadrants 1 and 2). The integration map in Figure 6 shows how movements might have happened in Xambioá. It proves that the airstrip road is the least integrated route in the urban plan, while the Araguaia Avenue, at the river's shore, is the most integrated. Both meet at the port area from where a major circulation route starts, the BR-153 highway. Base and airstrip meet the town's urban plan at the port area through Vietnam street, which



worked as an intermediary, a passage from the unknown and unsafe fear-scape represented by the base (and its airstrip) to the known and safe town's urban-scape.

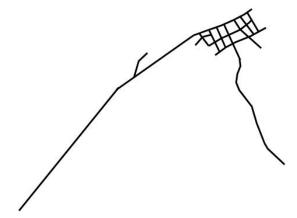


Figura 7: Xambioá's street network in 1967.

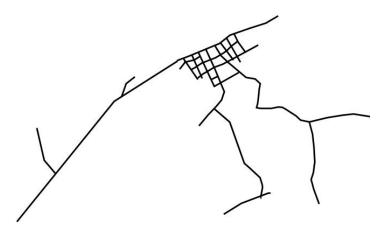


Figura 8: Xambioá's street network in 1975

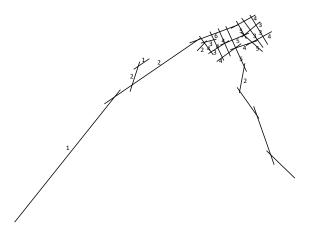


Figura 9. Xambioá's axial map to 1967.

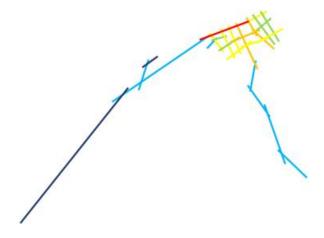


Figure 10. Xambioá's integration map to 1967 (cold colours - less integrated, warm colours - more integrated).

The Xambioá base was therefore placed by selecting the least integrated location on the plan, which gave direct and unidirectional access to its most integrated part, where people were living. Such a decision makes sense in a context where panoptic relations increased uncertainty while causing fear, setting the tone for the Army's plans for the region. A military base in a place of restricted access constrains mobility flows since the only other way to approach it was navigating by the river, too exposed, or by air, a privilege few could afford.

The matrix in Figure 11 clarifies how Vietnam acted as a bottleneck. Together with some streets, for instance Araguaia Avenue and President Kubistchek Avenue, it materializes a town without many exits and entry points, a morphology which facilitates the control of arrivals and departures. Since the Araguaia river is indeed a route but also a natural barrier, it is easy to figure how policing the river would reduce even more unwanted movements. Though, in axial terms, the number of networking lines grew from 12 in 1967 to 21 in 1975, possibilities of arrivals and departures continued the same as the routes to leave or to enter Xambioá were the same, unless paths were taken through the woods. Close but inaccessible, the military base was well positioned.

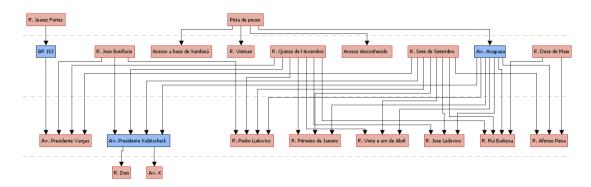


Figure 11: Xambioá's street matrix to 1975 (Harris Matrix Composer)

All flow lines in Xambioá converge at the same point: Vietnam street. As a port area, a road junction, the limit between base and town, Vietnam street was the tailback and bridge connecting two worlds: repression, pain, fear, and death, materialized by the base, and home, materialized by the town. Vietnam played the important role of a geostrategically positioned "entrance gate", hosting a port and a highway while connecting base and town.

Inherent to Xambioá's own regular layout, this control was facilitated by the visibility and vigilance permitted by its parallel and perpendicular spatial network. The only way to hide was in corners or inside buildings, otherwise movements could be easily detected by patrols and checkpoints. In this way, the town's urban plan aligned with repressive strategies to expand the base's power as tentacles through its fabric. As the Palestinian example used by Mbembé (2018), one of the most powerful forms of necropower happens when besieged towns are surrounded by the world, when daily life is militarized and local military commanders are given the freedom to kill whenever and whoever according to their own criteria, as happened in Xambioá. To Mbembé (2018), what Xambioá's few inhabitants experienced was a permanent condition of living in pain with military installations, checkpoints, deaths, and disappearances everywhere.

"Vietnam" is quite a meaningful toponym for a street, especially in a context so closely related to the similarities between the area and common-sense aspects of the Vietnam War. But Vietnam is not only a street, it is an area of unclear limits used to refer to where the base was. It is sometimes the name of the port's neighbourhood and even the name of a pit, the Vietnam hole, a reference to the bases' horror, a trench-like hollow destined to the captivity and burial of those withheld by the base, so far never found (SEDH/CEMDP, 2007). In this sense, Vietnam is sometimes the synonym of a punishment



and torture technique. Vietnam, as happens to port zones, kept a lot under its control and order (Corbin, 1989, p. 210).

It is worth highlighting that the port-Vietnam cluster shaped a neighbourhood where prostitution took different forms, the most common being those on streets and in brothels. Vietnam spatially mingled prostitution, crime and repressive events. In fact, Vietnam was also the name of a brothel and therefore part of a landscape in which physical and gender violence, social conflict and crime ran together and gained a tangible expression (Amorim, 2014, p. 260).

As a port area existing under armed conflict, where a huge military contingent was suddenly deployed, the demography of Bico do Papagaio would change forever, while Vietnam became the material expression of "sexual war economics" (Byers, 2012, p. iv). Allowing sex with local women, mainly through prostitution, the Armed Forces reinforced the belief that male soldiers could neither be controlled nor control themselves, whilst also acceptingsexual violence (Byers, 2012, p. 421). Vietnam was not only related to the wrought of male soldiers' identity through the Armed Forces, but to the ways the repression perceived and controlled female bodies (Tournier, 2008; Baretta, 2020).

The base of the holes

The repression's sense of permanence in Xambioá is lengthy. The base's terrain is a persistent place which upholds material memories ingrained into the landscape. The cursed land where people were buried, punished and tortured, part of the State's apparatus to destroy, remained uninhabited for decades as part of its own terror-scape capital. Although the military presence at the Bico do Papagaio was much longer than the actual occupation of the base in Xambioá, this capital was fed by uncertainties surrounding the reasons behind what was happening, associating bases with places where one went and never returned, or with those who returned but were never the same. Such a terror-scape obstructed spatial mobility, verticalizing time and reassuring long-term repressive effects and feelings.

The Xambioá base was locally known as "the base of holes" (base dos buracos) (Felipe, 1993, p. 157), thus holes were part of the place's traumatic memory. Describing his captivity in the Xambioá base, peasant João Crisóstomo remembered that someone with a shovel, a pick, and a hoe forced him to dig a hole. While digging, he was told: "dig it well, because you will stay inside". When the hole was ready, João heard that the structure was to be used by someone else (Campos Filho, 2012, p. 180). This narrative exemplifies how these holes



materialized forced labour and punishment (Corrêa, 2013, p. 352; Mechi, 2012, p. 328). Other narratives report people being hanged upside down or tied with ropes on sharp poles at the edges of the holes, while being punched and electrocuted (Felipe, 1993).

Destined to be privies (as archaeologically observed), burials, or prisons (such as the Vietnam hole narratives), the very process digging a hole was part of the base's terror. Digging involved prisoners in the production chain of the objects of their own torment. As holes were multifunctional features, from there on anything was possible, an ambiguity which added another layer to fear. The garbage in the holes, digging holes as punishment, burying in holes, torturing in holes, imprisoning in holes and the veiled threat that digging implied altered the base's local topography and how it is remembered. The set of holes archaeologically found at the base materializes, then, an entire punitive system including captivity and systematic torture inside holes or through the act of making them.

The base's holes materialize the "atmosphere of fear" and "condemnation to hell" described by those who knew that their destiny would be the Xambioá base, a place far from sight but close enough to the town so what was going on there would be more or less known (Felipe 1993, p. 201). Base and terrain also became locally known as "mistreatment house" (casa de judiaria) and as such are still part of peasants' narratives (Peixoto, 2011). The traumatic experience and the present absence of the base's deeds led the landowners of the Sebastião Gomes property to sell the former base's terrain only decades later, between 2010 and 2013, as suggested by the satellite images. Around 900m West of the base, the owners at the time remember how their farmhouse was used as a shooting range target by the military (CNV, 2014).

The Xambioá military base is continually remembered as a space of death, crucial to the sedimentation of fear, especially in a context of torture, reinforcing necropower's materiality as reproduced by the landscape. It materializes the progress of a culture of terror based on silence, rumours, and obliviousness to discipline and control (Taussig, 1984, p. 467). Another local narrative is a testimony of the authoritarianism imposed over the town, uttering the constant "living in pain condition" built by necropolitics: a local resident explained how her "whole childhood [was] marked by the Araguaia guerrilla, everything was coordinated by the Army, health post, my school, all relations (...) Every night there was a curfew, there were nights that we slept inside a hole dug in our house, we were afraid" (Bardella, 2016).

The spatial distribution of military bases at the Bico do Papagaio composed a web that overlaid places of everyday life with those of concrete fear, such as the base and the



holes, now part of the inhabitants' social relations. This fear was not only concrete but liquid, as stated by sociologist Zygmunt Bauman (2008), once that in several moments it could not be obviously defined, nor was it tangible, such as the town's own urban plan. Liquid and concrete fears broke social ties and ruined trustable structures – the hometown itself became an ambush zone while the holes are still there, waiting, hidden under the surface.

The terror-scape where bases acted as the main points of force and power is constantly activated by contemporaneous materialities such as the hole marks and the surface garbage found along the terrain. Since the base's existence is constantly denied by the Armed Forces' official narratives, the terrain falls under a game of present absences which prevents any of the possible therapeutic impacts born from search and identification processes mitigating past traumas (González-Ruibal, 2011, p. 107; González-Ruibal, 2009, p. 65).

This landscape refrained a lot of action and imposed countless silences. Mobility and movement were forever altered. The town's grid had the power to boost social control technologies using its integration patterns. The river, the double airstrip, the airstrip road and the port were fitting materialities to the repression's mode of operation. A new spatial ontology was set up by the military, with the establishment of new limits like the Vietnam and of perpetually materialized fears like the holes.

Those changes configured material ruptures oriented towards the life-submitted-to-death necropolitical approach, commonly used by Latin America's State terrorism, which in the present case used Xambioá's spatial features to overpower citizens. All this went along with the super exploitation of natural resources by mining, logging, cattle, and hydroelectric companies expanding capitalistic relations throughout Amazonian frontiers. Such confluence is framed by the binomial genocide-ecocide devouring the environment and its people, a recurring cruel modernity aspect of the geopolitical South (Ab'Saber, 1992; Pfaff, 1999; Mbembe and Rendall, 2000; Gonzalez-Ruibal, 2006).

Final considerations

The terror-scape built in the Bico do Papagaio for and by military repression materialized a coercive and violent space, reinforced by continuous fear, to this day remembered in different ways by indigenous peoples, peasants, guerrilleros, and members of the military. The establishment of a strategically located constellation of bases and the deployment of a massive military contingent led to major material change, overshadowed



by insecurity and intolerance where fear of death and disappearance became embedded in space.

Such embeddedness was part of systematic practices undertaken by the State to compose mechanisms through which to control death and disappearances, eliminating enemies, as proposed by Mbembé, while creating worlds of death and terrorscapes materialized by the absence of unknown fates and by the material apparatus used to perpetuate fear. This led to a new landscape ontology where some places were no longer safe and where those who left home did not always return. The familiar became unfamiliar, and life could not go on as before.

The repression caused a large-scale and long-term material rupture of the landscape and established new places of terror, altering local logics and materializing fear: disappearing and executing those suspected of jeopardizing the country's internal security, terrorized in a way that meant neither family members nor communities would know the fate of friends, neighbours, and relatives (Stover and Ryan, 2001, p. 8; Baraybar, 2012, p. 135). Challenged to subjugate an area plagued by land conflicts, without well-established State structures and far from the capitals, the Armed Forces, in the context of their national security doctrine, understood the Bico do Papagaio as highly and revolutionarily dangerous (Marques, 2007, p. 86). Controlling the region would bring Brazil closer to other international repressive forces dealing with guerrillas in forested areas, such as the US in Vietnam. But we did it better: necropolitics allowed the State to control through fear of death and disappearances while materializing uncertainties to better hide and obscure.

Insecurity and instability were already part of the Bico do Papagaio region as a frontier of capitalist expansion where distinct cultural logics, landscape ontologies, and historical temporalities clashed. Peasants commonly report that during the 1950s and 1960s, when massive migrations from the North-eastern semiarid lands were in place, "fear was everywhere" (Sader, 1990, p. 116; Silva, 2008, p. 45). The terrorscapes imposed by repression and its necropolitical material changes brought novel and increased forms of uncertainty, enhancing anxiety and feelings of fear. It was uncertain for the local population whether the Xambioá base settlement would be short or not, if those kept there would ever return, or what so many holes would be used for.

The establishment of a base close to Xambioá shook the small town. Its inhabitants no longer went out at night, and were often haunted by the unknown-but-known holes. Their movements through Xambioá's network of streets were under constant surveillance (Silva, 2008, p. 83). Xambioá's grid came hand in hand with the State's necropolitical



practices, facilitating control and discipline which were materially supported and maintained by the urban fabric itself. The fabric's effects on local collective memory, and therefore on the population's urban practices, are still visible, having been passed down through generations, triggering pain and installing fear as a type of landscape heritage, as in Erickson's works.

All this landscape of repression is now a place of memory, a point at which different meanings and narratives about the political violence perpetrated by the State converge (Mazucchelli, van der Laarse and Reijnen, 2014, p. 4). While in urban environments such landscapes tend to be monumental places, exemplified by the Departments of Political and Social Order's buildings in Brazilian capitals like São Paulo, Belo Horizonte, and Porto Alegre, in rural areas many of those places are materially discreet, silenced, concealed, and ruined to the ground. Archaeologist Jocyane Barretta (2017) has associated this spatial logic to the use of remote sites by the Armed Forces to grant perpetrators unlimited freedom. To unveil such places, a particular combination of of methodological tools and approaches were applied here. In a continental-sized country like Brazil, clearly many places as Xambioá exist, unknown and forgotten by some, alive and upsetting to others.

Xambioá's terror-scape comprises material discourses which inoculate messages for those daring to subvert hegemonic orders, showing that terrible fates were lurking. Within the scope of a terror strategy implemented as a mechanism materialized in the landscape, fear and silence prevailed inseparably, putting in place the State's national security doctrine (Padrós, 2005, p. 16). Everyone was liable to be taken to the Xambioá base, tortured, executed, disappeared, and desecrated after death (Silva, 2008, p. 82). Necropolitical changes at the Bico do Papagaio articulated bereavement, destruction, and concealment reproduced through a terror-scape capital expressed in the complex material arrangement which entangled military base, street network, repression, violence, and authoritarianism.

Bibliography

Ab'Sáber, A. (1992) 'Amazônia: um rol de propostas'. Revista Brasileira de Energia, pp. 83-88.

AHEX. (2020) 'Levantamento esferofotogramétrico topográfico regular, 1978', *Arquivo Histórico do Exército*. Available at: www.ahex.eb.mil.br (Accessed: 19 June 2020).

Almeida, T. F. (2015) Araguaia: Maoist uprising and military counterinsurgency in the Brazilian Amazon, 1967-1975. Unpublished MSc. Dissertation. Massachussetts-Amherst University.

Alves, M. H. (1987) Estado e oposição no Brasil (1964-1984). Petrópolis: Vozes.



- Amorim, C. (2014) Araguaia: histórias de amor e de guerra. São Paulo: Record.
- Anjos, G. C. (2015) 'A arqueologia da repressão no contexto das ditaduras militares da Argentina, Uruguai e Brasil', *Revista de Arqueologia Pública*, 5(1), pp. 79-92.
- Araújo, F. A. (2014) Das "técnicas" de fazer desaparecer corpos: desaparecimentos, violência, sofrimento e política. Rio de Janeiro: Lamparina.
- Ayán, X. (2008) 'El paisaje ausente: por una arqueología de la guerrilla antifranquista en Galicia', *Complutum*, 19(2), pp. 213-237.
- Balée, W. (2008) 'Sobre a indigeneidade das paisagens', Revista de Arqueologia, 21(2), pp. 9-23.
- Baraybar, J. P. (2012) 'Desaparições e desaparecimentos na América Latina', in Cardoso, I. and Bernardes, L. (eds.) *Vala clandestina de Perus. Desaparecidos políticos: um capítulo não encerrado da história brasileira*. São Paulo: do Autor, pp. 134-144.
- Bardella, F. (2016) 'Nos 20 anos do massacre de Carajás "Osvaldão" reencontra o Araguaia', UNE União Nacional dos Estudantes. Available at: https://une.org.br/noticias/nos-20-anos-do-massacre-de-carajas-osvaldao-reencontra-o-araguaia/ (Accessed: 09 August 2019)
- Baretta, J. (2014) 'Arqueologia da repressão e da resistência e suas contribuições na construção de memórias', *Revista de Arqueologia Pública*, 8(2), pp. 76-89.
- Baretta, J. (2015) Arqueologia e a construção de memórias materiais da Ditadura Militar em Porto Alegre/RS (1964/1985). Unpublished MSc dissertation. Campinas State University.
- Baretta, J. R. (2017) 'A importância da materialidade dos Centros Clandestinos de Detenção e Tortura para contar histórias da Ditadura no Brasil', *Aedos*, 21(9), pp. 109-131.
- Baretta, J. R. (2020) Uma arqueologia do inferno. Misoginia e feminização através do aparato material da Ditadura em Porto Alegre/RS (1964/1985). Unpublished PhD thesis. Pelotas Federal University.
- Bauer, C. S. (2005) 'Terrorismo de Estado e repressão política na ditadura cívico-militar de segurança nacional brasileira (1964-1988)', *Anais ANPUH XXIII Simpósio Nacional de História*. Available at: http://anpuh.org/anais/wp-content/uploads/mp/pdf/ANPUH.S23.1151.pdf (Accessed: 11 July 2020).
- Bauman, Z. (2008) Medo Líquido. Rio de Janeiro: Jorge Zahar.
- Belle, M. F. (2017) Memória em conflito: Dilemas da arqueologia da repressão em Porto Alegre/RS. Unpublished MSc dissertation. Minas Gerais Federal University.
- Bessa, K. (2015) 'Periodização e diferenciação espacial no segmento de rede urbana no Tocantins', Espaço Aberto, 5(1), pp. 9-27.
- Boeing, G. (2019) 'Urban Spatial Order: Street Network Orientation, Configuration, and Entropy', *Applied Network Science*, 4, ch. 67.
- Byers, A. (2012) The sexual economy of war: regulations of sexuality and the US Army, 1898-1940. Unpublished PhD thesis. Duke University.
- Calheiros, O. (2015) 'No tempo da guerra: algumas notas sobre as violações dos direitos dos povos



- indígenas e os limites da justiça de transição no Brasil', *Verdade, Justiça e Memória Re-vista,* 9(1), p.
- Campos Filho, R. P. (1997) Guerrilha do Araguaia: a esquerda em armas. Goiânia: UFG.
- Campos Filho, R. P. (2013) Araguaia depois da guerrilha uma outra guerra: A luta pela terra no Sul do Pará, impregnada pela Ideologia de Segurança Nacional (1975-2000). Unpublished PhD thesis. Goiás Federal University.
- Carmo, C. L., Raia, A. A., and Nogueira, A. D. (2012) 'A teoria da sintaxe espacial e suas aplicações na área de circulação e transportes', *PLURIS Anais do V Congresso Luso-Brasileiro para o Planejamento Urbano, Regional, Integrado e Sustentável*, pp. 1-12.
- Caruso, G., Hilal, M., and Thomas, I. (2017) 'Measuring urban forms from inter-building distances: combining MST graphs with a Local Index of Spatial Association', *Landscape and Urban Planning*, 163, pp. 80–89.
- CNV. (2014) 'A guerrilha do Araguaia', *Relatório Final da Comissão Nacional da Verdade*. Capítulo 14. Available at: http://cnv.memoriasreveladas.gov.br/ (Accessed 31 September 2018).
- Coimbra, C. M. (2012) 'Doutrinas de segurança nacional: banalizando a violência', *Psicologia em Estudo*, 5(2), pp. 1-22.
- Conglilio, C. R., and Ikeda, J. C. (2014) 'A ditadura militar, expansão do capital e as lutas sociais no sudeste paraense', *Lutas Sociais*, 18(32), pp. 79-90.
- Congram, D., Kenyhercz, M., and Green, A. G. (2017) 'Grave mapping in support of the search for missing persons in conflict context', *Forensic Science International*, 278, pp. 260-268.
- Corbin, A. (1989) O território do vazio: a praia e o imaginário ocidental. São Paulo: Cia das Letras.
- Corrêa, C. H. (2013) Em algum lugar das selvas amazônicas: as memórias dos guerrilheiros do Araguaia (1966-1974). Unpublished PhD thesis. Brasília University.
- Cozen, M. R., and Conzen, M. P. (2004) *Thinking about urban form: Papers on urban morphology, 1932-1998.* Oxford: Peter Lang.
- Criado-Boado, F. (1997) 'Introduction: combining different dimensions of cultural space is a total archaeology of landscape possible?', in Criado-Boado, F., and Parcero, C. (eds.) *Landscape, archaeology, heritage*. Santiago de Compostela: Universidade de Santiago de Compostela, pp. 5-9.
- Cross, J.-P. (2008) Jungle warfare: experiences and encounters. Pen & Sword Military.
- Dawson, P. (2002) 'Space Syntax Analysis of Central Inuit snow houses', *Journal of Anthropological Archaeology*, 21(4), pp. 464.480.
- Di Maggio, R. M., and Ferrara, C. (2015) 'Forensic geo-archaeology in Italy: materials for standardization', *International Journal of Archaeology*, 3(1), pp. 45-56.
- Erikson, C. L. (2008) 'Amazonia: the historical ecology of a domesticated landscape', in Silverman, H. and Isbell, W. H. (eds.) *The handbook of South American archaeology*. New York: Springer, pp. 157-181.



- Felipe, G. (1993) A guerrilha do Araguaia (Brasil: 1966-1975). Unpublished PhD thesis. Paris III University.
- Fermín Maguire, P., and Costa, D. N. (2018) "Scientific torture"? Scientism and the marks of torture inside a police station in Belo Horizonte, Brazil', *Vibrant*, 15(3).
- Foard, G. (2003) 'Historic terrain: applying the techniques of landscape archaeology to military history', *Landscapes*, 4(2), pp. 1-8.
- Foucault, M. (2008) Nascimento da Biopolítica. Curso no Collège de France (1978-1979). São Paulo: Martins Fontes.
- Franco, F. L. (2018) Da biopolítica à necrogovernabilidade: um estudo sobre os dispositivos de desaparecimento no Brasil. Unpublished PhD thesis. São Paulo University.
- Franco, Jean. (2016) Una modernidad cruel. Mexico city: Fondo de Cultura Económica.
- Gaspari, E. (2002) As ilusões armadas: a ditadura escancarada, v. 2. São Paulo: Cia das Letras.
- González-Ruibal, A. (2006) 'The dream of reasons. An archaeology of the failures of modernity in Ethiopia', *Journal of Social Archaeology*, 6(2), pp. 175-201.
- González-Ruibal, A. (2009) 'Topography of terror or cultural heritage? The monuments of Franco's Spain', in Forbes, N., Pageand, R. and Pérez, P. (eds.) *Europe's deadly century: perspectives on 20th century conflict heritage*. London: Heritage, pp. 65-72.
- González-Ruibal, A. (2011) 'Arqueología y memoria histórica', PCE, 1, pp. 102-122.
- González-Ruibal, A. (2020) 'Arqueología de la desaparición', Papeles del CEIC, 1, pp. 1-20.
- Gorender, J. (1987) Combate nas Trevas. São Paulo: Ática.
- Grant, Jill. (2001) 'The dark side of the grid: power and urban design. *Planning Perspectives*, 16(3), pp. 219-214.
- Halbwachs, M. (2004) Memória coletiva. São Paulo: Centaurus.
- Hamaina, R., Leduc, T., and Moreau, G. (2011) 'A structure analysis of the streets' network to urban fabric characterization', 25th International Cartographic Conference, Available at: icaci.org/icc2011 (Accessed: 16 May 2018)
- Herold, M., and Goldstein, N. C., and Clarke, K. C. (2003) 'The spatiotemporal form of urban growth: measurement analysis and modeling', *Remote sensing of environment*, 86, pp. 286-302.
- Hillier, B. (2001) 'A theory of the city as object. Or, low spatial laws mediate the social construction of urban space', *Proceeding 3rd ISSSA*, v. 2, pp. 3-30.
- Hillier, B., Vaughan, L. (2007) 'The city as one thing', Progress in Planning, 67(3), pp. 205–230.
- Hillier, B; Hanson, J. (1984) The Social Logic of Space. Cambridge: Cambridge University.
- IBGE. (2020) Xambioá. Instituto Brasileiro de Geografia e Estatística. Available at: https://cidades.ibge.gov.br/v4/brasil/to/xambioa/panorama (Accessed: 20 February 2020).
- Kropf, K. (2018) *The Handbook of Urban Morphology*. London: Willey.



- Lasaponara R., Masini N. (2011) 'Satellite Remote Sensing in Archaeology: past, present and future', *Journal of Archaeological Science*, 38 (9), pp. 1995–2002.
- Lemos, C. M. (2016) 'Construindo 'Memórias Materiais' da Ditadura Militar: A Arqueologia da Repressão e da Resistência no Brasil', *Revista de Arqueologia*, 29, pp. 68-80.
- Lemos, C. M. (2019) Arquitetando o terror: um estudo sensorial dos centros de detenção oficiais e clandestinos da ditadura civil-militar do Brasil (1964-1985). Unpublished PhD thesis. Sergipe Federal University.
- Madry, S. (2006) 'Evaluation of Google Earth for archaeological exploration and survey', *CAA*, 27, pp. 303-311.
- Marques, A. A. (2007) Amazônia: pensamento e presença militar. Unpublished PhD thesis. São Paulo University.
- Martins Filho, J. R. (2012) 'A conexão francesa: da Argélia ao Araguaia', *Varia história*, 28(48), pp. 519-536.
- Martins, J. S. (1996) 'O tempo da fronteira: retorno à controvérsia sobre o tempo histórico da frente de expansão e da frente pioneira', *Tempo Social*, 8(1), pp. 25-70.
- Mattos, M. A. and Swensson, W. C. (2003) *Contra os inimigos da ordem: a repressão política do regime militar brasileiro* (1964-1985). Rio de Janeiro: DP&A.
- Mazucchelli, F., van der Laarse, R., and Reijnen, C. (2014) 'Introduction: Traces of Terror, Signs of Trauma', in van der Laarse, R., Reijnen, C. and Mazucchelli, F. (eds.) *Traces of Terror, Signs of Trauma. Practices of (Re-)Presentation of Collective Memories in Space in Contemporary Europe.* Bologna: Bompiani, pp. 1-19.
- Mbembé, A. (2018) Necropolítica. São Paulo: n-1 edições.
- Mbembé, A, and Rendall, S. (2000). 'At the edge of the world: Boundaries, Territoriality, and Sovereignty in Africa', *Public Culture*, 12(1), pp. 259-284.
- Mechi, P. S. (2011) 'Da Guerrilha à Luta dos Posseiros: a permanência da violência na repressão aos trabalhadores rurais na região do Araguaia', *Anais I Simpósio Trabalhadores e a produção social*. Available at: www.simposioproducaosocial.org.br/Trabalhos/101.pdf (Accessed: 22 November 2018)
- Mechi, P. S. (2012) Os protagonistas do Araguaia: trajetórias, representações e práticas de camponeses, militantes e militares na guerrilha (1972-1974). Unpublished PhD thesis. Pontifical Catholic University.
- Morais, T. (2008) Sem vestígios: revelações de um agente secreto da ditadura militar brasileira. São Paulo: Geração Editorial.
- Morais, T., Silva, E. (2005) Operação Araguaia: os arquivos secretos da guerrilha. São Paulo: Geração Editorial.
- Moreman, T. (2005) The jungle, the Japanese and the British Commonwealth armies at war 1941-1945: fighting Methods, Doctrine and Training for Jungle Warfare. Nova York: Routlegde.
- Mourão, M. (2007) 'Palavra de luta: a ação armada no órgão central do PCdoB, a Classe Operária, de



- 1969 a 1976', *Anais do XXX Congresso Brasileiro de Ciências da Comunicação*. Available at: https://s3.amazonaws.com/academia.edu.documents/17661472 (Accessed: 20 April 2019)
- Mullins, P. (2012) 'Archaeologies of Prosaic Materiality and Traumatic Heritage', *Archaeology and material culture*. Available at: https://paulmullins.wordpress.com/tag/terrorscapes/ (Accessed: 02 October 2017).
- Myers, A. (2010) 'Camp Delta, Google Earth and the ethics of remote sensing in archaeology', World Archaeology, 12(3), pp. 455-467.
- Nascimento, J. B. (2013) 'Processo de emancipação dos municípios do Tocantins', *Revista Geonorte*, 7(1), pp. 1648-1662.
- Nossa, L. (2012) Mata! O Major Curió e as guerrilhas no Araguaia. São Paulo: Cia das Letras.
- Oliveira, G. A. (2010) Os posseiros e a luta pela terra na região do Bico do Papagaio, 1964-1985: modernização e tradição. Unpublished MSc dissertation. São Paulo State University.
- Ostwald, Michael J. (2011) The mathematics of spatial configuration: revisiting, revising and critiquing justified plan graph theory. *Nexus Network Journal*, 13, pp. 445–470.
- Padrós, E. S. (2005) Como el Uruguay no hay... Terror de Estado e segurança nacional. Uruguai (1968-1985): do pachecato à ditadura civil-militar. Tomo I. Unpublished PhD thesis. Rio Grande Federal University.
- Padrós, E. S. (2007) 'A política de desaparecimento como modalidade repressiva das ditaduras de segurança nacional', *Tempos Históricos*, 10, pp. 1-25.
- Palmar, A. (2011) 'Câmara Municipal prestava conta ao SNI', Documentos revelados. Available at: https://www.documentosrevelados.com.br/repressao/servico-nacional-de-informacoes/camara-municipal-prestava-conta-ao-sni/ (Accessed: 18 October 2019)
- Parcak, S. H. (2015) 'GIS, remote sensing and landscape archaeology', Oxford handbooks online. Available at: www.oxfordhandbooks.com (Accessed: 05 May 2018)
- Peixoto, R. C. (2011) 'Memória social da Guerrilha do Araguaia e da guerra que veio depois', *Boletim Museu Paraense Emílio Goeldi*, 6(3), pp. 479-499.
- Peixoto, R. C. (2013) 'Memória, verdade e justiça: reconhecendo abusos do passado e do presente no Bico do papagaio', *Novos Caderno NAEA*, 16(2), pp. 225-253.
- Pfaff, A. S. (1999) 'What drives deforestation in the Brazilian Amazon? Evidence from Satellite and Socioeconomic Data', *Journal of Environmental Economics and Management*, 37(1), pp. 26-43.
- Poloni, R. J. (2014) Arqueologia da repressão e da resistência: as contribuições da ciência na justiça de transição e na sociedade democrática. *Projeto História*, 50, pp. 247-273.
- Raymond, N., Card, B., and Baker, I. (2014) 'A new forensics: developing standard remote sensing methodologies to detect and document mass atrocities', *Genocide studies and prevention*, 8(3), pp. 33-48.
- Rego, R. L. (2016) 'Comunidades planejadas na Amazônia: o urbanismo rural e a utopia de uma nova civilização', *Anais XIV Colóquio Internacional de Geocrítica*, Barcelona. Available at: www.ub.edu/geocrit/xiv_renatorego.pdf (Accessed: 19 January 2018).



- Rego, R. L., and Meneguetti, K. S. (2011) 'A respeito de morfologia urbana. Tópicos básicos para estudos da forma da cidade', Acta Scientarium. *Technology*, 33(2), pp. 123-127.
- Reiher, C. B., and Neves, P. S. (2011) 'A guerrilha do Araguaia sob o ponto de vista da população da região do Bico do Papagaio', *Anais eletrônicos I Encontro de Pesquisadores Iniciantes das Humanidades*. Available at: https://pt.slideshare.net/slidesdoip/anais-eletronicosih2011 (Accessed: 06 June 2017).
- Rosaneli, A. F. (2011) 'A morfologia urbana como abordagem metodológica para o estudo da forma e da paisagem de assentamentos urbanos', *Anais VI Quapá-Se*. Available at: http://quapa.fau.usp.br/wordpress/wp-content/uploads/2016/03/A-morfologia-urbanos-pdf (Accessed: 11 November 2018)
- Sá, I. (2011) Da repressão à abertura política: processos de espetacularização do discurso político. Unpublished MSc dissertation. São Carlos Federal University.
- Sader, R. (1990) 'Lutas e imaginário camponês', Tempo Social, 2(1), pp. 115-125.
- Salerno, M., and Zarankin, A. (2012) 'Arqueologías de la clandestinidad. Una revisión de los trabajos efectuados en los centros de detención clandestinos de la última dictadura militar Argentina', *RUHM*, 2, pp. 49-84.
- Sales, J. R. (2007) Entre o fechamento e a abertura: a trajetória do PC do B da guerrilha do Araguaia à Nova República (1974-1985). *História*, 26(2), pp. 340-365.
- Santos, A. B. (2016) Arqueologia e Contemporaneidade: Reflexões Sobre os Locais de Repressão e Resistência do Regime Militar em Aracaju, Sergipe. Unpublished MSc dissertation. Sergipe Federal University.
- Santos, L. F. (2014) Paul Aussaresses: um general francês na ditadura brasileira (um estudo de caso). Unpublished MSc dissertation. São Paulo University.
- SEDH/CEMDP. (2007) Direito à verdade e à memória: Comissão Espacial sobre Mortos e Desaparecidos Políticos. Secretaria Especial dos Direitos Humanos. Comissão Especial sobre Mortos e Desaparecidos Políticos. Brasília: SEDH/CEMDP.
- Silva, E. M., and Martins, M. A. (2014) 'Colônia correcional de Dois Unidos: comunidade e repressão em Pernambuco', *Revista de Arqueologia Pública*, 10, pp. 161-175.
- Silva, W. S. (2008) A guerra silenciada: memória histórica dos moradores do Bico do Papagaio sobre a guerrilha do Araguaia. Unpublished MSc dissertation. Paraíba Federal University.
- Smith, M. E. (2011) 'Empirical urban theory for archaeologists', *Journal of Archaeological Method and Theory*, 18, pp. 167-192.
- Soares, F., and Moreira, J. (2015) 'Muralhas que comunicam: fortificações catarinenses como portais de acesso ao Brasil Meridional', in Soares, F. (ed.) *Arqueologia das fortificações: perspectivas*. Florianópolis: Lagoa, pp. 101-148.
- Sousa, D. M. (2011) Lágrimas e lutas: a reconstrução do mundo de familiares de desaparecidos políticos no Araguaia. Unpublished PhD thesis. Santa Catarina Federal University.
- Souza, P. P. (2015) 'Memória, objetos e edifícios uma análise arqueológica sobre o edifício que sediou



- o DEOPS/SP', Revista de Arqueologia Pública, 8(2), pp. 177-194.
- Souza, R. A. (2019) A materialidade da repressão à guerrilha do Araguaia e do terrorismo de Estado no Bico do Papagaio, TO/PA: noite e nevoeiro na Amazônia. Unpublished PhD thesis. São Paulo University.
- Stover, E., and Ryan, M. (2001) 'Breaking bread with the dead', Historical Archaeology, 35, pp. 7-25.
- Taussig, M. (1984) 'Culture of terror space of death. Roger casement's Putumayo report and the explanation of torture', Comparative studies in society and history, 26(3), pp. 467-497.
- Teixeira, M. C. (2015) As formas da cidade de origem portuguesa. São Paulo: Imprensa Oficial.
- Teles, J. A. (2011) Memórias dos cárceres da ditadura: os testemunhos e as lutas dos presos políticos no Brasil. Unpublished PhD thesis. São Paulo University.
- Teles, J. A. (2014) 'As denúncias de torturas e torturadores a partir dos cárceres políticos brasileiros', Interseções, 16(1), pp. 31-68.
- Tencer, T. (2016) 'Space syntax and/in archaeology', CST: DAJ1 Odborná jazyková příprava pro DSP. Available at: https://is.muni.cz/el/1490/podzim2016/DAJ1/um/Tencer_chapter.pdf (Accessed: 10 March 2019)
- Thiesen, B. V., Pereira, C. M., Rippel, E., Vespasiano, G. R., Cornaquini, I. G., Toledo, J., and Fernadez, M. (2014) 'Vestígios de uma ausência: uma arqueologia da repressão'. *Revista de Arqueologia Pública*, 10, pp. 231-250.
- Tournier, T. (2008) Gender relationships between American soldiers and Vietnamese women during the Vietnam War. Mestrado (dissertação), Dissertação de mestrado, Universidade Grenoble-Standhal.
- Trindade Junior, S.-C. C. (2011) 'Cidades médias na Amazônia oriental. Das novas centralidades à fragmentação do território', *Revista Brasileira estudos urbanos e regionais*, 13(2), pp. 135-151.
- Vecchi, R. (2014) 'O passado subtraído da desaparição forçada: Araguaia como palimpsesto', *Estudo de literatura brasileira contemporânea*, 43, pp. 133-149.
- Velho, O. G. (2009) *Capitalismo autoritário e campesinato*. Rio de Janeiro: Centro Edelstein de Pesquisas Sociais.
- Verhagen, Philip. (2018) 'Spatial Analysis in Archaeology: Moving into New Territories', in Siart C., Forbriger M., and Bubenzer O. (eds) *Digital Geoarchaeology. Natural Science in Archaeology*. Cham: Springer, pp. 11-25.
- Weizman, E. (2017) Forensic Architecture. Violence on the Threshold of Detectability. Zone Books.
- Wiseman, J. R. and El-Baz, F. (eds.) (2007) Remote sensing in Archaeology. New York: Springer-Verlag.
- Zanettini, P. E. (2005) Maloqueiros e seus palácios de barro: o cotidiano doméstico da casa bandeirista. Unpublished PhD thesis. São Paulo University.
- Zarankin, A. (2002) *Paredes que domesticam: arqueologia da arquitetura escolar capitalista: o caso de Buenos Aires*. Campinas: Edunicamp.
- Zarankin, A. and Niro, C. (2010) 'A materialização do sadismo: a arqueologia da arquitetura dos



- centros clandestinos de detenção da ditadura militar argentina (1976-1983)', Revista Internacional de Direito e Cidadania, 6, pp. 17-32.
- Zarankin, A., and Salerno, M. (2008) 'Después de la tormenta. Arqueología de la represión en América Latina', *Complutum*, 19(2), pp. 21-32.
- Zarankin, A., Funari, P. P., Reis, J. A. (eds.) (2008) *Arqueologia da repressão e da resistência na América Latina na era das ditaduras (décadas de 1960-1980)*. São Paulo: Annablume.
- Zedeño, M. N. (2008) 'The archaeology of territory and territoriality', in Thomas, J. and David, B. (eds.) *The handbook of landscape archaeology*. California: Left Coast Press, pp. 210-217.
- Zedeño, M. N., and Bowser, B. J. (2009) 'The archaeology of meaningful places', in Zedeño, M. N. and Bowser, B. J. (eds.) *The archaeology of meaningful places*. Salt Lake City: Utah University Press, pp. 1-14.

