Vibrant: Virtual Brazilian Anthropology

This is an open-access article distributed under the terms of the Creative Commons Attribution License. Fonte: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1809-43412017000200400&lng=en&nrm=iso. Acesso em: 15 jan. 2018.

REFERÊNCIA

SANTOS, Ana Flávia Moreira; FERREIRA, Luciana da Silva Sales; PENNA, Vinicius Villela. Supposed impacts, real violence: the construction of reality in the implementation of the Minas-Rio project. **Vibrant**: Virtual Brazilian Anthropology, Brasília, v. 14, n. 2, e142159, 2017. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1809-

43412017000200400&lng=en&nrm=iso>. Acesso em: 15 jan. 2018. Epub Dec 07, 2017. doi: http://dx.doi.org/10.1590/1809-43412017v14n2p159.

Supposed Impacts, Real Violence:

the construction of reality in the implementation

of the Minas-Rio Project*

Ana Flávia Moreira Santos Departamento de Antropologia e Arqueologia, Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brasil

Luciana da Silva Sales Ferreira Universidade de Brasília, DF, Brasil

Vinicius Villela Penna Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brasil

Abstract

The article analyzes the environmental impact assessment procedure of the mine and the iron ore processing structure which integrate the Minas-Rio Project, a mining complex composed by mine - pipeline - port, whose facilities extend across two states in the Brazilian Southeast. The analysis aims at demonstrating, through a reading of the political rituals performed in the participative scene of the licensing process, how mechanisms used to "bend" environmental norms were articulated throughout the process, generating strategies and force-ideas which, in articulation, allowed the operation of the venture despite the notorious lack of knowledge/acknowledgement of the affected population. **Key words:** mining; performed rituals; environmental impact assessment; conflicts; affected people.

Impactos supostos, violências reais:

a construção da legalidade na implantação do projeto Minas-Rio

Resumo

O artigo analisa o licenciamento da mina e estrutura de beneficiamento de minério de ferro que compõe o Projeto Minas-Rio, complexo minerário formado por mina-mineroduto-porto, cujas instalações atravessam dois estados do Sudeste brasileiro. A análise objetiva demonstrar, a partir de uma leitura dos rituais políticos performatizados na cena pública do licenciamento, como mecanismos destinados a flexibilizar as normas ambientais se articularam ao longo do processo, gerando idéias-força e dispositivos que, agindo em cadeia, permitiram a operação do empreendimento, apesar da notória insuficiência no que se refere ao conhecimento/reconhecimento da população atingida.

Palavras-chave: mineração; rituais performatizados; licenciamento ambiental; conflito; atingidos.

Supposed Impacts, Real Violence:

the construction of reality in the implementation

of the Minas-Rio Project*

Ana Flávia Moreira Santos Luciana da Silva Sales Ferreira Vinicius Villela Penna

Introduction

On September 29, 2014, pedestrians on the Rua da Saudade observed a commotion in the multipurpose gymnasium in the city of Diamantina. Police guarded the entrances and perimeter of the building, suggesting that something more serious was happening than merely a local sports event. If these bystanders had come closer, they would have been surprised by the unusually large number of policemen prepared to "guarantee order", by stationing themselves around the court and in part of the grandstands. In addition to the police apparatus, the structure of the gymnasium itself protected the center of the court, garnished by netting hanging from behind the goalposts and by a parapet which surrounds the sides of the court, separating the aisles and grandstand from the set of tables and chairs which were arranged in the center.

In the grandstands, there was a heterogeneous group of people and a quasi-spontaneous organization. On the side, behind one of the goals, was a group of employees and consultants hired by the Anglo American mining company. Along the length of the court, half the space had been occupied by a large number of workers of the company, in uniform, and students of a vocational course which prepares future mining company workers. On the other half, youths, adults, children and old people were finding seats. Many of them were obviously from rural areas. The majority were residents of municipalities and rural communities from the interior of Minas Gerais State, whose lives had been drastically transformed by the implementation of an iron ore mine. Professors, students, environmentalists, social movement leaders were also seated in this section of the audience – the only section flanked by policemen with their guns in their hand.

Figure 1 – Photos 1 e 2 of the 86th Ordinary Meeting of the Jequitinhonha Regional Colegial Unit (URC), 29 September, 2014. Source: GESTA-UFMG



On the improvised stage into which the court had been transformed, the tables, organized in the shape of a U, were facing the audience. They were reserved for members of the Environmental Policy Council of Minas Gerais (COPAM). More precisely, they were reserved for Council members of one of the regional units, that of the Jequitinhonha region, responsible for the licensing of "extraction and wet processing of open-mine iron ore, in the municipalities of Conceição do Mato Dentro, Alvorada de Minas and Dom Joaquim" (Minas Gerais 2014: 04). During this event, Council members, and representatives of civic and governmental agencies participated in the process for approval of the Operational License of the mine, which was part of the Minas-Rio Project (*Projeto Minas-Rio*) for more than 12 hours without interruption.

In this article, we will address several aspects of the environmental impact assessment procedure of this mining mega-project. In particular, we will discuss aspects related to the construction of a presumed legality – or, so to speak, obtaining official seals, especially in administrative acts, which gradually – over a period of eight years of the main licensing process – authorized not only the implantation of the physical infrastructure of the venture, but also the violent process of environmental degradation and territorial expropriation to which dozens of rural communities, with long histories in the region, were subjected.

The severity of those environmental effects have already been exhaustively denounced elsewhere (GESTA 2016). Our focus in this article is on the configuration of those effects as a phenomenon of the type defined by Eduardo Gudynas (2016) as spillage effects (*efectos derrame*). That concept describes how those transformations, in part originating from local and specific rootings of extractivisms, are amplified as they affect the institutionality of development strategies, creating, for example, normative arrangements which weaken rights or tolerate their violation; narrowly define social parameters of quality of life; alter, in the end, modes of understanding nature, justice and democracy (Gudynas 2016: 23-24; 28-30). More specifically, we intend to ethnographically analyze the contextual conformation of understandings and mechanisms of relaxation of regulations, and the increasing crystallization of these mechanisms in this environmental impact assessment process, as devices that feed small *alegalities* (idem ibidem) which permit the process to go forward, despite glaring mistakes and insufficiencies.

Two hypotheses guide this ethnography. One of them, elaborated in a different text (Santos 2014), argues the existence of close relations between the process of juridical-administrative formalization – which provides the impression that "everything is legal" -, and the violence which, in its multiple

dimensions (symbolic, physical, psychological) affects the collectivities historically present in the territories encompassed by large development projects, or by extractivist ventures (Almeida et al. 2010; Gudynas 2016). The other hypothesis, supported by recent research about the Minas-Rio project, points to the place occupied by this environmental conflict in the composition of new institutional dynamics in the region.

The description of the scene presented at the beginning of this article signals a choice: to go through this long process of environmental impact assessment by means of the reading of some political rituals which, played out in public arenas, contributed significantly to the course of the events; but also contributed in the sense that the events themselves acquired meanings, including specific meanings for those involved in the process. The ethnographed events – meetings of the Socio-environmental monitoring network (*Rede de Acompanhamento Socioambiental*, REASA), in 2012) and the 86th Ordinary Meeting of the Jequitinhonha Regional Colegial Unit (URC), the "meeting of the Operational License", in 2014 -, constituted fundamental occasions within that which we can call, after Bronz (2016), the participative scene (*cena participativa*) of environmental licensing of the Minas-Rio.

Above all, by situating it in the realm of action, understanding the word as an act, the framework of rituals allows us to think of the process in its political dimension, of the imponderable, "of the inevitable losses and gains of the historical moment" (Peirano 2002: 10). It provides an opening to ponder, in keeping with Bronz (2016), environmental licensing as much more than strictly a bureaucratic-administrative procedure, as forms of social intervention which comprise a set of practices "mentally grasped in everyday social relations, in social spaces regulated by a complex network of agents and organizations which operate in various dimensions" (2016: 22). Hence, environmental licensing is not detached from a set of strategies, mechanisms, tactics connected, in a certain way, to the "here and now".

The Minas-Rio Project: characteristics, context and licensing

Minas Gerais State, which has a territory of 586,521.6 km² and population of 19,597,330 people¹, is one of the four states of Brazil's Southeast. The historical development of its current territory has been closely tied to mineral extraction ever since Brazil's Colonial context, when gold mining touched off a process of rapid expansion of settlement and urbanization of central areas of the territory of Minas Gerais (Carneiro 2016: 258). Later on, in the context of the so-called Brazilian "catch up modernization", the establishment of a mining-steel industrial park based on the exploration of rich iron ore and manganese mines², which began in the second quarter of the twentieth century, consolidated extractivist activity as an important vector of the state's economy, frequently described as "having a vocation for mining" (idem ibidem: 255; 260-262). In recent years, the increased commercial value of mineral commodities, associated to factors such as the reduction of mineral deposits with high concentration of iron and new strategies for long-distance transport (Bebbington 2011; Milanez 2012), resulted in the advance of the mining frontier to other regions of the state, especially along the Espinhaço Mountains (*Serra do Espinhaco*), geographically located as a backbone of the territory of Minas Gerais (Zucarelli & Santos 2016; Barbosa, Brito & Lima 2016).

The Minas-Rio project, an example of this expansion, consists of a mining complex for the exploration of iron ore in the *Serra da Ferrugem* and in the *Serra do Sapo*, in Conceição do Mato Dentro, municipality located in the southern part of the Espinhaço. The initial budget of the project was 5.5 billion dollars.

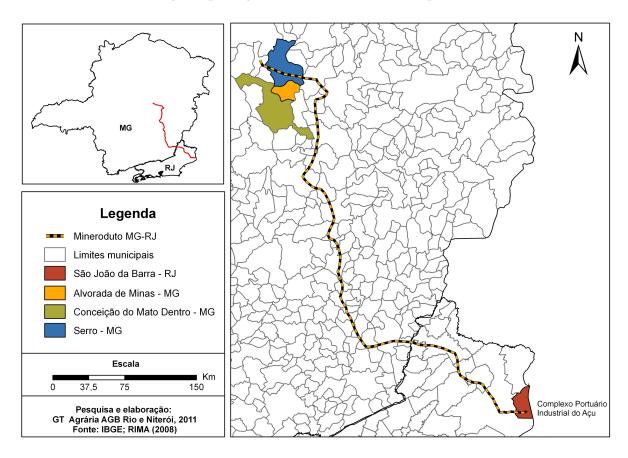
¹ Data of the Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatistica – IBGE), with reference to 2014 and subject to revision. Available at: https://goo.gl/h8sD4G.

² Situated in the region called the Iron Quadrilateral, composed of 24 municipalities located in the center-south of the state of Minas Gerais, to the south of the area of the Minas-Rio mining complex.

However its cost, in 2014, was already more than 8.8 billion dollars, partly financed by the National Bank for Economic and Social Development (*Banco Nacional de Desenvolvimento Economico e Social –* BNDES)³. The project was conceived by the company Minas Rio Mineração S.A. (MMX). However, in 2008, the transnational company Anglo American⁴ obtained stock control of the company and acquired the rights to the enterprise (GESTA 2016).

Figure 2 – Map of the Minas-Rio Project.

Source: "RELATÓRIO DOS IMPACTOS SOCIOAMBIENTAIS DO COMPLEXO INDUSTRIAL-PORTUÁRIO DO AÇU". Report produced by the Brazilian Association of Geographers – AGB – Local Section Rio-Niterói, Working Group on Agrarian Issues. Rio de Janeiro, September, 2011.



The mining complex is composed of the second largest open field iron ore mine in the world, in Conceição do Mato Dentro; an industrial plant and tailings dam, situated in that municipality and in the neighboring municipality of Alvorada de Minas; a new water catchment adductor in Rio do Peixe, in the municipality of Dom Joaquim, also in Minas Gerais, and power transmission lines. Connected to these structures is the largest pipeline in the world, which, with its 529 km, crosses 33 municipalities, 26 of which are in Minas Gerais and 7 in Rio de Janeiro State, ending up in the port complex of Açu, constructed on the north coast of that state.

 $_3$ Public bank created in 1952 by law N° 1628, with the function of subsidizing long-term ventures, with interest below market rates, as mechanism to promote economic development.

⁴ Anglo American is a mining company with headquarters in the United Kingdom, founded in the second half of the twentieth century. It has as locale/ branch of operations gold-mining in South Africa. According to Santos & Milanez (2015: 9-10), from the very beginning, the company sought to diversify its operations and finance them in capital markets of London and New York, which explains its name. According to the authors, in 2015 the company's operations included North America, South America, Africa, Australia and Asia, and the extraction of a variety of minerals – coal, copper, diamonds, iron ore, manganese, phosphate, niobium, nickel and platinum.

The environmental licensing process was conducted in a fragmented manner. The environmental effects of each of the three principal structural components were analyzed by different government agencies. The mine was licensed by the environmental agency of the State of Minas Gerais – the Regional Superintendence of Environmental Regulation (SUPRAM); the pipeline by the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA); and the port, by the environmental agency of the State of Rio de Janeiro – *Instituto Estadual do Ambiente* (INEA). This fragmentation surely contributed to undersize the "impacts" reported in the studies, as each environmental agency took into account only those damages expected for part of the enterprise⁵. The impact assessments were also conducted during differing periods of time; the sequential unfolding of its stages constituting, in itself, a factor of inexorability of implantation of the enterprise⁶.

The southern part of the Espinhaço is marked by the presence of two important biomes, *Mata Atlântica* and *Cerrado*, and the environmental and cultural patrimony of the region came to constitute the vector of a regional development policy in the 1990s based on eco-tourism (Becker & Pereira 2011: 239). The colonization of the region, initially marked by gold and diamond mining, produced an agrarian economy for the domestic market throughout the 18th and 19th centuries. Historically, the development of a free peasantry, with significant presence of African descents, was articulated with the constitution of large rural properties.

In 2009⁷, that peasantry was commonly found on small family farms scattered across the mountain slopes of the Ferrugem and Sapo and along the Pereira and Passa-Sete streams, on the borders of large ranches. Articulated in neighborhoods which constituted kinship communities, small farms were often situated on commonly held lands from inheritance, known locally as "family lands" (*terras no bolo da família*). These were communities with roots which can be traced back many generations. Backyards, consisting of small areas around the residences, constituted highly valued and carefully maintained spaces for the families. These backyards had a variety of fruit trees, in addition to vegetable gardens, coffee trees, manioc plants and small beans, corn and sugarcane crops. Sharecropping half-and-half or one-third-two-thirds, in areas ceded by landowners, in addition to work as day laborers on the farms, were all part of the livelihoods of this peasantry, in addition to managing small herds of dairy cattle for production of milk and cheese, and small animal raising. That set of activities was largely articulated to an abundance of water, captured in systems built and maintained by the residents themselves (Santos 2009 e 2010).

The implantation and operation of the mine has profoundly and irreversibly altered the way of life of these communities, as a result of the environmental damage and changes imposed on traditional relations established by these communities with the territory. From the very beginning, land acquisitions were ignorant of the ownership regime implicit in *terras de bolo*, triggering processes which were extremely conflictive, causing disunity (Santos 2009 e 2010; 2014). An entire network of roads which connected the communities among themselves, as well as to the centers of districts and municipalities, were blocked, initially by acquisitions, later by construction work of the project (Santos 2009 e 2010; Diversus 2011). Among other transformations⁸, the territorial emptying provoked by the acquisition of large extensions of land by the company broke production and reciprocity networks, made access to natural resources

7

VIBRANT V.14 N.2

⁵ The fragmentation of environmental licensing of the Minas-Rio Project in three different administrative bodies was questioned by Public Civil Action lawsuit filed by the Federal Prosecutor's Office of Minas Gerais State (*Procuradoria da República em Minas Gerais*), in August, 2009.

⁶ The licensing of the intermediary structure, the pipeline, was begun before the others. The request for the preliminary license for the mine was officially submitted to the Environmental System of Minas Gerais – SISEMA – in 2007, one month after the concession of the preliminary license of the pipeline by IBAMA (Zucarelli & Santos 2016).

⁷ The brief description which follows has as its sources reports and technical opinions elaborated for the Federal Public Ministry in 2009 and 2010 (Santos 2009 and 2010), in addition to research reports (Gustin et al. 2013) and field work in research and extension projects conducted between 2013 and 2016.

⁸ For a description of the effects in urban areas of the region, see Zucarelli & Santos 2016; Zucarelli, Penido & Pena 2015.

and cultivated areas unviable; silting of water courses and drying of springs on the periphery of the Ferrugem made multiple uses of water unviable and drastically altered conditions of production and social reproduction of the families (Pereira, Becker & Wildhagen 2013; Torres 2014; Prates 2014; Ferreira 2015).

Nevertheless, the process environmental impact assessment, the object of this article, has been characterized by the relaxation of legal norms, by means of devices such as the establishment of measures conditioning licenses which were granted, in a singular example of the so-called paradigm of environmental adequacy (Zhouri et al. 2005)⁹.

The Preliminary License (*Licença Prévia* – LP)¹⁰ of this segment of the Minas-Rio project was granted in December, 2008, with the attachment of the startling number of 105 pending conditions. One of these pendencies included the postponement, until the next phase of licensing, of crucial information, such as the definition of the population affected. The environmental viability was actually questioned in the technical report of the environmental agency, which is intended to subsidize the judgment regarding this point. However, the ad hoc production of an "Addendum to the Report" weakened the evaluations which had been made in that document.

In the following phase, a new strategy for accelerating the impact assessment process was employed: dividing the Installation License (LI) into two phases. LI phase 1 was granted in December, 2009 and LI phase 2, in December, 2010. According to Zucarelli & Santos (2016: 322), definitive permission for installation not only required fulfillment of the set of pending conditions established in the previous stage, but also added new time frames and new pendencies. The authors note, for the following years, the aggravation of socio-environmental conditions in Conceição do Mato Dentro and region (idem ibidem), recorded in results of an on-site, combined state and federal government environmental survey conducted in 2010, and in innumerous complaints filed with the Public Ministry and state government environmental agencies, by residents and environmentalists, between 2010 and 2014 (GESTA 2016).

In the Brazilian context, the term *atingido* came to be incorporated into environmental impact assessment procedures based on its use in social and political struggles in relation to the guarantee of rights of local populations affected by the implantation of large development projects¹¹. For Vainer (2008), the term *atingido* consists of a term neither merely technical, nor strictly economical, but rather refers to a permanent dispute for the recognition of rights. In the environmental studies of the Minas-Rio mining

⁹ According to the authors, in this paradigm, environment and society become externalities to be "managed" and "adjusted" to the development project. Conditioning measures (mitigating and compensatory) function as fundamental mechanisms in this adequacy, allowing administrators to "bend" principles of rights and legal norms and guarantee the continuity of the licensing processes. Licensing loses its principal function – to evaluate the socio-environmental viability of large projects

¹⁰ During that period, state environmental legislation required that large projects or those with a large polluting potential, pass through a tripartite system of licensing. In that model, the first phase, the Preliminary License (LP), required that the company submit broad environmental studies (EIA and RIMA), capable of informing the formation of a judgment concerning the environmental viability of the project. The Installation License (LI) was analyzed subsequently, by means of submission of an environmental control plan (PCA) and proof of fulfillment of the so-called pending conditions, mitigating and compensatory, specified in the previous phase. Granting of the LI permitted the installment of the physical structures of the enterprise. The third and last license, the Operations License (LO), authorized operations of the enterprise. In order to obtain the latter, the project was required, in theory, to have all of its environmental control measures installed and operating, including those specified in prior phases. In Minas Gerais, licenses are evaluated and voted by means of meetings of COPAM, a council composed of representatives of public authorities and civil society. Recent changes in state legislation weakened the tripartite licensing structure, making possible the concurrent request for two or more licenses (State Law N° 21.972, January 21, 2016, articles 18 to 20).

¹¹ In the final decades of the twentieth century, the term came to identify important social movements. In Brazil, the principal reference is the construction, in the 1970s and 80s, of large hydroelectric dam projects, in response to which "commissions of *atingidos*" emerged. An example is the Regional Commission of People Affected by Dams (CRAB), composed of peasants threatened (future *atingidos*) by plans of ELETROSUL, in 1979, to construct 25 hydroelectric dams in the Rio Uruguai river basin, initially the Machadinho and Itá dams (Rothman 1996: 118-119; Scherer-Warren e Reis, 2008: 65-68). Such commissions constituted the embryo of supra-regional, and even national, organizations, such as the Movement of People Affected by Dams (*Movimento de Atingidos por Barragens* – MAB) (Sigaud 1995), which incorporated the category "*atingido*" in their social struggles as nucleator of common situations and demands. In this article, the term "*atingido*(*s*)/*a*(*s*)" is used, on the one hand, to indicate the social place of the interlocutors of the research produced by the authors: the social subjects affected by the mining. On the other hand, however, it refers to a category exploited and in dispute in the arena of licensing, the meaning and scope of which vary according to its use as category of struggle/resistance of the part of those who identify themselves as *atingidos*, or as a "technical "term included in environmental studies and other parts of the licensing process. Whenever reference is made to those uses and disputes, referring to the arena of the licensing process, the term will be written in italics.

complex, *atingidos* were identified by a criterion which Vainer designates as *territorial-patrimonialista*, the definition of which is based exclusively on the calculation of the areas necessary to the project (idem ibidem). According to the EIA, the area directly affected ("ADA") by the complex is defined by the set of properties existing in the areas where the mine pit, processing plant, sterile cells and tailings dam would be installed. The universe of *atingidos*, according to this spatial and restrictive logic, would consist of only two communities: Ferrugem and Mumbuca (Brandt 2007: 183-185).

The insufficiency of that evaluation, questioned by the movement of resistance which operated in Conceição Mato Dentro throughout the initial phase of impact assessment process, was then incorporated into the technical report of the environmental agency. The disputes surrounding a new definition, which had repercussions in the recognition of the size of the damages caused, from the social universe affected and the rights to be reconstituted, came to constitute the central question. Between the preliminary license and the definitive concession of the installation license, special conditions and other measures relating to the supplementation of socioeconomic studies, the revision of rights and methodologies for the cadastral survey of the *atingidos*, to the parameters for resettlement, were discussed, edited and reedited (Becker & Pereira 2011: 247), in theory repealing the territorial-patrimonialist criterion.

The suspension of the spatial criterion would give way, however, to a new restrictive profile, implicit in the category of *atingido emergencial*, employed with the justification of assisting families who had become hostages of the pipeline construction¹², but which, in practice, produced a new fragmentation of the whole group of *atingidos* (idem ibidem). As a result, the incorporation of a methodology minimally capable of associating ways of life, conditions of social reproduction, and cultural specificities, to an understanding of the human universe affected by the transformations underway, was newly postponed until the second phase of licensing procedure¹³. In 2011, the study of a consulting firm named Diversus Consultores Associados indicated not two, but rather twenty-two communities affected by the installation of the mine and structures associated with it

Resistance, political action and ritual

Bebbington (2007: 68) emphasizes the complexity in the configuration of contemporary environmental movements, in which a broad and heterogeneous constellation of actors relate to one another and organize in resistance to mining projects; and, therefore, the limitations of the notion of "network", which assumes a more stable relation among visible actors, to interpret the more fluid dynamics of these movements. This article proposes to understand these movements as collective action processes which act in a more diffuse and intermittent form in space and time, but are sustained over time by sets of actions and actors motivated by a sense of justice (idem ibidem).

Bebbington's perspective is very helpful in understanding the mining resistance movement in Conceição do Mato Dentro. Since the initial years of the licensing process, this movement has had, in distinct moments, participation of heterogeneous groups of citizens of that and other municipalities, including rural property owners, liberal professionals, peasants and farmworkers, in addition to journalists, communications professionals, and researchers and students of several universities. An initial point of reference was the Sustainable Development Forum of Conceição do Mato Dentro – Forum CMD (Becker & Pereira 2011) and a key current reference is the Network of Articulation and Environmental Justice

¹² At a moment prior to the LI phase 1, families on the periphery of the Ferrugem mountain were being severely impacted by the construction of the pipeline, which possessed the installation license, and the beginning of which partially overlapped the area of the mine (Santos 2010; 2014).

¹³ In a meeting in June, 2010, the URC-Jequitinhonha determined that Anglo American pay the cost of a new diagnosis, to be carried out by independent consultants, and which should include "social relations of the *atingidos*, such as the number of people in the family, community ties, things that are being affected and in what ways, in summary, all the social questions of the residents of the properties" (SEMAD 2010).

of People Affected by the Minas-Rio Project (*Rede de Articulação e Justiça Ambiental dos Atingidos pelo Projeto Minas-Rio – REAJA*). Between these two points of reference, a flow of actions, having multiple trajectories, have characterized articulations with *atingidos* of the Port of Acu, with other social movements and dialogue with a variety of mediating agencies linked to the Catholic Church, Universities or with the Public Ministry itself.

We have chosen to focus on only one of these moments, or links in the chain of the movement following the concession of the installation license for the Minas-Rio Project: the Network for Socio-environmental Monitoring – *Rede de Acompanhamento Socioambiental (REASA)*, participative instrument by means of which the Public Ministry of Minas Gerais intended to mediate conflicts resulting from the introduction of the mining project in the region. The proposed design was to conduct of itinerant monthly meetings in the rural communities affected by the mining. Participants in those meetings included representatives of the *atingido* population, of Anglo American, local politicians and researchers, in addition to the Public Defender's Office and the Public Ministry itself. A total of eleven meetings were conducted between June, 1912 and August, 2013¹⁴.

These meetings will be analyzed with a focus on their creative dynamic and bruising political action (Chaves 2000), the ritual dimension of which symbolically reiterated collective action seeking legitimacy, transforming space intended as a site of negotiation into a space of struggle for justice and the pursuit of rights. The articulation of the *atingidos*, which gained strength in these meetings, demonstrated the resistance, on the part of the communities, to the direction in which the impact assessment process was moving, excluding them from decision-making, while profoundly transforming their lives.

A spatial organization was established beginning in the second meeting and maintained at subsequent meetings: chairs were organized in a circle and those seated were representatives of the communities and local leaders; staff members (facilitators) and authorities of the Public Ministry and Public Defenders' Office. Behind the circle, chairs were arranged in rows, in which the rest of the participants were seated: residents of the community and the region, local public authorities, researchers and representatives of Anglo American. The circularity allowed for the exclusion of the idea of authorities directing "the scene", something frequent in public stages of environmental licensing, and permitted members of the circle to make many of the decisions which happened during the meetings. That was of fundamental importance to forming a group and catalyzing a common struggle.

At the initial meetings, the company was represented by employees who watched from the audience and took notes. Their request to speak led to the debate and approval by local leaders establishing criteria for company representatives to speak: a maximum of 15 minutes, limited to themes pre-defined by *atingidos*, consisting exclusively of answers to problems raised by community representatives. These interventions were recorded in minutes of the meeting, made available afterwards on REASA's blog; and the definition of a timetable for the implementation of solutions presented. The definition of rules was intended to limit recurring discursive strategies used by the company, providing for an historical record of conflict marked by "unfulfilled promises"¹⁵, in the context of disbelief in explanations presented, and by the clash between *atingidos* and representatives of the company in public events.

¹⁴ In 2012, the Public Ministry of Minas Gerais introduced three public civil lawsuits related to specific environmental licensing issues. The injunctions granted in relation to these lawsuits partially blocked the project's construction activities, providing an opportunity for the proposition of the "socioenvironmental monitoring network". The REASA's meetings took place in a different community each month, and were open to the general public. The meetings were held in schools, at community associations or in the backyards of houses, under a tarpaulin shelter. Meetings lasted approximately six to seven hours and had the significant participation of residents of the region.

¹⁵ Words, terms or expressions utilized by the participants of meetings of the REASA.

Such conditions gave rise to the "REASA regiment", when *atingidos* instituted the stages which consolidated the dynamic of meetings: the prosecutor of the Conceição do Mato Dentro district court was the first to speak, followed by approval of minutes of the previous meeting, which had been made available ten days before in the REASA blog; that was followed by verbal presentation by company representatives; replica by community representatives; and to terminate, decisions regarding actions to be taken, and choice of the site of the next meeting.

Clashes over the notion of *atingido* marked all of the eleven meetings. During the time in those meetings reserved for community leaders and residents, what was evident from their statements was a critique of the individualist and patrimonialist definition of *atingido* which, in addition to undersizing the number of those affected, inflicted suffering. According to S. M. Santos (2007), the subjective meaning of social suffering¹⁶ erupts, in public events, in the form of lamentation which expresses the pain and, in turn, the ritualization of the collective construction of the pain settles in the conjugation of two interconnected variables: rights and injustice. Community residents exposed the expropriation of the conditions of production, of ways of being and living, in addition to the many indignities, mistakes, inequalities, which they had experienced since the arrival of the mining project.

Initially, feelings evoked by the *atingidos* referred to the pain felt with the loss of streams and springs, the fear of living downstream from the tailings dam; later on, these feelings referred to the construction, in the public arena, of a condition in which "to be *atingido*" is to suffer or, in their words, "to have sufferings". The narratives enunciated at the meetings of the REASA exemplified the content of social suffering of those who had been violently surprised by the de-structuring of sociocultural and environmental relations. These narratives also called attention to the violation of rights, the impunity and procrastination of solutions and of justice, since the latter, in addition to engendering fear and suffering, generate doubts, anguish and despair.

The loss of uses of streams and springs was a theme frequently invoked during the meetings by residents of communities situated downstream from the company's tailings dam. By means of the suffering, they denounced changes imposed by the mining activity and the lack of acknowledgment by public authorities and by the company of problems generated by the mining. Residents reported their use of clean water of the streams which cross their territories for a variety of daily activities – vegetable garden, water mill, quenching the thirst of their domestic animals, taking baths, washing clothes, fishing for food and leisure – which, at that moment, they could no longer do. Statements stressed family ties and their belonging in their places which had an abundance of water prior to the mining project, "the bottom [of the streams] was sand and gravel", and a large volume of water flowed from the springs. Shared in accord with local codes, the utilization of water was based on cultural, environmental and productive criteria; it was an integral element of the order of the culture, the territory, the knowledge.

In addition to the loss of streams and springs profoundly affecting the conditions of production and of social reproduction of the families, the mining transformed the meaning that the flowing water had in people's lives. Water, "source of life", was transformed into a transmitter of intestinal worms, diseases and risk. Those who were, according to a local expression "blessed by the water", came to live in constant fear and anguish due to the tailings dam, located at the headwaters of the river which supplied the communities. The place of their ancestors, which possessed "abundant" water, "shared", "shining" and

¹⁶ According to Santos (2007:15), social suffering is "a collective construction which, on the one hand, is expressed in the constitution of actors, in the construction of a memory and of a narrative about the event. And, on the other hand, it produces effects on interests and public practices".

"crystal-clear", transformed into a place situated "under danger", "which can destroy everybody here". Thus, this was now a place which was "*atingido*", in contrast to the tranquility which the river represented in the past; the river now carried "mud", "rotten materials", "filth" and "grime".

Narratives of residents of the affected communities expressed not only the pain and suffering of losses, but also denounced the neglect and insensitivity of the company and public agencies:

Those who are sitting in your chairs, in their vans, behind closed doors, where not a drop of mud can get in, they have no idea what the other guy is going through, there on the hillside, suffering, because each and every one suffers a lot, each and every one suffers "what he got". (community leader from Cachoeira, fifth meeting)

And the uncertainties, the fears and the insecurities:

I asked the agency, I asked the people from the company who are here: what are we going to do from now on? Will I be able to plant a vegetable garden tomorrow? (community leader from Cachoeira, second meeting)

The discursive strategies adopted by the representatives of the company in meetings of the REASA had as objectives, in turn, to legitimize principles of the division of the social world (Bourdieu 1996), seeking to cover up the arbitrary nature of the conditions produced in administrative proceedings by the homogenizing and restrictive criteria utilized for the recognition of the *atingidos*. During meetings, the territorial-patrimonialist conception was justified as a confluence of widespread and consecrated norms and methodologies in public administration and, therefore, capable of authorizing a truth (Foucault 2003).

In their statements, company representatives sought, first, to restrict recognition as *atingidos*, to owners and squatters of the area of implantation of the mining, inserted in a list which was cleverly incomplete. Later on, they presented slides containing a series of information about family nuclei – numbers, maps, graphs and tables. Families who were officially recognized as *atingidas* were subsumed to numbers and transformed into "surface areas" to be acquired through the purchase of possessory or property rights. As they discoursed about the definition of Directly Affected Area, maps projected on the wall demarcated "*atingida*" area and area not "*atingida*", and, in this manner, the technological apparatuses were also strategic in the sense of increasing the power of persuasion (Bronz 2016).

The violated rights, related by those present, were part of a set of local principles, norms and practices, referring to the occupation and use of the land, interconnected by networks of negotiations among the diverse heirs of familial lands, as heirs-squatters and heirs in-absentia. Kinship ties guaranteed not only permanence in the communities, but also control of the regime of land use, since territorial right was assured (Galizoni 2007). The discursive strategy of the company representative ignored rights involved in the ways of life of families and communities, referring the category *atingido* to technical and economic-financial dimensions, and emphasizing that their actions conformed to licensing norms.

Another strategy of the Anglo American company, in meetings of the REASA, was to disqualify the statements of *atingidos* as bearers of truths. In the face of denunciations including noise, dust, heavy traffic, silting of rivers, suppression of springs, company representatives affirmed that the communities were not "really" affected by the mining, and that the experiences and feelings of those present should be evaluated on the basis of "objective" criteria. The situations identified by those who suffered damages and losses, residents of the communities of the periphery, were placed in suspension, under the pretext that technical and scientific parameters, instituted through a legal and normative framework, would be capable of producing more exact realities. Accounts which conveyed the specific logic of local ways of being, living and doing, constitutive of the reality of the communities affected by the mining, were considered by company representatives as merely expressions of a "perception" which was not necessarily real.

That was the type of argument contained in the presentation made by company employees about the situation of the Passa Sete and Pereira streams, which were silted and muddy, preventing all types of previous uses of the waters. Technical data were presented as instruments capable of producing incontestable truths. The employee responsible for the Management of Water Resources mentioned that a series of structures of containment of sediments had been implanted, because since the initial technical studies, those streams had been identified as potentially having a major "impact". Frequent monitoring would attest to the permanent efficacy of the measures implemented:

The results have shown the effectiveness of our structures. The structures that we have implanted in the region, we have a maintenance of these structures, a continuous evaluation of these structures which were implanted, and we have effectivity of these structures. [...] So, I think that what we can comment, specifically, about this monitoring, is that the analyses of quality has shown that the results are positive, within the legal limits, and are being submitted regularly to SUPRAM, as provided in the licensing process (8th meeting).

Replete with words from the semantic field of technology, that discourse was instituted, in the public arena of the REASA, as "an instrument of meaning and of imposition of order on the world" (Zhouri et al. 2005), countering the disclosures of the *atingidos* about the pitiful conditions of both streams. In that perspective, the only people who could be classified as *atingidos* were those in the ADA and those populations which were affected, albeit severely, by abrupt changes as a result of the enterprise, do not have rights, since the only populations with rights were those who had been displaced by the actions of the company itself. In the struggle over classifications, the company made use of technical-scientific authority to build a foundation "on reality and reason" (idem ibidem: 110), a profile which was profoundly arbitrary, not only in relation to local territorialities, but also in relation to on-going territorial and environmental transformations.

The reality foreseen and imposed by the representatives of Anglo was, nevertheless, disfigured by the reality lived by the *atingidos*. If, on the one hand, categories of public administration presume the need to construct relatively homogeneous and fleshless social subjects (Vianna 2013) – like the *atingido*, for example – in the REASA, the uses and mentions of that category provide a constant detailing. The construction of that notion, in the REASA, was intrinsically related to a connection between suffering and indignation by the non-recognition of the dramatic situation lived by the communities of the periphery of the project. In the expressions of the residents, the communities were "massacred", "impaired", "*atingidas*", "impacted". As S. M. Santos (2007: 21) points out, there is an emphasis in the metaphors which express the pain of the *atingido*: "To be *atingido* is to be pushed, massacred, stepped on, trampled, disrespected. It is hard, it is sad to see something like this happen" (community leader of Ferrugem, 8th meeting).

Nevertheless, the term was used to affirm a collective condition of struggle:

To be atingido, you have to have this feeling that we have here, of survival, of struggle, you have to be interested in building, in adding to the group, in participating, in wanting to change, in wanting to solve the affliction of the others, the anguish, in summary, interest in legitimizing this struggle, and it has to be collective! (local leader, 8th meeting).

The organization and the common struggle to face the difficulties and a "powerful company" produced and gave meaning to a collective category. Various types of solidarity, such as kinship, friendship, neighbors; the sharing of common conditions, such as hard work in the field and dealing with life's hardships – "I moved on because my life is an endless struggle", said one *atingida*. In summary, the arrival of the mining, which inaugurated a period of transformations and suffering, united efforts and mobilized residents in the struggle for justice: "do you think this is fair? Isn't there a law for this?" "Does justice exist: (...) we're asking for justice" (female resident of the community of Cachoeira, 8th meeting). With the expertise accumulated during the process, *atingidos* began to employ various practices as part of the communicative dimension of the ritual, such as chanting prayers and songs, using a T-shirt printed with red blurs, representing the bleeding undergone by the communities, and having the following phrase: "Injustice for one, is injustice for all. We are all *atingidos* by Anglo American!" -, accompanied by the names of the affected communities. A complete repertoire for composing the spaces of the meeting was constructed: banners and posters with information and images about the practices and knowledge of women of the communities; national and international news with information about delays in construction activities of the mining project, the high costs involved, fall in stock prices of Anglo American; allegations by local communities of violations of rights committed by the company, accompanied by photos. In summary, the meetings constituted a "collective action of expressive character" (Chaves 2000: 15). The symbolization of belonging to a category – *atingidos* -, the emphatic symbolization of unity in the face of a situation in which they felt "small", "weak", and "suffered", (Comerford 1999), organized the communities in the struggle for justice.

The public meetings of the REASA contributed to the process by which the struggle, the suffering and the local conflicts of each community was talked about and reflected on together. The ritual process triggered unforeseen creative effects that, by their dynamic, produced particular modes of sociability, contributing to the construction of new legitimacies, precisely due to their unusual arrangement (Chaves 2000). The holding of meetings in different communities, the presence of public authorities in territory marked by conflict and by suffering, the detailed repetition of the stages which established and legitimized the public event, produced a symbolic efficacy and a political meaning to the meetings. The existence of the category "*comunidade atingida*" was politically affirmed and contrasted with the patrimonialist and individualist category used widely by the company and by public authorities. As a recognized body, meetings of the REASA established legitimate spaces of resistance and of the collective struggle by the subversion of the relations of symbolic forces (Bourdieu 2002), as more people came to participate at each place where meetings were held.

The mobilization of people affected by the mining project to fight for their rights was constructed, at meetings of the REASA, in a situation of interaction with those who occupy places of "power" and "authority". These actors in a certain way introduced the meetings into the public space, making them an important part of the participative scene of emvironmental impact assessment procedures. Advances were obtained during the course of meetings, such as having the discussion of supra-individual dimensions of the sociocultural universe affected placed once again on the agenda. This discussion had been suspended since the independent report of Diversus, submitted to SUPRAM in 2011, had been "shelved", considered technically "inconclusive" and, therefore, not submitted to the URC for evaluation, as one of the special conditions of phase 2 of the LI had established. Another important moment was a meeting, in April, 2013, of the REASA at the headquarters of SUPRAM Jequitinhonha, where *atingidos* voiced concern about the situation and continuity of licensing. At that meeting, SUPRAM admitted the existence of 341 pending conditions (of which 162 were "pending analysis" at that time) and recognized that the agency did not have the necessary means to exercise effective investigation and control of the process (*Atingidos pelo Projeto Minas-Rio/Anglo American 2013*).

Nevertheless, the damages, risks, losses undergone by the communities, extensively reported in the public meetings of the REASA, were not effectively addressed by mitigating and compensatory measures, either by means of mediation, or even by judicial processes. From the first to the final meeting, between June, 2012 and April, 2013, the Public Ministry did not propose a single public civil lawsuit dealing with the impacts and damages undergone by the communities. Between the next-to-last meeting, in April, 2013, and the last meeting, four months later, the Public Ministry of Minas Gerais (MPMG) co-signed with

the company, a Term of Adjustment of Conduct (TAC), which established a Monetary Fund for Socioenvironmental Projects, which would benefit communities affected by the enterprise. Although it was announced as "the largest, in financial terms, of the history or the MPMG", the TAC did not effectively incorporate those issues and demands debated in the REASA. If, on the one hand, the network (REASA) contributed to the objectification of denouncements and for the political and collective construction of the category *atingido*, on the other hand, the problems relative to social and environmental transformation, reparation of losses and the recognition of the sociocultural universe of affected communities, were not considered/solved. The REASA was included in the public and participative staging, but was not part of the decision-making forums of the licensing process¹⁷.

At the same time, Anglo American adopted strategic mechanisms to continue maneuvers in the strictly formal sphere of the environmental impact assessment procedure. Between the end of 2012 and the first months of 2013, Jequitinhonha SUPRAM was questioned regarding the conduct of the independent study of Diversus, and pressured to submit it for the assessment by URC-Jequitinhonha. Nevertheless, this item of the agenda would be considered in meetings of the URC only in mid-2013, after the company had brought to the licensing process a 'counter-study' entitled "Updated Study of the Areas of Influence of the Minas-Rio Project" (Ferreira Rocha 2013). With the justification of making a "supplement", the new study reduced the Diversus 2011 study to a "research study of *perception*", a strategy to de-legitimate the incorporation of the statements and experiences of local residents, and of a broader vision of the forms of appropriation of the territory. Distinguishing conceptually between "assumed" and "real" environmental impacts (Ferreira Rocha 2013: 21) the argument intended, in the end, to restore, as sufficient and scientifically correct, the territorial-patrimonialist criterion which had informed the geographic definition of the areas of influence of the Minas-Rio Project in the EIA/RIMA¹⁸.

That is a dispute between scientific technique, subjective in its experiences, but which intends to be objective, and lived experiences of the social subject, subjective in their experiences but objective in their existence (Bourdieu 1989). The former mobilizes more capital in order to impose upon the latter. It was the restrictive and arbitrary perspective to define *atingidos*, enunciated by the company, during REASA, as an authorized truth, which prevailed in the administrative process of licensing¹⁹. While the *atingidos* produced a counter-discourse, the company produced a counter-diagnosis.

Meetings "of the Operation License" in the URC-Jequitinhonha

The 85th Extraordinary Meeting of the URC-Jequitinhonha, conducted on September 18, 2014, was called to deliberate granting the Preliminary License to the large mining project of the company Manabi, in the municipality of Morro do Pilar, neighbor of Conceição do Mato Dentro; the Operation License²⁰ for the Anglo American mine; and one additional license requested by a smaller project. The meeting was held at the site where deliberative meetings of the URC-Jequitinhonha were ordinarily conducted: the small auditorium of the administrative center of the city hall of Diamantina, headquarters municipality of that regional unit of COPAM. Due to the fact that the agenda included deliberation of environmental licenses for

¹⁷ In addition to that Term of Adjustment of Conduct, the Public Ministry of Minas Gerais State had signed, during 2012, two other terms of adjustment with Anglo American, with the objective of obtaining a negotiated solution which would bring an end to public civil lawsuits. We underscore the fact that, in addition to not incorporating denouncements or demands which had been discussed during meetings, none of the three terms had the participation, monitoring or even knowledge of representatives and community members who participated in the REASA.

¹⁸ For a critical analysis of the arguments developed in the Ferreira Rocha (2013) study, see GESTA (2014).

¹⁹ The Jequitinhonha URC did not approve the Ferreira Rocha report, but the effects of the latter could be seen in the unfolding of the issue. See, on this matter, GESTA 2016.

²⁰ This license also meant it was the last license necessary for the functioning of the other parts of the project; "in the end, what value would the pipeline have without a mine to extract the minerals?" (Zucarelli & Santos 2016: 247).

two large-scale mining ventures, with incommensurable environmental damages associated with them, the space in the meeting area was fully occupied, all seats were taken and aisles and corridors filled with people standing or sitting on the floor. The audience was composed of social movements, *atingidos*, researchers, journalists, politicians, governmental representative, in particular, representatives of municipal governments involved, workers of the two large mining companies, representatives of the company and of the public ministry, consultants, government employees. There was an extremely tense atmosphere²¹.

From the beginning to the end of the event, those present and, principally, the *atingidos*, defeated the horizontality which the structure of the space, and the collegial organization of the Council itself, attempted to simulate. Council meetings are open to the public, but the Council is in a position of distinction in relation to the public. The people in the audience are spectators, who are not authorized to participate in discussions. Within the composition of the Council, there is also a hierarchy – the chairperson of the meeting and, in this specific case, the Secretary of Environment and Sustainable Development, highest representative of the environmental system in Minas Gerais, who participated in the two meetings in which the Operation License of the Rio-Minas Project was on the agenda.

The *atingidos* of the Minas-Rio project had brought with them proof of the damages caused by the mining activity, and, when their case was being discussed, they (physically) crossed the imaginary, but almost tangible, line which separated the audience from the Council members. They placed on the table of Council members a mixture of water and mud extracted from a completely silted stream and showed dead fish which resulted from a recent episode of contamination of the water of the region by chemical effluents carried from the tailings dam. Indifferent to the calls for "order" by the president of the Council, who called the police to enter the auditorium and threatened to have them removed by force, *atingidos* continued to impose their presence, physically, at the center of the table of the Council members. Words of indignation were directed at Council members: "it was your vote that killed these fish!", said one of them, while a woman challenged them – "if the water is good, you drink it!" A third interlocutor shouted: "it was your decision that disgraced my life!"

That climax was not rehearsed or foreseen: what precipitated the indignation of the *atingidos* was the statement of the head of the technical team responsible for analyzing the case²², who, in answer to questions posed by the representative of the Public Ministry, calmly affirmed that the streams in the region were in good condition, as a result of the efficiency of mitigating measures already implemented by the company (Ribeiro 2015). The meeting was terminated quickly when dead fish were literally dumped into the middle of the auditorium, symbolically "rubbed in the faces" of Council members. From the formal point of view, voting had been suspended by the "requests for review" by several Council members, a regimental prerogative that assures them the right to examine the subject in order to answer questions or propose alternatives.

The 85th Extraordinary Meeting had been scheduled for a date ten days prior to the ordinary meeting of the Council in the month of September, which took place on September 29, 2014. The only item on the agenda was the Operational License for the Minas-Rio project. The strategy condensed the period granted for request for review, since the subject should necessarily have been on the agenda of the subsequent meeting. As described in the beginning of this article, the meeting was scheduled to take place at the

²¹ For a more complete ethnography of the 85th Extraordinary Meeting, see Ribeiro 2015.

²² Team of the environmental agency responsible for the only opinion which evaluated the final phase of the process and informed the granting of the license of operation, arguing for its approval.

multi-sport gymnasium of Diamantina and already had a disproportional police presence to maintain order even before the meeting began.

In the new space, the 86th Meeting was marked by antagonism between *atingidos* and Anglo American workers. The two groups, sitting on opposite sides of the grandstand of the gymnasium, behaved like the fans of two soccer teams, supporting whoever presented arguments favorable to their side and booing the others. The antagonism was latent from the very beginning of the meeting, when the *atingidos* entered the gynnasium shouting, in chorus, "Anglo, get out, we want our rights!" (*"Fora Anglo, queremos nossos direitos*!") and the workers of the company answered quickly, shouting "We want to work!" (*Nós queremos trabalhar*!"). The tension between one side of the grandstand and the other intensified during the meeting; by the end, when the *atingidos* were exhausted and desolate, the company workers commemorated euphorically.

Nobody could say that there were equal conditions for both sides at that meeting, as suggested by the collegial structure of the Council. The space of powerful authority was physically established and controlled. According to the statement of one Council member, it was the case of providing necessary conditions to avoid Council members from being "coerced to vote in favor of whoever [was] present", even though the presence of the State Secretary of Environment and Sustainable Development constituted the personification of power, making it difficult to defend the normality of the process, and therefore the legitimacy of approval, through statements and actions (Penna 2016). On the other hand, in the more linear space of the grandstand, any illusion of equality would be destroyed, given the ostensive presence of the police, standing only on the side of the *atingidos*.

When the meeting was opened for participation of the public, *atingidos*, university researchers and students and environmentalists were called first, leaving presentations favorable to the company for the end. That arrangement of the statements was widely criticized, but the police force fulfilled their role of maintaining order, removing by force those who protested more vehemently against the biased ordering, demanding the right to contradict. Forced to accept the order established by the Council, *atingidos* made their way to the microphone to re-state the innumerous allegations which had been protocoled with the appropriate agencies or debated at meetings of the REASA. In their statements, *atingidos* were constantly booed by workers of the Anglo American company who, by shouting, did not allow anyone to hear what the *atingidos* were saying. During the almost four hours of statements by *atingidos*, the dimension of the suffering was updated, but, as Zhouri et al. emphasized (2016: 358), they also brought evidence, showed polluted water, official complaints lodged with the police, indicated names and numbers".

The company workers, in turn, had permission to sit in the center of the court, the same area where the Council members were sitting. The company's employees coordinated their actions: when one spoke of all the benefits that the company was providing to the municipalities, others distributed, in a synchronized choreography, a copy of a petition, for which they had obtained signatures the previous week. In this scene from a "company town", Council members were shown the petition, with its signatures on clean white paper, in stark contrast to the dirtiness of the examples of environmental damages presented by *atingidos* (water from the silted river and dead fish). The meeting continued, with company workers repeating slogans and associating mining activities to a divine gift, the idea of reciprocity underscoring statements which either attributed to the company the function of providing for local public services; or characterized as a true "gift" those actions taken to fulfill special conditions required by previous environmental licenses for the urban area of Conceição do Mato Dentro (such as renovation of the police headquarters and construction of a neighborhood health center).

In contrast to meetings of the REASA, the company had the privilege of being the last group to speak. This enabled the company, after hearing all the arguments opposed to approval of the operational license, to repeat their strategy of contrasting the subjective character of alleged suffering, made by *atingidos*, to the supposedly objective reality of a series of numbers representing hard facts which proved the viability of the mining enterprise. The company's technical staff played a key role in this strategy, dismissing data contrary to those of the company as not in conformity with normal parameters. Supposedly objective "technical data" were carefully managed throughout the meeting to converge in support of Council approval of the Operation License²³.

Prior to the formal vote by the Council on the question of approval of the Operational License, the Public Ministry's representative on the Council confronted the head of SUPRAM staff, in relation to data contained in the technical opinion. The attorney asked for his position regarding the numbers of people affected by the mining project and the enormous quantity of dead fish. The confrontation went on for some time, marked by evasive answers. Finally, the Ministry's attorney obtained the affirmation that he apparently expected: that is wasn't possible to confirm if some pending conditions were effectively fulfilled; and the motive for death of the fish was unknown. Discussion and debate were closed, voting was authorized and the result was favorable to granting concession of the operational license. The moment of commemoration by the company's employees was the moment of mourning of the *atingidos*.

Once the vote was taken on the license, those in audience began to leave the meeting area. However, discussion continued with respect to pending conditions. Without the presence of the public, Council members dispersed, the representative of the company took the microphone and, in an almost informal manner, began to discuss those measures that would be replicated in follow-up to the decision. At the end of the meeting, now without use of the microphone, pending conditions previously discussed with the company were approved, and discussion of others was deferred to the following meeting, to allow the technical staff of SUPRAM, in theory, to evaluate the viability of these additional special conditions.

If, on the one hand, *atingidos* were protagonists in the meetings of the REASA, they occupied only a marginal place in the 86th meeting of the URC-Jequitinhonha, although there were aspects and moments in which they did play a pro-active role. It is interesting to observe that the majority of those who were, in effect, the protagonists in the act of approval, did not formally speak at any time during the long twelve hours which preceded the official vote. "Those in favor of approval and granting the Operational License, remain as you are", was the voting procedure used by the chair, and which resulted in concession of the Operation License²⁴. Perhaps no other image is more representative of the unjust character of the actions of the company and the disengagement of public authorities, experiences which, according to narratives in the REASA, compelled *atingidos* to resistance and the struggle for justice.

Legality, alegalities

Although the environmental impact assessment of the Minas-Rio mining project was subject to a whole juridical-administrative system, the bases of the process which produced the legality were the exceptions to the rule and the isolated occurrences (Zhouri 2014; Santos 2014). According to Gudynas (2016), the notion of *alegality* refers to a form of conduct of formal processes in a way to exploit gaps and interpretations

²³ As observed by Penna (2016: 107-108), in the scenario of the 85th and 86th Meetings of the URC-Jequitinhonha, everything that was in opposition to the mining project was easily unlinked from the company and considered an "assumed impact". Whenever a technical datum could be considered as negative and prejudicial to the company, it was classified as "isolated", "uncommon" or "fortuitous". In those instances which confirmed that the company was responsible for what occurred, the situation was then classified as a normal impact, as foreseen in environmental studies. Consistent with this perspective, mitigating measures corresponding to these normal impacts would, in effect, remove any responsibilities of the company for dealing with these impacts.

²⁴ Of the twenty Council members authorized to vote, only six made important statements during the meeting and, of these six, four voted against the LO. Council members who opposed concession of the LO, had to publicly justify their vote opposing approval of the LO, whereas the others reserved the right to remain silent.

of the legislation itself, to satisfy particular interests, even if these interests are contrary to the norm in their principles. In licensing processes, *alegality* functions as a mechanism which is employed to cause a range of environmental damages to fade, since, once illuminated, they would result in the non-viability of concession of environmental licenses, both in juridical terms, as well as economically. An enterprise licensed through *alegalities* opens precedents, since other companies will follow the same path, and a possible institutionalization of this causes a chain of negative effects, in addition to local repercussions (Gudynas 2016).

In this perspective, the environmental impact assessment procedure of the Minas-Rio Project may be considered an *alegality*. In addition to the larger division between mine, pipeline and port, in the licensing of the mine, the Installation License was divided into two stages, as well as a tangle of different processes, in reference to associated installations or the expansion of the area of the pit. That strategy spreads damages over various studies and, in various licenses, fragments collectivities and social units affected by the ongoing transformations and, as Bronz (2016: 344) points out, makes the attribution of responsibility difficult.

Other aspects of licensing described here can be viewed from the perspective of these *alegal* mechanisms of production of legality. The case of the Minas-Rio Project was analyzed as the expression of a "process of environmental de-regulation in which norms and rules are re-interpreted and environmental institutions fail to fulfill their prime role" (Zhouri 2014: 124). The debates during the continuing drama of the 85th and 86th Meetings punctuate the steps, one by one, of this constructive effort, beginning by the refusal of requests to make available crucial documents, such as the report of evaluation of compliance with special conditions, a reason which was not sufficient, however, for the exclusion of the Operation License from the agenda of the meetings. Throughout the process, there were repeated complaints about difficult access to documents, a lack of transparency already identified as an important obstacle to popular participation in the environmental licensing processes (Zhouri 2008).

Other *alegalities* could be mentioned, but in this specific case, the way that the special conditions were dealt with is noteworthy. This is not only due to the mechanism of continual edition and re-edition of a substantial number of condition measures, but also by the unique manner of technical analysis undertaken to produce a process "without" unfulfilled conditions. In the 86th Meeting, company representatives stated that in reports of SUPRAM there were three stages of response to pending conditions: "in process of compliance", "in compliance" and "complied with, though not in a timely manner" ("*em cumprimento*", "*cumprida*", and "*cumprida fora do prazo*"). However, the legislation is quite clear: article 8, paragraph III, of CONAMA Resolution 237/97, defines the Operational License as that which authorizes operation of an enterprise "after verification of effective compliance" with measures of environmental control and special conditions specified in prior licenses

Several pending conditions had not even been certified by the report of the technical official agency, having been "forgotten" by the technical team. In the words of the head of the team: "several pending conditions were overlooked" (86th Ordinary Meeting of the URC-Jequitonhonha), but that did not impede voting on the license at that moment; since those conditions were considered "in process of compliance" and, therefore, were postponed for after concession of the operational license. In this manner, it is clear that it is very simple to attest that conditions are in that exotic condition of "in process of compliance", and thereby have them completely lose the objective of conditioning. The *alegality* which subverts the principle of the norm becomes evident.

Finally, it is time to comment about what we have referred to as the *participative scene* we have described in this article and its place in the construction of this legality. Previously, we have discussed the narrow limits of social participation in the model of environmental governance which has developed since the 1970s, as has been constituted in Brazil and in Minas Gerais. Zhouri (2008) points to structural problems, related to highly hierarchical relations of power which constitute the environmental field, and strict interpretations which sustain the political games and legitimation of the field, anchored in the paradigm of environmental adequacy (*adequação ambiental*); as well as procedural issues, such as late, particular and marginal spaces which are formally made available for participation in licensing processes.

In this perspective, the *participative scene* would have a performative character, that is, a performance in itself of the event, the conduct, the governing – or rather, the governance – of the environmental process. In the licensing of the Minas-Rio Project, *atingidos* were able to assume center stage, establish rules for the company, control the time, dictate the agenda and record the minutes of the meeting; in forums, such as the one cited above, they performed a model of conflict management, based on the accommodation of interests, negotiation and on the perspective of a consensual construction (Zhouri 2014: 131), which could only be constituted by means of their presence. Such forums were, in fact, excluded from the spaces of power, whether because the latter took place in the backstage of licensing, or whether they assumed the form of official decision-making spaces, either in the technical (SUPRAM), or political-administrative (URC) realm.

Nevertheless, such intervention was not without risks to established relations. The symbolic and political effects of the expressive actions of the *atingidos* could not be belittled. In the face of these effects, a different order of strategies was operationalized, organized or directed at the expressive dimension and participation.

The interaction and the clashes which occurred during meetings of the REASA constituted one of the sources, if not a laboratory, for what became the argument of the "supposed impact". The formalization of this as a (pseudo)-scientific concept constituted one of the mechanisms intended to order, control, trim, participation, when the latter began to surpass previously contemplated limits. In this case, the adoption of scientific language, the reverberation of the discourse from a place of knowledge and authority, had as objective to de-constitute the legitimacy of the place of the words and the knowledge of the "participant social subjects", when debate in the official arena could not be avoided.

It is plausible to suggest that, between the 85th and 86th meetings of the URC, the change in location operated as a similar mechanism, intended to obstruct the possibility that, in the scanty and level space of the auditorium of the administrative center, an unforeseen and uncontrolled participation, such as that which occurred in the first of the two meetings, could place in check the correlation of forces, even if only in that context and at that moment. Space as control. However, not only as control: among the situations ethnographed, the 86th Meeting, with all its implications in terms of symbolic, psychological and physical violence (Penna 2016; Zhouri et al. 2016), including the presence of an ostensive police apparatus, is exactly that which seems to underscore the narrow limits within which participation is welcomed.

Last, but not least, time as control²⁵. If, on the one hand, participation is advertised as the structuring foundation of the governance model itself, on the other hand, the dynamic of time, in the assembly of the participative scene, includes mechanisms intended to make difficult or limit the breadth of that participation. The linking of events, with resulting shortening of deadlines, accelerates time, weakening the quality and capacity of participation of social subjects. In this case, events which were fundamental for the *atingidos*, such as meetings to present and discuss the new study about the affected population, with the purpose of including families in the land negotiations, and the two meetings of the Operation License, occurred in the space of time of little more than one month. On the other hand, time can be extended, when indefinite positions are prolonged, simultaneously maintaining, but weakening, expectations.

²⁵ Observation inspired in dialogue with Raquel Oliveira to whom the authors thank.

Ferreira (2015: 98-104) identifies, as one of the mechanisms of power activated by Anglo American in the licensing of the Minas-Rio project, a continuous and lasting dialogue/negotiation of the company with the communities, to make clear what is, in fact, an intense procrastination in the resolution of the problems generated by the mining project.

In summary, clashes which occurred in the public arenas incorporated the production of legality; however, their dynamics indicate that, in the process of double configuration in which authorized discourses and knowledges are allied to a mechanism of violence in the de-constitution of social subjects of rights (Santos 2014), political action can result in gaps and fissures.

Translated by Franklin Rothman Revised by Andréa Zhouri

Received on: March 27, 2017; Accepted on: May 24, 2017

* The authors thank FAPEMIG (Foundation for support of research of Minas Gerais), GESTA (Group of Environmental Studies – *Grupo de Estudos em Temáticas Ambientais*), and the Program *Cidade e Alteridade: convivência multicultural e justiça urbana* (Faculty of Law/UFMG), for support that, in different moments, made possible the development of the research activities which resulted in this article.

List of Abbreviations and Acronyms

ADA	Área Diretamente Afetada
BNDES	Banco Nacional de Desenvolvimento Econômico e Social
COPAM	Conselho de Política Ambiental de Minas Gerais
EIA	Estudo de Impacto Ambiental
Fórum CMD	Fórum de Desenvolvimento Sustentável de Conceição do Mato Dentro
IBAMA	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis
INEA	Instituto Estadual do Ambiente
LI	Licença de Instalação
LO	Licença de Operação
LP	Licença Prévia
MAB	Movimento dos Atingidos por Barragens
MMX	Minas Rio Mineração S.A.
MPF	Ministério Público Federal
MPMG	Ministério Público do Estado de Minas Gerais
PRMG	Procuradoria da República em Minas Gerais
REAJA	Rede de Articulação e Justiça Ambiental dos Atingidos do Projeto Minas-Rio
REASA	Rede de Acompanhamento Socioambiental
RIMA	Relatório de Impacto Ambiental
SISEMA	Sistema de Meio Ambiente de Minas Gerais
SUPRAM	Superintendência Regional de Regularização Ambiental
URC	Unidade Regional Colegiada

Ana Flávia Moreira Santos; Luciana da Silva Sales Ferreira; Vinicius Villela Penna

References

- ALMEIDA et al. 2010. Capitalismo globalizado e recursos territoriais: fronteiras da acumulação no Brasil Contemporâneo. Rio de Janeiro: Lamparina.
- ATINGIDOS pelo Projeto Minas-Rio/Anglo American. 2013. Nota de esclarecimento à imprensa e à sociedade. Em 27 de maio de 2013. Disponível em: <u>https://goo.gl/EuwrI8 Acesso em 24/03/2017</u>.
- BARBOSA, Rômulo S.; BRITO, Isabel C. B.; LIMA, Patrícia M. "Mineração, sujeitos e resistências no norte de Minas Gerais, Brasil". In: A. Zhouri; P. Bolados; E. Castro (orgs.), *Mineração na América do Sul: neoextrativismo e lutas territoriais.* São Paulo: AnnaBlume. pp. 301-318.
- BEBBINGTON, Anthony. 2007. "Elementos para una ecologia política de los movimentos sociales y el desarollo territorial en zonas mineras". In: A. Bebbington (ed.), *Minería, movimentos sociales y respuestas campesinas: una ecología política de transformaciones territoriales*. Lima: IEP/CEPES. pp. 23-46.
- BECKER, Luzia & PEREIRA, Denise. 2011. "O Projeto Minas-Rio e o desafio do desenvolvimento erritorial integrado e sustentado: a grande mina em Conceição do Mato Dentro". In: F. R. C. Fernandes; M. A. R. S. Enriquez; R. C. J. Alamino (eds.), *Recursos minerais e sustentabilidade territorial*. Brasília: MCT-CETEM. pp. 229-257.
- BOURDIEU, Pierre. 1996. "Linguagem e poder simbólico". In: A economia das trocas lingüísticas: o que falar quer dizer: São Paulo: Edusp. pp. 81-128.

____. 2002. "Sobre o poder simbólico". In: *O poder simbólico*. Rio de Janeiro: Bertrand Brasil. pp. 7-16.

- BRANDT MEIO AMBIENTE. 2007. Estudo de Impacto Ambiental. MMX Minas Rio Mineração e Logística Ltda. Mimeo.
- BRONZ, Deborah. 2016. Nos bastidores do licenciamento ambiental: uma etnografia das práticas empresariais em grandes empreendimentos. Rio de Janeiro: Contracapa.
- CARNEIRO, Eder Jurandir. 2016. "Atividades minerárias e conflitos ambientais e territoriais em Minas Gerais, Brasil: trajetória histórica". In: A. Zhouri; P. Bolados; E. Castro (orgs.), *Mineração na América do Sul: neoextrativismo e lutas territoriais.* São Paulo: AnnaBlume. pp. 255-278.
- CHAVES, Christine. 2000. A marcha nacional dos sem-terra: um estudo sobre a fabricação do social. Rio de Janeiro: Relume Dumará.
- COMERFORD, John. 1999. Fazendo a Luta. Sociabilidade, Falas e Rituais na Construção de Organizações Camponesas. Rio de Janeiro: Relume Dumará.
- DIVERSUS. 2011. Diagnóstico Socioeconômico da Área Diretamente Afetada e da Área de Influência Direta do empreendimento Anglo Ferrous Minas-Rio Mineração S.A. (Ex-MMX Minas-Rio Mineração S.A.) -Lavra a Céu Aberto com Tratamento a Úmido Minério de Ferro - Conceição do Mato Dentro, Alvorada de Minas e Dom Joaquim/MG - DNPM Nº: 830.359/2004 - PA/Nº. 00472/2007/004/2009 - Classe o6. Belo Horizonte. Mimeo.
- FERREIRA, Luciana. 2015. "'O que a gente quer é justiça': conflito, mobilização e a luta por justiça dos atingidos pela mineração nas reuniões da Rede de Acompanhamento Socioambiental (REASA), em Conceição do Mato Dentro/MG". Trabalho de Conclusão de Curso. Faculdade de Filosofia e Ciências Humanas, Universidade Federal de Minas Gerais, Belo Horizonte.
- FERREIRA ROCHA, Gestão de Projetos Sustentáveis. 2013. Estudo de atualização das áreas de influência (AI) do Projeto Minas-Rio Mineração (Mina). Mimeo.

FOUCAULT, Michel. 1999. Em defesa da sociedade. São Paulo: Martins Fontes.

- _____. 2003. "Verdade e poder". In: R. Machado (org.), *Microfísica do poder*. Rio de Janeiro: Edições Graal. pp. 1-14.
- GALIZONI, Flávia. 2007. A terra construída. Fortaleza: Etene/BNB.

_____. 2013. "Práticas sociais, sociedade camponesa e políticas públicas. A questão da água no Alto Jequitinhonha". In: Lavadores, águas e lavouras. Estudo sobre gestão camponesa de recursos hídricos no Alto Jequitinhonha. Belo Horizonte: Editora UFMG. pp. 29-38.

- GESTA Grupo de Estudo em Temáticas Ambientais. 2014. Parecer sobre o documento "Estudo de atualização das áreas de influência (AI) do Projeto Minas-Rio mineração", elaborado pela empresa de consultoria Ferreira Rocha Gestão de Projetos Sustentáveis. Belo Horizonte. Disponível em: <u>https://goo.gl/AYGQzT</u>.
 - ____. 2016. Mapa dos Conflitos Ambientais de Minas Gerais Conflito e resistência à instalação e operação da mina e do mineroduto do projeto Minas-Rio. Disponível em: <https://goo.gl/kcHo4R>. Acessado em 21 de março de 2017.
- GUDYNAS, Eduardo. 2016. "Extractivismos en América del Sur: conceptos y sus efectos derrame". In: A. Zhouri; P. Bolados; E. Castro (orgs.), *Mineração na América do Sul: neoextrativismo e lutas territoriais*. São Paulo: AnnaBlume. pp. 23-44.
- GUSTIN, Miracy (coord). 2013. "Impactos da Mineração na Região de Conceição do Mato Dentro". Relatório parcial do Projeto Internacional de Pesquisa Cidade e Alteridade. Núcleo temático mineração na região de Conceição do Mato Dentro. Pesquisadores do Núcleo: Profa. Ana Flávia Santos e Humberto F. Filpi. Colaboradores do GESTA: Profa. Andréa Zhouri, Clarissa Prates, Luciana Ferreira, Poliane Janine Ribeiro. Mimeo.
- MILANEZ, Bruno. 2012. "O novo marco legal da mineração: contexto, mitos e riscos". In: J. Malerba; B. Milanez; L. J. M. Wanderley (orgs.), *Novo marco legal da mineração no Brasil: para quê? Para quem?* Rio de Janeiro: FASE. pp. 19-88.
- MINAS GERAIS. 2014. Sistema Estadual de Meio Ambiente SISEMA. Anglo American Minério de Ferro Brasil S.A. Parecer Único Sisema Nº 0921237/2014 (SIAM). Copam nº 00472/2007/006/2013.
- PEIRANO, Marisa. 2002. "A análise antropológica de rituais". In:_____. (org.), O dito e o feito. Ensaios de antropologia dos rituais. Rio de Janeiro: Relume Dumará. pp. 17-40.
- PENNA, Vinícius. 2016. "A construção da legalidade no licenciamento ambiental do empreendimento Minas-Rio: Estudo de caso da 86ª Reunião Ordinária da URC Jequitinhonha". Trabalho de Conclusão de Curso. Faculdade de Filosofia e Ciências Humanas, Universidade Federal de Minas Gerais, Belo Horizonte. Mimeo.
- PEREIRA, D.; BECKER, L.; WILDHAGEN, R. 2013. "Comunidades atingidas por mineração e violação dos direitos humanos: cenários em Conceição do Mato Dentro". *Revista Ética e Filosofia Política*, 16(1): 124-150.
- PRATES, Clarissa. 2014. "Mineração em Conceição do Mato Dentro: uma análise da REASA como instância de 'resolução' de conflito". Trabalho de Conclusão de Curso. Faculdade de Filosofia e Ciências Humanas, Universidade Federal de Minas Gerais, Belo Horizonte. Mimeo.
- RIBEIRO, Gabriel. 2015. "Mineração e pessoas que fazem a diferença: Uma pesquisa exploratória sobre estratégias de negociação no contexto do licenciamento ambiental do complexo minerário da bacia do rio Santo Antônio/MG". Faculdade de Filosofia e Ciências Humanas, Universidade Federal de Minas Gerais, Belo Horizonte. Mimeo.
- ROTHMAN, Franklin Daniel. 1996. "A emergência do movimento dos atingidos pelas barragens da bacia do rio Uruguai, 1979-1983". In: NAVARRO, Z. (org.). Politica, protesto e cidadania no campo. As lutas sociais dos colonos e dos trabalhadores rurais no Rio Grande do Sul. Porto Alegre: Editora da Universidade/ UFRGS, pp. 106-136.
- SANTOS, Ana Flávia M. 2009 e 2010. Relatórios Antropológicos elaborados para o Ministério Público Federal, acerca do empreendimento minerário em Conceição do Mato Dentro, MG. Mimeo.

_____. 2014 "Não se pode proibir comprar e vender terra: Terras de ocupação tradicional em contexto de grandes empreendimentos". In: Andréa Zhouri; Norma Valencio (orgs.), Formas de matar, de morrer e de resistir - limites da resolução negociada de conflitos ambientais. Belo Horizonte: Editora UFMG. pp. 143-166.

- SANTOS, Rodrigo; MILANEZ, Bruno. 2015. "A RGP da Anglo American e Conflitos Socioambientais na Mineração de Ferro: valor, poder e enraizamento no Projeto Minas-Rio". *Anais da 39a Reunião da ANPOCS.* Mimeo.
- SANTOS, Sônia Maria S. B. M. 2007. Lamento e dor: uma análise sócio-antropológica do deslocamento compulsório provocado pela construção de barragens. Tese de Doutorado em Ciências Sociais, Universidade Federal do Pará, Université Paris 13, Belém do Pará.
- SCHERER-WARREN, Ilse & REIS, Maria José. 2008. "Do local ao global: A trajetória do Movimento dos Atingidos por Barragens (MAB) e sua articulação em redes". In: ROTHMAN, F.D. (ed.). Vidas alagadas. Conflitos socioambientais, licenciamento e barragens. Viçosa: Editora UFV, pp. 64-82.
- SECRETARIA DO ESTADO DE MEIO AMBIENTE E DESENVOLVIMENTO SUSTENTÁVEL SEMAD. Ata da 42ª reunião da URC Jequitinhonha. Reunião do dia 13/05/2010. Disponível em: https://goo.gl/H7SVZl. Ata da 43ª reunião da URC Jequitinhonha. Reunião do dia 10/06/2010. Disponível em: https://goo.gl/Wgcfmv. Acesso em: 25/03/2017.
- SIGAUD, Lygia. 1995. "Crença, descrença e interesses. Por uma sociologia das condutas face ao deslocamento compulsório". In: L. P. Rosa; L. Sigaud; E. L. La Rovere (orgs.), *Estado, energia elétrica e meio ambiente. O caso das grandes barragens.* Rio de Janeiro: COPPE/UFRJ, pp. 162-178.
- TÔRRES, Marina. 2014. "Histórias de água e minério: os efeitos do Projeto Minas-Rio em Água Quente, Conceição do Mato Dentro". Trabalho de Conclusão de Curso (Graduação em Ciências Sociais) -Faculdade de Filosofia e Ciências Humanas, Universidade Federal de Minas Gerais, Belo Horizonte.
- VAINER, Carlos. 2008. "O conceito de 'atingido': uma revisão do debate". In: Franklin Daniel Rothman (orgs.), Vidas alagadas: conflitos socioambientais, licenciamento e barragens. Viçosa: UFV, pp. 39-62
- VIANNA, Adriana. 2013. "Introdução: fazendo e desfazendo inquietudes no mundo dos direitos". In: _____. (org.), *O fazer e o desfazer dos direitos: experiências etnográficas sobre política, administração e moralidades*. Rio de Janeiro: E-papers. pp.15-35.
- ZHOURI, Andréa. 2008. "Justiça ambiental, diversidade cultural e accountability: desafios para a governança ambiental". *Revista Brasileira de Ciências Sociais*, 23(68): 97 -107.

_____. 2014. "Mineração e desregulação ambiental: limites do consensualismo e da mediação em situações de conflito ambiental". In: A. Zhouri; N. Valencio (orgs.), Formas de matar, de morrer e de resistir – limites da resolução negociada de conflitos ambientais. Belo Horizonte: Ed. UFMG. pp. 111-142.

- ZHOURI, A.; LASCHEFSKI, K.; PAIVA, A. 2005. "Uma sociologia do licenciamento ambiental: O caso das hidrelétricas em Minas Gerais". In: A. Zhouri; K. Laschfski; D. Pereira (orgs.), A insustentável leveza da política ambiental: desenvolvimento e conflitos ambientais. Belo Horizonte: Autêntica, pp. 89-116
- ZHOURI, A.; GENEROSO, P.; CORUJO, T. 2016. "Nas tessituras da pesquisa e da ação: narrativas de mulheres sobre água, mineração, resistência e colaboração em Minas Gerais". In: A. Zhouri; P. Bolados; E. Castro (orgs.), *Mineração na América do Sul: neoextrativismo e lutas territoriais*. São Paulo: AnnaBlume. pp. 341-368.
- ZUCARELLI, M. C.; PENIDO, M.; PENNA, V. 2015. "O Complexo Minerário Minas-Rio: impactos sociais, econômicos, ambientais e de trabalho degradante em Conceição do Mato Dentro, Dom Joaquim e Alvorada de Minas/MG". Relatório de Pesquisa. Mimeo.
- ZUCARELLI, M. C.; SANTOS, A. F. M. 2016. "Mineração e conflitos sociais no contexto urbano: o caso da mineração Minas-Rio, Brasil". In: A. Zhouri; P. Bolados; E. Castro (orgs.), *Mineração na América do Sul: neoextrativismo e lutas territoriais.* São Paulo: AnnaBlume. pp. 319-340.

Ana Flávia Moreira Santos

Professor, Department of Anthropology and Archeology, Federal University of Minas Gerais – UFMG, Co-coordinator, Group of Environmental Studies - GESTA-UFMG, Belo Horizonte, MG, Brazil. E-mail: <u>anaflaviamsantos@gmail.com</u>

Luciana da Silva Sales Ferreira

Scholarship Holder, Initiation in Scientific Research, GESTA-UFMG, Student, Masters Program in Anthropology, University of Brasília – UnB, Brasília, DF, Brazil. E-mail: <u>lucianassferreira@gmail.com</u>

Vinicius Villela Penna

Graduated in Anthropology, Federal University of Minas Gerais, Belo Horizonte, MG, Brazil. E-mail: <u>viniciusvpenna@gmail.com</u>