

# The Gandarela Mountain Range and the "resistance space" against iron ore mining threat: a focus on the contrapositions

#### By/Par | Carolina Hermann Coelho-de-Souza

Federal University of Minas Gerais State-Brazil (NPGAU/UFMG)-CAPES Foundation/Brazil Autonomous University of Barcelona – ICTA/UAB/Spain (period) carolinaherrmanncs@gmail.com

#### **ABSTRACT**

Analyzing a clipping of Lefebvre's space theory and its dialogue with the doxa from Pierre Bourdieu as the theoretical basis, this research aims to build the concept of the "resistance space". This is a qualitative study characterized as a *metaphilosophy* by which the knowledge is linked to the practice. This analysis on empirical object is based on the environmental conflict in the Gandarela Mountain Range, located in Brazil, in the state of Minas Gerais. Brazil is a giant supplier of iron ore exports for the world economy, and the state of Minas Gerais is where Vale – a very large transnational mining company - started its operation in the 1940s. Gandarela is the last mountain range environmentally well protected in the heart of Minas Gerais, holding a huge aquifer, but it has iron ore underground. An environmental-social movement has arisen to protect the place. For more than two years, participant observation was carried out and also in-depth interviews were applied to people belonging to the Movement for the Preservation of the Gandarela Mountain Range, who fights to block an iron ore mining activity proposed by "Vale". The resistance movement proposed the creation of a National Park as an instrumental strategy, and the movement goes beyond conservationism, it opposes the actual social metabolism of the world economy and believes in a different society. Inspired by Lefebvre's space theory I developed a spacial analysis of the Gandarela case. My hypothesis is that the "resistance space" transits between the abstract space and the differential space. The notion of the "resistance space" contributes for understanding the dimensions from the resistance struggles, their thoughts, and glimpses which guide their actions in the name of territories and communities. This research reached three dialectic representations of the resistance space: the "instruments", the "contrapositions", and the "utopia". The focus of the paper is on the "contrapositions" of the resistance space, the arguments against mining and the current pattern of economic development, thoughts that go beyond development and economic valuation.

Keywords: iron mining, Lefebvre's space theory, resistance, contrapositions.

Éthique et économique/Ethics and Economics, 12 (2), 2015 http://ethique-economique.net/

#### <u>Résumé</u>

Cette recherche vise à construire le concept de d'«espace de résistance". Elle se fonde sur une étude qualitative caractérisée comme une métaphilosophie par laquelle la connaissance est liée à la pratique. Cette analyse est basée sur le conflit environnemental dans la Cordillère Gandarela, située au Brésil, dans l'état de Minas Gerais. Le Brésil est un fournisseur géant d'exportations de minerai de fer pour l'économie mondiale, et l'état de Minas Gerais où se situe Vale - une très grande entreprise transnationale minière - a commencé son opération dans les années 1940. Gandarela est la dernière chaîne de montagnes protégée au coeur du Minas Gerais, possédant un immense aquifère, mais avec du minerai de fer souterrain. Un mouvement écologiste-social a surgi pour protéger le lieu. Depuis plus de deux ans, une observation participante a été réalisée et des entrevues en profondeur ont été faites auprès de personnes appartenant au Mouvement pour la préservation de la chaîne de montagnes Gandarela, qui se bat pour bloquer une activité d'extraction de minerai de fer proposé par "Vale". Le mouvement de résistance a proposé la création d'un parc national comme une stratégie instrumentale, et le mouvement va au-delà du conservatisme; il oppose le métabolisme social réel de l'économie mondiale et croit en une société différente. Inspiré par la théorie de l'espace de Lefebvre je développe une analyse spatiale de l'affaire Gandarela. Mon hypothèse est que l'«espace de résistance" est un transit entre l'espace abstrait et l'espace différentiel. La notion d'«espace de résistance" contribue à la compréhension des dimensions à partir des luttes de résistance, leurs pensées, et des aperçus qui guident leurs actions au nom des territoires et des communautés. Cette recherche a abouti à trois représentations dialectiques de l'espace de résistance : les «instruments», les «contrapositions», et l'«utopie». L'objectif de cet article se focalise sur les "contrapositions" de l'espace de résistance, les arguments contre l'exploitation minière et le modèle actuel de développement économique.

Mots-clés: mines de fer, la théorie de l'espace de Lefebvre, résistance, contrapositions.

JEL: L 72

#### **INTRODUCTION**

In recent decades, the global markets for raw materials are experiencing a peek at never before seen. The demand for industrial raw materials and precious metals has increased dramatically; the extracted quantities has multiplied exponentially, and consequently the prices for these products has skyrocketed to unprecedented levels (Friess and Brötz, 2011, p.3).

As a consequence, according to Friess and Brötz (2011), results from this demand are geographical transfer of environmental impacts to developing countries, the worsening of the unequal wealth distribution on the planet, the significant impacts on water, the land conflicts, the violation of human rights, among many other social and environmental impacts. On the other side, the environmental justice organizations (EJOs) (Martinez-Alier *et al.*, 2014) are denouncing the injustices; at the same time, these resistance movements show alternatives and other ways to see the world.

The Movement for the Preservation of the Gandarela Mountain Range (*Movimento pela Preservação da Serra do Gandarela-MPSG*), in Minas Gerais State/Brazil, under the perspective of resistance since 2009 has prevented the activity of iron mining in this place by the transnational company named "Vale". This research is based on the case study of the Gandarela Mountain Range, since its resistance movement.

Qualitative methodology was used to collect documental data; participant observation was carried out during more than two years; and in-depth interviews were applied from 2012 to 2013 to people belonging to the resistance movement. The hypothesis of resistance space in the Gandarela Mountain Range was based on the thoughts of the French sociologist and philosopher Henri Lefebvre and on the concept of doxa from another French sociologist and philosopher Pierre Bourdieu. It is a *metaphilosophy*, as Lefebvre (2008) states, by which the knowledge is no longer separated from practice.

The space theory is based on Lefebvre. Milton Santos (2008) distinguishes the concepts of "space" and "territory." The territorial configuration suggests that it is the set formed by the existing natural systems and additions imposed by men on a material reality. The space in turn is formed by the materiality and the life that animates it from social relationships. (SANTOS, 2008).

This research aims to build the "resistance space" notion in the Gandarela Mountain Range and its representations, emphasizing in this paper the contrapositions representation.

## **1. THE CONTEXT OF IRON MINING IN BRAZIL**

Brazil is the second largest producer of iron ore in the world; in 2011, it produced 390 million tons (*IBRAM-Instituto Brasileiro de Mineração* - Brazilian Mining Association, 2012). In 2012, iron ore accounted for 80.10% of the Brazilian mineral exports (IBRAM, 2012). China is the major purchasing country of iron ore from Brazil, accounting for 45.78% (in 2012) and there is the expectation of a continued increase in production and its respective sale to China (IBRAM, 2012).

The state of Minas Gerais is the largest producer of iron ore in Brazil, accounting for 67% of production, followed by Pará State with 29.3% and other states with the 3.7% remaining (IBRAM 2012). Minas Gerais is the state that have the most "indication of minerable reserves" of iron ore in Brazil with 9.5 billion tons, followed by Pará with 1.2 billion tons (BRASIL, 2009).

Having the production of 2005 as parameter, these reserves in Minas Gerais showed a depletion of 32 years and in Pará the depletion was of 15 years (BRASIL, 2009). With the projections for 2030 to increase the installed capacity from Brazil to 1.098 million tons (BRASIL, 2010a), the reserves depletion would be even faster.

"The main Brazilian producer company" is the "'*Companhia Vale do Rio Doce*', currently named 'Vale'" (BRASIL, 2009). Vale is responsible for 84.52% of the iron ore production in Brazil (IBRAM, 2012). The previously known as "*Companhia Vale do Rio Doce*" (CVRD) started its activities in the city of Itabira in the state of Minas Gerais in 1942 as a state company (SILVA, 2004).

The origin itself of CVRD already shows that political and economic questions guided its installation and development. The mining company was created during the Second World War, a period of great instability for supplying raw materials to the iron and steel industry, indispensable for the armaments manufacturing. (...) CVRD arises based on the "Washington Agreement" signed by Brazil, the United States, and England on March 3, 1942 (SILVA, 2004, p. 26-27).

Since its arising, Vale is characterized by promoting iron ore for exporting (DIAS, 1992). In 1997, Vale was privatized "amid popular protests and corruption allegations against the privatization process" (FOEI, 2012). Currently, Vale is present in all the five continents, "in thirthy-eight countries, working in mining, steel mill, logistics, and energy" (MINEIRO, DELOUPY, 2012). Vale is called itself "the world's largest producer of iron ore and pellets, the main raw materials for the steel manufacturing" (VALE, 2013).

Since 2010, the powerful multinational company – Vale – has been challenged by an international network of resistance, the "International Articulation of those Affected by Vale" (*Articulação Internacional dos Atingidos pela Vale-AIAV*), which denounces the "social and environmental violent impacts, disrespect for labor laws, and human rights violations" (AIAV, 2012). In 2012, Vale was considered the worst company in the world, according to popular vote by the Public Eye Awards (2013). In 2013, a former employee of the Security Department of Vale made accusations of espionage practiced by the company against leaders, social movements, journalists, and its own employees (AIAV, 2013). For this reason, the interviewees' names to this survey are not shown.

## <u>2. THREAT IN THE GANDARELA MOUNTAIN RANGE</u>

The Gandarela Mountain Range is part of the Biosphere Reserve of Espinhaço Mountain Range determined by UNESCO. It is located in Brazil, Minas Gerais State, in the northeastern portion of the Iron Quadrilateral, in the Metropolitan Region of Belo Horizonte Municipality, the State Capital City



Figure 1. Location of the Iron Quadrilateral in Minas Gerais State/Brazil. Source: Danilo Siqueira (ceded).

The environmental conflict began with attempts by Vale to accomplish its great project for iron mining in the Gandarela Mountain Range. In 2009, Vale presented request for environmental licensing for the named "Apolo Mine" located in the municipalities of Caeté, Santa Bárbara, Raposos, and Rio Acima comprising the metropolitan area of Belo Horizonte.

In the Environmental Impact Assessment (EIA, 2009), the production of 24 million tons of iron ore was expected, a waste dam with 128 meters height upstream of the Raposos City, besides the piles of tailings and others infrastructures. The useful life of "Apolo Mine" was 17 years (EIA, 2009). According to the local newspaper, there were expectations of expanding production to 37.5 million tons per annum (RIO ACIMA, 2011). Based on the EIA (2009), the Asian market is mentioned as the Vale main market for iron ore, especially China, Japan, and South Korea.

This mining threat had already been noticed by regional newspaper articles saying: "The largest iron open pit mining of the world will be located in Caeté" says Interviewee-A; "communities were asking for help" (INTERVIEWEE-B).

Local residents began to observe movements on the place as changes in access, among others; they are "those movements whose members 'think' that the project will happen (...); the [entrepreneurs] already go to start occupying the territory in the certainty that they will have the permit," Interviewee-A says, criticizing the companies' attitude and how easily the state of Minas Gerais releases the environmental license for the mining activity.

Since the beginning, there was much concern among residents about the consequences to the local hydric relevance (INTERVIEWEE-B). "Where there is iron, there is water!", it is one of the lines of the resistance movement, pointing to the Gandarela Mountain Range region as responsible for the huge part of the water supply of Belo Horizonte and its metropolitan area (where live more than 5 million people), with high quality water.

Therefore, the region residents, social and environmental movements, academics, researchers, and interested people joined the *Movimento pela Preservação da Serra do Gandarela-MPSG* (Movement for the Preservation of the Gandarela Mountain Range) in 2009. To block the mining threats, the MPSG had the initial proposal to request the creation of a National Park from the responsible agency – *Instituto Chico Mendes de Conservação da Biodiversidade-ICMBio* (Chico Mendes Institute for Biodiversity Conservation) - which only allows the "indirect" use of its natural resources, according to the *Sistema Nacional de Unidades de Conservação-SNUC* rules (National System of Conservation Units) (BRASIL, 2000), so, it doesn't allow the mining activity.

After some studies, in 2010, ICMBio officially proposes the creation of the Gandarela Mountain Range National Park. According to the ICMBio document (BRASIL, 2010b, p.3), the place has "a significant quantity of ironstone geosystem in good conservation status, one of the most threatened formation in Brazil for its inevitable coincidence with areas of mining interest." In the ICMBio studies, different biotic and abiotic aspects are listed that justify the area's importance, such as high biodiversity, relevant aquifer recharge area, large number of ironstones caves, paleontological, and historical remarkable attributes (BRASIL, 2010b).

Since then, there is an intense conflict over the boundaries of this Conservation Unit. The clash is for defining which part may be granted or not to mining. In the records of the Working Group 01 – meeting between the ICMBio and the State Secretariat for Environment and Sustainable Development of Minas Gerais (*Secretaria de Estado de Meio Ambiente e Desenvolvimento Sustentável do Estado de Minas Gerais-SEMAD/MG*) discussing proposals for the Gandarela Mountain Range – it is registered that this is a *political* decision, it is no technical decision. The document warns that even a political decision may jeopardize the preservation of the ironstones responsible for large recharging the region aquifers.

Figure 02 shows the delimitation of the ICMBio original proposal from September, 2010, to the Gandarela Mountain Range National Park, covering the municipalities of Rio Acima, Itabirito, Ouro Preto, Santa Bárbara, Barão de Cocais, Caeté, Raposos, and Nova Lima. Figure 03 shows the proposal of the Vale mining company presented in the Working Group 02 on December 20, 2011, which brought together state and federal government, mining companies, and organized civil society. The circle emphasizes the desired area for the "Apolo Mine".

Éthique et économique/Ethics and Economics, 12(2), 2015 http://ethique-economique.net/

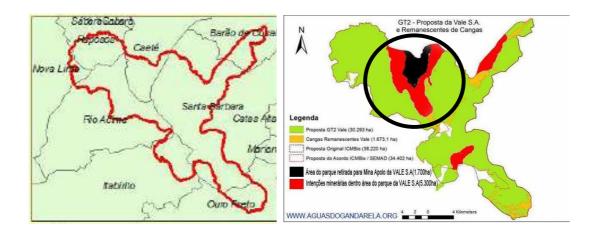


Figure 2. Delimitation of the original proposal of the Gandarela Mountain Range National Park. Source: BRASIL (2010b).

Figure 3. Vale mining claims in Gandarela Moutain Range. Source: MPSG site (2012).

During the public queries for the proposal of the National Park, a portion of the area was replaced to the category of Sustainable Development Reserve, so it does not harm the traditional uses by the local communities. Thus, currently, the MPSG claims the mosaic of the Conservation Units, that is comprised by the National Park and the Sustainable Development Reserve of the Gandarela Moutain Range.

The MPSG is not limited to the strategy of using the institutional instrument "Conservation Unit" to stop mining; the resistance movement has led to public discussion questions and contrapositions regarding the mining activity and the current economic model that will be presented in section 7. Moreover, there is the glimpse of other lifestyle and other relationships among people and nature, beyond the clear notion of alternatives. The concrete, and positive utopia according to Bloch (1977), a needed and desirable utopia to rethink our point of view of the world according to Leroy *et al.* (2002).

(...) To change, regardless of how it will happen, we must have a new perspective and a new dream for a new reality. (...) To me, this system that we created has to be changed fully; we must have to build a new system of relations and values; and I think it is already happening now in the background amidst the chaos, and it is our only way out (INTERVIEWEE-A).

## **3. THE SPACE THEORY OF LEFEBVRE: A SHORT CLIPPING**

Lefebvre (2008) argues that space is not neutral, the space has content, it is political; it is populated by users who can resist to imposition forms. Lefebvre (1991) calls the instrumental and strategic space manipulated by "authorities" as "abstract" space. It is the space of hegemonic power; it is the wealth and power centers; it is a formal and quantified

space that is both homogeneous and fractured; it is the space of techniques and it is defined by reifying alienation (Lefebvre, 1991).

In abstract space, the nature is distanced, threatened, and destroyed, as Lefebvre (1991) describes. These usage values are transformed into exchange values; there is a widespread venality of nature itself (it is the "green economy" in today's terms) to meet the requirements of the "neo-capitalist" society, the author continues saying. The water, air, light, and space are the "new rarities" around which there is an intense struggle (Lefebvre, 1991; 2008).

For Lefebvre (1991), conflicts, struggles, and contradictions are inherent in the space's understanding. However, the abstract space disguises and conceals its contradictions under its apparent homogeneity. The contradictions that arise inside the abstract space lead it toward its own end. As abstract space *reduces* the differences, the new space can only emerge *accentuating* the "differences".

The difference refuses the reality and seeks to break, transgress, and overcome the homogeneous; with this movement, it enables the social practice transformation, according to Nasser and Fumagalli (1996) based on Lefebvre. The difference arises as a denial, starting with a "no" (Lefebvre 1975). The "right to difference" is needed and it is produced on real, theoretical, and practical fights (Lefebvre, 1991).

Lefebvre (1991; 2008) states that producing a suitable space is needed for "changing life" and "changing society". The author states that the revolution needs a different social practice and creative ability of works for everyday life, language, space, architecture, and correspondent urbanism. This project must overcome the gap between science and utopia and tends to explore the "possible-impossible" dialectic relationship. The transition to other modes of space production is also supported by utopia, necessary to thought that explores a possibility (Lefebvre, 1991).

A deeper consideration of the spatial theory of Henri Lefebvre based on the resistance movement in the Gandarela Mountain Range is presented by Coelho-de-Souza (2013).

## **<u>4. THE DOXA OF PIERRE BOURDIEU</u>**

Bourdieu (2006) explains his notion of doxa, which is the "taken for granted", the unquestionable, indisputable, and not named. Bourdieu (2006) notes that the more fitted is the "objectified" structure that "internalized" ("subjective" experience), the establishment of political order is perceived not as "arbitrary", not as one of the possible orders among many others; but is seen as "closed" in itself, as if it were an unquestionable natural order.

In doxa, the traditionally experienced world is seen as the natural world, Bourdieu (2006) states that all the established order tends to produce the naturalization of its own arbitrariness. The reproduction of the social world occurs by the production of the accession to the world, considered as obvious and unchallenged (BOURDIEU, 2006).

The criticism that brings the "undisputed issue for discussion, something not made for its formulation" can generate crisis on situations that seem evident, according to Bourdieu (2006, pp. 168-169). The arbitrated principles appear as such only when dominated people hold the material and symbolic means to reject the imposed definition by the real and to expose the institutionalized or internalized censorship that this implies (BOURDIEU, 2006).

Bourdieu (2006) explains that Orthodoxy is the official way to speaking and thinking about the world; it imposes censorship and conceals the opposition between the "correct" opinion and "wrong" opinion, defining the universe of possibilities for speeches. Orthodoxy legitimates things or considers them illegitimate and thus disguises everything else that can be established and thought. Heterodoxy opposes to orthodoxy that is considered heresy, whose criticism explicits alternatives not presented by the established order (BOURDIEU, 2006).

The notion of doxa is presented by Bourdieu (2006) in Figure 4.

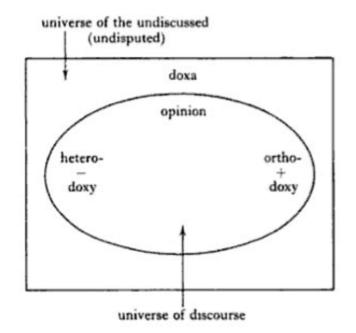


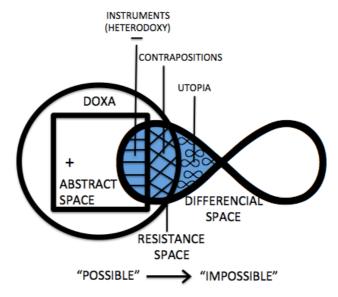
Figure 4. The representation of doxa. Source: Bourdieu (2006)

According to Bourdieu (2007), the perception categories of the social world are product of objective structures leading agents to maintain doxic relationship and accepting the world "as it is," rather than rebelling against it. It is, therefore, a political struggle to conserve or transform the world perceptions, the author continues stating.

## 5. THE RESISTANCE SPACE IN THE GANDARELA MOUNTAIN RANGE AND ITS REPRESENTATIONS

Based on Lefebvre's space theory, the Bourdieu's concept of doxa, and the concurrent analysis of environmental conflict, this research has developed the concept of "resistance space" in the Gandarela Mountain Range and its representations.

Éthique et économique/Ethics and Economics, 12(2), 2015 http://ethique-economique.net/



My hypothesis is that the resistance space transits between the "abstract" space and the "differential" space. Figure 5 shows the union of this concept with the notion of doxa.

Figure 5. Representations of resistance space in the Gandarela Mountain Range. Source: authoress' own elaboration

The breakup of doxa (circle) by the interference of the difference (greater infinity) on the inside, breaking down from the existing abstract space (square) is graphically exposed on figure 5. In this "occupation" of the difference, the performance appears from what I called "resistance" and its representations (solid color).

Breaking with doxa and coming from the interior of abstract space, the differential space is present in the practice. The moment in which the resistance space is inserted into the abstract space - with the hatch of horizontal stripes - is the representation of the instrumentation used by the resistance, which is the heterodoxy in that battle field.

The moment in which the resistance space is inside the doxa but outside of abstract space - with hatch lines crossing each other - is the contrapositions representation, the criticism of the current model, the question of "why" the things are the way they are; it is the doubting of the own doxa.

The glimpse of the questioning of doxa carries other worldviews, whose possibilities are endless. Thus, the moment when the resistance space can "escape" from doxa and let thought flow - to what inside the doxa would be called "impossible" – is the utopia representation in the resistance space, graphically displayed by multiple infinities, because there are several possibilities, several universes inside the differential space that continues beyond the resistance, which is its first moment.

I understand these three representations - instruments, contrapositions, and utopia - of resistance space in a dialectical relationship, without order or sequence, but in a movement; and each representation may have different relative weights for each social agent or group.

Finally, Figure 05 shows that the resistance space follows its course towards the "possibleimpossible" as Lefebvre states; it is moved in the opposite direction to the abstract space and its doxa; it is pulled from the outside, representing other possibilities, other worlds.

## 6. AN EMPHASIS ON CONTRAPOSITIONS

As to resistance space representations of the Gandarela Mountain Range, I briefly emphasize in this paper the contrapositions to the economic issue of mining submitted by the MPSG, their criticisms, and proposals.

The Interviewee-D says that the study developed by the resistance movement (MPSG, 2012) generated a counterpoint to Vale in its own language, which is the economic language. The work deconstructs the discourse of Vale and launches proposals "because it is needed to show to society that there are alternatives beyond mining," says Interviewee-D.

According to the study (MPSG, 2012, p. 203), the mining activity in Minas Gerais led "to a high degree of economic dependence" with monopolized offers of jobs by "few companies" without a diversification of local economic activity and without being afforded choices for the population. The performance of a multinational company is an even bigger problem because:

In the socio-political context, for example, the decision on the people's destiny is defined in diverse and distant environments from their residences' location, thereby, undermining the democratic process in a situation in which only one company can do everything and commands all things (MPSG, 2012, p. 207).

Mining weakens "the regional economic structure in a cyclical process of diseconomies that becomes it increasingly dependent on the current prevailing model" (MPSG 2012, p. 203). Moreover, mining is characterized by a "high degree of instability over the years" associated with its "limited period, in general a few years of operation" (MPSG 2012, p. 203). This study also finds that "the balance of jobs and income actually generated for the local population is relatively low" and "unstable" (MPSG 2012, p. 203).

This situation is worsened by the mineral exploration focused mainly on export because "the state and country depend on the fluctuations of the international commodities market" and the process of "the reprimarization of the national economy" is observed (MPSG, 2012, pp. 204/208).

The generated taxes are minimal. In Brazil, there is the *Kandir* Act by which the exports of primary and semi-finished products or services are exempted from tax, and the Financial Compensation for Exploiting Mineral Resources (*Compensação Financeira pela Exploração de Recursos Minerais*-CFEM) is negligible (MPSG, 2012). Even if it were different, the Interviewee-D understands that "no mining tax justifies the way in which it is being made, absolutely any tax."

Other contrapositions presented by the MPSG (2012, p. 208) deal with "premature exhaustion of the national strategic reserves of minerals," the "non-value added production,"

concentration of wealth for shareholders, benefits for investors not resident in the region, "low employment and income generation for workers", "economic chaos after mining depletion," among other economic, social, and environmental problems.

Economic alternatives to the Gandarela Mountain Range highlighted by MPSG (2012) are touristic activities and entrepreneurship, with perspective based on the cultural and social roots of the place, which may be consolidated and expanded.

An approach is made on the solidarity economy and community management of business, through community-based tourism, such as historical and cultural tourism, the village tourism, and the gastronomic tourism allied to environmental attractions of the place that also preserve the people lifestyle. This study also includes the "individual and familial entrepreneurship and of small and medium enterprises" (MPSG, 2012, p. 153), valuing the activities traditionally developed in the locality as the organic familial farming and handicrafts.

Unlike mining, these options are permanent and provide the "expansion of generating employment and income for local people" and "increase the own financial collection capacity of municipalities" according to the economic study (MPSG, 2012, p.151 and 212).

Interviewee-D says, "It is possible to provide employment, it is possible for people to live; people can have joy in life without destroying nature," but "the capitalist sees into the nature a way to make money." The struggle for the Gandarela Mountain Range, Interviewee-C says, "today is already a fight for a change in the economic model".

#### 7.1 Beyond development and economic valuation

Interviewee-A argues, "To me, development ("*desenvolvimento*") is not the word" because it means "dis-engage" ("*des-envolvimento*"); "it is to cut engagement" rather than engage, an he considers the issue a "systemic issue" that we must be involved "with the totality, with all other living beings."

The concerns of the MPSG for the "development" are related to questions that come quite a long time. Lefebvre (1975) in the 1970s has criticized the use of the "development" term without distinction to "economic growth" because "development" should be concerned as "social development", he says. In the late twentieth century, Sachs (2000) made a severe criticism; the author resumes the birth moment of the "development" term (in speech of Harry S. Truman in 1949) as a mark of "blackmail and oppression" addressed to the global South. This author conceives that interest in the "Westernization of the world" is implicit in this concept (SACHS, 2000, p. 15).

Esteva (2000) considers that "development" is a concept of very strong influence on human thought and behavior and at the same time it is fragile and inconsistent. For Sachs (2000, p. 15), the problem that there is still about the concept without content is that everything is "sanctified" in its name.

Other criticism is called "degrowth", a term that is "a radical critique to development" (Latouche, 2009). The "degrowth" condemns "the irrational and almost idolatrous cult of growth for growth;" it renounces the unlimited growth and encourages launching alternative projects "to a policy of post-development" (Latouche, 2009). In parallel, there are proposals

towards "post-extractive societies" (Gudynas, 2011; 2013) and other alternatives proposals to go beyond "capitalism/colonialism" (Lang et al., 2013).

(...) We are in a very serious moment (...) the power struggle in the world is caused by people's interest to be the owners of the raw material, energy, and water resources. Our country has them all when others do not have them anymore; then, all the international capital are coming (...) and our governments are being subservient and accepting everything (...) and this is scary for the present and future of Brazil (...) there is now a huge dispute to take over these resources ignoring all other variables that have to be considered: people, other possibilities for employment generation (...) (INTERVIEWEE-A).

There are different "languages of valuation" said Healy *et al.* (2013). This is the "incommensurability of values," as mentioned by Martínez-Alier (2011). This statement means that not all values can be measured monetarily, because there are plural values (Harvey, 1999; Healy *et al.*, 2013).

The MPSG, for example, in its study of the economy, used the same valuation that Vale uses, but for generating a counterpart within the same language. Moreover, the different valuations present in the Gandarela Mountain Range expressed by the MPSG is observed, such as the human right to water, the biological importance of the place, the defense of cultural identity, the right of choice on using the territory, and even the respect for the sacred.

Interviewee-C says, "I do not need to have roots in place to have an identity;" "my environmental identity is stronger than geopolitics." For Interviewee-A, Gandarela Mountain Range is a sacred space that has "energy." The Interviewee-C believes that "the holy thing is in the perfection of nature" and, therefore, he honors it.

[The Gandarela Mountain Range] is a sacred [place] full of energy (...) that touches the spiritual feelings (...).Facing this destruction around us, this chaos, you can realize the importance of this sacred place for whom goes there; there, you can find and reconnect with the best of yourself (INTERVIEWEE-A).

When you begin to realize that nature has absolutely perfect mechanisms for sustaining life and you realize that these mechanisms begin to be disintegrated by the man action, I think that the destruction of the sacred thing starts there (INTERVIEWEE-C).

Concepts as the "Sumak Kawsay" (ACOSTA, 2013) and "Commons" (Bollier, 2014) are also present in the MPSG speeches, concepts which are created or appropriated by environmental justice organizations (EJOs) according to Martínez-Alier *et al.* (2014). This subject are discussed in Coelho-de-Souza (2014).

#### FINAL CONSIDERATIONS

Based on the current scenario of the mining boom with a clipping in the largest mining state of Brazil (IBRAM 2012), this paper showed a resistance movement with its criticism, proposals and actions to block the mining activity in order to achieve another possible world.

The incorporation of the "spatial" dimension in the analysis of environmental conflict is one of the advancements of the research. The theoretical and practical development of resistance space contributes for understanding the struggle dimensions of the resistance movement in the Gandarela Mountain Range and, thus, for further consideration on the representations

that exist on space, which guide their actions in the name of the territory and the community. The instrumental, contrapositions, and utopia are visible representations in the actions by the creation proposal for Conservation Unit, in the exposed counterpoints, and other world visions manifested by MPSG.

Finally, the contrapositions' clipping shows, even briefly in this paper, some arguments that can disqualify the discourse of mining activity with the differential for pointing solutions based on an economic study under the perspective of the traditional practices of the place.

Thus, I conclude with the questions of Interviewee-D "Why to mine?," "To do what with the ores?", "What is the justification?" Interviewee-D keeps saying, "This is the discussion that society has to do". To do mining, the "society needs to take the control", "people have to manage, have to act"; and there are places where "mining can not", he emphasizes.

Our struggle is different. For us, mining can not. There are places that can not mine. (...) Our struggle is to say "no!" Can not! (...) It is another point of view; it is another reasoning. (INTERVIEWEE-A).

## **REFERENCES**

Acosta, A. (2013). El Buen Vivir: Sumak Kawsay, una oportunidad para imaginar otros mundos. Barcelona: Icaria Editorial.

AIAV – Articulação Internacional dos Atingidos pela Vale. Relatório de Insustentabilidade da Vale 2012. AIA, 2012. [Online] Available at: <u>http://atingidospelavale.files.wordpress.com/2012/06/relatorio-insustentabilidade-vale-2012\_en1.pdf</u> [Accessed on August 10, 2013].

AIAV – Articulação Internacional dos Atingidos pela Vale. Espionagem da Vale. [Online] Available at: <u>http://atingidospelavale.wordpress.com/2013/10/23/espionagem-da-vale-e-tema-de-audiencia-publica-no-senado-nesta-quinta-24/</u>. [Accessed on November 14, 2013].

Bloch, E. (1977). El Principio Esperanza. Tomo I. Madrid: Aguilar.

Bollier (2014). D. Think Like a Commoner: A Short Introduction to the Life of the Commons. Gabriola Island/Canada: New Society Publishers, 2014.

Bourdieu, P. (2006). Structures, Habitus and Power: basis for a theory of symbolic power. In.: BOURDIEU, P. Outline of a theory of practice. Cambridge University Press: Cambridge, New York, p. 159-197.

Bourdieu, P. (2007). O Poder Simbólico. 10. ed. Rio de Janeiro: Bertrand Brasil.

BRASIL. SNUC – Sistema Nacional de Unidades de Conservação. Lei Brasileira n. 9985/2000.

BRASIL. MME – Ministério de Minas e Energia. Perfil da mineração de ferro. Relatório Técnico. Brasília, MME, 2009. [Online] Available at: http://www.mme.gov.br/sgm/galerias/arquivos/plano duo decenal/a mineracao brasileira/P09 RT18 Perfil da Mineraxo de Ferro.pdf [Accessed on December 20, 2013].

BRASIL. MME. Plano Nacional de Mineração 2030. Geologia, mineração e transformação mineral. Brasília, MME, 2010a. [Online] Available at: http://www.mme.gov.br/sgm/galerias/arquivos/plano duo decenal/Plano Nacional de Mineraxo 2030 Consulta Publica 10 NOV.pdf [Accessed on March 12, 2014]. BRASIL. MMA – Ministério do Meio Ambiente. Proposta de Criação do Parque Nacional da Serra do Gandarela. Brasília: MMA/ICMBio, 2010b. [Online] Available at: http://www.icmbio.gov.br/portal/images/stories/o-que-

fazemos/Estudo%20que%20originou%20a%20proposta.pdf. [Accessed on June 03, 2013].

Coelho-de-Souza, C. H. (2013). Leituras de Henri Lefebvre para os estudos iniciais sobre o conflito ambiental na Serra do Gandarela: o espaço da resistência?. Recife: Anais XV ENANPUR.

Coelho-de-Souza, C.H. (2014). A necessária utopia: uma das representações do espaço da resistência na Serra do Gandarela. In: *International colloquium Epistemologies of the South: South-South, South-North and North-South global learning* - Coimbra, 10, 11, 12 july 2014 published in Revista Crítica de Ciências Sociais. Coimbra/Portugal: Projecto ALICE / CES – Universidade de Coimbra.

DIAS, R. F. (coord.) (1992). Companhia Vale do Rio Doce: 50 anos de História. Rio de Janeiro: Companhia Vale do Rio Doce.

EIA - Estudo de Impacto Ambiental. Projeto Mina Apolo. Belo Horizonte: Vale, 2009.

Esteva, Gustavo (2000). "Desenvolvimento" In. W. Sachs (org.) O Dicionário do Desenvolvimento. São Paulo: Editora Vozes.

Friess, S. and Brötz, H (resp.) (2011). La Minería en los Países en Desarrollo: Desafíos y Propuestas de Acción. Aachen/Alemanha: Misereor.

FOEI – Friends of the Earth International. Como as corporações governam: parte 3 – vale – liderando o lobby corporativo para facilitar compensações e outras falsas soluções "verdes". Amsterdam: FoEI, 2012.

Gudynas, E. (2011). Debates sobre el desarrollo y sus alternativas en América Latina: Una breve guía heterodoxa. In: LANG, M; MOKRANI, D. (comp.). Más Allá del Desarrollo: Grupo Permanente de Trabajo sobre Alternativas al Desarrollo. Quito/Equador: Abya-Yala; Fundación Rosa Luxemburgo.

Gudynas, E. (2013). Transições Pós-Extrativistas: Superando o desenvolvimentismo e a exploração da natureza. Rio de Janeiro: IBASE.

Harvey, D. (1999). Justice, Nature & the Geography of Difference. Oxford/UK: Blackwell, 4. Ed..

Healy, H.; Martinez-Alier, J.; Temper, L.; Walter, M.; Gerber, J. F. (eds.) (2013). Ecological Economics from the ground up. New Work: Routledge.

IBRAM. Informações e análises da economia mineral brasileira 7<sup>a</sup>. edição. Brasília: IBRAM, 2012. [Online] Available at: <u>http://www.ibram.org.br/sites/1300/1382/00002806.pdf</u>. [Accessed on February 17, 2014].

Lang, M.; Lopez, C.; Santillana, A. (2013). Alternativas al Capitalismo / Colonialismo del Siglo XXI: Grupo Permanente de Trabajo sobre Alternativas al Desarrollo. Quito/Equador: Abya Yala, Fundación Rosa Luxemburg.

Latouche, S. (2009). Pequeño tratado del decrecimiento sereno. Barcelona: Icaria editorial.

Lefebvre, H. (1975). El Manifiesto Diferencialista. 2ª. Ed. México: siglo veintiuno.

Lefebvre, H. (1991). The Production of Space. Oxford: Blackwell.

Lefebvre, H. (2008). Espaço e política. Belo Horizonte: Editora UFMG.

Leroy, J. P.; Bertucci, A. A.; Acselrad, H.; Padua, J. A.; Schlessinger, S.; Pacheco, T. (2202). Tudo ao mesmo tempo agora: desenvolvimento, sustentabilidade, democracia: o que isso tem a ver com você? Petrópolis: Vozes.

Martinez-Alier, J. (2011). O ecologismo dos pobres: conflitos ambientais e linguagens de valoração. 1.ed., 2º reimpressão. São Paulo: Contexto.

Martinez-Alier, J.; Anguelovski, I.; Bond, P.; Del Bene D.; Demaria, F.; Gerber, J.-F.; Greyl, L.; Haas, W.; Healy, H.; Marin-Burgos, V.; Ojo, G.; Porto, M.; Rijnhout, L.; Rodrigues-Labajos, B.; Spangenberg, J.; Temper, L.; Warlenius, R.; Yanez, I. (2014). Between activism and science: grassroots concepts for sustainability coined by Environmental Justice Organizations. Journal of Political Ecology 21: 19-60.

Mineiro, A. S.; Deloupy, M. L. (2012). Considerações gerais sobre a renda extrativista no Brasil. Rio de Janeiro: Cadernos do Observatório do pré-sal e da indústria extrativa mineral, n.1, Janeiro de 2012.

MPSG – Movimento pela Preservação da Serra do Gandarela. Parque Nacional da Serra do Gandarela: Oportunidade de Riqueza Limpa e para Toda Vida. Belo Horizonte: MPSG, 2012.

MPSG site – Movimento pela Preservação da Serra do Gandarela. As propostas de criação do Parque Nacional da Serra do Gandarela. [Online] Available at: http://aguasdogandarela.ning.com/page/icmbio-proposta-do-parque. [Accessed on June 10, 2013].

Nasser, A.C.A.; Famagalli, M. (1996). A opressão da equivalência, as diferenças. In: MARTINS, J.S. (org.) Henri Lefebvre e o retorno à dialética. São Paulo: Editora Hucitec.

PUBLIC EYE AWARD. Site oficial. Disponível em: <u>http://publiceye.ch/en/hall-of-shame/</u>. Acesso em: 12 dez 2013.

RIO ACIMA. Vale já prevê expansão da mina Apolo em Caeté. 2011. [Online] Available at: http://www.rioacima.com/noticias/12/20-01-

2011/Vale%20j%C3%A1%20prev%C3%AA%20expans%C3%A3o%20da%20mina%20Apolo%20em% 20Caet%C3%A9.html. [Accessed on August 18, 2012].

Sachs, Wolfgang (ed.) (2000). "Introdução". O Dicionário do Desenvolvimento. São Paulo: Editora Vozes.

Santos, M. (2008). A natureza do espaço: Técnica e Tempo, Razão e Emoção. 4. Ed. 4a. reimpr. São Paulo: Editora da Universidade de São Paulo.

Silva, M.G.S. (2004). A Terceira Itabira: os espaços político, econômico, socioespacial e a questão ambiental. São Paulo: Hucitec.

VALE. Site oficial. [Online] Available at: <u>http://www.vale.com/pt/business/mining/iron-ore-pellets/paginas/default.aspx</u>. [Accessed on December 18, 2013].