

---

# Adding value to the territory's resources through design: the imperial topaz in the region of Ouro Preto, Brasil

**Emmanuelle Gomes**

emmanuellegomes@gmail.com

**Lia Krucken**

lia.krucken@gmail.com

**Dijon De Moraes**

dijon.moraes@uemg.br

Universidade do Estado de Minas Gerais – UEMG  
Centro de Estudos, Teoria, Cultura e Pesquisa em  
Design Belo Horizonte – MG, Brasil

## Abstract

The only production of Imperial Topaz in commercial scale is located at the city of Ouro Preto, Brasil. Most of these rocks is exported as raw-material to jewelry production to the rest of the world and few of these resource is used in the local production. The objective of this study is to show the necessity of to develop a strategic design project, focused in the evaluation of the rocks and its territory of origin, aiming at the promotion of sustainable to the environment, social and economic value chains. The sight of the design aims at, therefore, the territory economic dimension promotion based on the existing local resources and on the partnerships development.

## Keywords

Value Chain, Gems, Jewelry, Territory, Strategy.

## Introduction

In over 500 years of history, much has been said of the Brazilian economic potential, due to its great territorial size and the consequent variety of raw materials. Indeed, it's possible to see that the centuries to which Brazil was submitted to exploration of the Portuguese crown still reflects in the collective imaginary and the business practices adopted by governments over the nearly two hundred years of independence, insisting on the export of products in natura , preventing, this way, that it's origin territory to

develop around products that add value to raw materials, according to a socio-economic and cultural, regional and national levels.

In this context, the gems can be highlighted, these are produced in abundance and variety, especially in the state of Minas Gerais, the main producer of colored gems in Brazil, and one of the major poles of global production, but most of these rocks leave the country in the raw state. This fact, besides causing a deficit in what could be collected if the stones were cutted , which would be an about ten times greater value, or even already applied in jewelry, which would increase the value around twenty times, it's also responsible for preventing that a major part of the productive chain of these gems happen in their own territory, creating employment and income, having in sight that, such Imperial Topaz as many other varieties of stones that leaves the country to supply jewel shop throughout the world, or even the national market, do not bring with itself no reference to their origin territory, witch difficult that it's product or community develop it selves with these wealth.

There is thus a great paradox, because in such rich in natural resources regions wanted by the world, a sad scenario of poverty and low human development is normally found..

In this issue, researches that aim the deep understanding are necessary, from a systemic view of this sector and the design strategies to emphasize the importance of benefiting local communities around the productive chain of gems, promoting the economic, social and cultural development.

## Brief history of gems in Brazil

Many stories surrounds the imagery around the discovery of precious stones in Brazil, the only certainty is that they, with precious metals like gold and silver were the main responsible for the Entradas and the Bandeiras, which cleared the interior of the country, to find true treasures and to create new villages around them. After the arrival of the first caravels to Brazil, the letter of Pero Vaz de Caminha already showed the intentions of the Crown in relation to new lands: "So far we can not know if there is gold or silver in it, or something else in metal, or iron; we haven't seen it. But the land itself is very good, fresh and temperate air." (TEIXEIRA, 2002).

Few decades after the arrival of the Portuguese to Brazil, in the sixteenth century, can be founded references on the discoveries of Emeralds. As GANDAVO (1980) says "To this Captainship of Porto Seguro will some Indians come from the hinterlands give some news of green rocks that were in a mountain range many miles away, and some of them brought some rocks per sample, some of them were

emeralds, but not much expensive ones ". However, it was with the discovery of the diamond and with the gold cycle in the eighteenth century that the history and production of precious stones has taken that proportions that are as much reported in the history books, by the highest bid and also the policies that led to riots and to the inconfindentes confabulation.

Even with the end of this cycle, Brazil kept in detach in the production of metals and precious stones, especially with the discoveries of colored stones in the country territory, largely concentrated in the east of Minas Gerais. In the nineteenth century important gemological discovery occurred in Minas Gerais, which produced hundreds of kilograms of tourmaline from various colors, among other stones such as Imperial Topaz and Marine Water. This event called the attention of Jews in the wars period, that running away of the Nazis, have settled in the region and invested in cutting of stones, but with the lack of incentives for the sector and the creation of the state of Israel, they chose to create, in the newly created country, a cutting pole that has become widely recognized, leaving Brazil at the mercy of outdated techniques of this practice until the present day, weakening the country chances to develop significantly in the cutting sector.

### **Characterization of the sector and the value chain**

The gems are part of the consumption dream of most women, since it was associated as adornment for the human being. Their financial value is high and recognized in all parts of the world and is considered as a "currency" due to the opportunity to exchange them for cash anywhere in the world where technicians are able to evaluate them. In Brazil these high values are also responsible for the ambition of some people to generate wealth for themselves, smuggling stones to the outside, occurring scandalous cases related to politicians, police and business sector names, involved in this illegal practice. Another factor that contributes to not change this table are the tax laws involving the gems that have not changed since the days of the colony, where the fifth (a tax), caused riots and was the great responsible for Inconfidência Mineira (greet riot), is half the charge today, which represents the vision of conservative government in the sector and lack of initiatives to support the process improving the area producer of gems. In Brazil these high values are also responsible for the ambition of some people to generate wealth for them, smuggling stones to the outside, occurring scandalous cases related to politicians, police and business sector names, involved in this illegal practice. Another factor that contributes to not change this table are the tax laws involving the gems that have not changed since the days of the colony, where the fifth (a tax), caused riots and was the great responsible for Inconfidência Mineira (great riot), is half the

charge today, which represents the vision of conservative government in the sector and lack of initiatives to support the process improving the area producer of gems.

The value-chain is a strategic tool to identify opportunities for innovation on several levels - from the added value to existing offerings, improving system performance, to the design of unknown offers. This analysis is enriched by the design perspective, which shows the role of the consumer, integrating the systems of production and consumption of goods and services (KRUCKEN, 2009).

The term "chain of value" was originally used by Michael Porter in the 80s. According to the author, "every company is a compilation of activities that are performed to design, produce, market, deliver and support its product" and "all these activities can be represented using the of a chain of values" (PORTER, 1985). Recently, we can cite the definition proposed by the German Agency for Technical Cooperation GTZ (2007): the value chain is "an economic system that is organized around a product," connecting different activities (production, processing, marketing, etc.) necessary to conceive and distribute a product or service to final consumers.

The flow of adding value begins from the raw materials and it consolidates in consumption, as represented in the example of the gems value chain (Figure 1).

The figure shows that the biggest problem of the chain is the fact that a large number of stones is exported in raw state, with many of them returning to Brazil cut already or implemented in jewelry. While the local production is minimal when compared to its potential.

Raggi (2004) evidences that the gems and jewelry managing incapacity in Brazil can arise from the ignorance of the sector intrinsic facts. A need to develop deep analysis, as the value chain is clearly detached.

### **The design prospect in gems value addition: Imperial Topaz**

"The approach of the design applied to the area aims to benefit simultaneously the producers and consumers located in a particular geographic region", according to Krucken (2009, p. 49). This means that to plan actions that together value the territorial capital and social capital, in an enduring and sustainable long-term perspective, reinforce the author. The importance of the local identity elements that are embedded in the products is highlighted by Moraes (2006).

As the Imperial Topaz is an exclusive Brazilian rock, you can see the opportunity of creating Design strategies that can

turn into benefits for the local and national economy. There is an added value to its origin, as the stone is recognized worldwide as Brazilian; however, this value may be further aggravated if there is a concern with the entire value chain of the gem. One important action would be to include aspects of local culture in all cases, especially with regard to cutting and the manufacture of jewelry, investing in partnerships aimed at the enhancement of Imperial Topaz as an ally in the recognition of identity and local recovery.

As Mol (2000) says "The jewelry industry of the country could further strengthen it's sought as" Brazilian identity "with the use of national gems in different models of stoning." Santos, Mol and Teixeira (2007) accost the stones valuing by techniques of cutting, identifying how the processes and inputs determine the technical and formal aspects of gem stoned.

Designs initiatives can promote the development of the communities involved in the Topaz production, as it would create jobs and income in its surroundings, in the process of extraction of stoning, and in the application of such values in the local jewelry industry and the manufacture of jewelry craft.

The specific focus of this research, in progress at the study center, Theory, Culture and Research in Design at the

University of Minas Gerais - UEMG, is the productions of jewelry in Santo Antonio do Leite, district of Ouro Preto. This region is known for its crafts in silver and Topaz of lower quality, according to experts. By this moment characteristics of the artifacts and the region were raised, witch could support the development of future actions for the design. This article, therefore, is part of a wider research.

The reason for the region selection was the fact that local production is still weak in front of its potential, having in sight that aggregating value of quality and cultural historical reference could develop even more that production, also moving trade and local tourism.

### Final Considerations

The existence of a potential and a demand for performance of the designer in improving the area surrounding the industry of gems and jewelry was identified developing this research. Systemic approaches, such as the analysis of the value chain, are essential to build possible visions and scenarios.

Many challenges for effective mechanisms to trigger the intervention design can be observed. This research focuses the promotion of a wider and transversal discussion about the theme and the integration of cross knowledge,

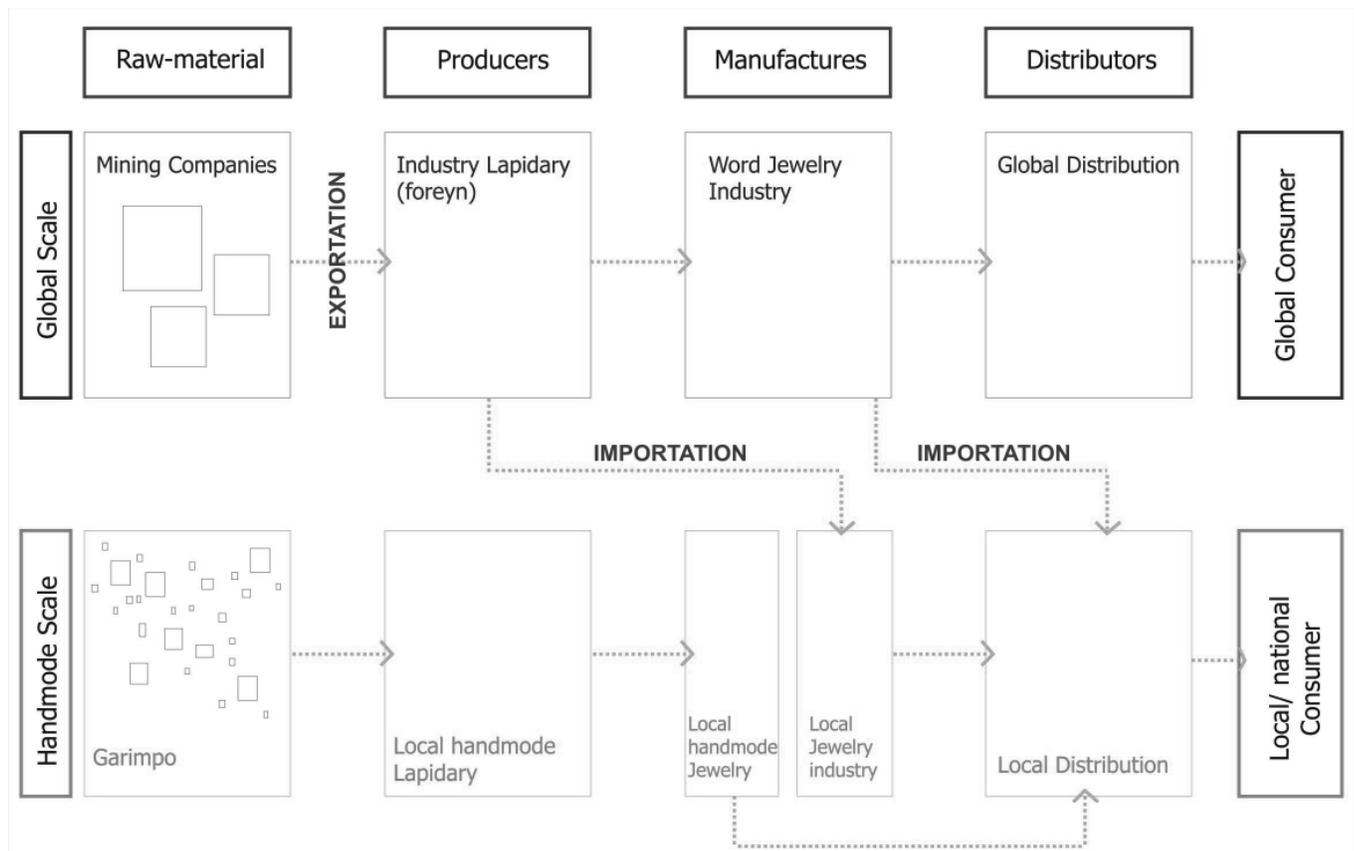


Figure 1. Analysis of the gems value chain: players of the industrial scale and handmade scale.

enabling a better understanding of the sector in order to contribute to sustainable development at and national levels.

## References

- GONSALVES, A.D. As Pedras Preciosas na Economia Nacional. Rio de Janeiro: Olímpica, 1949.
- GTZ. 2007. The Value Links Manual. A Methodology for value chain promotion.
- KRUCKEN, L. Design e território: valorização de identidades e produtos locais. São Paulo: Nobel, 2009.
- MOL, Adriano. A lapidação como diferencial de marketing para a joalheria. Disponível em [www.joiabr.com.br](http://www.joiabr.com.br) - acesso dia 15 de maio de 2009.
- MORAES, Dijon. Análise do Design Brasileiro, da mimese à mestiçagem. São Paulo: Blucher, 2006
- PORTER, M. E. Competitive advantage. New York: Free Press, 1985.
- RAGGI, J. Pedras Preciosas e Fiscalização. Jornal Estado de Minas em 30/10/2004, p.9.
- TEIXEIRA, Romeu do Nascimento. O Vale do Rio Doce. Rio de Janeiro: Cia. Vale do Rio Doce, 2002.
- SANTOS, Valéria Carvalho; MOL, Adriano Aguiar; TEIXEIRA, Maria Bernadete Santos. The quality of gemstone polishing to value gems design. International Conference on Design Research. Rio de Janeiro, Brazil, 2007.