Resources Policy 52 (2017) 273–276

Contents lists available at ScienceDirect

Resources Policy

journal homepage: www.elsevier.com/locate/resourpol

The crisis of granite and the success of marble: errors and market strategies. The Sardinian case

Nicola Careddu[a,*], Giampaolo Siotto[b], Graziella Marras[a]

[a] DICAAr, University of Cagliari, Via Marengo, 2 – 09123 Cagliari, Italy
[b] Mediterranea Progetti e Finanza s.r.l., via Tola 30, 09128 Cagliari, Italy

ARTICLE INFO

Keywords:
Dimension stone
Sardinia
Trend of stone sector
Market strategies

ABSTRACT

Since the beginning of the sixties, Sardinia (Italy) has established itself as a granite production area both nationally and internationally. The activity of quarrying and processing of marble began in the Orosei area (north-east Sardinia) by the end of the same decade. This study is aimed at describing the troubled time experienced by the Sardinian granite production at the beginning of the XXI century and the ongoing success achieved by Orosei marble. In fact, what was originally a less developed segment, the marble sector, became more established on the international market thanks to a number of optimal marketing strategies. The weaknesses and strengths of these two different sectors are described below. The paper gives an account of the current positioning strategies of stone industry in Sardinia with special attention to commercial development, the positioning of the product portfolio, quality and customer service. Although the Sardinian granite is a raw material with excellent features which are typical of commodities and is supported by the presence of skilled manpower, this industry has always had to deal with the high costs of the transport system and the lack of efficient infrastructure, until the Chinese competition gave it the final push. In contrast to the granite industry, the marble entrepreneurs of Orosei showed better marketing skills. The Sardinian marble industry has the strategic advantage of having all companies concentrated in a limited and homogeneous area of quarrying and processing activities. Furthermore, producers together with the Municipality of Orosei founded a Consortium whose aim is currently to manage waste disposal at the landfill with the idea of transforming the landfill itself into a Centre for stone materials aimed at secondary processing, where training sessions on different subjects pertaining to the Dimension Stone sector will be held and a historical route aimed at industrial tourism will be organized.

1. Introduction

The dimension stone sector has been one of the most important industries in Sardinia since the sixties. The most important stone types of the island from a commercial point of view are, in order: limestone, granite, basalt and pyroclastic rock (mainly marketed under the commercial name of “trachyte”).

Other lithotypes were quarried and processed in the recent years (travertine, marbles, cipollino, onyx, alabaster), however their activity has currently stopped. Sandstones are currently quarried and processed and becoming increasingly appreciated. Metamorphic stones (as phillites and orthogneiss) are also quarried and locally marketed for external paving and cladding (Careddu et al., 2015).

The use of Sardinian granites in ancient times is widely acknowledged (Wilson, 1988; Poggi and Lazzarini, 2005); the Romans used Sardinian granite both for building, erecting columns and road paving. Signs of some ancient quarries are still visible in some coastal areas of the Island (Capo Testa, North Sardinia).

The quarrying of Sardinian granite started again in some quarries located in the archipelago of La Maddalena (Società Esportazione Graniti Sardi di Genova, 1932) towards 1870. The stone quarried at that time was used for road paving (especially in Genoa and Rome), monuments (i.e. war memorial erected at Ismailia in Egypt in 1930, the monument to Bartolomeu de Gusmão at Santos in Brazil), and for buildings in Italy and as well as worldwide (Careddu and Grillo, 2015). The export was then stopped after the great depression of 1930's.

Both granite and other dimension stones were always quarried by local labour, although in artisanal way. In 1959, the Decree Law n. 128 fixed the rules for mines and quarries; however, it was aimed primarily at the quarries in the rest of Italy. In fact, the problem of quarries in Sardinia was not worthy of attention at that time, when compared to the situation of the mines, since the Island was the richest mining

* Corresponding author.
E-mail address: ncareddu@unica.it (N. Careddu).

http://dx.doi.org/10.1016/j.resourpol.2017.03.010
Received 31 January 2017; Received in revised form 24 March 2017; Accepted 24 March 2017
0301-4207/

region of Italy. In short, all Sardinian stone quarries were not "technically" legal (Castagna and Ruggero, 1990). Since 1961, after the registration at the Chamber of Commerce of the first Sardinian quarrying company, the ascent of Sardinian granite began.

Sardinia reached a leading position as a manufacturer of granite in Italy, increasing from 1.5% of Italian production of granite in 1961 to 50% in 1971. This rise continued and reached 90% in the nineties.

Such growth was explained by the existence of remarkably good quality material from a technical and aesthetic point of view. Furthermore, it was supported by the creation of numerous private small companies (with of 6–7 workers on average), all operating within the segment of the quarrying, which were disseminated within the producing areas (Siotto and Ullu, 1997).

Granite blocks were almost exclusively quarried to be sent overseas for sawing in the seventies. In 1981 the percentage of processed blocks in Sardinia was less than 3%. A strong industrialization process of the whole granite sector started during the eighties, with the opening of several processing plants which increased production to over 25% in the second half of the nineties, with a consequent positive economic impact at regional level.

Meanwhile, another production chain started up at the end of the sixties: the Orosei Marble. This geo-resource –to be more precise it is a polishable meta-limestone- has experienced a slow but gradual growth over the following decades to become the third exported industrial product in Sardinia after dairy and the petrochemical sector (Fuccello, 2015).

2. Historical-economical frame

In order to better evaluate the role of Sardinia within the whole sector, a display of both national and international markets are simply described below.

Fig. 1 shows production undergoing a trend of exponential growth, being increased from 1790 kt/y in 1926 to 136,500 kt/y in 2014 (Montani, 2015). Currently, China is the first raw-stone producer in the world with a share of 31.1%; UE reaches about 17%.

Much has changed in the last 20 years: Italy was the world leader in quarry production in 1996 (8.25 Mt/y accounting for 17.6% of the world production); currently Italy ranks as the sixth producing countries (6.75 Mt/y, share of 4.9%) after China, India, Turkey, Brazil and Iran. However, Italy is still the leader in Europe (share of about 31%).

What role did Sardinia have in the stone sector? The Island had a strategic role up until fifteen years ago.

Because of its multiple geological events, the lithological Sardinian landscape has offered a remarkably wide range of options with regard

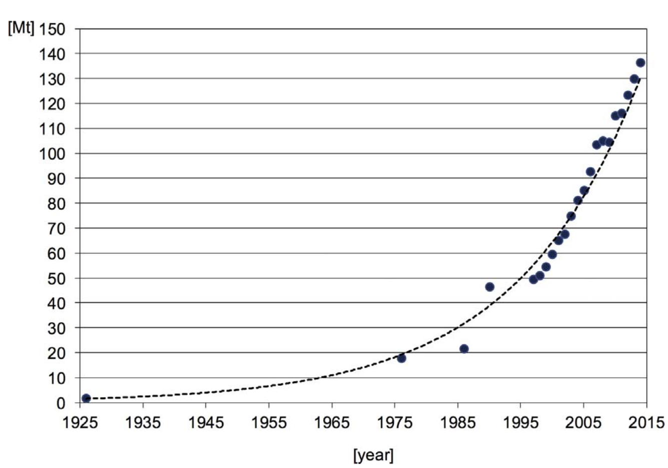

Fig. 1. Historic trend of world quarry production of natural stones (Data from Montani, 2015, elaborated by authors).

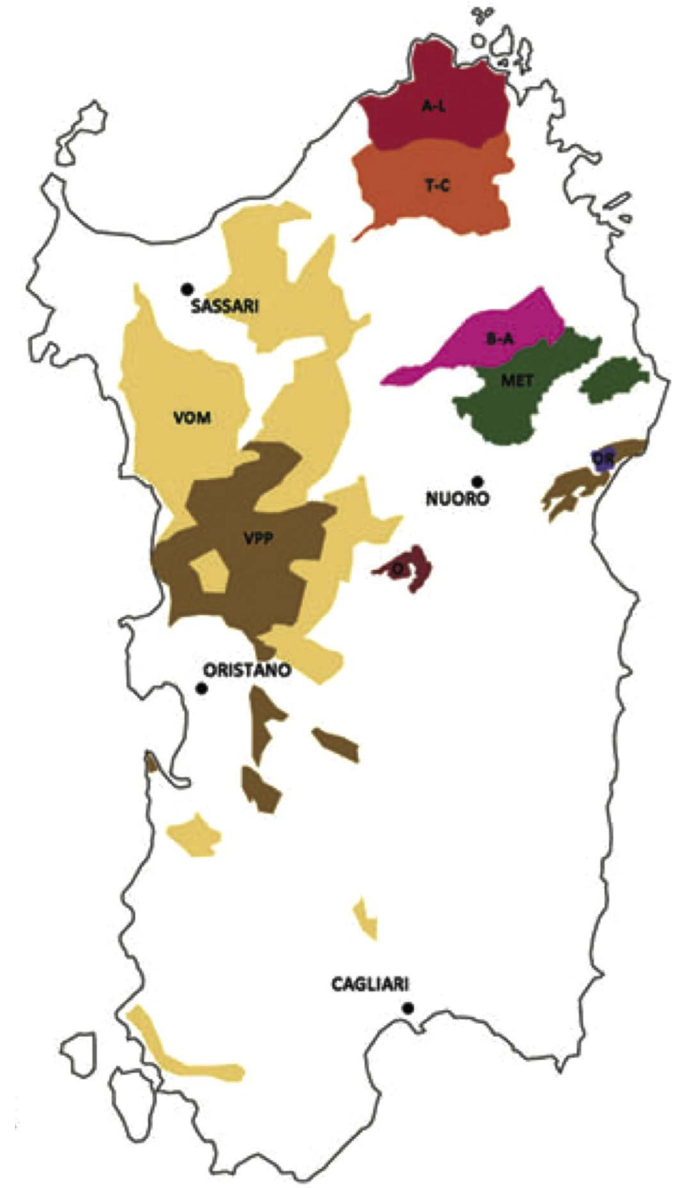

Fig. 2. Dimension stone production areas in Sardinia (from Careddu et al., 2015). Granites: A-L (rose), T-C (ghiandone), B-A (gray, white) and O (gray). Marbles: OR (Orosei marbles). Volcanic stones: VOM (trachytes, ignimbrites) and VPP (basalt). Metamorphic stones: MET (phillites and orthogneiss).

to research and quarrying ornamental stones thanks to their high features, as availability, chromaticism and workability, as well as hardness and durability (Careddu et al., 2015).

The survey in the Regional Plan of Mining Activities (PRAE Sardegna) for the Sardinia Region (Regional Law 30/89) identified eight "Dimension stone production areas", each of which features quarries for petrographically homogeneous rock types: granite (4), limestone (1), volcanic rocks (2, basalt and ignimbrites) and metamorphic rocks (1). The areas are located as shown in Fig. 2.

Sardinia shared 2.4% (equivalent in 136 kt/y) of the total Italian quarry production (including marbles, granites and stones) in 1971. This percentage rose to 9.8% (700 kt/y) ten years later (Montani, 1986). The local quarrying stone production is currently about 500 kt/y (a little more than 7% of the Italian production). Table 1 shows the historical trend in Sardinian dimension stone quarries output.