VISUAL MEMORIES OF THE MARBLE INDUSTRY

Using Cinema and Photography in Mining Heritage Studies

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The introduction of new techniques and technological equipment into the Portuguese marble industry led to an exponential increase in production and, consequently, to profound environmental and landscape changes. The fact that the techniques had previously been adopted in other marble mining regions, like Wallonia (Belgium) and Carrara (Italy), confirms the standardization of the extraction and transformation process. However, despite using the same technology, each region's local know-how and landscape features gave rise to different working contexts, many of which are not documented in written sources. Indeed, moving images and iconography prove to be a relevant source for studying local working techniques, machinery adaptations, or work distributions. Visual sources can be used to update previous studies and produce new ones, such as comparisons between quarrying techniques. Furthermore, these images prove to be a suitable and appealing educational instrument to show how technology has changed to allow firms to overcome market challenges and quarry vast mineral deposits.

(I)mmaterial heritage and culture of the marble industry

In Portugal, the marble industry was located in Pêro Pinheiro in the Sintra municipality (Lisboa District) and the Alentejo region, in Southern Portugal. In this second region, we find one of the oldest and more productive marble quarrying areas in Europe: the "Estremoz Anticline." Approximately 40 km in length and 20 km in width, it covers three municipalities – Borba, Estremoz, and Vila Viçosa. This zone is the only one that is still producing marble.[1] Marble has been quarried in Alentejo

1 CCDRA, *Cartografia Temática do Anticlinal – Zona dos Mármores*.

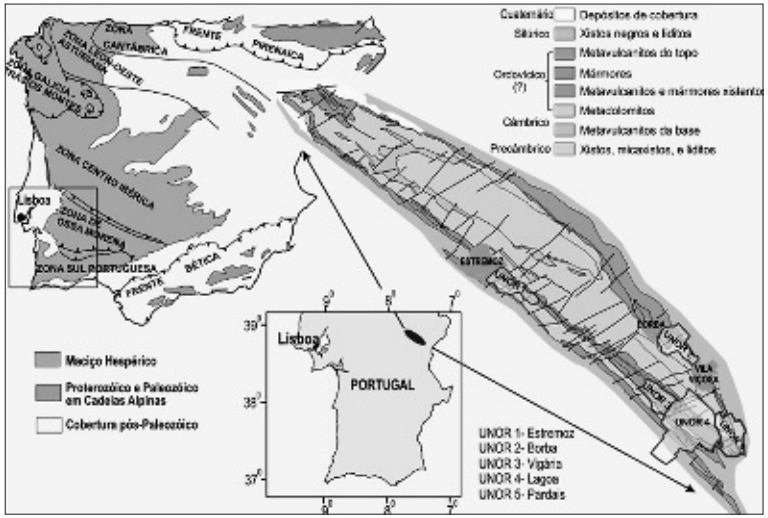

Fig. 1. The Estremoz Anticline (Source: Anticline Geologic Map, I.GM., 1997)

since the first century, and this region is one of the most important clusters of the ornamental stone industry worldwide. In 2017, it accounted for 90 percent of the 277,913 tons of marble quarried in the country, amounting to a total of 259,579 (thousand €).[2]

However, the Anticline's importance is not confined to the traditional context of the quarrying and processing industry. Over the past few years, with the emergence of the concept of *industrial heritage*, these activities started being perceived from a cultural standpoint. This view focused on new concerns with the study and protection of industrial elements – productive structures like quarries, machinery, and buildings; landscapes; the know-how of crafts and techniques; and the memories of the world of labour, based on interviews with former workers.

Intending to get to know and appreciate the territory of the marble industry and its heritage that, in 2012, the Portuguese Centre for Culture, History, Arts, and Heritage Studies (CECHAP),[3] in cooperation with several Portuguese universities launched the Heritage and History of the Marble Industry (PHIM) project. It was from that point on that this sector of the Portuguese economy was the subject of a

2 D.G.E.G., *Dados referentes à produção de pedreiras por substâncias no ano de 2017*.

3 CECHAP – (Centre for Culture, History, Arts, and Heritage Studies), Vila Viçosa (Portugal), is a nonprofit organization, founded in 2011, that organize cultural events, carries out scientific research and works in the field of industrial heritage and industrial tourism: www.cechap.com

pioneering study with a multidisciplinary dimension, whose lines of research cover Roman and Industrial Archaeology; the History of Art; the History of Construction; Architecture; Oral History; Techniques; Cartography, and Digital Humanities.[4]

The project has already produced around two dozen scientific articles and has been serving as a knowledge transfer model for industrial tourism, namely for the *Estremoz Anticline Marble Route* (http://rotadomarmoreae.com/en), supported by CECHAP, which also has a mobile application. Besides this, the research project has a dedicated online Portal, which has a documentation section. In 2015, a monograph entitled "Marble, Heritage for Alentejo: Contributions for its History 1850-1986" was published, and in 2019 another monograph appeared entitled "Mármore 2000 anos de História (Marble 2000 years of History)."

Cinema and photography as sources for comparative studies

During the industrial launch stage (1918–1928), when big companies came to the region to exploit Portugal's best marble bringing capital and expertise with them, the quarrying of marble in Alentejo benefited greatly from technologies brought from other countries by major quarrying companies. The major companies knew and were connected to business outside Portugal, and implemented their methods and machinery in the Alentejo area, adjusting their methods to the reality of the Anticline territory. The rise of industrial mining marble in Alentejo ended up overtaking activity in Sintra area (Lisbon).

There were five main companies responsible for the technological leap in Alentejo. Among these were Sociedade dos Mármores de Portugal (1923) and Sociedade Luso – Belga de Mármores (1928), which set up operations in Alentejo after World War I to quarry high-quality marble to meet the ornamental needs of a Europe under reconstruction. These pioneering companies were joined by hundreds of others over the following decades.[5] These companies had not only large amounts of capital and advanced technological knowledge, but were also managed by directors trained in mining engineering. For example, António Félix Ribeiro, from Sociedade dos Mármores de Portugal, and Leopoldo Barreiro Portas, from Sociedade Luso-Belga de Mármores, had both completed their degrees at the

4 The Heritage and History of the Marble Industry project relies on the scientific support of the CIDEHUS – University of Évora, the Institute of Contemporary History of the Nova University of Lisbon, ISCTE -IUL, CIES-IUL and the Artis Centre – Faculty of Letters of the University of Lisbon. https://www.marmore-cechap.pt/en

5 Matos and Quintas, *A afirmação*, 161-177.

Higher Technical Institute (IST) in Lisbon. Ribeiro also trained at the School of Engineers in Zwickau, Germany. Portas gained hands-on training in the Belgian region of Wallonia.[6] This experience explains the introduction of new cutting methods, such as the helical wire saw; new forms of energy, such as steam; Decauville narrow-gauge tracks; pneumatic hammers, and even new traction winches to pull blocks up from the bottom of the quarry. Such winches were used in other European quarries, namely in Wallonia, Belgium, and Carrara, Italy. The Sociedade Luso-Belga de Mármores resulted from the expansion of the major holding Merbes de Sprimont S.A., based in Wallonia, which, when its Portuguese subsidiary was founded, already controlled another five marble quarrying and processing companies in Europe (in France, Germany, Italy, England, and the Netherlands); held quarries and sawmills in Morocco; and worked with commercial agents based around the world, from Europe to Canada, South America, Turkey, and Japan. The company's technical and commercial expertise came from two Belgian companies, which had merged in 1921 and had been operating in the sector since the eighteenth and nineteenth centuries.[7]

The transfer of technology performed by global industrial firms became increasingly clear for researchers through a continuous flow of new sources of information, which reveal increasingly closer relationships in terms of working methods and tools and terms of commercial and business connections. The phenomenon of transfer has opened new lines of comparative research, such as the approach within the scope of Cinema and Photography which compares marble quarrying in different European countries.

This article focuses on films about marble work, looking for possible similarities between quarry activity, favoring study methods based on documentary cinematography. The first information was collected on the websites of the national cinematographic institutes of four countries: Italy (Istituto Nazionale Luce), Portugal (Cinemateca Nacional), Belgium (Cinémathèque Royal de Belgique), and Spain (Filmoteca Española). The information thus gathered was used to create a database of films on each of these territories, a task that was only successful in the cases of Italy and Portugal, because Spain and Belgium didn't have any available films on the marble industry.[8] None of these websites has a catalog of films about any

6 J. Rozez (ed.), *Société Anonyme Merbres*; Ribeiro, António Félix, *Os mármores do Alentejo*; Quintas and Pereira, *Industrialização*, 132-147.

7 J. Rozez (ed.), *Société Anonyme Merbres.*

8 https://www.archivioluce.com ; http://www.cinemateca.pt ; http://cinematek.be ; https://www.rtve.es/filmoteca

single country, regardless of whether or not they are available online. Portugal was the only country for which a publication exists that can be used as a catalog of national films.[9]

The research represented by this article is thus limited to Italy and Portugal. In the first case, forty films were found in Instituto Luce, nine films from British Pathé, one film via the European Films Gateway (EFG), and one film from the American Film Institut. All these together made a total of fifty-one films made on the marble industry between 1928 and 1972, of which only the one in the American institute is not available for viewing. In Cinemateca Nacional, we found nine films made between 1928 and 1972, of which only one is available online. (The film list is available on the ICOHTEC website.)

The comparison began with two documentaries on marble quarrying made in the same period, "Le cave di marmo di Carraca" (1932-37?) and "Mármores" (1934). The two films were compared on aspects including which working tools were used; how the quarries were equipped in terms of human resources and machinery; the working methods; and the energy sources that were used.

La cave di marmo di Carrara
Italy, 1932 – 1937?
Genre: Documentary
Time: 00:28:06, 18
Format: 35 mm, BW
Description: documentario sulle famose cave di marmo di Carrara.

Mármores
Portugal, 1934
Genre: Documentary
Format: 35 mm, BW
Description: The quarries of Pero Pinheiro, Sintra. Views of the work in the quarry and its facilities.

Fig. 2. Italian and Portuguese marble movies

A careful analysis found strong similarities in terms of working methods because, since they were made in the same decade, the films reveal the simultaneous use of several pieces of machinery and working techniques.[10] Firstly, the Pneumatic Drill

9 Matos-Cruz, *Prontuário do Cinema Português.*

10 Due to copyright, the article uses images from only the Portuguese film. The Italian film can be viewed online on the Instituto Luce website: https://patrimonio.archivioluce.com/luce-web/detail/IL3000052392/1/le-cave-marmo-carrara.html?startPage=360.

Fig. 3. Still images from the films showing the pneumatic drill or jackhammer in use in both Italian and Portuguese quarries in the 1930s.

or Jackhammer, which is used for vertical drilling in Carrara at minute 01:20:26, and horizontal drilling in the Portuguese quarries, at minute 02:10:13. The same information was collected from other sources, such as the catalog of the company Société Anonyme de Merbes-Sprimont, from 1928,[11] and a photograph found in the restaurant Espalha Brasas in Borba, Portugal, taken in the early 1940s. In the illustration found in the catalog, we can see the tool leaning against the block, next to the worker on the left in Italy; in the case of the Borba quarries in Portugal, the image shows us, not only these tools being used to drill the stone, but also the simultaneous use of older methods consisting of metal wedges hammered into the block, to force the marble's natural fissures to crack (see figure 3).

Secondly, the helical wire saw was used in both films. This machine replaced the wedge system in quarries and large steel saws in sawmills, making the process quicker by using silica sand as an abrasive to cut the blocks of marble. In the videos, we can see a helical wire saw cutting a block that had been extracted in Carrara (01:26:56), and we can see a similar tool being used in Portugal, attesting to its presence and importance in the most modern quarries (02:10:12). A photographic postcard found in the collection of the Bajni family from Carrara proves how easy it was to cut stone in the 1930s using this technology. Meanwhile, the illustration in an article on Vila Viçosa marble published in 1932 by the Engineer Leopoldo Portas (Portas 1932) allows us to see that a technology similar to the one found in Carrara was being used in the quarries of Vila Viçosa. Thus, we can see that this tool was already present in Alentejo – for whatever reason. (See Figure 4.)

In addition to these two examples, the films also provide us knowledge of the layout of the processing workshops in the two quarries (01:33:23) and (09:22:11), which are similar. In both cases, the workshops had to accommodate a large workforce and most tasks still depended on the strength of the workers' arms and the master stonemasons' technique.

11 Rozez, *Société Anonyme Merbres*, 46.

Fig. 4. Still images from the films showing the helical wire saw in use to cut marble blocks in both Italian and Portuguese quarries in the 1930s.

The type of landscape of the two quarries is also clearly visible in the recordings, particularly in the Italian film, where a mountain dominates the entire scene. Blocks are removed from a hill at the foot of the mountain using cutting tools or dynamite. In the Portuguese film, the wedge system of cutting blocks prevails (although the helical saw was also present) in a landscape characterized by a valley and a plain. In both cases, the films show a massive presence of workers carrying out many different tasks, as well as some pack animals.

These examples, presented here in an exploratory manner, can be complemented with other films and various sources, either from the same period or from a later one, which can provide more clues about the technologies that were gradually introduced into different quarries and about the similarities between the working methods used in across the world of marble quarrying.

Images as a gateway to the past

Cinema is a visual and sometimes audible gateway to a past crystallized in film recordings that were made for a variety of reasons. These documentaries portray, according to the film director's creativity, different aspects of the world of work and the surrounding environment, through a narrative developed to meet the desires of the author and/or the entity responsible for commissioning the documentary film. So, these are sociological products and thus have an intrinsic documentary value that offers a lot more than a simple analysis of the images.

In 1973, Martin A. Jackson argued that the historical value of cinema as a documentary source had already been recognized in 1898 when the technology was emerging.[12] The 1898 author, Boleslas Matuszewski, was a pioneer in cinematography and documentarism. Recognizing the documentary value of cinema, he proposed the creation of an archive dedicated to the preservation of moving images. This *avant-garde* proposal was dashed, largely due to the widespread understanding

12 Dupuy, "Histoire et cinema," 91.

of cinema at the time, which saw cinema as a scientific curiosity with an ephemeral nature. Even, according to popular belief, pioneers like Auguste Lumiére, allegedly referred to cinema as "an invention without future."[13] The future of cinema was seen by many as support to scientific research, and as such, limited to the academic elites. It was believed that film would never attain the status of "art" and, for that reason, would never compete with the traditional forms of entertainment. This was mainly since, at the time, cinema was limited to recording short films showing black and white, silent moving images in a fixed plane. Theatre, by comparison, had a plot, sound, and prominent artists, so it would continue to delight the public and attract investment. From that point of view, cinema, an urban phenomenon, added little to photography and illustration beyond a curiosity for moving images. Therefore, the creation of an entity aimed at the perennial preservation of cinematographic production as idealized by Matuszewski would only become a reality decades later, when cinema asserted itself as a form of art and, even later, as a documentary source. Cinema's acceptance as a documentary source was mainly the result of the evolution of cinematography and the consequent development of the documentary genre.

Filmmakers like Georges Méliès (1861-1938) envisaged a different future for cinema: the emergence of artistic films and cinema as a source of entertainment. To achieve that, the filmmaker developed several cinematographic techniques that resulted in the first production that made money: "Le Voyage dans la lune" (1902).[14] Like Méliès, others disagreed with the limited view of cinema as nothing more than a scientific instrument. The *fin-de-siècle* invention became a global industry in the first half of the twentieth century – as proved by the emergence of international production and distribution companies such as Pathé (Britain) and Gaumont (France).

In the twentieth century, new cinematographic paradigms were developed as a result of competition in the cinematographic sector and the status that cinema had attained as a new form of artistic expression. There was a broad range of cinematographic genres that were reaching an increasingly larger audience. Film, more affordable than opera or theatre, quickly became a cultural product for mass consumption by urban populations.

In the 1910s, the artistic inclination of filmmakers like D.W. Grifftith established the canons of the new cinematography. Free from the shackles of fixed planes and newsreel, cinema was no longer seen as a "sideshow attraction."[15] By the 1920s, cinema was gradually starting to be seen as an "art", namely thanks to the

13 Naremore, *An Invention without a Future*.

14 Betton, *História do Cinema*, 10-11.

15 Lauro, *David W. Griffith*, 10.

cinematographies developed by the French impressionist school (led by Louis Delluc); the German expressionism (Fritz Lang, Robert Wienne or F.W. Murnau); the Hollywood industry – particularly United Artists Corporation (founded by Charles Chaplin, D.W. Griffith, Douglas Fairbanks, and Mary Pickford); and by the Soviet school from which names like Dziga Vertov, Lev Kulechov, and Sergei Eisenstein emerged.[16]

The 1920s marked the emergence of the paradigm of documentary cinema, as Robert Flatherty (1884-1951) and Dziga Vertov (1895-1954) in the works "Nanook of the North" (1922) and "Man with a Movie Camera" (1929), respectively, paved the way to the construction of the identity of the documentary film genre and the documentarist.[17] The documentary film genre originates in the *documentaires* and newsreels genres that were directed by the pioneers of cinema who traveled to different places to film what the public was unable to see. By doing this, they proved the potential of the technology of cinema to "show" the world. However, despite the similarity of the documentary with the aforementioned genres (*documentaires* and newsreels) – the images capture *in loco* and filming "real people" instead of actors – there is a characteristic that distinguishes them: the editing.[18] While in *documentaires* and newsreels filmmakers went no further than capturing their perspective on film, in the documentary genre the images obtained *in loco* were organized in a narrative sequence – a "creative treatment of actuality," as John Grierson (1898-1972), in one a more simplistic view, defined the concept of documentary.[19] This definition explains the potential instrumentalization of film, in this case, documentary, because communicating a specific "past" legitimized by "real" images affects and has repercussions on the present – hence the reservations expressed by some researchers when it comes to accepting cinema as a source of information.[20]

The recognition of cinema as a form of art and of its simultaneous value as a documentary source – the latter due mainly to the development of non-fiction genres (documentary and newsreels) – led, in the 1930s, to the first experiments of creation of non-private archives. These were the Svenska Filmsanfundet (Sweden, 1933), the Reichsfilmarchiv (Germany, 1934), the National Film Library integrated into the Museum of Modern Art (MoMa) (United States of America, 1935), the British

16 Betton, *História do Cinema*, 12-32.

17 Penafria, *O filme documentário*, 39.

18 Penafria, *O filme documentário*, 45-47.

19 Quoted in Nichols, *Introduction to documentary*, 6.

20 Martins, *O cinema em Portugal*.

Film Institute (BFI) (England, 1935), the Cineteca Italiana (1935), and the Cinémathèque Française (France, 1937). Later on, in 1938, the British Film Institute, the Museum of Modern Art, the Reichsfilmarchiv, and the Cinémathèque Française, created the first global organization aimed at preserving and providing access to moving image archives: the Fédération Internationale des Archives du Film (FIAF). Despite this recognition of cinema as a source of information, it continued to be underestimated in academic research.

The problem of using cinema as a source of information in history only started to be widely discussed in academia in the second half of the twentieth century. Marc Ferro's article "Société du XXe siècle et histoire cinématographique," published in 1968, was a key contribution to this change, as it triggered a continuous and systematic debate on cinema as a historiographical source.[21] Following this article, authors like Pierre Sorlin and Gilles Deleuze wrote on the subject.[22] Like Ferro's articles, part of these articles were quickly translated into English and German, possibly since they coincided with the emergence of the teaching of cinema in higher education institutions. Gradually, studies on cinema and history started to appear in European and American universities. Marc Ferro, for example, was invited to teach a course in this area at the École d'hautes études en sciences sociales (EHESS) in France.

The way that we can get to know the "past," the conditions for access to it, and the sources that are legitimate to acquire further knowledge are the key issues of the theory of historiography.[23] A film, as any other sociocultural product used as a historiographical source, has a duration that goes beyond the geography and chronology of its production. Therefore, once the historical approach is defined the basic principles for handling sources and conducting historiographic research must be observed concerning films (i.e., cross-referencing data and placing documents in the time and space of their production) to use them correctly. In other words, the film analysis must take into account the circumstances under which the film was produced (political, artistic, technical, and economic circumstances), as well as of its intended use in space and time.[24]

The fact that cinema can be treated as a documentary source is representative of the role played by technology in the construction of history, as it has brought different ways of knowing the past to the present. It is important to keep in mind, however, that film does not give us access to a raw and straightforward past, but

21 Pithon, "Cinéma et histoire," 91.

22 Garçon and Sorlin 1981; Deluze 2004

23 Martins, *O cinema em Portugal*, 19.

24 Gardies, *Compreeender o cinema*, 118.

rather it is a construction with filters.[25] For this reason, it is a dual source of information for historians, as it is possible to analyze both what was recorded and what was not recorded. That is the paradigm of the visible (shot) and the non-visible (reverse shot) as stated by Marc Ferro.[26] The "visible" or "the shot" is the images that the audiences see on the screen, and the "invisible" or the "reverse shot" is the cultural, and socioeconomic background in which a film is made.

Using images (both still and moving) as a historiographical source for research on the European marble industry is a perfect example of what we have just described, knowing when you can credit or discredit an image as a source of information. From that point of view, this essay reveals a doubly unprecedented result: first, it gives a comparative analysis of working techniques and technologies in marble quarries from two countries (Portugal and Italy) based on moving images and second, it includes a survey of films on marble quarrying kept in international archives. However, while recognizing the relevance of the information discussed here, the non-visible aspects ("reverse shot") of the two documentaries still need to be explored.

Thomas Elsaesser has thought about the way that the historian should start to explore any of the thousands of useful films in archives – of which industrial documentaries are only a subcategory. This is a good starting point. According to Elsaesser's approach, known as the "3 As", the historian should start by reconstructing the circumstances in which the film was produced, considering three different parameters: *Anlass,* or why the film was produced; *Adressat*, or to whom it was addressed (audience); and *Auftraggeber*, or who commissioned and financed the production.[27] However, as this is an analysis of industrial films, which were financed predominantly by corporate initiative, we consider that this approach should be complemented by the theory of the "3 Rs" – *record, rhetoric, rationalization* – developed by Hediger and Vonderau.[28] Because communication is key for the stability and management of industrial organizations, using media - including cinema - as a vehicle of information is crucial for success. From this point of view, media provides companies with an institutional memory (a record); pass on the culture, values, and objectives of the companies to their employees (rhetoric); and contributes to ensuring and improve organizational performance at various levels (i.e., product development, production, record, marketing).[29]

25 Martins, *O cinema em Portugal*, 19-21.

26 Ferro, *Cinema and History*, 29-44.

27 Hediger and Vonderau, *Films that Work*, 36-37.

28 Hediger and Vondera, *Films that Work*, 39-46.

29 Hediger and Vonderau, *Films that Work*.

The 3Rs can be applied to archive photographs and footage concerning industry and labour. Such media does many things: it records infrastructures, machinery, products, or employees and it documents visits to factories, company meetings, shareholder meetings, participation in trade fairs or as in the case of the documents under analysis, different working environments. In the specific case of industrial films, various sub-genres should be reflected in any sample: "process" films, which show the history of a product from the extraction of raw materials to the shipping of the finished product, and "educational" films, which train employees to enhance their skills or learn new ones. Thus film and photography are a starting point, rather than an endpoint, for research. Discovering archive images enables us to reconstruct the circumstances in which they were produced, and those data allow us to increase our knowledge of – in this case – the European marble industry and companies.

Conclusion

We can divide the conclusions of this study into two parts: the first one concerns the results of our research on the evolution of the marble quarrying and processing industry in Portugal, namely in the region of the Estremoz Anticline; the second one is about the use of the image (photography and cinema) as a source of information.

The results obtained have shown how the knowledge of the historical evolution of the marble industry can help make this activity valuable in other economic sectors, namely the cultural and artistic sector. Industrial Heritage studies, which have raised the community's awareness of the issue of the recognition of the material and immaterial memory connected to the marble industry as both heritage and as a source of economic income, have been crucial to this outcome.

Our surveys carried out in national and international film and photography archives, bring new momentum to the studies that have already been carried out, paving the way to complementary research and comparative studies. This essay and its identification of archive footage and photographs, intended to show the value of images as a documentary source, also hopes to foster cooperation between the institutions responsible for preserving and studying the memory of the marble industry in Portugal, Italy, Belgium, and Spain.

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Annex – Italian films on the marble industry

Year	Title	Production
1906	Marble Industry at Carrara	Pathé Frères
1914	Industrie des Marbres à Carrare	Marmi di Carrara
1924 – 1931 (?)	Marmi di Carrara	Pathé Frères
1924 - 1931	Lavorazione del marmo	Gaumont
1927	Lavoro nelle cave di Marmo	
1927	Italia al Lavoro. La sezione Italiana alla Fiera Internazionale di Francoforte sur Meno	Istituto Nazionale Luce
1927	Adunata sindicale fascista dei lavoratori del marmo a Carrara	Istituto Nazionale Luce
1928	A Carrara il monolite marmoreo per la colonna Mussolini	Istituto Nazionale Luce
1928	La lizzatura del monolite marmoreo di Carrara	
1928	Difficile passaggio del monolite marmoreo di Carrara	
1929	The largest Marble monolith in the world	British Pathé
1929	Mussolini'Column	British Pathé
1929	Trasporto del monolite di marmo da Carrara	

Annex – Italian films on the marble industry (cont.)

Year	Title	Production
1929	La cerimonia per la partenza del monolite di marmo da Marina di Carrara verso Roma	
1929	Giunge a Fiumicino il monolite di marmo di Carrara destinato al Foro Mussolini	
1929	Il monolite di marmo di Carrara trasportato sul fiume Tevere	
1930	Transport marble stone for Mussolini	British Pathé
1930	Arrivo a Roma del monolite	
1930	A Roma trasporto del monolite	
1931	A Roma i lavori per le fondamenta del monolite al Foro Mussolini	
1932-1937 (?)	Le cave di marmo di Carrara	Istituto Nazionale Luce
1932	Una grande mina di 200 quintali	
1932	Carrara. Una gigantesca mina di 200 quitali di esplosivo fa crollare un costone di 300 mila metri cubi di marmo sulle alpi apuane	

Annex – Italian films on the marble industry (cont.)

Year	Title	Production
1932	The Mussolini monolith 400t obelisk of Carrara Marble erecte in Rome	British Pathé
1932	Blowing Up a Mountain	British Pathé
1934	Marble Cloud	British Pathé
1941	Pietrasanta - Scuola d'arte per la lavorazione del marmo	Istituto Nazionale Luce
1943	La montagna bianca	Istituto Nazionale Luce
1949	Dalle cave di Carrara proviene il blocco di marmo dal quale lo scultore Signori estrarrà il monumento dedicato ai Rosselli.	
1949	Gruppo marmoreo di Santa Giovanna Thouret	
1952	La 16 Mostra internazionale dell'artigianato a Firenze	
1953	Una scuola d'arte a Firenze	
1954	Marble Quarry	British Pathé
1955	70 mila tonnellate di marmo	
1956	Varata di marmo nelle cave di Carrara	Astra Cinematografica
1958	Ricordi d'Italia - La Toscana	Istituto Nazionale Luce

Annex – Italian films on the marble industry (cont.)

Year	Title	Production
1959	Rimini - l'arte della tarsia sul marmo	Cia. Italiana Attualità Cinmatographiche
1960	Sicilia - marmi pregiati Sicilia - coltivazione delle olive	Cia. Italiana Attualità Cinmatographiche
1961	Da mille anni	Corona Cinematografica
1961	L'industria del marmo in Sicilia	
1961	SICILIA: il marmo delle Egadi	Cia. Italiana Attualità Cinmatographiche
1962	Sicilia - marmi pregiati in tutto il mondo	
1963	Corrida Bianca	Corona Cinematografica
1963	Visita all'industria per la lavorazione del marmo di Massa Carrara "Marino"	
1964	Marmo siciliano	
1964	Sicilia: Industria dei marmi	Cia. Italiana Attualità Cinmatographiche
1966	La patria di marmo	Onda produzione
1966	Cave di marmo sulla Alpi Apuane.	
1967	British Sculptor Henry Moore selects the marble for his year’s work	
1977	Il lavoro nelle cave di marmo di Carrara	

Annex – Portuguese films on the marble industry

Year	Title	Production
1928	Mármores de Vila Viçosa	Raul Lopes Freire
1929	Exploração de Pedreiras	Filmes Castelo Lopes
1929	Revista Mundial nª 520 (pedreiras)	Lisboa Filme
1931	Mármores de Portugal	Ulysseia Filme
1931	Mármores Portugueses	Lisboa Filme
1933	Pedras de Portugal	Manuel Luís Vieira
1934	Mármores	
1938	Pedras Cinzeladas	Manuel Luís Vieira
1972	Mármores Portugueses	Cinegra