

My favourite book at the Iron Library

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“Gods of mines and quarries in the Roman Empire” is the postdoctoral project I am developing at the Centre d’étude des Mondes Anciens of UCLouvain (Belgium). This project is financed by the Belgian FNRS and directed by Prof. Françoise Van Haepere (PDR T023419F). The objective of my investigation is to link the stages of the work-chain to the spheres of action of Roman gods honoured in mines and quarries, in order to understand how divine forces interacted with the needs of people working in natural resource extraction areas. A further aim of the research is to reconstruct, on the basis of the importance assumed by each divine competence in a single or a group of mineral deposits, the internal and external hierarchy perceived by the devotees who frequented them. This research feeds with an anthropological and economical perspective my interest for the mechanisms of Roman polytheism. This interest originated at the University of Siena, where I worked on epigraphical documents mentioning the *magistrae* and *ministrae*, priestesses of Bona Dea, and continued at the University of Cantabria, where I focused on the whole aspects concerning the sphere of influence and the agency of that italic goddess.

"Terra Mare Cielo. Origine e sviluppi della Fiat : organizzazione, impianti, produzioni" (Turin, 1947)

Mining in Piedmont (Italy) from the Roman age to FIAT automotive industries

Among the rich collection of volumes concerning ancient metallurgy held by the Iron Library, I have chosen “FIAT. Terra Mare Cielo” as my favourite book (Iron Library Bw 370). The book is part of a celebrative series that the Italian car factory FIAT Automobili, based in Torino, Piedmont, published between the Thirties and the Forties of the 20th century. The whole collection can be found online at the “Deposito digitale” of the Politecnico di Torino, (<https://digit.biblio.polito.it/3457/>). The volume n. 4, the only one owned by the Library, was published in Turin in 1947 by the FIAT Press Service. Another celebrative book about the production of FIAT and its social environment, published in 1934, has been digitalised by the Museo delle Automobili di Torino <https://www.museotorino.it/resources/pdf/books/206>.

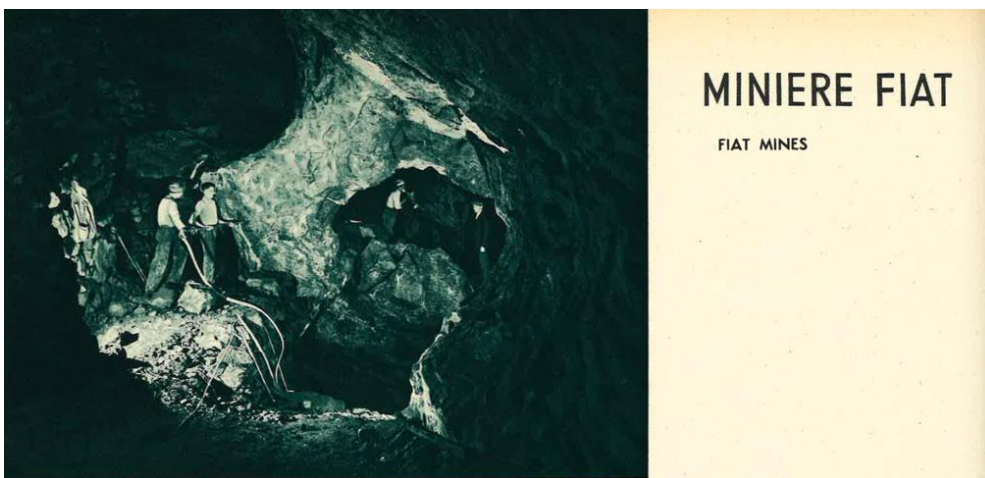
The volume that caught my attention gives large importance to photography. Each photograph, painting or drawing is accompanied by a short text, translated into French and English. The historical moment in which the book was printed justifies some stylistic choices. The graphic design shows the legacy of a fascist aesthetic, already evident in the choice of the “shouting” characters employed for the title 'Terra, Mare, Cielo' and for the opening picture, an impression by the painter Felice Casorati. His opposition to fascism, which led Casorati to a brief arrest in 1923, did not prevent him from adhering to certain pictorial styles of the time, including magic realism, an artistic-literary current of German inspiration, which Casorati's work is part of.



Depiction of work in a foundry by F. Casorati, p. 23.
(Image: Deposito digitale, Politecnico di Torino)

Leafing through the book, there is some common ground between the strategic choices made by the Romans, the protagonists of the volumes on ancient mining history stacked on my desk, and those made by FIAT entrepreneurs in the early decades of the last century. In the first chapter, named “Miniere FIAT”, the authors emphasise that at the beginning of the 19th century, when FIAT Automobili was set up in Turin, the production of vehicles required first and foremost the availability of raw materials, especially metals.

The nearest metal-producing districts were located in the Piedmontese Alps, one of the richest of the Italian peninsula. “FIAT carries on mining activities in different parts of the Piedmontese Alps, bringing back to useful life mines hundreds of years old and seeking out fresh deposits”, say the authors.



In a tunnel of the FIAT mines, p. 24.
(Image: Deposito digitale, Politecnico di Torino)

There are two areas between Valle d’Aosta and Piedmont to which ancient literary sources allude regarding mining activity. Pliny the Elder refers to a censorship measure that in the Republican age concerned the aurifodinae Victimularum, gold mines belonging to the territory of Vercellae. The naturalist reports that this *lex censoria* prevented the *publicani* who controlled the district from employing a workforce of more than 5,000 miners¹. This mining district was the one controlled by the population of Ictimuli, inhabitants of the *ager* between Augusta Eporedia to Vercellae (Vercelli)².

As we know from Strabo and Cassius Dio³, in the first war against the Salassi (143-140 B.C.), the Romans, led by the consul Appius Claudius Pulcher, secured control of the mines, which were however placed before the morainic amphitheatre of Ivrea⁴. The Salassi were a celtic population settled in the historical region of Canavese and along the valley of the Dora Baltea river. They conducted their activities in the southern front of the Ivrea morainic amphitheatre. Remains can be seen on the banks of two rivers: the Dora Baltea (in the municipalities of Mazzé and Villareggia) and the Dora Morta (in the municipalities of Borgo d’Ale, Alice and Cavaglià).

For this reason, the use of the water necessary to refine the extracted metal remained under the jurisdiction of the occupants, and the *publicani* were obliged to buy water resources from the Salassi. It was not until 100 B.C. that the Romans extended their domination over the plain and high ground, at the same time founding the colony of Augusta Eporedia (Ivrea)⁵. After a series of expeditions with uncertain results, Augustus established a garrison headed by Aulus Terentius Varro Murena, who founded Augusta Praetoria Salassorum (Aosta) in 25 B.C., allowing the use of the via Publica (via Gallica), a communication axis linking Cisalpine Gaul with Transalpine Gaul and which passes through the Great St Bernard pass⁶.

It is in the Salassi metal deposits, in particular in the Traversella mine and in the Canavese area, where pre-Roman populations and Romans were searching for gold and silver, that FIAT searched for raw materials⁷. Magnetite and specular iron were used in its foundries, the “Ferriere FIAT”, whose production plants were located in Turin and Avigliana, in the vicinity of the city. In both, as the text at the bottom of the picture of a foundry points out, Martin and FIAT electric furnaces were installed.

¹ Plin., *Nat. Hist.*, XXXIII, 78.

² AA.VV. Bessa 2008, p. 3-5; Hirt 2010, p. 91; 279; Gatto 2021.

³ Strab., IV, 6, 7; Dio, XXII, 74, 1.

⁴ Brecciaroli Taborrelli 1988, p. 134.

⁵ Pipino 2005, pp. 630-632.

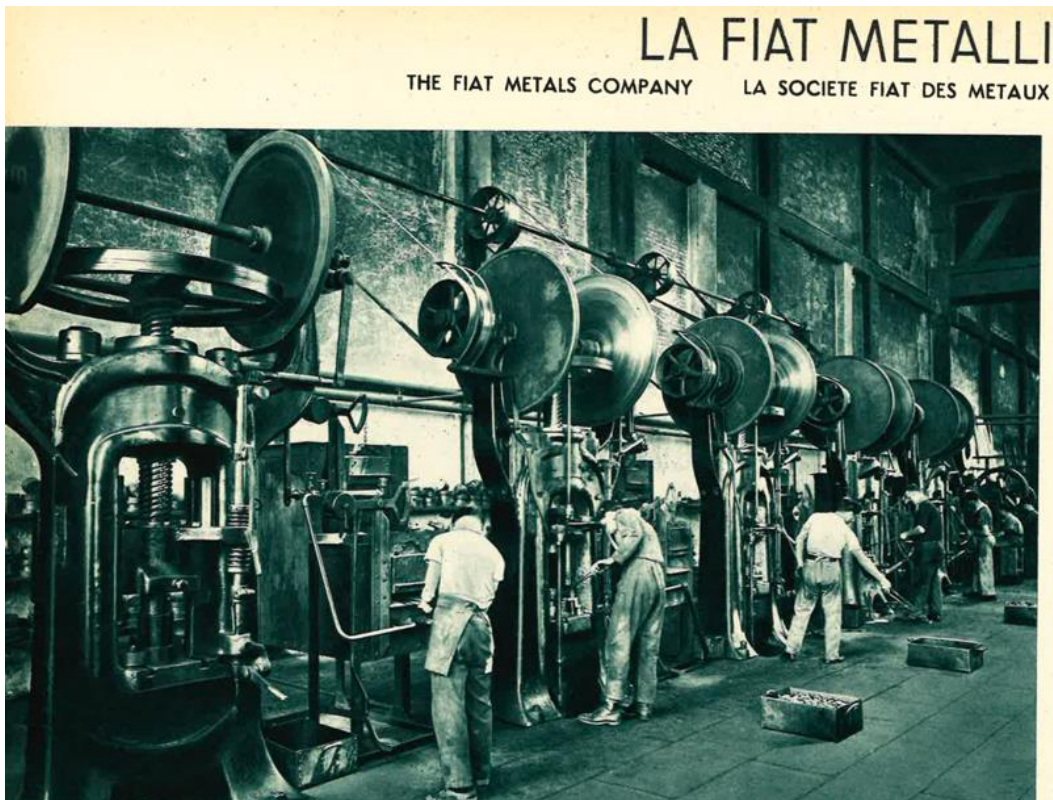
⁶ Strab., IV, 7.

⁷ For more information on Traversella mine and the minerals that were available in the area, see <https://www.mindat.org/loc-2105.html>



The FIAT foundries, p. 8.

(Image: Deposito digitale, Politecnico di Torino)



Technicians hard at work processing metal products in the FIAT foundries, p. 33.

(Image: Deposito digitale, Politecnico di Torino)

The FIAT foundries were producing steel in lingots and castings (large and small, from 30 tons to one ounce), as well as forged and deep drawn parts. Other products included rolled sections and drop forgings in brass-bronze and copper-aluminium.

A good road network was necessary for the trade of the extracted raw materials during the activity of the FIAT factory, as well as in Roman times. Although the name of the route is not specified in the caption in Fig. (?), this is a further point underlined by the book the image closing the volume reproduces the route of a Roman road. Given the central Italian origins of the engraver Giovanni Colacicchi, this could hardly be considered as a faithful reproduction of the mentioned Via dei Galli and the surrounding landscape, but it is probably the latter that the Authors intends to refer to.



“Prima la strada”. The poignant illustration of a Roman road by G. Colacicchi, p. 34.
(Image: Deposito digitale, Politecnico di Torino)

The volume in the library’s possession focuses also on the social aspects related to the establishment of FIAT's industries in Turin. The need for labour in the various stages of production led to important migratory flows from all Italian regions, particularly intense from the south. A comprehensive volume, 'Terra Mare Cielo' depicts numerous cultural initiatives that were designed to involve workers and their families. The so-called “social Institutions and works” included the Fiat Holiday home “Torre Balilla”, in Marina di Massa (Tuscany), dedicated to summer holidays, and “Sestriere 2000”, a tourist center and winter sports resort. Finally, in Val Chisone, in the Cottian Alps, the Agnelli family, one of the main investors in the FIAT group, built the “Agnelli Sanatoria”, a hospital specialised in the treatment of tuberculosis diseases.

As was the case in Roman times, at the beginning of the last century FIAT entrepreneurs chose an area where the required natural resources were easily available. 'Terra, Mare, Cielo' shows

how the establishment of the FIAT factories in Turin brought with it a series of related phenomena. The great demand of manpower mobilised workers and entire families from all over Italy, to whom the company offered ad hoc services. Summer and winter holiday resorts, hospital facilities and more, all the initiatives influenced by the style of the time.

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Online Version: <https://www.eisenbibliothek.ch/en/research/favorite/favorite21.html>