

Nenad Fejic

*An apparent paradox: wool as an alternative currency for merchants and weavers in Dubrovnik (Ragusa) in the 15<sup>th</sup> century*

## 1. The manufacture and trade of wool: a focal point of the first two Settimane Datini

In approaching the subject that the scientific committee has chosen for this 54<sup>th</sup> «*settimana di studi*», we would like to go briefly back in time for more than half a century and recall here the first two «*settimane*» of 1969 and 1970, dedicated, for the first one to «*La lana come materia prima: I fenomeni della sua produzione e circolazione nei secoli XIII-XVII*» and the second one to «*La produzione, commercio e consumo, dei panni di lana nei secoli XII-XVIII*». These two weeks of study are closely associated with the names of Fernand Braudel and Federico Melis, the founding fathers of the prestigious institute which brings us together today in Prato.

Since that time, eminent scholars starting with some of the contributors to the first two «*settimane*», such as Jorjo Tadic (Tadic, 1974) and Barisa Krekic (Krekic, 1976), have studied the lives and destinies of merchants who came to Dubrovnik from various Mediterranean countries and whose activities were closely linked to the wool trade and the production of woollen fabrics. Not to forget our distinguished colleagues Paola Pinelli (Pinelli, 2006, 2013), and Francesco Bettarini (Bettarini 2012, 2016), who, thanks to the research work made in the Datini archives of Prato, have removed, more recently, the last doubts about the presence of merchants and weavers from Prato and, more widely, from Tuscany in Dubrovnik in the 15<sup>th</sup> century. The subject we propose to discuss in this contribution is, therefore, part of a research field continuum.

We want to focus on a specific aspect less often highlighted by scholars and which nevertheless underpinned the production-related and commercial flows of wool in Dubrovnik. We would indeed like to discuss the partial replacement of real money – the silver *grossi* – and money of account – the *hyperperi* – by wool and woollen fabrics, in the relationships between merchants and weavers, in the first half of the 15<sup>th</sup> century.

Facing the wealth of the archives of Dubrovnik as well as the immense bibliography devoted to the history of the production and trade of wool and woollen fabrics in Dubrovnik, we had to make a choice and approach the question of wool as an alternative currency from the point of view of merchants and weavers from the Iberian Peninsula, primarily the Catalans.

Nenad Fejic, University of the French West Indies and Guiana, France, n.fejic@gmail.com

Referee List (DOI 10.36253/fup\_referee\_list)

FUP Best Practice in Scholarly Publishing (DOI 10.36253/fup\_best\_practice)

Nenad Fejic, *An apparent paradox: wool as an alternative currency for merchants and weavers in Dubrovnik (Ragusa) in the 15<sup>th</sup> century*, © Author(s), CC BY 4.0, DOI 10.36253/979-12-215-0347-0.20, in Angela Orlandi (edited by), *Mezzi di scambio non monetari. Merci e servizi come monete alternative nelle economie dei secoli XIII-XVIII / Alternative currencies. Commodities and services as exchange currencies in the monetarized economies of the 13<sup>th</sup> to 18<sup>th</sup> centuries*, pp. 325-336, 2024, published by Firenze University Press, ISBN 979-12-215-0347-0, DOI 10.36253/979-12-215-0347-0

## 1.1 Wool as an alternative currency in Dubrovnik: for which category of user?

The first question to ask ourselves is: was wool an alternative currency for all Iberian weavers and merchants active on the local market in the 15<sup>th</sup> century? The answer must be nuanced, as in the 15<sup>th</sup> century alone, more than 245 merchants from different cities of the Iberian Peninsula were active in Dubrovnik (Fejic, 1988). The Catalans were by far the most numerous, contributing to the fact that in modern historiography on Dubrovnik, the incomers from the states and cities of the Iberian Peninsula were mostly identified as Catalans. But the reality was more complex in Dubrovnik, where we identified in the archival documents, in addition to the Catalans, merchants and craftsmen whose origin was designated as from Barcelona, Tortosa, Mallorca, Valencia, Tarragona, Perpignan, Navarra, Narbonne, Cagliari, Zaragoza, Syracuse, Alicante, Granollers, or as from Castilla, Aragon, Spain and Portugal. And their use of an alternative currency varied considerably, according to their precise role in the wool trade and manufacture.

The most important merchants who entrusted large quantities of wool from Barcelona and Tortosa to the care of their local agents in Dubrovnik and therefore made the most profit from the sale of this article on the local market very rarely travelled overseas themselves. They belonged to the Barcelona patriciate, were sometimes members of the governing councils of the city, or high-ranking officers of the Catalan customs service, such as the Guiberts, the De Rodas, or members of Florentine families settled permanently in the Catalan capital, such as the Davanzatis, the Aldobrandis, the Neronis. (Battle-Gallart, 1973, 453; Fejic, 1988, 158-59, 163). The presence of their names in governmental, notarial or judicial registers in Dubrovnik is, therefore, more discreet than in the Catalan cities, being relegated to the background by the presence of their local agents in the Dalmatian city.<sup>1</sup> From the point of view of these great merchants living in Catalan cities, wool was a commodity like any other, insured by local insurers and transported to the Adriatic ports by local, mainly Catalan ship owners. Both insurance and transport prices were therefore expressed in local Catalan currency, whether real or of account. The silver coins – croats – and gold coins – the Aragon florin – were mostly used as real money. As the currency of account, *solidi* and *librae* were used, where 20 *solidi* corresponded to 1 *libra* (Mateu y Llopis, 1946).

Then, there was a second category of medium-sized Catalan merchants who assumed a dual function: agents acting in Dubrovnik for their respective patrons in Barcelona and, at the same time, local merchants who managed their own affairs. The members of this second category usually stayed long in Dubrovnik and developed relations with foreigners and local people at many levels. They sometimes married women from local families and often died in the Dalmatian city, having designated by testamentary dispositions, their heirs in Dubrovnik or their native cities in Catalonia (Fejic, 1994, 429-52). We will mention here just the names of two of

---

<sup>1</sup> To find out the names of the great merchants who sent wool from Barcelona to Dubrovnik, two Catalan archives are particularly important: the Notarial Archives (AHPB) and the Municipal Archives (AHCB) located in Barcelona.

these local agents, Bernard Guasquill and Anthony Brull, both Catalans from Tortosa. They lived in Dubrovnik, the first for 16 years (1420-1436) and the second for 15 years (1436-1451), and their lives provide documents for real prosopographic studies (Fejic, 1988, 128-130, 150-153). They were known for using wool as a parallel currency in many cases while at the same time maintaining an activity that was firmly anchored in classical monetary practice, that of gold and silver money, the money of account, and the forwarding and reception of bills of exchange.

Finally, there was a third category of people of Catalan origin: the craftsmen. These craftsmen were involved in different stages, from raw wool treatment to producing finished fabrics. They were the least favoured and most precarious category of Catalans in Dubrovnik, both economically and socially. In most cases, the local registers in Dubrovnik reveal neither their precise origins nor the exact circumstances of their arrival in the Dalmatian city. Having no capital, they could only rent their labour to their wealthier compatriots or the Ragusans. In the best of cases, after some attempts, they created small weaving, fulling or carding workshops that were never safe from sudden reversals of fortune (Fejic, 1996, 83-90). It is precisely this third and most modest category of Catalans who, having no money of their own, has left the most numerous testimonies in local Ragusan sources on using wool as an alternative currency.

## 1.2 Wool as an alternative currency in credit transactions

In the credit contracts, wool was used as the currency advanced by the creditor. The debtor – the weaver – had to process the wool and repay the credit in the form of fabrics in various stages of completion. His work as a weaver added value to the wool, and the result of this work – the fabric provided to the creditor – also included an interest paid on top of the quantity of wool received. As we will see, in this case, the wool had a value agreed upon between the creditor and the debtor. Still, the challenge for historians is that the monetary counterpart for wool credits was only sometimes included in the contracts and was tacitly admitted. In such cases, the wool was set up as an alternative currency, reciprocally accepted by the creditor and the debtor (Voje, 1976, 94-104).

In the general absence of precise currency references for the credits in raw wool contracted by small weavers, we must try to establish the link between money and the cost of wool in Dubrovnik and then transfer this relationship to the contracts where the amount of the credit was established exclusively in the quantity of wool given by the creditor merchant to the debtor weaver. Any constant and regular relationship between the amount of wool advanced and the number, or even the dimensions of the fabrics recovered by the creditor throughout the 15<sup>th</sup> century, would make possible the evaluation of wool as a monetary instrument in Dubrovnik. This task is made even more difficult by the fact that the instruments of payment in Dubrovnik, as elsewhere at the time, were both real money – in gold or silver – and money of account.

Without going into detail about the monetary system in Dubrovnik (Resetar, 1924-1925), it should be pointed out that in terms of real money in gold, the Venetian

ducats were the most present in circulation, followed by Florentine florins. The real silver money was mostly represented by the Ragusan silver *denarii grossi*, and to a lesser extent, by silver coins minted in the neighbouring kingdoms of Serbia and Bosnia.

The currency of account in Dubrovnik was the Ragusan *hyperperus*. Knowing that the ratio of the silver *grossi* to the *hyperperi* was 12 *grossi* to 1 *hyperperus*, and that this ratio was unchanging, one can follow the rate of devaluation of the real currency, the silver *grossi*, against the Venetian ducats and consequently also the devaluation of the current money of account, the *hyperperi*, throughout the 15<sup>th</sup> century (Krekić, 1980, VIII, 252-53). It is therefore also possible to follow – and this is what interests us in particular – the changes in the price of wool as an alternative currency in Dubrovnik, firstly, in the granting and refunding of credits between merchants and weavers, secondly, in the summonses to pay when debts in wool were the cause of disputes between creditors and debtors, before the civil court and thirdly, in partnership contracts related to the production of woollen fabrics in which the contributions in wool participated to the same degree as money in the profits and the losses of the parties involved. Wool, as an alternative currency, was therefore mentioned in the following registers of the Dubrovnik archives (DAD): *Debita Notariae* for credit transactions, *Sententiae Cancellariae* for summonses to pay addressed to defaulting debtors, and *Diversa Notariae* for partnership contracts in the production of woollen fabrics.

As an alternative currency, wool was subject to devaluation, resulting in inflation, which caused severe problems to creditors and debtors who used wool and woollen fabrics as instruments of credit and repayment. In many cases, this resulted in clauses opening the way for subsequent readjustments regarding the number of fabrics to be produced from a previously specified quantity of wool supplied by the creditor to the debtor.

To try to answer the first question about the price of wool in real money and account money, we refer to table 1, which shows the variations in the price of wool in the Ragusan market. This table shows some examples of the granting of credit in wool in Dubrovnik between 1431 and 1434, the period of greatest activity in the sale of wool and woollen fabric production in the 15<sup>th</sup> century. When the credit was advanced in wool by the merchant to the weaver, it was expressed in the weight of the credited wool, i.e., in *miliarii*. Knowing that the *miliarium* corresponded to the weight of 1 000 *librae*, and that the weight of a *libra* «*ad pondus grossum*» corresponded in Dubrovnik to 358,104 gr, the *miliarium* of wool was approximately equivalent to 358 kg of wool.<sup>2</sup> The examples given, correspond respectively to 3 580 kg, in the first two cases, to 1 432 kg in the third case, and to 1 074 kg in the last two cases of the table 1. But, as we can see in the next column, the amount of the credit was expressed in different ways: for the first two examples, a fixed price in ducats for the *miliarium* of wool advanced. For the last three examples, the prices are expressed for the whole quantity of wool, respectively 110 ducats, an unspecified price in ducats and a price of 100 ducats and 12 *grossi* advanced to the borrower. We can therefore say that a

---

<sup>2</sup> Two types of *librae* were used in Dubrovnik in the Middle Ages. The "libra ad pondus grossum" which weighed 358.104 grams and the "libra ad pondus subtile" which weighed 327.923 grams). The "libra grossa" was used to weigh all goods except precious metals, gold, silver and pearls (Vlajinac, 1968,28).

wool credit contract had recourse both to an amount in ducats per *miliarium*, and to an amount for the total quantity of delivered wool.

Tab 1. Some examples of the setting and variation of prices for workand fabrics in credit transactions between individuals in Ragusa between 1430 and 1434

Doc. Ref.	Date	Credit.	Debtor	Quantity in wool	Price	Reim-bursed fabrics in	Reimburse-ment due date
Div.Not. XVII 64'	26 June 1431	Johannes Brull	Ratco Bogdanov	10 mil.	5 dcts per mil.	? rolls 15 dcts per roll	?
Div.Not. XVII 76'-77	21 July 1431	Johannes Brull	Hugutius de Padua	10 mil.	5 dcts per mil.	? rolls 15 dcts per roll	3 months
Div. Not. XVIII 136'	4 December 1433	Johannes Brull	Simco Bogavtchitch	4 mil.	110 dcts.	? rolls 15 dcts per roll	3 months
Div.Not. XVIII,183	12 February 1434	Johannes Brull	Antonius de Rimini	3 mil.	? dcts.	8 rolls	?
Div.Not. XVIII.244	28 April 1434	Johannes Brull	Petrus Rakoevitch	3 mil.	100 dcts. 12 grossi	? Rolls 9dcts, 12 grossi per roll	?

The amount to refund, in the next column, which includes the amount of the credit in wool and the interest rate generated by the same credit, is expressed in terms of wool fabrics, the unit price of which was also, though not regularly specified in the registers. The debtor was obliged to deliver to the creditor, within a period, which was usually three months, a certain quantity of wool received and transformed by him into fabrics: these fabrics can be considered as the refund of the credit by the

debtor, with the rate of interest included, but not explicitly mentioned, as if it had been a loan in real or account money.

Creditors were sometimes obliged to sue the debtor weavers in the Dubrovnik Civil Court. The registers of sentences of the civil court, of which table 2 is an example, show, for the period between 1436 and 1443, the names of the plaintiffs and defendants, the amounts to be repaid, and the notarial registers in which the debts were originally registered, as well as the respective dates of registration. As can be seen, the debts were expressed in real or account money and fabric.

**Tab.2. Some examples of summonses to pay in wool or woollen Fabrics by the civil court of Ragusa between 1436 and 1443**

Doc. Ref.	Date	Creditor	Debtor	Debt in money or fabrics
Sent. Canc. VIII, 221	19/09/1436	Antonius Brull	Georges Radichitch	49 hyperperi
Sent. Canc. IX, 88'	12/02/1438	Antonius Brull	Rusco Bogoevitch	30 ducats
Sent. Canc. IX,89'	12/02/1438	Antonius Brull	Marcus the carder	4 rolls of fabric
Sent. Canc IX,140	9/07/1438	Antonius Brull	Nicolas from Bar	15 ducats
Sent. Canc. XII, 15	30/01/1443	Pascoe Orlachich	Antonius Brull	1194 librae of wool
Sent. Canc XII, 18	8/02/1443	Vutchina Tvrdochich	Antonius Brull	7 rolls of fabric

## **2. At the outset in Catalonia: an assesment in real currency**

Given that wool and woollen fabric were used as an alternative currency by merchants engaged in trade in Dubrovnik during the 15<sup>th</sup> century, the question naturally arises as to the distribution of income between the three categories mentioned above, those of the prominent merchants based in Catalonia, and those of the medium and small merchants, or simple weavers who lived in Dubrovnik.

For the great merchants based in Barcelona or Tortosa, as has been observed from the outset, wool was not an alternative currency but rather an article of the trade like any other, the value of which was usually expressed in local Catalan currency. Indeed, the insurance contracts for large quantities of wool to be transported from Catalonia to the Adriatic Gulf<sup>3</sup> do not mention the modalities and actors of the future transformation of the wool once it has arrived at its destination. At this stage, therefore, the contracts drawn up in Catalonia mention only the quantity of wool insured and transported, as well as insurance premiums and transport conditions. What interested these great merchants was the placement of their products on the markets of Dubrovnik. They willingly delegated the precise terms of these placements to their local agents who knew Dubrovnik better, having lived there often for many years. Since the price expressed in Aragonese florins and Venetian ducats, as gold currencies or in the Catalan croats and the Ragusan *grossi* as silver currencies, could vary at both ends of the wool route, the use of currency of account could allow, as already said, for possible readjustments of the differences between the values of the respective real currencies.

At the starting point of the wool route in Catalonia, we find information in local sources on the quantities and prices of wool sent to the Adriatic Gulf. Although it is rather difficult to come to precise and exhaustive figures, let us recall some data: the Italian historian Mario Del Treppo, basing his work on the register of the local insurer Bartolome Masons, calculated that between July 1428 and December 1429, 360 tons of wool were transported from Tortosa to Genoa, Pisa, Dubrovnik and Venice through this Barcelona insurer alone (Del Treppo, 1976, 241). Claude Carrère, who also based his work on the register of Bartolome Massons, estimated that the quantity of wool sent to the ports of Venice and Dubrovnik alone was 119 tons (Carrère, 1967, 601). Focusing on Dubrovnik, we have finetuned these data. Using once more the registers of the same insurer and covering a slightly more extended period of 4 years, from 1426 to 1430, we could confirm that almost 114 tons of wool were sent to Dubrovnik (Fejic, 1988, 82). All these figures prove the importance of the Ragusan wool market in the eyes of the great Catalan merchants.

## 2.1 Wool becomes an alternative currency in Dubrovnik

In Dubrovnik, once the wool had been unloaded and weighed and the Ragusan customs duties paid, it was placed in the hands of local Catalan agents, who were responsible for selling it to their partners, the local, Italian, or Catalan weavers. As a side note, very little is known about the customs duties applied to the import of wool in Dubrovnik. The 1% tax on the value of imported wool, possibly applied to Catalan wool, is based only on an assumed but not proven reciprocity to the tax applied by Barcelona and Valencia port authorities to Venetian merchants. Apart from the fact that there is no evidence that reciprocity was ever applied, we have evidence that in 1444 two Ragusan merchants protested vigorously in Barcelona against the

---

<sup>3</sup> A generic term to designate the Adriatic Sea in navigation or insurance contracts drawn up by Barcelona insurers for Catalan entrepreneurs or in the contracts for maritime transport to Dubrovnik and Venice

application of these «Italian» customs (Dohana Ytalica) to Ragusans, arguing that the local authorities «treated them unfairly as Italians, not as Ragusans who in any case should not pay any customs». (Fejic, 1982-1983). At this point, wool acquired a new dimension, that of an alternative currency.

The question arises why wool is acquiring the status of an alternative currency precisely at that moment, instead of the traditional instruments of real money or money of account favoured in the Catalan ports where wool was insured and loaded on ships? This question is even more relevant as the relations established by these intermediary agents with their local partners in Dubrovnik, have multiple natures. Whether it is a question of credit contracts, in the form of the advance of raw wool or semi-finished fabrics granted to debtors, or in the form of company contracts for various stages of wool processing or in the form of lawsuits brought before the Ragusan civil court for non-compliance with the content of the contract, everywhere wool and wool fabrics substitute to traditional payment instruments. How can this phenomenon be explained?

To answer this question, we need to look at the nature of credit in Dubrovnik in the Middle Ages and, more specifically, at the issue of credit trade involving Catalans in this Dalmatian city. To explain the nature of credit in the Dalmatian city, the great historian of Dubrovnik, Barisa Krekic, has suggested several lines of inquiry that are still relevant. The importance of credit in the local economy increased in line with the growth of Dubrovnik's economy in general, particularly in the 14<sup>th</sup> and 15<sup>th</sup> centuries, with the participation of the Ragusans in the mining boom in the Balkan hinterland, in Serbia and Bosnia. The Venetians, who had reconquered Dalmatia in 1420 after losing it following the war of Chioggia (1378-1381), had never succeeded in supplanting their Ragusan competitors in the Balkan hinterland. This is even truer for the Catalans, the Ragusans having kept in the Balkan hinterland a privileged position thanks to their knowledge of the environment and their cultural and linguistic affinities with the ruling elites of the Balkan States (Krekic, 1973, 1978). But the role of the Catalans in the city's economy increased with the introduction and development of wool manufacturing at the beginning of the 15<sup>th</sup> century. In this context of the credit boom, the installation of new wool processing workshops, whether carders, fullers or dyers, required significant local investments.

The communal authorities encouraged these activities by acting as intermediaries in the storage and resale of wool to individuals, by making weaving workshops available to craftsmen, by advancing credits to manufacturers and sometimes by undertaking to buy back their products in quantities fixed in advance. However, the Ragusan government did not participate directly in purchasing the wool that the Catalan merchants delivered. It did not practice a monopoly policy on the wool market, as it often did on the salt and cereals to constitute strategic reserves in which it could draw in the event of major danger for the commune. For wool, as we have seen, the government was content to levy a modest customs tax, after which the wool was sent to the merchant's depots, waiting to be sold, or advanced in the form of a credit to weavers and other artisans engaged in the transformation of wool. However, the government strictly ensured that the quantities of wool given by merchants to craftsmen corresponded to the processing capacity of craftsmen so that they were not tempted to stock up to resell them and make excessive profits. As for the agents of



the great merchants of the Catalan cities in Dubrovnik, they encouraged and accompanied the installation of the woollen factories, advancing to the weavers, quantities of wool to produce fabrics, participating exceptionally in certain intermediate stages of production, and constituting companies of limited duration with these same weavers, for the production of fabrics.

Despite this obvious dynamism of the Dubrovnik wool industry, the instrument of credit underlying it was not primarily money – whether real or of account – but rather the raw material itself or the products derived from it, wool or woollen fabrics. This may seem paradoxical, given the increased production and circulation of precious metals in Dubrovnik, at least part of which was absorbed and used by the local mint to produce coinage (Cirkovic, 1981, 1986). How, then, can we explain the absence of real money or money of account in wool production in Dubrovnik in the first half of the 15<sup>th</sup> century and the almost total domination of raw wool in everything related to fabric production and trade?

## 2. 2. A favourable economic climate for wool as an alternative currency in Dubrovnik

It would seem that the reason for the absence of real money in wool production is to be found paradoxically in the increased production of precious metals, especially silver, in the Balkan hinterland. The great historian of Dubrovnik, Jorjo Tadic, estimated that between 1427 and 1432, 25 tons of silver with a total value of more than 500,000 ducats were exported annually from Dubrovnik to the western Mediterranean, especially to the Italian cities (Tadic, 1968, 527). The exporters handed part of this amount under obligation to the Ragusan mint, which minted the local silver coins, the *grossi*. From the register of this mint, the historian Sima Cirkovic calculated that the export of this precious metal in the year 1422 alone was slightly less important but still amounted to more than five tons (Cirkovic, 1976, 81-90). Catalan and Venetian foreign agents transported most of this precious metal. The medium-sized merchants of Catalan origin, who represented the great patrons of Barcelona, invested the profits from the wool trade in purchasing precious metals – gold and silver – from the hinterland, rather than immobilizing them in the short circuit of wool production. In other words, with a steady flow of wool arriving in Dubrovnik from Catalonia, at least until the 1460s, there was no need to tie up large amounts of money in wool production. Exporting this silver as ingots or coins to the western Mediterranean markets was much more profitable. For example, the same Bernard Guasquill, one of the most active intermediaries in the supply of wool craftsmen in Dubrovnik, transported more than 9 kilograms of silver through Dubrovnik to Venice in 1422 alone (Kovacevic-Kojic, 1998). It is not the absence of silver transiting through Dubrovnik that explains why wool assumed the role of an alternative currency in Dubrovnik in specific contracts between merchants and craftsmen. On the contrary, the abundance of silver as a precious metal, partly minted in coins in Dubrovnik but in great part exported to the West, allowed the wool to establish itself as an alternative currency.

At the same time as the precious metals of Balkan origin were exported to the Mediterranean West, the products of the Ragusan woollen factories were exported in large quantities to a demanding market in the Balkans. Thus, Jorjo Tadic estimated that the value of wool exports to the Balkan markets amounted to 250,000 ducats, yearly between 1427 and 1432 (Tadic, 1968, 531). Under these conditions, the woollen factories in Dubrovnik could operate on a self-financing basis in a strictly local circuit, provided that their finished products were re-exported and made a more substantial profit abroad. Initially a factor of enrichment and prosperity among many others, wool manufacturing became, over time, a victim of its success and, consequently, a credible alternative currency in the Dubrovnik economy, but on a local scale only.

### 3. Conclusion: the origins of an apparent paradox

The role of wool as an alternative currency in Dubrovnik was certainly a result of the favourable economic situation, which coincided with the emergence of the wool industry in Dubrovnik on the one hand, and a strong increase in mining production in the Balkans on the other, both phenomena being characteristic of the first half of the 15<sup>th</sup> century. The flow of precious metals from the interior of the Balkans to the coastal towns and the subsequent enrichment of the royal and princely courts and urban centres in Serbia and Bosnia created a need for luxury goods, which was perfectly satisfied by the wool production in Dubrovnik. As Professor Krekic summarised very well in his contribution to the second «settimana» in Prato in 1970, which we quote here in the text: «Si puo dire che a Ragusa in generale, fu il commercio a stimolare la produzione e questo è vero per la produzione di panni più di ogni altra» (Krekic, 1976,708). Did wool, assume – in a sort of mirror game – the same role as silver currency, as an instrument of payment in the first half of the 15<sup>th</sup> century? This seems likely to us, especially as the role of wool as an alternative currency in Dubrovnik changed in line with the overall changes in the economic activity in the Balkans. With the latter's decline in the second half of the 15<sup>th</sup> century, especially following the Ottoman conquest and Ottoman authorities' ban on exporting precious metals in the 16<sup>th</sup> century, wool lost its role as an alternative currency.

The great demand for fabrics in the prosperous Balkan market in the first half of the 15<sup>th</sup> century was the main asset for wool as an alternative currency in Dubrovnik. When the reasons for enjoying this advantage disappeared, the role of wool as an alternative currency in Dubrovnik also disappeared. It should also be noted that, at the same time as the inflow of precious metals from the Balkans decreased, so did the inflow of Spanish wool, which had been the source of the prosperity of the woollen factories in Dubrovnik, in the first half of the 15<sup>th</sup> century. Indeed, the era of the predominance of the powerful patrician families in Barcelona, engaged in the export of wool, came to an end with the outbreak of the civil war in Catalonia in the sixties and early seventies of the 15<sup>th</sup> century (Battle-Gallart, 1973): the civil war caused a decline, and then an almost complete halt in the export of wool to the Adriatic region, and especially to Dubrovnik, and consequently caused a decline in wool manufacture in the Dalmatian city. Without a secure market in the Balkans, wool and woollen

fabrics could not benefit from an advantage that ensured their status as an alternative currency. So, the traditional means – primarily real money and money of account – again became the main instruments of the Ragusan economy, including the wool manufacturing.

## BIBLIOGRAPHY

- Battle-Gallart, Carmen. 1973. *La crisis social y economica de Barcelona a mediados del siglo XV*. Barcelona: CSIC-Departamento de Estudios Medievales.
- Bettarini, Francesco. 2012. *La comunità pratese di Ragusa (1414-1434). Crisi economica e migrazioni collettive nel Tardo Medioevo*. Firenze: Olschki.
- Bettarini, Francesco. 2012. “Mercanti fiorentini ed artigiani pratesi a Ragusa (Dubrovnik).” In “*Mercatura è arte*”. *Uomini d'affari Toscani in Europa e nel Mediterraneo Medievale*, ed. Lorenzo Tanzini, and Sergio Tognetti, 97-114, Roma: Viella.
- Bettarini, Francesco. 2016. “La giustizia mercantile nella Ragusa (Dubrovnik) basso medievale.” In *Tribunali di mercanti e giustizia mercantile nel tardo Medioevo*, ed. Elena Maccioni, and Sergio Tognetti, 29-50, Firenze: Olschki.
- Bettarini, Francesco, 2016 “I contratti di assunzione nella manifattura tessile ragusea.” *Dubrovacki Anali* 20: 53-59
- Carrère, Claude. 1967. *Barcelone, centre économique à l'époque des difficultés 1380-1462*, I-II : Paris-La Haye: Mouton.
- Cirkovic, Sima. 1981. “The production of gold, silver and copper in the central parts of the Balkans from the 13<sup>th</sup> to the 16<sup>th</sup> Century.” In *Precious metals in the age of expansion*, ed. Hermann Kellenbenz, 41-69. Stuttgart: Klett-Cotta.
- Cirkovic, Sima. 1986. “Deux conjonctures dans l'industrie minière balkanique : XV-XVI siècles. » In *Minière e metallurgia secc. XIIIU-XVIII, Atti della settimana di studi in CD-rom*, ed. Simonetta Cavaciocchi. Prato: Istituto Internazionale di Storia Economica “F. Datini”.
- Del Treppo, Mario. 1976. *Els Mercaders Catalans i l'expansio de la Corona Catalano-Aragones al segle XV*. Barcelona: Curial.
- Fejic, Nenad. 1982-1983. “Dubrovcanin Benko Kotruljevic pred sudom kraljice Marije Aragonske u Barceloni.” *Istorijski casopis*, 29-30: 77.84.
- Fejic, Nenad. 1988. *Spanci u Dubrovniku u srednjem veku*. Beograd: Prosveta.
- Fejic, Nenad. 1994. “Les Catalans à Dubrovnik et dans le bassin adriatique à la fin du Moyen Age, Anuario de estudios medievales , 24 : 429-452.
- Fejic, Nenad, 1996. “Les Espagnols à Dubrovnik.” In *Les immigrants et la ville, insertion, intégration, discrimination (XII<sup>e</sup>-XX<sup>e</sup> siècles)*, ed. Denis Menjot, et Jean-Luc Pinol, 83-90. Paris: L'Harmattan.
- Krekic, Barisa. 1976. “I mercanti e produttori toscani di panni di lana a Dubrovnik (Ragusa) nella prima metà del Quattrocento.” In *Produzione, commercio e consumo dei panni di lana nei secoli XII-XVIII*, ed. Marco Spallanzani, 707-14. Firenze: Olschki.

- Krekic, Barisa. 1979. "Italian creditors in Dubrovnik (Ragusa) and the Balkan Trade, Thiteenth through fifteenth centuries." In *The dawn of modern banking*, 241-54. New Haven: Yale University Press.
- Pinelli, Paola. 2006. *Il Carteggio Marcovaldi (1401-1437) nell'Archivio di Stato di Prato*. Roma: Ministero per i beni culturali e ambientali.
- Pinelli, Paola. 2013. *Tra argento, granni e panni. Piero Pantella, un operatore italiano nella Ragusa del primo Quattrocento*. Firenze: Firenze University Press.
- Tadic, Jorjo. 1974. "Jugoslavia e Paesi Balcanici: produzione e esportazione di lana." In *La lana come materia prima. I fenomeni della produzione e circolazione nei secoli XIII-XVII*, ed. Marco Spallanzani, 291-97. Firenze: Olschki.
- Vlajinac, Milan. 1968. *Recnik nasib starih mera-u toku vekova*. Beograd: Srpska akademija nauka i umetnosti.
- Voje, Ignacij. 1976. *Kreditna trgovina u srednjovekovnom Dubrovniku*. Sarajevo: Akademija nauka i umjetnosti Bosne i Hercegovine.