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*From wool to linen and silk.
The consumption of cloth
by the Royal Houses of Aragon and Castile:
from the 14th to the early 16th centuries **

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ABSTRACT

Based on the purchases of fabrics by the treasurers of Sancho IV of Castile, Jaime II of Aragon, Juan II of Castile and Isabel I of Castile, both for the royal family and their entourage, it can be argued that between 1300 and 1500 the consumption of woollen fabrics declined, replaced by silk, probably due to the similarity in prices of expensive wool and silks. A spectacular increase in the consumption of linen fabrics was also developed, especially in *holandas*, as it was used in brand new ways and in general to make everyday life more pleasant.

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AIM OF THE STUDY

This paper is part of a research project into living standards. The accounts of the Royal Treasuries (from Jaime II of Aragon and Sancho IV of Castile to Isabel I of Castile, *grosso modo* from 1300 to the early 16th century) were analysed for two purposes: the first was to assess the importance of textiles in the purchases made and the second was to achieve production through consumption. Our interest in the different fibres and their recipients is in line with these objectives, and similarly, analysing the colours is linked to studying the dyes and colorants, their source and marketing. Our work in the sector, ranging from the raw material to the woven cloth and its trade, is not recent ¹. A fundamental shift is made based on the article of Fernández de Pinedo Echevarría ², on the *décima* or tenth penny in Madrid with information on a tax that highlighted the surprising importance of linen consumption in Madrid, which had been totally or nearly ignored in studies on consumption using inventories and *post mortem*. Part of the research team then focused on analysing the accounts of the royal houses. The results of the in-depth study of the accounts of Isabel I of Castile (from 1483 to 1504) have been published or presented at conferences ³.

In order to extend the time horizon and the geographical scope, in this work we studied three accounts: Jaime II of Aragon (1302-1304), Sancho IV of Castile (1292-1295) and Juan II of Castile (1453). There are other sources of this type for the period covered, much more complex to analyse since they use tax revenues and expenses ⁴ and certainly in various archives. But this study would exceed what was intended to quantify: the change in the structure of consumption of textile fibres and try to specify when it took place.

¹ See BILBAO and FERNÁNDEZ DE PINEDO, 1986 (and 1994, and 1996); FERNÁNDEZ DE PINEDO, 1982; FERNÁNDEZ DE PINEDO, 1994; FERNÁNDEZ DE PINEDO, 2004; FERNÁNDEZ DE PINEDO ECHEVARRÍA, 2004.

² FERNÁNDEZ DE PINEDO ECHEVARRÍA, 2012.

³ FERNÁNDEZ DE PINEDO and MORAL, 2017; FERNÁNDEZ DE PINEDO ECHEVARRÍA and MORAL, 2019a; FERNÁNDEZ DE PINEDO ECHEVARRÍA and MORAL, 2019b.

⁴ ANDRÉS DÍAZ, 2004; RAH (ed.), 2004; and above all SUÁREZ FERNÁNDEZ, 1982.

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THE SOURCES

Crown of Aragon

The source is the ledger of Pedro Boyl, the monarch's treasurer, from March 1302 to March 1304⁵.

At that time, Jaime II of Aragon was the king of Aragon and Valencia and Count of Barcelona. He would travel through his domains and his purchases were made throughout those realms (Barcelona, Jaca, Zaragoza, Lérida, Valencia...). Therefore, the gathered data reflect the type of cloths purchased by the royal house in the Crown of Aragon, not just in one of its kingdoms. In general, the payment was made in the currency of the territory where the purchase was made –*dineros jaqueses* (dj); *dineros barceloneses* (db)– and in the measurements of the area –*canas* in Barcelona, in Tortosa, *almas* in Valencia, *codos*, palms, pieces (*piezas*)... The currencies and measurements have been reduced to the one most frequently used, *dineros barceloneses*⁶. Only the textile products, the type of cloth, the measurements, the price, the recipient and, when provided, the garment for which the fabric was used have been taken into account. Belts, lacings or golden or silver fabric are not included. The cloths have been classified according to the fibre –cotton, wool, linen, silk, mixed, unknown–. In total, 809 records were made over two years⁷.

We have the monetary value, which we have standardised into *canas* and *dineros barceloneses*. However, the amount is not always given in *canas* and their price. There are items where only *drap* is given without clarifying the fibre or the value is given for a certain garment without specifying the type of fabric.

Crown of Castile

Including the data on textiles from the accounts of Sancho IV of Castile in the study seeks to establish that the structure of the cloth consumption of Jaime II of Aragon was not a unique feature of the Aragon monarchy, but was also found in other Christian kingdoms and in other geographical spheres. And those of Juan II of Castile

⁵ GONZÁLEZ HURTEBISE (ed.), 1911.

⁶ From May to September 1302: 1 dj = 2.01282 db; from October 1302 to March 1303: 1 dj = 1.92708 db; in the rest: 1 dj = 2 db) and *cana barcelonesa* (1 *cana* = 1.555 m, 1 *cana* = 8 palms, 1 palm = 0.194 m, 1 Burgos *vara* = 0.8359 m, 1 *cana* = 1.86 varas

⁷ 100 pairs of tights are mentioned, worth 11,383 db, which would be equivalent to 37.5 *canas* (to 0.375 *canas*/pair), that were not taken into account.

aims to bring us closer to that period of change that was already clear under the Catholic Monarchs⁸. The sources used were:

1293-1294: royal revenue and expenditure of Sancho IV, data from 1294, with a record from 1292, eleven from 1293 and one from 1295.

1294: data on the cloth imported through San Sebastián and Fuenterrabía, from the accounts of Sancho IV, systematised in FERNÁNDEZ DE PINEDO (1982).

1453: *Cuentas y cargos de Alfonso de Illescas, mozo de cámara de Juan II*, from April to December 1453 (CAÑAS GÁLVEZ, 2016: 94-187). We have made the relevant corrections linked to our objective, so as not to duplicate purchases.

THE STRUCTURE OF JAIME II OF ARAGON'S SPENDING (1302-1304)

The most comprehensive information refers to the value of the cloth, but does not always provide the amount in *canas* or are garment purchases (wool hose, etc.) or pieces. That data are systematised by fibre and in *dineros barceloneses* in Table 1.

TABLE 1.
Distribution of expenditure by fibre (*dineros de Barcelona*), 1302-1304

Fibre	Value (db)	% total
Wool	451,087.73	56.62
Silk	83,532.24	10.48
Linen	2,702.45	0.34
Fustian	360.00	0.04
Sundry *	30,052.23	3.77
<i>Drap</i> (unknown fiber)	131,278.29	16.48
No data (apparel and garments)	97,740.83	12.27
TOTAL	796,753.76	100.00

* *Camelli de Malines, camello, camellón, maturella, untan d'Ypre, drap de camelli mesclat, drap mesclat de Bruxella, primes de Perpenya.*

⁸ FERNÁNDEZ DE PINEDO and MORAL, 2017.

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The fibre for *drap* (16% of the value) and the monetary amounts for garments or apparel (12%) are not available for expenditure totalling 796,754 db. In other words, there is no information on the type of cloth for 29% of the value. Cloths that were difficult to classify are under *Sundry* (4%). In total, there is a third (29+4) of the value with no fibre attributed. Given this inaccuracy, the majority of spending was on cloth made out of wool (57%), followed, far behind, by silk (10%). Linen and cotton, together, did not reach 0.5%. Those fibres were barely used by the royal court, which does not mean that was the case among the less well-off⁹. It is very likely that those percentages were well below the reality in the case of wool. The majority of the *draps*, the apparel and garments bought would be woollen. It is true that this fibre would have accounted for 80% of the spending on cloth.

Similar percentages emerge when we only take into account expenditure on those cloths where the measurements are in *canas*. There is the advantage that the average prices per *cana* is available.

TABLE 2.
Consumption distribution (amount in *canas* and value in db) by fibres, 1302-1304

Fibre	% <i>Canas</i>	% Value	<i>Canas</i>	Value (db)	Average Price, db/cana
Wool	65.99	83.29	1,553.45	437,605.19	281.70
Silk	26.56	13.02	625.21	68,412.24	109.42
Linen	3.26	0.37	76.77	1,951.45	25.42
Fustian	2.49	0.07	58.50	360.00	6.15
Sundry *	1.57	3.01	36.96	15,795.00	427.35
<i>Drap</i>	0.13	0.24	3.00	1,260.00	420.20
<i>TOTAL</i>	<i>100.00</i>	<i>100.00</i>	<i>2,353.89</i>	<i>525,383.88</i>	<i>223.20</i>

* *Camelli de Malines, maturella, drap de camelli mesclat, drap mesclat de Bruxella*

⁹ A text from the 1351 Valladolid Assemblies clearly shows this. The concubines of the clergy were dressed in coloured cloth, exclusively using *viado* from Ypres, *tiricana viada* or *valancina viada*. Yet if they could not use those fabrics, undoubtedly due to lack of purchasing power «que puedan vestir pellias o picote o lienço, e non otros pannos ningunos», RAH (ed.), 1893: 14-15.

Table 2 contains those fibres where we have *canas* and value. Only 525,384 db out of the total spending of 796,754 db are taken into account here as there is only a correlation in *canas* for that sum.

The most purchased textile, in length, was wool (66%), followed by silk (27%), linen (3%) and fustain (2.5%). In value, wool accounts for most of the spending (not less than 83%), followed far behind by silk (13%). The silk percentage would be rather higher if the Malines *camelli* or the *drap de camelli mesclat* were included under silk. In any event, those lower figures corroborate the great importance of wool fabric at that time, both in terms of quantity and particularly of value, compared to other fibres. The low monetary weight of silk, surprisingly, was highlighted due to its much lower price than wool cloths: 109 db/*cana* compared to 282 as the average for the latter.

Wool

By fabric type (Table 3), Saint Denis and Paris *bifa*, a sheared, softened and light fabric, like wool cloths, but less dense was the most consumed. Nearly half the purchases and 28% of the money spent were on *bifas*. It is difficult to pinpoint the exact origin as it was most likely purchased at the Paris and Saint Denis fairs (Lendit or Landit fair) and brought back overland. It was followed by Narbonne cloth, with 13% of the money spent and 8% in *canas*. *Bifa*, Narbonne cloth and the vague *wool drap* accounted for 71% of the *canas* and 52% of the value.

Bifa (172 db/*cana*) and Narbonne cloth (181 db/*cana*) were under the average price (282 db/*cana*). The Exaló (Châlons sur Marne), Ypres, Brussels, Ghent and Malines cloths and the wool fabric of no specified type or source were higher than average, and the *preset*, those from Douai and, particularly, the Douai scarlet much higher. Only the under-represented fabrics, such as tammy (*estameña*) or *marbí*, were very cheap, but overall they did not account for 5% of the *canas* and 1% of the value (see Table 3).

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TABLE 3.
Wool consumption by types, 1302-1304

Fabric	Canas	Value	Price (db/cana)		
			Minimum	Maximum	Average
Tammy (<i>estameña</i>)	4.26%	0.66%	44.00	44.00	44.00
Marbi	0.19%	0.12%	169.08	169.08	169.08
Bifa (París, S. Denis)	45.87%	28.06%	120.00	298.67	172.31
Cuberta (Ypres)	0.23%	0.15%	192.00	192.00	192.00
Saya (Perpignan)	2.61%	2.06%	197.65	240.00	222.22
Bruneta (Narbonne)	0.18%	0.15%	232.81	232.81	232.81
Preset	3.15%	7.41%	386.46	386.46	662.49
Escarlata (Douai)	2.20%	8.48%	768.00	768.00	1,086.25
Narbonne	13.17%	8.47%	90.67	275.13	181.16
Perpignan	1.93%	1.54%	192.00	256.00	225.20
Exaló	6.26%	8.14%	201.06	698.42	366.16
Ypres	1.39%	1.98%	360.00	800.00	400.30
Brussels, Ghent, Malinas	2.81%	5.72%	338.63	1,080.00	573.07
Douai	3.74%	10.77%	680.00	924.00	810.03
Drap wool	11.55%	15.87%	241.54	483.08	387.15
Wool?	0.46%	0.42%	136.00	280.00	257.26
TOTAL	1,533.4 canas	436,605.2 db	44.00	1,291.00	281.70

The most expensive fabrics came from Flanders (Douai, Ghent and Ypres) and from Brabant (Brussels and Malines). Those from Exaló (Chalons-en-Champagne, in north-eastern France) were above the average, but not as expensive as the Flemish and Brabant ones. Yet the expensive wool cloths from Flanders and Brabant only represented 10% of the *canas* of a known origin and 25% of the value. The Narbonne and Perpignan wool cloth, which were clearly under the average, accounted for 17% of *canas*, but only just over 11% in value. In woollen fabrics, the cloth from Flanders and Brabant dominated

the import market for the Royal House of Aragon at that time, both in terms of the top and medium-low ranges, as the *bifas* could come from there¹⁰. The very cheap fabrics, such as tammies, were poorly represented (4% of the *canas* at 44 db/*cana*).

Silk

Silk consumption (625 *canas*) was far behind that of wool cloth. The most surprising aspect was its price, as it was much lower than the latter (109 db/*cana*). However, the purchases were for the king, his royal chamber, the royal family and *senyeras* (standard for the troops). The small presence of silk should not be linked to the ban that the King of the Crown of Aragon placed at that time on trade with Alexandria. Theoretically forbidden, the traders who sailed to Alexandria despite the royal ban had to do «*composicio*» and «*avinença ab la sua Cort*». The silk bought was cendal (fine silk fabric), sometimes in pieces and paid according to the weight¹¹.

The silk was reserved for the monarch or his royal chamber (around 75% of the *canas* and the value). Yet as has already been indicated, even if it was coloured silk (green, *vermell* or scarlet...), its price was much lower, with some exceptions, likely due to the conferences with French and Spanish high nobility in June 1303. Apart from the cendals, there were pieces of *pahonat* (probably red-violet in colour) silk, a gift of *tartari* (Tartar) silk to dress the wife of a Castilian noble and two «*draps de Romania* (Bizantium) *ab obres d'or en forma de pinya*» that were bought in Lérida and cost 140 sj. In addition to those, which may not have been silk, there were four pieces of scarlet and yellow cendals for curtain and seat edgings, *draps d'or* upholstery, for which 383 sj were paid. *Pahonat* silk was similar in price to the *vermell* and green *camellot* (500 sb for the four silk pieces and the same sum for the four *camellot* or camlet pieces)¹².

¹⁰ «se importaban en España procedentes de Flandes», ALFAU DE SOLALINDE, 1969: 52-53, term *bifa*. The comments by VERLINDEN, 1952: 19 continue to be relevant. Still in 1365 in Catalonia, Mallorca and Menorca, the foreign cloth taxed by the Generalitat were *draps de malines* kermes, «drap florenti de Bruxelles, de Loany, Dipre... de Morçavoñer de Bruges e de Vervi e de Cottray e de tot altre vilatge de Flandres e de França... drap de Lenguadoch...», RAH (ed), 1899: 389-390.

¹¹ See, for example, GONZÁLEZ HURTEBISE (ed.), 1911: reg. 116, pp. 31-32; reg. 807, pp. 183. In reg. 998, p. 231, «5 piezas de sendat vermell, para vestir al rey, que pesaron 8 libras y 7 onzas, a razón de 65 sb. la libra, total 557 sb. y 11 dineros». These non-abundant data are in line with Buss's analysis of *cendale/zendale/seta zendata* (BUSS, 2016: 48-49).

¹² Silk and linen fabrics appear in the *Inventari dels bens de la cambra reyal en temps de Jaume II (1323)* (MARTORELL Y TRABAL, 1911). Inventories are always problematic, even more so knowing that the monarchs used to frequently change their clothes and even gift the garments that they had only worn on a few occasions. Furthermore, the inventories contain rather valuable items kept

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Linen

Out of the three main fibres –wool, silk and linen–, purchases of the latter were the smallest (77 *canas* and 1,951 db), followed very closed by fustian (2.5% of the *canas* and 0.07% of the value) with 59 *canas*. Linen cloth was very cheap and mainly used for purposes other than clothing: altar cloth, curtains, curtain lining, blankets for animals...

Only the poor, on Maundy Thursday, wore linen shirts. Linen still had not become commonplace as a cloth for household linen and for garments. Yet there were high quality linen fabrics, which had a very limited use among the wealthy at that time, but not as clothes or only marginally. This was confirmed by Jesusa Alfau de Solalinde's analysis of *bocarán* woven cloth¹³. Those figures coincide to a certain extent with those from the San Sebastián and Fuenterrabía customs for 1293, when there were practically no references to linen cloth. There only was one cloth from Reims, but it was very expensive, 300 mrs (*maravedís*)/piece, at a time when the cendals, on average, cost 404 mrs/piece. At the beginning of the 14th century, linen was basically considered to be a cloth for workers and the poor, mainly used for outer garments. Yet there were high quality linen fabrics, which had a very limited use among the wealthy at that time, but not as clothes or only marginally.

Back in 1922, H. Pirenne had already suggested that in the 15th century, great progress had been made in linen weaving, at least in Burgundy. And Hainaut and Holland produced cloths famed for their fineness in the 15th century¹⁴. His argument that some wool weavers had turned to linen using their technical knowledge is tempting, but what seems to be have spread spectacularly were the exports of fine quality *holandas* (Dutch linen), not likely to be produced in Flanders and Brabant¹⁵.

in the Royal Chamber, and not always used on a daily basis (the text clearly states that they are «*coses que romanen en la dita cambra*», p. 555). A telling fact in that inventory only contained two «*draps verts de lana ab escuts a señal real als caps*», even though the wool was the most consumed fibre and green was not the most common colour.

¹³ *Bocarán* «era un tejido muy fino de lino perteneciente al mismo grupo del *escarín*, *rançal*, *cambray*, *tela de Reims*, etc... Entre los tejidos de lino, el *bocarán* era uno de los más costosos y elogiados...» (ALFAU DE SOLALINDE, 1969: 60-61, term *bocarán*). Similar conclusions can be reached from the data in the *Inventari dels bens de la cambra reyal en temps de Jaume II (1323)* (MARTORELL Y TRABAL, 1911).

¹⁴ PIRENNE, 1922: 428-429, notes 1-3.

¹⁵ Linen fabrics appear in the accounts of King René in the 1440s (LECOY DE LA MARCHE, 1873): *toille d'Espinault* = Épinal, reg. 349; *toilles de Hénault*, reg. 349; *toille fine de Hollande*, reg. 606 and 634; *toilles de lin*, reg. 281; *touailles de lin*, *longières de lin*, *draps de brin et de réparon*, reg. 645...

Colours

The colour sample, for wool and silk fabrics alike, is very representative, as it accounts for 74% of the wool *canas* and 85% of the silk. However, in the case of wool, the results are lower than suggested by this percentage, given the figures in *canas* for the striped (20%), plain (11%), coloured (10%) and *mesclat* (0.45%) cloths. We do not know the colour of the striped, plain, *mesclat* or coloured cloth, which accounted for 40%, which when added to those for which no figures are available (26%) comes to two-thirds.

TABLE 4.
Wool consumption by colours, 1302-1304

Colour	% Canas	% Value	Price (db/cana)		
			Min.	Max.	Average
White (<i>blanch</i>)	15.49%	8.41%	44.00	240.00	152.91
Black (<i>negre</i>)	3.40%	2.84%	180.00	275.13	234.70
Brown (<i>bru</i>)	1.06%	0.91%	120.00	264.00	242.18
Blue (<i>blau</i>)	2.36%	2.57%	156.00	676.67	306.57
Green (<i>vert</i>)	3.60%	5.71%	132.00	698.42	446.90
Violet (<i>violat</i>)	0.97%	2.31%	408.00	846.57	671.98
Red (<i>foch</i>)	0.13%	0.35%	761.91	761.91	761.91
Scarlet (<i>vermell</i>)	4.25%	12.12%	192.00	1,164.03	802.47
Scarlet (<i>escarlata</i>)	1.91%	7.69%	936.00	1,291.01	1,134.51
Striped (<i>listada</i>)	19.61%	11.27%	120.00	222.22	161.95
Plain (<i>plana</i>)	10.58%	8.74%	148.15	298.67	232.78
Coloured (<i>color</i>)	9.77%	14.00%	289.85	483.08	403.93
Mixed (<i>mesclat</i>)	0.45%	1.09%	680.00	680.00	680.00
No data	26.42%	21.99%	44.00	1,080.00	234.42
TOTAL	1,553.4 canas	437,605.2 db	44.00	1,291.01	281.70

Breton linens would have begun to be marketed in the 15th century (TOUCHARD, 1967: 65-67, and Table XVII, p. 398. A substantial change in the amount of revenue for Morlaix and Lanmeur was seen from 1450 onwards). At the end of the 14th century, linen for exporting began to be produced in the County of Hainaut (WERVEKE, 1954: 239).

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They were nearly always dyed fabrics, but we cannot go any further (Table 4). In the aforementioned 1323 inventory, two entries do refer to colours for the striped fabrics, but for silk: striped green and *vermell* silk and striped silk on a *vermell* background.

Scarlet fabric was the most expensive, but its consumption came to under 2%. The most costly cloth had red-based colours (*violat*, *foch*, *vermell*, scarlet), along with *mesclat*. They accounted for 8% of the *canas*, but 24% of the value. The most purchased fabrics were striped (20%), white (15%) and plain (11%), which were among the cheapest, and followed by those for which no data is available and black.

TABLE 5.
Silk consumption by colours, 1302-1304

Colour	% Canas	% Value	Price (db/cana)		
			Min.	Max.	Average
Black (<i>negre</i>)	1,73%	1.42%	90.00	90.00	90.00
Green (<i>vert</i>)	19.65%	16.30%	84.00	192.00	90.75
Yellow (<i>groch</i>)	14.08%	12.74%	90.19	120.00	98.98
White (<i>blanch</i>)	1.12%	1.04%	102.00	102.00	102.00
Scarlet (<i>vermell</i>)	50.54%	53.02%	90.00	144.92	114.79
No data	12.88%	15.48%	120.00	192.00	131.52
TOTAL	652.2 canas	68,412.2 db	84.00	192.00	109.42

As regards to silk, the sample accounts for 87% of the *canas*. At least half were dyed *vermell* (51%), 20% green and 14% yellow (*groch*). There were very few references to black and white. When it came to value, the changes did not vary greatly.

THE STRUCTURE OF SANCHO IV'S SPENDING (1294)

Given that the data for Jaime II of Aragon reflects a *Mediterranean* fabric consumption and the structure of textile consumption substantially clashes with what we know about the era of Isabel I¹⁶ we analysed the fabric purchases by Sancho IV (1294) and of the cloth imported through the San Sebastián and Fuenterrabía customs (1293). As seems

¹⁶ FERNÁNDEZ DE PINEDO and MORAL, 2017; FERNÁNDEZ DE PINEDO ECHEVARRÍA and MORAL, 2019a; FERNÁNDEZ DE PINEDO ECHEVARRÍA and MORAL, 2019b.

obvious, these reflect very different consumers, but we cannot go much further. In one case (1294), there were the monarch and the court. Yet in the other case (1293), it can be argued that they would be well-off farmers, the bourgeoisie of small cities in the Upper Ebro Valley and of the headwaters of the River Duero; Ribera Navarra, perhaps. The figures referring to the consumption by Sancho IV and his court are taken from fiscal and household style accounts from 1292 to 1295. The figures on textiles have been culled from them.

TABLE 6.
Distribution of spending by fibres (mrs), 1294. Monarch and entourage

Fibre	Value (mrs)	Value (%)
Wool	57,595.15	64.62
Linen	2,705.93	3.14
Silk-wool (joint)	18,165.33	20.38
Sundry (<i>camellin, franda</i>)	4,685.00	5.26
<i>Paño</i> (cloth)	4,042.00	4.53
No data (apparel and garments)	1,846.00	2.07
<i>TOTAL</i>	<i>89,129.41 mrs</i>	<i>100.00</i>

If only the value data (Table 6) are taken into account, even though there is an uncertainty (sundry, cloth unspecified and no data available making up nearly 11%), out of a total of 89,129 mrs, the amount spent on wool cloth was the highest (65%). That percentage would be higher if the uncertain 11% and 20% undifferentiated wool and silk are added. Given that 18,165 *maravedís* (20%) are allocated, but not broken down, to silk and wool cloth, there is nothing specific to be said about the exact weight of the silk. However, as regards value, it seems plausible that it would be higher than the 3% for linen that, in *maravedís*, is the least consumed fibre. Even though for a different customer type, the fabrics imported through San Sebastián and Fuenterrabía in 1293 confirm the overwhelming predominance of wool among the imported fabrics, and which accounted for 98% of the attributed value¹⁷.

¹⁷ FERNÁNDEZ DE PINEDO, 1982: 68 (table).

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TABLE 7.
Distribution of spending (amount and value) by fibres, 1294.
Monarch and entourage

Fibre	% Varas	% Value	Varas	Value (mrs)	Average price
Wool	63.66	88.00	3,878.33	53,575.15	13.81
Linen	31.06	3.94	1,892.00	2,397.93	1.27
<i>Camellín</i>	5.10	7.66	311.00	4,665.00	15.00
<i>Paño</i> (cloth)	0.18	0.40	11.00	242.00	22.00
TOTAL	100.00	100.00	6,092.33	60,880.08	9.99 mrs/vara

If only the data for which *varas* and price are available are taken into account (60,880 mrs compared to 89,129 mrs, Tables 6-7), wool was the most purchased cloth both in terms of *varas* (64%) and in value (88%). Linen was below 4% of the value but accounted 31% of the *varas*. Whether silk fabric was more consumed than linen, in terms of quantity, could be discussed, but it does not seem at all likely that it were the case in terms of value. What we should stress is that wool was the most consumed fabric by Sancho IV and his court in terms of quantity and value.

Even though the users were very different, the data regarding the cloth imports through San Sebastián and Fuenterrabía in 1293 confirm this. Wool cloth was nearly exclusively imported. Linen was only brought in as the expensive Reims cloth and silk in cendals. The vast majority of the imported wool cloth came from Flanders-Brabant and as has already been pointed out, there were fabrics of medium quality: «If we estimate that *valancinas* fabric was only medium quality, only 20% of the imported pieces were better. The rest, four-fifths, were poor or medium quality fabrics, over half of which were *valancinas*»¹⁸. Obviously, the imported fabrics accounted for a tiny percentage of those consumed by the population overall¹⁹.

No further information is available about the silks consumed by Sancho IV and his court apart from what has already been stated. Only that they were cendals²⁰.

¹⁸ FERNÁNDEZ DE PINEDO, 1982: 67.

¹⁹ AYMARD, 1976: 129.

²⁰ In the second half of the 13th century, Lucca was the main silk production centre in Europe. It then spread to Florence, Bologna and Venice. The cendal weavers moved to Bologna. The Lucca silk dyers already had ordinances in 1255, see MASSA, 1993: 213; MOLA, 1993: 435-437. The Norman Roger II, King of Naples and Sicily (1105-1154), deported Tebas and Corinto silk weavers

TABLE 8.
Wool fabric consumption and prices, 1294. Monarch and entourage

Fabric	Varas	Value (mrs)	Average price
<i>Marfega</i>	6.19%	0.27%	0.60
<i>Margaz</i>	1.03%	0.05%	0.67
<i>Gerga</i>	4.07%	0.22%	0.76
<i>Estanford</i>	0.21%	0.12%	8.00
<i>Santomer</i>	6.47%	3.75%	8.00
<i>Valancina</i>	11.77%	6.82%	8.00
<i>Blanqueta</i>	1.60%	1.74%	15.00
<i>Blaos</i>	2.07%	2.25%	15.00
<i>Inglés</i>	0.31%	0.34%	15.00
<i>Viado</i>	31.73%	34.45%	15.00
<i>Sanguina</i>	0.62%	0.98%	22.00
<i>Paño tinto</i>	17.60%	28.11%	22.06
<i>Bruneta</i>	2.27%	3.88%	23.64
<i>Verdescu</i>	0.52%	0.93%	25.00
<i>Marbí</i>	1.40%	3.05%	30.00
<i>Pres Doay</i>	0.46%	1.01%	30.00
<i>Suert</i>	1.15%	2.49%	30.00
<i>Escarlata</i>	2.12%	7.68%	50.00
No data	8.41%	1.86%	3.06
TOTAL	3,878.33 varas	53,575.15 mrs	13.81 mrs/vara

Wool

The 3,878 *varas* and 53,575 mrs were classified according to the fabric type that the source offers by price (Table 8). The average was at 14 mrs/*vara*. Below were 38% of the

to Palermo in around 1130, (ULLOA, 1779: 186-187; LACARRA and REGLÁ, 1967: 113). Ulloa also tells the legend of two monks who came from India and brought to Constantinople the «fashion of raising silkworms and weaving silk» during the reign of Justinian. Lucca cendals are in the 1207 customs duties of Alfonso VIII of Castile according to LADERO QUESADA, 1993: 126.

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rods that accounted for 13% of the value. The rest, between 15 and 50 mrs/*vara*, were made up of 62% of the *varas* and 87% of the value. This is a rather different structure to the one found for the imports through San Sebastián and through Fuenterrabía. The most expensive, between 30 and 50 mrs/*vara* (*marbís, pres de Doaix, Suert* and scarlets), only accounted for 5% of the *varas* and 14% of the value within the fabrics over the average.

The most purchased fabric was the *viado* (32% in *varas* and 34% in value) followed by dyed cloth (18% in *varas* and 28% in value), both of which over the average, *valancina* (12% in *varas* and 7% in value) was in third place. Those three fabrics accounted for nearly two thirds of the consumption (61% in *varas* and 69% in value). Only *valancinas* were under the average price and even much lower.

There is a very low percentage for coloured *varas* (23%). The majority (19%) of that percentage was dyed cloth, which provides little clarity.

Linen

There were two linen purchases amounting to a total of 2,795 mrs, with 1892 *varas* worth 2,398 mrs. They were cheap fabrics (1.27 mrs/*vara* on average) to be used as tablecloths and handkerchiefs, and sometimes explicitly attributed to the king. In those cases, some linen cloth could cost 25 mrs/*vara*. It seems clear that that linen were for the table, not for undergarments.

THE STRUCTURE OF JUAN II OF CASTILE'S SPENDING (1453)

It seems clear from the data for the Crown of Aragon and for the Crown of Castile, circa 1300, that wool cloth was the most consumed and that neither silk nor linen had, or were anywhere near achieving, the importance that they would acquire at the court of Queen Isabel I. This really spectacular change in the consumption by the wealthiest groups, as least of Castilian society, seems to already have been underway by the mid-15th century and would increase under the Catholic Monarchs. Yet perhaps that happened earlier in Italy as by the mid-14th century, silk was widely used for the garments of wealthy Florentines²¹.

²¹ GÉRARD-MARCHANT (ed.), 2013 on the information taken from *Prammatica delle vesti delle donne fiorentine*, for a tax on luxury garments. An initial approach can be seen in GÉRARD-MARCHANT, 1995.

We have a very similar source to the previous ones for 1453, as has already been pointed out. The amounts are rather representative: 2,701 *varas* and 868,083 mrs and the degree of uncertainty is very low (Table 9). There are practically no data that could not be classified correctly, even though the odd price, that was missing, has had to be extrapolated.

TABLE 9.
Fabric consumption by fibres, 1453. Juan II's royal chamber

Fibre	% <i>Varas</i>	% Value	<i>Varas</i>	Value (mrs)	Average price
Wool	23.45	25.21	633.29	218,864.75	345.60
Linen	39.37	11.03	1,063.42	95,735.43	90.03
Silk	34.86	60.51	941.50	525,237.50	555.87
Others (camlet)	2.33	3.25	62.83	28,254.33	449.55
<i>TOTAL</i>	<i>100.00</i>	<i>100.00</i>	<i>2,701.04</i>	<i>868,083.01</i>	<i>321.39 mrs/vara</i>

In the mid-15th century, the most consumed fibre in *varas* at the court of Juan II of Castile, the father of Isabel I, was linen (39%), followed by silk (35%) and finally wool (23%). We have left out camlet (*camelin*), which given the price could be made out of silk, out of camel's hair... In terms of value, those percentages vary as is to be expected. Silk is in first place (61%), followed far behind by wool (25%) and in third place, linen, whose significant consumption did not manage to offset its low price. With respect to 1300, the structure of the purchases by the wealthy had changed radically²².

Wool

If we place the average price at 346 mrs/*vara*, roughly a third of the *varas* will come under, another third right in the middle and the rest above. In value, the cheapest third only accounted for 12% of the money and the most expensive third around 50%.

²² The prevalence of silk over wool in the monarch's garments from 1447-1449 was also a French phenomenon (PIPONNIER, 1976: 428-429). King René of Anjou still used both wool and silk fabrics for garments in the mid-15th century. His heir, Charles III of Maine (1480-1481) changed the trend (PIPONNIER, 1993: 797).

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TABLE 10.
Wool cloth by origin, 1453. Juan II's royal chamber

Origin	% <i>Varas</i>	% Value	Average price
Local (<i>de la tierra</i>)	5.05%	0.43%	29.63
Segovia	5.21%	0.60%	40.00
Bristol	1.26%	0.37%	100.00
Ypres	0.95%	0.66%	240.00
London	2.05%	1.49%	250.00
Dinan	4.24%	3.31%	270.00
Bruges	0.63%	0.65%	356.35
Rouen	41.56%	47.98%	398.93
<i>Contray</i>	3.63%	4.20%	400.00
Mostrevilliers	10.31%	13.26%	448.82
Malinas	3.71%	6.09%	566.98
Florence	3.05%	7.33%	830.00
No data	18.44%	13.63%	255.59
TOTAL	633.29 varas	218,864.75 mrs	345.60 mrs/vara

Without embarking on a detailed analysis, there are two aspects that stand out compared to 1300. Rouen cloths accounted for over 40% of the consumption both in terms of *varas* and value. There had been a significant decline in Flemish and Brabant cloth, but there had not been replaced by the new draperies or by the English fabrics (Bristol, London), but rather by the French ones from Rouen or shipped from the port of Rouen. The other aspect to be highlighted is the appearance, in the lowest ranges, of Castilian fabrics –10% were local and from Segovia, even though they were only 1% in terms of value and were by far the cheapest– (Table 10).

As regards colour, it appears in all the fabrics. Two cornered the spectrum, both in terms of *varas* and in monetary value. Brown cloth (*pardillo*) was present in 41% of the *varas* and in 37% of the value, followed by black with 32% and 31%, respectively. Those two colours accounted for 73% of the *varas* and 68% of the value. Their prices were slightly under the average (Table 11). They were followed far behind by purple both in *varas* and in *maravedís*. *Canelado* and *orugado* seem not to be colours but rather types of textures.

TABLE 11.
Wool cloth by colours, 1453. Juan II's royal chamber

Colour	% Varas	% Value	Varas	Value (mrs)	Average price
White	6.90	1.23	43.67	2,698.00	61.79
Blue	0.95	0.66	6.00	1,440.00	240.00
Brown (<i>pardillo</i>)	40.93	37.12	259.21	81,242.45	313.43
Black	31.82	31.16	201.50	68,192.30	338.42
Tawny (<i>leonado</i>)	2.05	2.16	13.00	4,724.18	363.40
Green	0.63	0.82	4.00	1,800.00	450.00
Violet (<i>morado</i>)	7.88	14.36	49.92	31,427.93	629.61
Red (<i>colorado</i>)	3.84	9.16	24.33	20,046.67	823.84
<i>Canelado</i>	0.74	0.26	4.67	560.00	120.00
<i>Orugado</i>	4.26	3.08	27.00	6,733.21	249.38
<i>TOTAL</i>	<i>100.00</i>	<i>100.00</i>	<i>633.29</i>	<i>218,684.75</i>	<i>345.60 mrs/vara</i>

Silk

As far as silk was concerned, there was a more accurate or range of types. There was not yet the diversity as under Isabel I, but at least five types of silk fabric could clearly be distinguished: *aceituni* (olive-colored silk), damask, *tapete*, *vellut* and brocade. The most expensive fabric was the brocade, undoubtedly as part of its fibres were made out of precious metal and, particularly, with striking patterns. It was practically double the average value of silk fabrics. With respect to the rest (*aceituni*, damask, *tapete* and *vellut*), their average prices, between 391 and 628 mrs, were on a par with the most expensive cloths (Bruges, Contry, Mostrevilliers, broadcloth or *velarte* and kermes, Table 10). Those prices may partly explain the spectacular growth in silk consumption. Apart from brocade, the rest of the costly fabrics in silk had more or less the same price as the expensive cloths in wool, some dyed with kermes. The prestige of silk and its relative novelty did not mean that they were beyond the means of the wealthy. The silk weavers had managed to produce silk fabric, previously imported or imitated from the East, at the price of the most expensive wool cloths. This would better explain the Florentine conversion from wool cloths to silk fabrics, noted by PIRENNE (1922: 428), based on SCHULTE (1900: 593-594). He argues that the markets that lost the drapery were

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recovered by the silk industry and represented for Florence what the wool industry had previously meant.

While two colours, brown (*pardillo*) and black, dominated the ranges of wool, there was greater variety when it came to silk. Brown dominated in terms of *varas* (26%), but was the second in value (21%). It was followed by *clemesín* (crimson) with 18% in *varas*, but 22% in value. Next came black (15 and 12% respectively) and blues and greens contested fourth and fifth place in *varas* and value. Five colours (blue, crimson, black, brown and green) accounted for 79% of the *varas* and 78% of the value. Crimson and green dyed silks were the most expensive (Table 12).

TABLE 12.
Silk dyed by colours, 1453. Juan II's royal chamber

Colour	% <i>Varas</i>	% Value	<i>Varas</i>	Value (mrs)	Average price
Brown (<i>pardillo</i>)	25.74	20.68	242.33	108,600.37	448.14
Tawny (<i>leonado</i>)	4.39	3.54	41.33	18,600.00	450.00
Yellow	4.06	3.28	38.25	17,212.50	450.00
Black	14.71	12.01	138.50	63,058.36	455.30
Violet (<i>morado</i>)	5.17	4.63	48.67	24,333.33	500.00
Blue	10.18	9.91	95.83	52,043.78	543.07
Crimson (<i>clemesín</i>)	17.87	22.05	168.25	115,815.11	688.35
Green	10.52	13.27	99.08	69,724.41	703.69
No data	7.36	10.63	69.25	55,849.63	806.49
TOTAL	100.00	100.00	941.50	525,237.50	557.87 mrs/vara

Linen

Linen underwent something similar to what had happened with silk –diversification of the fabrics–. Holland cloths seemed to dominate as the most expensive linen, over 100 mrs/*vara*, while those from Flanders were less than half that price. The greatest consumption was of expensive linens (70% of the *varas* and 90% of the value) and they undoubtedly came from Holland. Flanders played a mediocre role. It does not seem that the Flemish and Brabant drapery crisis had led to restructuring towards linen in

those regions²³. In the same way as with cloth, very cheap local woven fabrics, as cheap as the coarse *bretaña* (a kind of linen from Brittany), would appear.

TABLE 13.
Linen fabrics, 1453. Juan II's royal chamber

Fabric	% Varas	% Value	Varas	Value (mrs)	Average price
Coarse <i>bretaña</i> (<i>bretaña basta</i>)	4.61	0.51	49.00	490.00	10.00
Local coarse linen (<i>de la tierra basta</i>)	12.18	1.49	129.50	1,428.00	11.03
Flandes	13.61	7.56	144.75	7,237.50	50.00
Holland (<i>holanda</i>)	45.61	53.74	485.00	51,443.72	106.07
Thin holland (<i>holanda delgada</i>)	23.99	36.70	255.17	35,136.22	137.70
TOTAL	100.00	100.00	1,063.42	95,735.43	90.03 mrs/vara

CONCLUSIONS

The change already carried out around 1450 could not have been more spectacular. During the reign of Juan II of Castile, linen consumption reached 40% in *varas*, followed closely by silk (35%), with wool further behind (23%). By value, silk accounted for 61%, wool for a quarter and linen 11%. As regards prices, silk fabrics were, on average, the most expensive. This was moving towards the structure of the Royal Household under Isabel I²⁴. In terms of amounts, linen and silk had forced wool into third place. Was that changed limited to royalty and the wealthy?²⁵ And the decline of the Flanders and Brabant traditional drapery seems to have favoured Rouen drapery²⁶.

²³ «...on voit le roi Charles [1480-1481] se fournir abondamment en toile de Hollande pour faire des chemises, mouchoirs et divers bonnets de nuit», PIPONNIER, 1970: 168. The raw material for the Holland cloths might very likely come from the Baltic and the Westphalia. See DOLLINGER, 1964: 160, 169, 305-312, 319-320 and specially 276, 277 and 279.

²⁴ FERNÁNDEZ DE PINEDO and MORAL, 2017; FERNÁNDEZ DE PINEDO ECHEVARRÍA and MORAL, 2019a.

²⁵ «Sans prendre cette déclaration à la lettre, gageons qu'il y a des chances, une fois de plus, pour que l'immobilité soit d'un côté, celui de la majorité, et le mouvement de l'autre, celui du luxe» (BRAUDEL, 1979: 290).

²⁶ The presence of relevant quantities of Rouan cloths already has been highlighted by LADERO QUESADA, 1991: 264, 268-269 and 274, and specially by LADERO QUESADA and CANTERA MONTENEGRO, 2004: 319-326.

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These changes as regards the wool-silk relations could also be seen in other locations²⁷. More surprising was the emergence of the linens, perhaps more exactly of the Holland cloths. Not only did the consumption of expensive linen increase among the royalty and the wealthy, but it was also used in brand new ways and in general to make everyday life more pleasant²⁸.

If any revolution in consumption, at least among the wealthiest groups, took place prior to the Industrial Revolution, it was during the Late Middle Ages, perhaps around 1400, and based on linen and on silk.

²⁷ OSÉS URRICELQUI, 2015: 116-118 and 175-176 for the Navarre court believes that «quizá todavía sea pronto en los inicios del XV para dar paso a la aludida superioridad numérica de las sedas». The fact of making the calculations with mentions –same weights to a linen coif as to a silk clothing– could create problems.

²⁸ FERNÁNDEZ DE PINEDO and MORAL, 2017: 594-595.

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