

# Surname Analysis in the Study of the Identities of Two Communities in the Susa Valley (Turin) in the 18<sup>th</sup> and 19<sup>th</sup> Centuries

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## Introduction

The term “ethnicity” is mainly used in social anthropology to define the ways in which the sense of individual “belonging” to a certain group is formed. This seems to imply that there must be a “discontinuity”, cultural or natural, true or presumed, of one’s own group from others. “Ethnicity is a definition of oneself and/or of the other collective [...]” (Fabietti, 1995). Ethnicity is considered a notion established mainly by cultural factors, and these determinants are not unmodifiable monoliths. Therefore, the concept of ethnicity is now interpreted in a dynamic sense “because it is not desirable, in a world permeated by powerful technology and information flows, that humanity remains the prisoner of limited horizons, such as the idea that one’s identity coincides with a natural and eternal fixed datum” (Fabietti, 1996, Site list).

For some decades, surname analyses have been used in social, demographic and biodemographic studies of past populations because surnames reflect the cumulative effects of factors that transform the ethnic composition of a population and they can be used in the absence of specific data on migratory flows (Pizzetti *et al.*, 2001). Surnames were only established after the Council of Trent and originated from cultural contexts such as nicknames, professions, places of origin, somatic and personality traits. In many populations, including the Italian one, they can be considered genetic markers, i.e. neutral alleles of a Y chromosome-linked gene. They are transmitted from father to children of both sexes but are conserved in time along the male line, except in abandoned or illegitimate children. These imperfections in the inheritance model and above all the polyphyletic origin of surnames can lead to biased estimates of inbreeding in the study of relationships between different populations; therefore, the use of surnames has been the subject of discussions and criticisms (Crow, 1983; Guglielmino and Zei, 1996; Rogers, 1991). Research has focused on defining the limits of their use and devising solid methods of analysis, as well as seeking to solve the problem of the territorial origin of monophyletic surnames and of the possible formation sites of polyphyletic ones (Manni *et al.*, 2005).

The types of surnames, their variety and their abundance represent an important source of information to understand the general biological characteristics of a population, its internal structure, its degree of isolation, the level of mobility of its components, and the relationships with other populations (Zei *et al.*, 1983; Biondi, 2000). The frequencies of surnames are not distributed uniformly: they differ according to the demographic characteristics, language, dialect and general cultural heritage of the different populations and this allows us to characterize and distinguish one community or human group from another.

## Materials and Methods

In this study, we analysed the typical surnames of two towns in the Susa Valley (Chiomonte and Venaus) and how their frequencies have changed in the last few centuries, gradually giving new configurations and new identities to their populations.

Chiomonte is in the Upper Susa Valley (Turin) at 750-800 m. It was part of the Ancient Dauphinate (Escarton d’Oulx) until the Treaty of Utrecht of 1713. After passing to the House of Savoy, it was strongly influenced by the historical events involving France and Piedmont until Italian Unification. Even after that event, it maintained contacts with France, a destination of migration for work purposes. Venaus is situated in the Cenischia Valley, a branch of the Susa Valley, on the state road for the Mont Cenis Pass. It consists of a main centre at 604 m and several villages at different elevations (Bar is at more than 1500 m, just before the pass).

Like many mountain towns, Chiomonte and Venaus were affected by strong migrations between the late 19<sup>th</sup> and early 20<sup>th</sup> century that led to strong depopulation (Fig. 1). After World War II, the population settled to a little less than 1000 inhabitants in each town.

For Chiomonte, individual data from parish registers (baptisms, marriages, deaths) are available from the end of the 17<sup>th</sup> century, while for Venaus data from civil registers are available from 1866 to 1935. The current surnames were obtained from telephone directories of 1993 (data provided by the company SEAT). At that time, almost all the families had a telephone at home and there was only

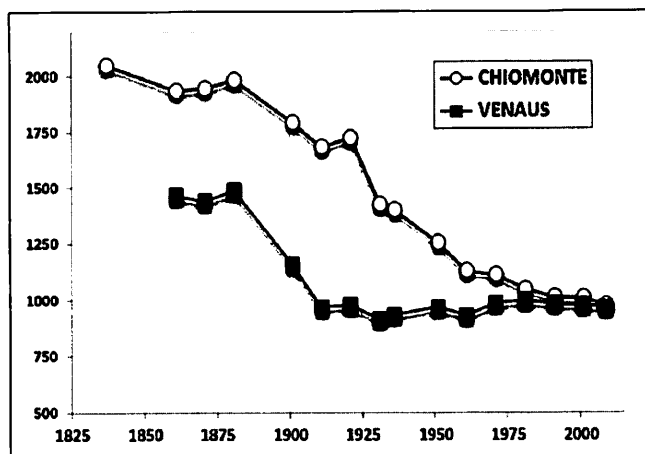


Fig. 1. Population trends of Chiomonte and Venaus in the 19<sup>th</sup>-20<sup>th</sup> century.

one telephone company, so that it was possible to have a virtually complete picture of the surnames present. A preliminary analysis of the valley's identity was carried out by considering all the communities of the central Susa Valley; we calculated the matrix of relationships between pairs of populations using the  $R_{ij}$  index of Chen and Cavalli-Sforza (1983). From the matrix, we obtained a two-dimensional topological representation via nmMDS (Davidson, 1983) to compare the genetic affinities of the towns' populations. For the diachronic study of the identities, we calculated: 1) the index of patronymic diversity  $I_{dp} = (P-1)/\log N$ , where P is the number of surnames and N is the number of events (births, marriages, deaths), for the first and last two observation periods; 2) the proportion of the individuals with the 10 most frequent surnames  $I_{10} = (\sum \hat{n}_{10}^{max})/N$  in the first and last two observation periods.

**Results**

The 1993 SEAT data revealed that there were 649 subscribers in Chiomonte and 309 in Venaus, many of which with surnames with a frequency of one; a relatively

small number of surnames (10 in Chiomonte, 9 in Venaus) had fairly high frequencies. The analysis of the genetic affinity among the populations of the Susa Valley communities (Fig. 2) showed that the surnames are distributed according to geographical

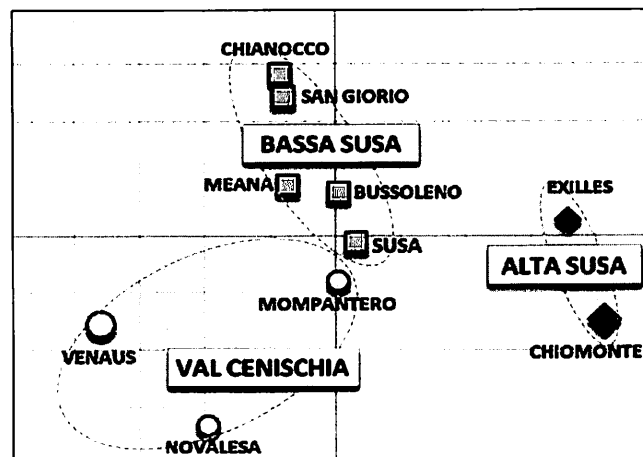


Fig. 2. Topological representation of municipalities of the Middle Susa Valley obtained by nmMDS.

criteria, with a more evident differentiation for the municipalities of the Cenischia Valley and the Upper Susa Valley. The topological representation distributes the towns according to the valley in which they are located and to their distance from the main centre, Susa. In particular, Chiomonte and Venaus are situated at the opposite extremes of the first dimension, a sign that their current surname structures are the most different of the zone. Indeed, of the five most common surnames of the Lower Susa Valley (Tab. 1, top part), only three exist in Chiomonte or Venaus and with minimal frequencies. The most common surnames in Chiomonte do not exist among the families of the Cenischia Valley (Tab. 1, middle part). Vice versa, the most numerous surnames of Venaus are found in small quantities in the nearby Novalesa and in the towns of the Lower Susa Valley, while they are almost absent in Chiomonte.

SURNAME	UPPER SUSA		LOWER SUSA		CENISCHIA		TOTAL
	CHIOMONTE	EXILLES	SUSA	OTHERS	NOVALESA	VENAUS	
<b>HIGHEST FREQUENCIES IN THE WHOLE ZONE</b>							
FAVRO	2	1	32	98		1	134
VAIR	1		5	67	1	1	75
ROSSERO			4	59		1	64
PELISSERO	1		26	28			55
PEIROLO			3	46			49
<b>HIGHEST FREQUENCIES IN CHIOMONTE</b>							
SIBILLE	40	4	9	14			67
JANNON	12	6	5	2			25
REMOLIF	12			1			13

SURNAME	UPPER SUSA		LOWER SUSA		CENISCHIA		TOTAL
	CHIOMONTE	EXILLES	SUSA	OTHERS	NOVALESA	VENAUS	
RAMAT	11	1	2	1		1	16
BACCON	9	6	2	2			19
HIGHEST FREQUENCIES IN VENAUS							
CAFFO			6	6	3	33	48
MARZO			1	4	4	30	39
CHIABAUDO					1	9	10
VAYR	1		3	6	3	9	22
ENRIETTA						7	7

Tab. 1. Most common surnames in the Susa Valley.

Variants of the same surname are found locally: while "Vair" is very common only in the Lower Susa Valley, the "Vayr" variety increases in Venaus and Novalesa but is almost absent in Upper Susa.

Almost all the surnames currently most common in the two communities have distant origins: Table 2 shows the occurrences of typical surnames at the beginning and at the end of the survey of the historical registers. Each register provides different information in relation to the flow of the

components of the population: in the case of negligible net migration, the baptismal registers show the inputs of the new generations that form and develop locally, while the intensity and characteristics of the spouses (from marriage registers) represent the basis of this process. The burial events tell us about the people who lived more stably in the territory (De lasio *et al.*, 2004). In Chiomonte, the surname Sibille has always been the largest assortment in each kind of register and today is the most widespread

SURNAME	BAPTISMS		BURIALS		HUSBANDS		WIVES		SUBS.
	1679-89	1910-29	1679-89	1910-29	1679-89	1910-29	1679-89	1910-29	
REGISTERS OF CHIOMONTE									
	1679-89	1910-29	1679-89	1910-29	1679-89	1910-29	1679-89	1910-29	1993
SIBILLE	108	136	71	114	18	42	8	52	40
REMOLIF	46	49	39	33	12	18		26	12
JANNON	18	56	12	67		15		13	12
RAMAT	19	24	19	24		12			11
BACCON	37	26	37	34		10	8	13	9
MEYER	27	32	33	20			7		5
FORNIER	62	23	65	21			11		4
RONCIL	63	9	66	7	10		10	7	3
JALLIN	44	16	35	23	9		9		1
REGISTERS OF VENAUS									
	1866-85	1926-35	1866-85	1926-35	1866-85	1926-35	1866-85	1926-35	1993
CAFFO	125	28	111	19	19	12	22	12	33
MARZO	150	51	103	22	29	14	19	18	30
CHIABAUDO	33	9	21	4	4	3	2	2	9
VAYR	23	13	40	12	4	6	10	8	9
CLEMENTE	27	10	22	6	5	1	9	4	6
PLANO	24	6	25	2	9	3	6	2	6
RUMIANO	28	5	29	5	7	6	9	3	5
MARZOLINO	33	4	25	7	6	1	4	2	4
ROSSETTO	46	6	53	8	13	3	20	4	4

Tab. 2. Dynamics of typical surnames in registers of Chiomonte and Venaus.

surname. Remolif and Baccon are always present with high frequency. Other surnames (Jannon, Ramat) are absent at the beginning of the survey but become established with the passing of the centuries, while others (Fornier, Ronsil) show a marked decline until they almost disappear in the present-day population (Jallin).

In Venaus, the frequencies of all the main surnames decrease along with the population decline, without particular peaks or dramatic disappearances. The two "founder surnames", Caffo and Marzo, are the ones that largely perpetuate the population in time and still today are at the top of the frequency list.

Both municipalities have some typical surnames widespread in neighbouring towns (Tab. 3).

surnames in Venaus likely have a polyphyletic origin: Marzo is a surname typically attributed to abandoned children and is present in different regions; Caffo has at least one other place of independent origin: the province of Catania. Chiabauda, Vayr and Enrietta seem instead to be native to Venaus. Enrietta is a surname that appeared in Venaus after World War I, subsequently increasing in frequency.

Most of the registered events in both towns are associated with these "historical" surnames: in the first and second 20-year observation periods, the ten most common surnames  $I_{10}$  make up approximately 43% of baptisms and 38-40% of burials in Chiomonte, and 62-65% of baptisms and 54-61% of burials in Venaus (Tab. 4). At the beginning of the survey, the values of  $I_{10}$  from marriages are about

SURNAME	CHIOMONTE		SUSA VALLEY (REST)	TURIN (REST)	ITALY (REST)	TOTAL ITALY
	$N_{CH}$	$N_{CH}/TOT$				
SIBILLE	40	26,5%	27	65	19	151
JANNON	12	19,0%	7	30	14	63
REMOLIF	12	38,7%	1	15	3	31
RAMAT	11	34,4%	5	10	6	32
BACCON	9	23,7%	4	19	6	38
SURNAME	VENAUS		SUSA VALLEY (REST)	TURIN (REST)	ITALY (REST)	TOTAL ITALY
	$N_{VEN}$	$N_{VEN}/TOT$				
CAFFO	33	17,0%	12	24	125	194
MARZO	30	2,2%	9	41	1273	1353
VAYR	9	20,0%	10	22	4	45
CHIABAUDO	9	81,8%	1	1		11
ENRIETTA	7	46,7%		8		15
RUMIANO	5	11,6%	7	26	5	43

Tab. 3. Diffusion of typical Chiomonte and Venaus surnames in Italy.

The "historical" surnames of Chiomonte seem to have formed *in loco* (monophyletic origin) because their frequency with

35-39% in Chiomonte and 60-66% in Venaus; at the end of the survey, these values are slightly higher because

PERIODS	BAPTISMS		BURIALS		HUSBANDS		WIVES	
	$I_{10}$	$I_{dp}$	$I_{10}$	$I_{dp}$	$I_{10}$	$I_{dp}$	$I_{10}$	$I_{dp}$
<b>REGISTERS OF CHIOMONTE</b>								
1670-1689	43,5	35,2	40,6	57,9	38,3	37,7	38,7	32,1
1690-1709	42,0	55,9	37,6	75,5	34,6	50,1	39,1	36,0
1890-1909	54,5	42,4	48,1	54,9	51,5	34,2	52,6	30,1
1910-1929	56,3	45,9	52,9	50,3	50,2	40,9	55,5	32,7
<b>REGISTERS OF VENAUS</b>								
1866-1885	64,8	23,7	53,9	72,0	65,1	22,3	60,0	19,2
1886-1905	62,8	26,4	61,6	46,3	66,7	22,2	61,8	19,0
1906-1925	57,1	32,6	63,1	31,4	55,2	27,5	57,0	23,9
1925-1935	65,3	19,6	57,4	23,2	75,3	16,8	67,9	14,7

Tab. 4.  $I_{10}$  and  $I_{dp}$  indexes in Chiomonte and Venaus at the beginning and end of the survey.

The index of patronymic diversity, expressing the abundance of surnames in relation to population size, shows higher values for populations open to immigration (Prost *et al.*, 2005). It is used here to assess the variety of surnames in each source in relation to the total events for each period. In Chiomonte, the  $I_{dp}$  values peak in the second 20-year period for all the sources and they decrease in the last two observation periods, when both the population and the events decline. The same is not true for Venaus, where there is greater fluctuation of  $I_{dp}$  values, even though the greatest decrease is in the last period, in agreement with the reduction of population size, which occurs some years earlier than in Chiomonte.

## Discussion

The surname analysis allowed us to recognize an “identity” differentiating Chiomonte and Venaus from each other and from the other communities of the Susa Valley. The two towns, although only 12 km apart, have always presented very different surnames, suggesting that mobility and matrimonial exchanges between them have always been very low. Most of the main present-day surnames date to some centuries ago, at least to the beginning of each survey: for Chiomonte the 17<sup>th</sup> century and for Venaus the middle of the 19<sup>th</sup> century. These surnames should undoubtedly be considered representative of the founding families.

The comparison between the initial and final frequencies showed the decline of some original forms of surnames and the appearance and expansion of new forms.

The analysis of the birth and death acts revealed the periods with high surname variety.

For Chiomonte, it was 1690-1709 (and subsequent periods not shown in the table), with  $I_{dp}$  greater than 70: in those periods, troops involved in the wars of succession of Spain and Austria transited and stayed temporarily in the Susa Valley. Numerous births were recognized by the soldier-fathers who gave their allochthonous surnames to the neonates. Many of these children died very young, as did various soldiers, and this explains the increase of  $I_{dp}$  for both types of registers.

In Venaus, there was a particularly high  $I_{dp}$  in the death registers in the first observation period (1866-1885). In this case, the anomaly is due to the elevated mortality of children deriving from the Children’s Home in Susa, bearing allochthonous surnames, who had been entrusted to wet nurses living in Venaus.

The small number of high-frequency surnames and the high number of forms of surnames with a frequency of

one, without intermediate frequencies, suggests that the current populations of the two towns are composed mainly of a certain number of families with high-frequency autochthonous surnames and a high number of families with “stranger” surnames of recent immigration (Karlin and McGregor, 1967). Some of these families could represent the last groups with “historical” surnames that appear to be on the path to extinction, such as Jallin in Chiomonte.

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