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Marital behaviour of a semi-urban population: Fuencarral (1881-1950)

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RESUMO

Os dados foram obtidos a partir do registo paroquial de 1648 casamentos, correspondentes a um período de 70 anos. Foram usados sub-períodos de 5 anos de forma a dar ênfase à estimativa por computador. Os resultados dos factores sazonais, idade ao casamento, endogamia, raio marital médio e distâncias entre os locais de nascimento, são dados. A migração não é aleatória, antes consiste num fluxo preferencial das localidades mais situadas a norte de Fuencarral. Serão publicados posteriormente, os resultados adicionais relacionados com o estado civil, estatuto sócio--económico, isonimia e consanguinidade.

Palavras-chave: Migração; Endogamia; Idade ao casamento.

ABSTRACT

Parish records of the 1,648 marriages held along seventy years were examined to get ordinary data. Computer estimates are emphasized using five year sub-periods. Results on seasonal factors, age at marriage, endogamy, mean marital radius and distance between birth-places are given. Migration is not at random but consists in a preferent flow from rural localities situated to the North of Fuencarral. Further results regarding socio-economic and civil status, isonimy and consanguinity will be published later on.

Key-words: Migration; Endogamy; Age at marriage.

INTRODUCTION

Nowadays, studies focusing on 'human ecology' are more and more frequent. As Boyden (1972) explains, this term has been used synonymously with the expression 'urban ecology' by some authors. Indeed, the present survey also

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supports this view, bearing in mind its simple definition as the study of the distribution in space and mutual relations between the human species and its environment, that is to say: cities.

Nevertheless, classic studies on human population structure seldom deal with urban communities, because of the extreme complexity of interactions between social and biological processes which would actually need an inter-disciplinary approach.

However, attempts are made in this study to lay a preliminary basis which would create a better understanding of the marital behaviour patterns in a rather peculiar population. Besides, the seventy-year period was not chosen at random, but because of the very special circumstances gathered: it coincided with its transition from a pre-industrial rural category (peasants) into an industrial rural one (so called sub-urban) (BAKER and BAKER, 1970), as it became a district of Madrid in 1950.

Situated only 8 Km from the city of Madrid (Figure 1) Fuencarral was founded in the 1350's (PEREZ HIGUERAS et al., 1978) on top of a sandy hill with a healthy, cold climate. Ironically, its name refers to a fountain meant for carters but the main problem of this settlement was always a scarcity of fresh drinkable water — the original spring was about 2 Km away from the village and there were few wells. Therefore, that induced some poor sanitary conditions, with no sewage system at all — in 1885 there was an epidemic of cholera in the village — until late in the nineteenth century, when a huge pipe was built to bring water from the river Jarama to Madrid[1]

It is important to point out its main characteristic as an almost compulsory passing place ever since; firstly, lying within one of the main cattle tracks of the 'Mesta' (The Spanish medieval association of cattle farming) from North to South; and secondly, because it has always been longitudinally divided by the arterial road between Madrid and France.

In regard to the population size there are apparently two sub-periods to be noted: 1881-1920, with a moderate growth (2, 391 inhabitants by 1877 and 3,953 by 1920) and 1921-1950 (when there were 16,698 inhabitants, that is seven fold the size of 1881 and four fold that of 1920). This exponential growth is concomitant with a substancial change in the dweller's way to make a living — merely agricultural by 1881, trading cattle, cereals, sweet wine, legumes and vegetables with Madrid, and having only 4 factories. By 1910, an incipient industrial development is observed: there are already 10 factories. This trend encouraged a gradual flow of immigrants and the establishment of new factories, especially after 1920 (a total of 32 factories in 1950. In spite of this all, it must be said that, even today, Fuencarral keeps its village-like lay-out and a strong rural character , which prevents it from becoming another bed-town (suburb) of Madrid.

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[1] The 'Canal de Isabel II' began supplying water to Fuencarral in 1920 (Personal communication of its Press Department).

Fig. 1

IN 1875
scale: 1:50000

IN 1944
scale: 1:50000

Fig. 2

scale 1:1.000.000
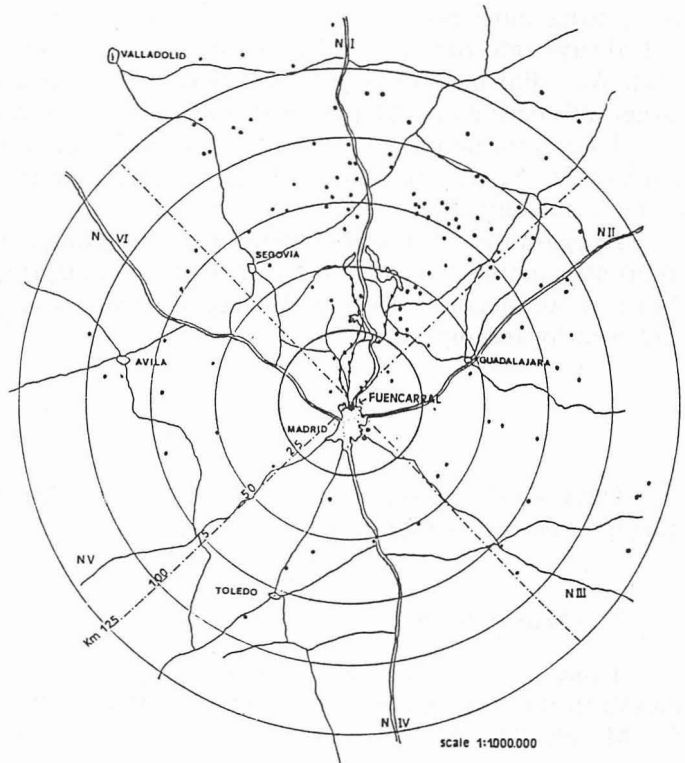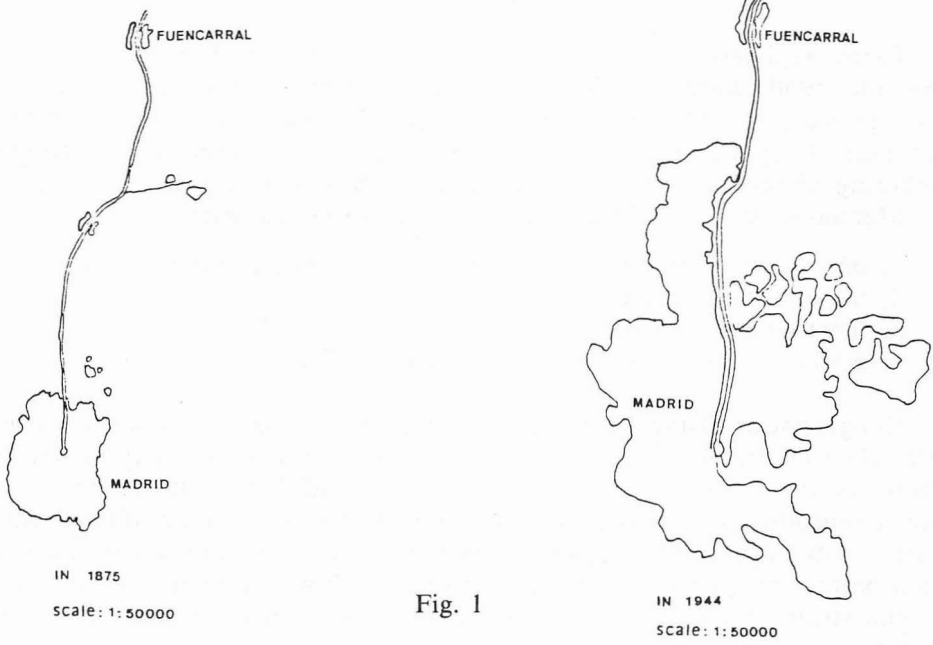
MATERIAL AND METHODS

Parish registers of a total of 1,635 marriages held in Fuencarral between 1881 and 1950, were photographed. Then ordinary data referring to each marriage were recorded in a file created for that purpose, using an IBM-Pc computer. Only those pertainig to date, age at marriage and birth-place (including distances in between) went through a precise statistical analysis.

Marriages were classified into four categories, namely:

1, both partners native or endogamous marriage (within a radius of 5 km)
2, male partner native
3, female partner native
4, neither partner native or exogamous marriage

Geographical distances between birth-places of mates (marital distances) were taken as the linear distance between two places on the map. These distances 'as the crow flies' (CAVALLI-SFORZA and BODMER, 1971) do not exactly reproduce the individual displacements but they are definitively much easier to estimate (IMAIZUMI, 1977). Extremely long migrations were classified in a separate category (long rate migration) which was not taken into account for statistical treatment (the cut-off was established at a radius above 500 Km).

Five year sub-periods (quinquennia) have been considered for most computing purposes, though data corresponding to that of 1936-1940 were not always referred to because of the obviously special circumstances of the Civil War. Partial results indicated that sometimes a subdivision into just two larger sub-periods (1881-1920 and 1921-1950) was more adviseable.

To determine modal values for distances between birth-places, successive radii at 25, 50, 75, 100 and 125 Km (Figure 2) were searched for the origins of migrant individuals.

Exogamous marriages were also examined for the proportions of migrants coming from the provinces of Guadalajara and Segovia just to the North (note location of original villages, situation of the fresh water reservoirs and Southward pipes).

RESULTS

Data were approached to evaluate the mating behaviour of Fuencarral during some two generations, with regard to:

1 — *Seasonal factors*

Table 1 shows that, regardless of sub-period, November was the favourite month in which to get married, while counter-point frequencies were observed for March. This is also valid up to the present, as the authors ascertaines.
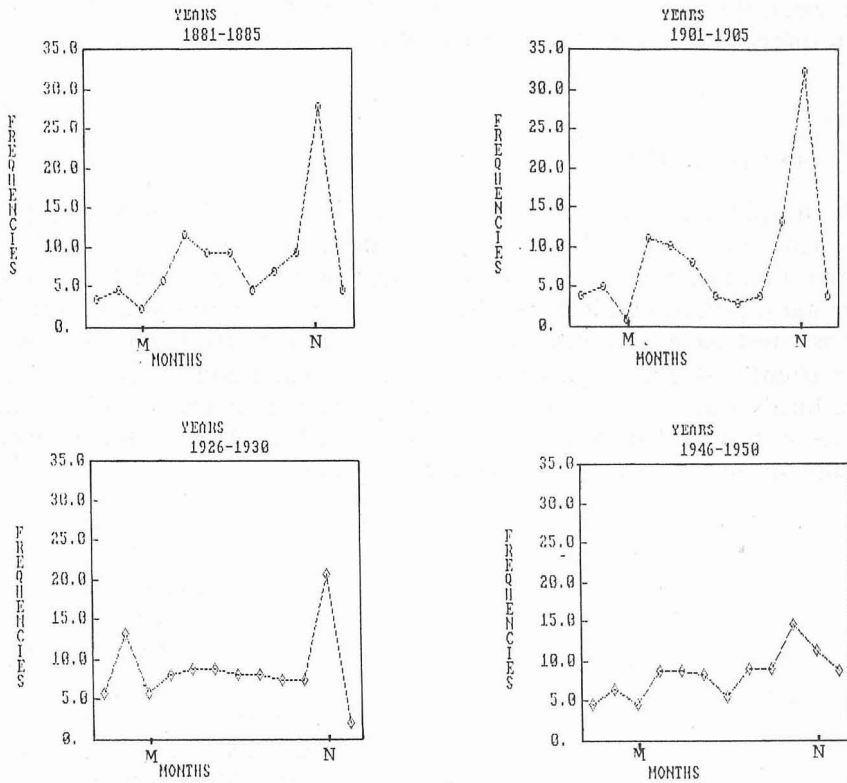
Fig. 3

TABLE 1.

	J	F	M	A	M	J	J	A	S	O	N	D	Total
1881-1885	3.5	4.7	2.3	5.8	11.6	9.3	9.3	4.7	7.0	9.3	27.9	4.7	86
1886-1890	9.1	7.8	3.9	2.6	9.1	14.3	13.0	7.8	14.3	7.8	9.1	1.3	77
1891-1895	8.5	13.4	2.4	6.1	4.9	7.3	4.9	9.8	3.7	8.5	24.4	6.1	82
1896-1900	6.3	12.7	0.0	3.8	3.8	6.3	8.9	11.4	12.7	12.7	15.2	6.3	79
1901-1905	4.0	5.1	1.0	11.1	10.1	8.1	4.0	3.0	4.0	13.1	32.3	4.0	99
1906-1910	4.9	12.2	0.0	7.3	7.3	12.2	6.1	4.9	6.0	4.9	29.3	3.7	82
1911-1915	3.8	12.8	0.0	9.0	10.3	7.7	3.8	5.1	5.1	7.7	29.5	5.1	78
1916-1920	7.5	5.4	2.2	11.8	9.7	10.8	2.2	5.4	6.5	11.8	20.4	6.5	93
1921-1925	3.3	7.3	2.4	6.5	8.9	5.7	11.4	6.5	7.3	11.4	22.8	6.5	123
1926-1930	5.9	13.3	5.9	8.1	8.9	8.9	8.1	8.1	7.4	7.4	20.7	2.2	135
1931-1935	5.8	12.2	4.7	7.0	9.3	8.7	2.9	4.1	10.5	10.5	14.4	8.7	172
1936-1940													98
1941-1945	9.0	5.2	4.5	7.7	3.2	4.5	5.2	5.8	11.6	16.8	18.1	10.3	155
1946-1950	4.7	6.5	4.7	8.7	8.7	8.4	5.5	9.1	9.1	14.5	11.3	8.7	275

Nevertheless, differences seem to lessen after 1920 (Figure 3), which coincides with an increase in the population size due to immigration.

2 — *Age at marriage*

Mean values for both sexes are shown in Table 2. Surprisingly, these values prove that husbands are generally three years older than their wives. The corresponding linear regressions indicate a· general trend to get married at older ages, especially after the Civil War (Figure 4a and 4b); in both linear functions t-test gave p values significatively different from zero although the slope is slightly steeper for females. However, when considering age at marriage of locals and immigrants, differences proved to be statistically significant for males in both sub-periods (1881-1920 and 1921-1950) (Table 3), while no significant difference was found between females.
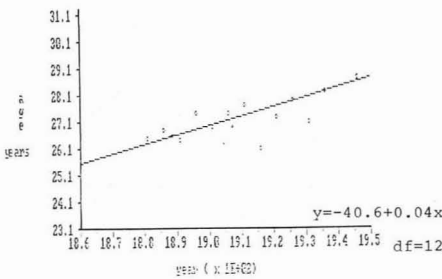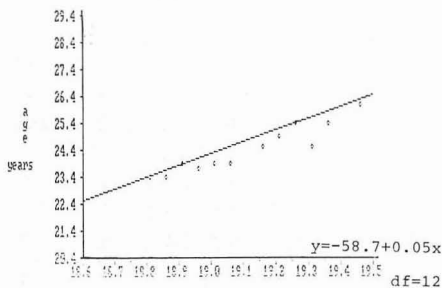

$y=-40.6+0.04x$

df=12

Fig. 4a. — Males

$y=-58.7+0.05x$

df=12

Fig. 4b. — Females

TABLE 2.

	MALE		FEMALE	
	x̄	s.d.	x̄	s.d.
1881-1885	26.5	5.62	23.4	4.26
1886-1890	26.8	6.16	23.4	4.90
1891-1895	26.4	5.01	23.9	5.01
1896-1900	27.4	6.90	23.7	5.65
1901-1905	26.9	4.69	23.9	3.56
1906-1910	27.4	5.25	23.9	5.18
1911-1915	27.7	6.33	28.3	25.68
1916-1920	26.1	3.55	24.5	4.39
1921-1925	27.3	4.57	24.9	4.68
1926-1930	27.9	7.12	24.5	6.08
1931-1935	27.1	6.58	24.4	5.79
1936-1940	28.2	5.89	25.4	6.02
1941-1945	30.0	7.33	26.9	6.00
1946-1950	28.7	5.77	26.1	5.43

TABLE 3.

	MALES		FEMALES	
1881-1920	t = 2.32	p = 2.2373 × 10⁻²	t = 1.28	p = 0.2035
1921-1950	t = 1.81	p = 0.0732	t = 1.55	p = 0.1242

3 — *Endogamy and migration*

Table 4 and Figure 5 underline the existence of the above mentioned sub-periods:

(i) 1881-1920, with frequencies of category 1 couples (endogamy) above 50% in all cases.

(ii) 1921-1950, with a proportion of endogamy below 50% and showing an obvious gradual decrease.

With regard to exogamous couples (categories 2, 3 and 4) a corresponding increase was felt although it was less apparent for category 2; that is to say, there is an equilibrium between endogamous and exogamous couples especially those in which wives were native (category 3).

TABLE 4.

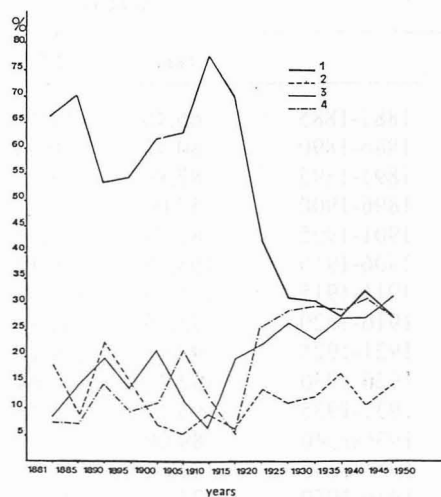|	1(%)	2(%)	3(%)	4(%)
1881-1885	66.3	18.6	7.0	8.1
1886-1890	70.1	9.1	14.3	7.8
1891-1895	53.7	23.2	19.8	14.6
1896-1900	54.4	15.2	13.9	19.0
1901-1905	61.6	7.1	21.2	11.1
1906-1910	62.2	4.8	12.1	20.7
1911-1915	78.2	8.6	6.6	12.8
1916-1920	69.9	6.5	19.4	5.4
1921-1925	42.3	13.8	22.8	25.2
1926-1930	31.9	11.1	25.9	28.1
1931-1935	30.8	12.8	23.8	29.7
1936-1940	26.5	16.3	26.5	28.6
1941-1945	32.9	10.3	27.1	31.0
1946-1950	27.6	14.5	31.3	27.6

Fig. 5

4 — *Distance between birth-places*

Mean values for exogamous categories appear in Table 5. The corresponding linear regressions were established to show a positive trend (Figure 6a, 6b and 6c). Indeed, there is an increase in the movement of husband and wife prior to marriage, along the studied period. However, t-test gave p values which were significatively differents from zero except for category 3; that is to say, there is no clear trend for females to increase their mobility (migration at random), while males tend to travel longer distances as years go by.

When considering frequencies of marriages in which mates came from successive radii (Table 6), it can be noted:

(i) regardless of sub-period, the first radius between 6-25 km always proved to be the most frequent for males. That is not true for females until the sub-period 1911-1915.

(ii) needless to say, minimum frequencies were obviously recorded for radius 101-125 Km of both sexes along the whole period.

Figure 7 shows the migration distribution, of both sexes, for the two main sub-periods. g_1 and g_2 values proved in all cases that distributions were skewed to right and leptokurtic (SOKAL and ROHLF, 1969). A predominancy of mates coming from no more than 25 Km, is also noticed, especially after 1920.

It is relevant to point out that migration does not occur at random within each category or radius, but there is a certain directionality, as most exogamous couples came from villages in the Northern area (Figure 2) in which three different provinces are included: Madrid, Guadalajara and Segovia.

TABLE 5.

	MMR (2)		MMR (3)		MMR (4)	
	mean	s.d.	mean	s.d.	mean	s.d.
1881-1885	66.46	52.18	93.76	78.32	87.24	75.47
1886-1890	80.47	90.40	90.92	106.14	47.86	41.23
1891-1895	87.80	131.48	75.48	89.42	93.03	148.22
1896-1900	57.00	74.79	88.48	62.52	89.61	73.50
1901-1905	87.78	109.74	47.53	40.37	85.94	104.24
1906-1910	103.33	129.15	83.40	55.54	135.16	125.79
1911-1915	121.93	129.37	124.60	129.76	154.78	138.38
1916-1920	73.35	94.39	73.67	77.13	70.00	90.33
1921-1925	92.93	109.16	101.66	110.96	124.30	136.08
1926-1930	102.31	130.64	86.93	108.57	120.81	131.88
1931-1935	95.78	107.46	92.22	110.36	101.37	119.92
1936-1940	89.09	102.16	102.97	131.37	120.81	138.34
1941-1945	141.70	134.27	102.79	108.01	150.68	147.81
1946-1950	124.24	131.97	120.93	124.42	134.99	146.11

Fig. 6a. — Radius 2

y=1334.6+0.8x
df=12

Fig. 6b. — Radius 3

y=-713.5+0.4x
df=12

Fig. 6c — Radius 4

$y=-1691.1+0.9x$

$df=12$
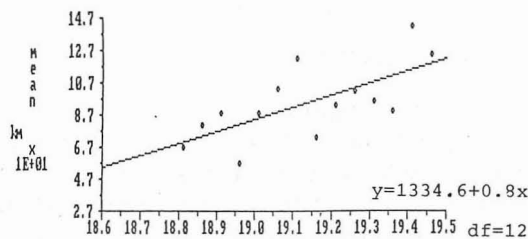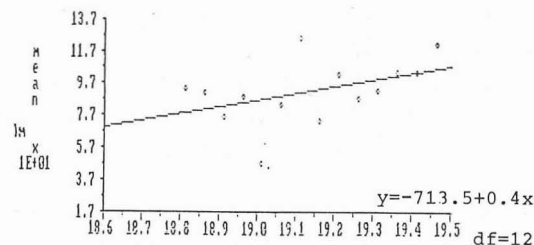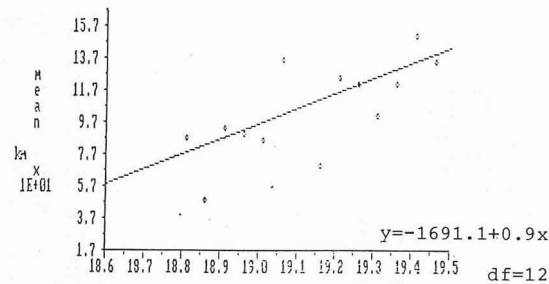
TABLE 6.

	6-25 Km		26-50 Km		51-75 Km		76-100 Km		100-125 Km	
	males	females	males	females	males	females	males	females	males	females
1881-1885	6(20.7)	2(6.9)	0(0.0)	2.(6.9)	3(10.3)	6(20.7)	4(13.8)	6(20.7)	0(0.0)	0(0.0)
1886-1890	3(13.0)	5(21.7)	7(30.4)	2(8.7)	0(0.0)	0(0.0)	2(8.7)	2(8.7)	0(0.0)	1(4.3)
1891-1895	7(18.4)	8(21.1)	5(13.2)	7(18.4)	2(9.2)	1(2.6)	2(9.2)	8(21.1)	1(2.6)	2(9.2)
1896-1900	12(33.3)	4(11.1)	6(16.7)	3(8.3)	2(5.6)	4(11.1)	1(2.8)	6(16.7)	0(0.0)	1(2.8)
1901-1905	11(28.9)	7(18.4)	8(21.1)	4(10.5)	3(7.9)	1(2.6)	4(10.5)	3(7.9)	1(2.6)	1(2.6)
1906-1910	8(25.8)	3(9.7)	6(19.4)	4(12.9)	2(6.5)	1(3.2)	2(6.5)	3(9.7)	2(6.5)	6(19.4)
1911-1915	5(29.4)	4(23.5)	3(17.6)	2(11.8)	0(0.0)	3(17.6)	2(11.8)	1(5.9)	0(0.0)	0(0.0)
1916-1920	13(46.4)	5(17.9)	3(10.7)	2(7.1)	0(0.0)	0(0.0)	0(0.0)	2(7.1)	0(0.0)	1(3.6)
1921-1925	23(32.4)	17(23.9)	8(11.3)	1(1.4)	2(2.8)	5(7.0)	2(2.8)	8(11.3)	6(8.5)	3(4.2)
1926-1930	30(32.6)	23(25.0)	9(9.8)	10(10.9)	4(4.3)	2(2.2)	9(9.8)	7(7.6)	3(3.3)	2(2.2)
1931-1935	32(26.9)	29(24.4)	10(8.4)	8(6.7)	13(10.9)	14(11.8)	10(8.4)	4(3.4)	4(3.4)	3(2.5)
1936-1940	19(26.4)	16(22.2)	5(6.9)	5(6.9)	9(12.5)	6(8.3)	9(12.5)	5(6.9)	2(2.8)	0(0.0)
1941-1945	22(21.2)	18(17.3)	5(4.8)	8(7.7)	8(7.7)	4(3.8)	9(8.7)	11(10.6)	6(5.8)	5(4.8)
1946-1950	48(24.1)	32(16.1)	14(7.0)	9(4.5)	16(8.0)	11(5.5)	13(6.5)	18(9.0)	11(5.5)	7(3.5)

f | σ♂   f | ♀   f | σ♂   f | ♀

150.   150.   150.   150.

$g_1 = 1.05$ $g_1 = 0.23$ $g_1 = 0.71$ $g_1 = 0.60$

100. $g_2 = 2.98$ 100 $g_2 = 1.64$ 100. $g_2 = 2.07$ 100. $g_2 = 1.90$

50.   50.   50.   50.

1 2 3 4 5   1 2 3 4 5   1 2 3 4 5   1 2 3 4 5
1881 - 1920   1881 - 1920   1921 - 1950   1921 - 1950

1 : 6 - 25 Km   4 : 76 - 100 Km
2 : 26 - 50 Km   5 : 101 - 125 Km
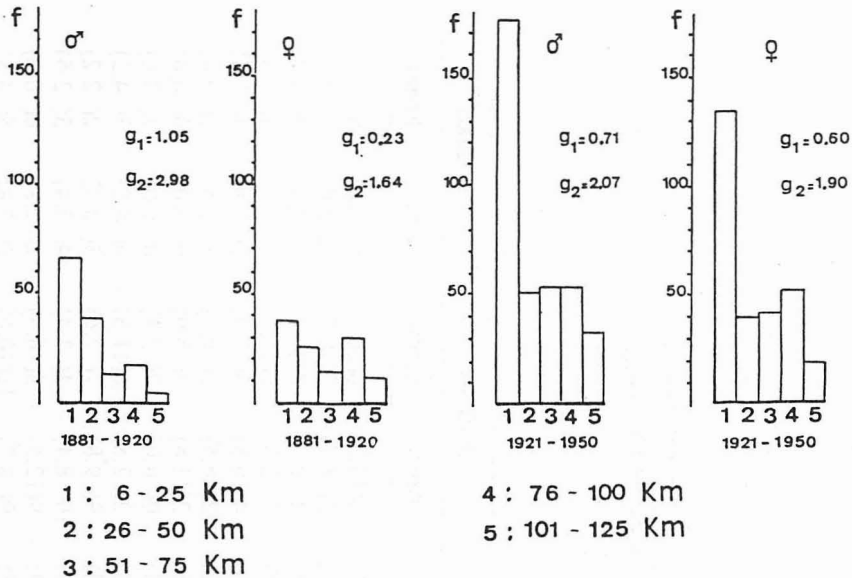3 : 51 - 75 Km

Fig. 7

DISCUSSION

With regard to monthly distribution, our population showed a definite rural pattern; with maximum frequencies of marriages for November while minimums were found for March. This is also true for many others rural Spanish populations (ALVAREZ, 1983; BERNIS, 1974; CALDERON et al., 1978; DIAGO, 1980; MATEO et al., 1985; RODRIGUEZ, 1980; VALLS, 1984). We do agree with these authors in attributing these extreme values to mere cultural reasons. Indeed, November is a month when harvest is over and most agricultural labours are suspended until the following spring. On the other hand, it is not surprising that minimum values were found for March overlapping with Lent. Until very recently, the Catholic Church did not allow people to get married during Lent; therefore, a special permission was required. That could have had a strong influence and still could, on a people with such deep religious roots as the Spanish, especially in rural communities.

In addition to this, it is funny that in spite of its gradual industrial development, Fuencarral remains indifferent, at least in respect to the choice of date of marriage. Needless to say that for seasonal factors the sub-periods 1936-1940 was not taken into consideration for monthly distribution purposes, as no real pattern could be inferred from a total absence of registrations during the three years of the War, while a disproportionate flow followed along 1940.

On the other hand, an increase is apparent in mean age at marriage for both sexes. This is a possible consequence of a retardation in making a living

as a result of the transition to a predominancy of factory jobs in which a preliminary training is required. The mean age difference between mates has not varied — males were always three years older than females. Possible difficulties of male immigrants as opposed to male locals in establishing a stable job might well cause a logical retardation to mate.

The steep decrease of the proportion of endogamy is perfectly understandable as a result of the even flow of immigrants and the corresponding growth of the population size after 1920. This disagrees with data obtained by some authors (COLEMAN, 1973). An even steeper decrease was found in post-war years with a light recovery afterwards. This was also found by Lepage (1977) in the outskirts of Brussels. His data also agree with ours in finding the nearby city acting as a geographical border, preventing thus the theoretically uniform diffusion of immigrants from all directions.

The increase of individual mobility prior to marriage was explained as a result of the improvement of means of transportation as years went by. As in Japanese samples (IMAIZUMI, 1977 and 1978; YASUDA and KIMURA, 1973), female migration seemed to occur more at random than the male.

With regard to the distribution of marital distances, our inverted 'J' curves were similar to those by others authors (CALDERON, 1984; COLEMAN, 1973; FREIRE-MAIA and FREIRE-MAIA, 1962; IMAIZUMI, 1977), finding that mean marital distances increased with a more recent year of marriage. However an even larger increase takes place in Fuencarral for short distances in both sexes, which supports the thesis that our population should not be considered fully urban yet.

CONCLUSIONS

— Regardless of sub-period studied, November proved to be the favourite month in which to get married, while March seemed to be the last in an order of priority.

— Mean age at marriage increased proportionally with a more recent year of marriage (**). On the contrary, mean age difference between mates did not vary.

— Proportion of endogamy clearly decreases below 50% after 1920 with concomitant increases of the various categories of exogamous couples, as a result of the frenzied flow of immigrants (mostly from the Northern areas) into the nearby city and outskirts.

— There seems to be a preference to contract marriage at the birth-place of wives.

— There is a decisive increase of marital mean distances along the period studied.

** This parameter is known to be a determinant regulator of the couple's reproductive period.

— Improvement of means of transportation promoted individual mobility. Nevertheless, the mating behaviour of Fuencarral during some two generations, in spite of the above mentioned changes, seems to keep a marked rural character, ignoring somehow the deep changes held in its socio-economic background.

— Skewness and leptokurtosis were found as a widespread characteristic of human migration.

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