

HISTORICKÁ DEMOGRAFIE

14

EDITOR PhDr. PAVLA HORSKÁ, CSc.

HISTORICKÝ ÚSTAV ČSAV

PRAHA 1990

HISTORICKÁ

Editorial board:

RNDr. Ludmila Fialová, CSc., PhDr. Pavla Horská, CSc. (chair-
women), PhDr. Jaroslav Lánik, CSc., PhDr. Eduard Maur, CSc.

STÁTNÍ ÚSTŘEDNÍ ARCHIV	
ODD. IV. - TĚŠNOV - KNIHOVNA Č.	
Pr. č.	46798
Stgn.	V B 40 14

EDITOR PAVLA HORSKÁ, CSc.

© Historický ústav ČSAV, Praha 1990

INTRODUCTION

Under the auspices of the European Association for Population Studies, the International Demographic Conference on the Ageing of Population in Developed Countries, organized by the Czechoslovak Demographic Society of the Czechoslovak Academy of Sciences, was held in Prague on July 3 - 7, 1989. The Conference included a historico-demographic seminar on Age and History, the organization of which was undertaken by Jacques Dupaquier.

The seminar was attended by a number of historical demographers from European countries and from Canada. The reports presented at the colloquium or sent to the organizer constitute the contents of the volumes of the „Historická demografie“ proceedings. The contributions by Czechoslovak authors were published in the 13th volume. This 14th volume contains contributions of researchers from France, the Netherlands, Canada and the Soviet Union, and one from Czechoslovakia. Two reports submitted in Russian were translated into English. The volume also contains the introductory word presented at the opening of the exhibition „The Development of Prague and its Population in the Documents of the Archives of the Capital City of Prague“. The volume is concluded by a general evaluation of the seminar Age and History, which was presented at the end of the Conference by Jacques Dupaquier.

The 14th volume of „Historická demografie“ was prepared jointly by the Commission for Historical Demography and the Czechoslovak Demographic Society of the Czechoslovak Academy of Science. All readers' comments and questions, or contributions, can be directed to:
Komise pro historickou demografii, Ústav československých a světových dějin ČSAV, Vyšehradská 49, 128 26 Praha 2.

L'INTRODUCTION

La Société tchécoslovaque de démographie de l'Académie tchécoslovaque des Sciences organisa sous les auspices de l'Association Européenne pour l'étude de la population du 3 au 7 juillet 1989 à Prague la Conférence démographique internationale sur "le vieillissement de la population dans les pays développés". Comme une partie de cette conférence eut lieu une table ronde sur le thème "Age et histoire" dont l'organisateur était Jacques Dupâquier.

Les participants de la table ronde sont venus de plusieurs pays européens et du Canada. Les communications présentées ou envoyées à la table ronde sont publiées dans deux volumes de "Historická demografie" : les communications des participants tchécoslovaques étaient publiées dans le volume 13 et dans le présent volume 14 on publie les communications des chercheurs de la France, de la Hollande, du Canada et de l'Union Soviétique, y compris une communication tchécoslovaque. Deux communications envoyées en russe étaient traduites en anglais. En même temps on publie dans ce volume le mot d'introduction prononcé au vernissage de l'exposition "Evolution de la population de la ville de Prague dans les documents des Archives de la ville de Prague". Le présent volume est terminé par le mot de conclusion de la table ronde prononcé à la conférence par Jacques Dupâquier.

Le volume 14 de "Historická demografie" est préparé par les soins de la Commission de démographie historique et de la Société tchécoslovaque de démographie de l'Académie tchécoslovaque des Sciences. Les remarques et les questions ou les communications pour les volumes suivants sont à envoyer à l'adresse:

Komise pro historickou demografii, Ústav československých a světových dějin ČSAV, Vyšehradská 49, 128 26 Praha 2.

Rimantas Jankauskas

DEGENERATIVE CHANGES OF THE VERTEBRAL COLUMN
IN LITHUANIAN PALAEOPOPULATION

Degenerative changes of the human spine are grave condition, presenting issues of some social problems. In spite of extensive morphological, biochemical, roentgenological and epidemiological investigations, many questions are far from being solved. In the first place, the clear distance between pathological (degenerative) lesions and physiological changes is necessary, otherwise, the clear appreciation the true role of age is impossible. Secondly, data on the interaction of genetic and environmental factors predisposing to degenerative changes of the vertebral column are inconsistent. It appears that only the investigation of these changes in the whole population can help us to give answers to these questions. The exceptional value of Lithuanian palaeosteological material consists in its genetical homogeneity, because during the last two millennia there was no substantial change in their gene pool.

The purpose of this investigation was to examine degenerative changes of the vertebral column in Lithuanian palaeo-osteological material: their localisation, interrelations, role of the age and the sex of the individual, the influence of secular trends and social factors, characteristics of body build on the symptom display.

In total, vertebral columns of 539 individuals (6,357 vertebrae and 336 sacral bones) from the graveyards of the first and second Christian-era millenaries were examined osteoscopically and osteometrically. The statistical analysis was performed with the help of BMDP and SAS computer programs.

Physiological and pathological degenerative changes of the intervertebral disc on macerated bones appear as osteophytes (bone spurs on the margins of vertebral body) and osteochondrosis (subchondral bone sclerosis and perforations). Osteophytes are most often found on lumbar, lower and middle thoracic vertebrae, both in males and females. They were rare in cervicothoracic and thoracolumbar transitional regions. Osteophytes were most frequently found at the tops of physiological curvatures, (C5 - C6, Th7 - Th9, L3 - L4), where they were also largest. They appear at the age of 25-35, the frequency of osteophytes and their size increase all through the life both in males and for females. Our materials do not differ from the data of other ancient as well as contemporary populations (Fujimaki, Nagase, Suzuki, 1974; Stloukal, Vyhánek, 1976; Swedborg, 1974; Merbs, 1983).

The traces of intervertebral osteochondrosis were observed in all regions, most often in lumbar and cervical. The greatest frequencies of these changes were established on the tops of physiological curvatures, the lowest on cervicothoracic and thoracolumbar transitions. The first signs of osteochondrosis appear at the age of 20-30 years, usually on those vertebrae where they consequently will be found at greatest frequencies, and they are increasing during all the life. The sexual differences were insignificant. No differences were

established while comparing with literature data.

Osteophytes and osteochondrosis are correlated with each other ($r = 0.3 - 0.4$, $p < 0.001$). That proves that their causes and regularities are common in general. Dispersion analysis (table 1) has proved, that the sex has nearly no influence on the development of osteophytes and osteochondrosis. The influence of age is highly significant. The chronological factor (1st or 2nd millenary) has no influence on the occurrence of degenerative changes

Table 1 The grade of influence (χ^2 %) of the factors of degenerative changes of the vertebral columns

Form of degenerative change	Sex	Age	Epoch
		Cervical region (C3-C7)	
Osteophytes	1.31	18.14 ^{xxx}	0.05
Osteochondrosis	0.58	10.89 ^{xxx}	1.34
		Thoracic region (Th1-Th12)	
Osteophytes	1.16	29.50 ^{xxx}	0.14
Osteochondrosis	0.73	12.81 ^{xxx}	0.34
		Lumbar region (L1-L5)	
Osteophytes	2.09 ^x	37.48 ^{xxx}	0.00
Osteochondrosis	0.22	10.57 ^{xxx}	0.72

x - $p < 0.05$; xxx - $p < 0.001$

A comparison of the frequencies and localisation of the osteophytes and the osteochondrosis between rural cemeteries and Vilnius Cathedral material was performed. No important differences were established, and some discrepancies in frequencies should be considered as the consequence of different age structures of these groups.

Correlation analysis has proved that the characteristics of physical development (body length and weight, shoulder and pelvis breadth) in general have no marked influence. The rates of degenerative changes slightly increase only in females with enlargement of body dimensions.

Summing up, it can be stated that the degenerative changes at human spine (osteophytes and osteochondrosis) are two particular forms of manifestation of one general process of involution: the influence of age factor makes up 30% or more of all factors, on average. Anatomical and functional conditions of particular disc predispose the specific form of degeneration. Body dimensions have only slight influence on this process. The sex of the individual as well as chronological and social factors and body built don't play an important role in the symptom display of osteophytes and osteochondrosis. It means that those two particular forms of degenerative changes of the vertebral column are the manifestation mainly of the biological age. Epochal and social factors have little influence on this strictly determined "biological clock". It could be expected that no significant changes from this point of view, despite the radical changes in the way of life, will occur in the future.

REFERENCES

- 1 Fujimaki T., Nagase T., Suzuki S., Numerical evaluation of the spur formation of the lumbar vertebral bodies. *Zeio J. Med.* 1974. No 1. p. 17-27.
- 2 Merbs Ch.F., Patterns of activity-induced pathology in a Canadian Inuit population. Ottawa, 1983. 199 p. (Archaeological survey of Canada; Paper No. 119).
- 3 Stloukal M., Vyhnanek L., Slované z velkomoravských Mikulčic. Praha, Academia, 1976. 207 p.

- 4 Swedborg I., Degenerative changes of the human spine: A study on dried macerated skeletons. Stockholm, 1974, 197 p.

THE PERIOD OF OLD AGE IN ANCIENT TIMES

This is the story of the "antagonism" which still very much debated today, about age limits in human life. Opposing the claims of those who wish to lengthen the human life, stands the opinion of people who see the human existence as a process of physical degeneration and biological deterioration of the aged in the direction of degeneration. These two positions, the latter prevailing in the "old" world provide it with the clothes of youth, preserving the spiritual values of advanced age and replacing its weakness.

The origin of this disagreement lies in the impossibility of "overriding" objectively the age limits. Although the obvious physical signs, we must account for the individual evidence of "aging", as well as the intellectual symptoms. Finally, to the social facts of existence: health, poverty, care or less forced labour, the quality of the heirs, always corresponds another "invisible" quality - the "anticipation" of poverty or immobility and isolation - the

Jean-Paul Bois

THE PERIODS OF OLD AGE IN ANCIENT TIMES

This is the story of the fundamental disagreement, still very much debated to-day, about age limits in human life. Opposing the claims of those who wish to lower the retirement age, stands the opinion of people who emphasise the remarkable improvement of physical capacities and biological performances of the aged in the developed countries. Between these two positions, the clever promoters of the "third age" provide it with the clothes of youth, so wasting the spiritual values of advanced age, and exploit its revenues.¹

The origin of this disagreement lies in the impossibility of determining objectively the age limits. Alongside the obvious physical signs, we must account for the individual evidence of ageing², as well as the intellectual symptoms. Finally, to the social facts of solitude, health decay, poverty, more or less forced inactivity, care or impatience of the heirs, always corresponds another measurable reality - accumulation of poverty - or immeasurable and variable - the

strength and density of family relationship - themselves included in the traditions of a society. The human person can't be restricted in the narrow bounds of a definition.

But the temptation is strong: even in non-statistical societies of the past, we find numerous attempts to define scales of ages³. But each period has its own references: whereas to-day the determining factors of individual liberty are money and health, they consisted more in the past in metaphysical facts coming from theology or from a symbolic conception of ages. In fact, things were obscure in these societies whose medical views were inherited from the Galenic theories of humours (blood, phlegm, black and yellow bile)⁴, reducing the process of ageing to a decrease of the coupled properties of warmth and humidity.

+ + +

The time of the abstraction: the quaternary and septennial conceptions

Ancient conceptions of ages were not determined by demographers, sociologists or doctors, but by bishops, compilers and alchemists; they do not and they refuse to calculate, and they stick firmly to allegorical or magical conceptions, to a vision of happy harmony between the ages of man and the ages of the universe, between the ages of man and the aspects of nature. This is not of a great help in the knowledge of old age. Shut in their abstract and systematic view, they only attribute a symbolic meaning to the number of years, whence the success of the four and seven numbers, related to the seasons and to the moon, to the metals and the planets, to Creation.

The most ancient authors showed the way. The first, Hippocrates, had compared the ages of life to the seasons of nature, assimilating winter to old age, which supposedly

started at 56. In 1265, the Italian Philippe de Novare, in his Moral Treaty, simply divides human life into four equal parts, the latter of which being old age, from 60 onwards⁵. The elementary forms of popular wisdom, as expressed in the proverbs and calendars, confirm this perception of life so well adapted to the natural rhythms. At the end of the Middle Ages, the Compost des Bergiers⁶ divides life in four periods of twenty years, based on the twelve months. Arnold da Villanova further complicates this mathematical system of four times twenty years, which, to him, corresponds harmoniously to the four humours, or to the four elements⁷. But in fact the real preoccupation of the medieval school directed by the master of Salerno, fixing the beginning of old age at 60, is: how can we fight old age, how can we rejuvenate? Such a conception of age belongs exclusively to speculation.

Another set of references came from the ancient stock, with the stories and prescriptions from Scriptures. The accepted ages of the legendary patriarchs were reassuring landmarks, completely intemporal, which was the essential point. The medieval bishops consider human life as a whole, and, very much inclined towards speculative theories, only see in the numbers of years an allegorical object, which explains the popularity of the multiples of seven. To reach 70 years is a special benediction, and to go beyond is an extraordinary fact. So says saint Jérôme at the beginning of the V century, one of the most learned doctors of the Church, basing himself on personal observations and on the Book of Psalms.

Christian thought in the Early Middle Age cannot envisage age outside of symbols. This is confirmed by the two pillars of this period: saint Augustine and saint Isidore de Seville. The former, a contemporary of saint Jérôme, develops in Genesis against the Manicheans the theme of the Seven Ages of the world, corresponding to the seven ages of

life, the last of which, old age, being the age of rebirth in spiritual life. In the 83 varied questions, he reduces the periods of life to six; following the cradle, childhood, adolescence, youth and adult age, old age starts at 60, and is the time of wisdom. Two centuries later, Isidore of Seville, in his Etymologies, also divides human life into six or seven periods, but he starts old age, the sixth age, only at 70, and prolongs it into a seventh period, decrepitude.

Copied again and again, this conception of the two masters persisted the centuries and was several times published, at the beginnings of the printing press, but in Latin, and never in vulgar languages. So it didn't lose any of its actuality, but never any popular diffusion: Augustine's Questions, which are part of his Opera Omnia, were published in Cologne in 1530; included in the Opera Omnia, they had about ten editions in all the centres of learning between 1528 and the end of the century: in Bale, Paris, Venice, Lyons, Antwerp⁸. Isidore was published even earlier, the Etymologies being printed in Augsburg in 1479⁹.

Isidore's work is also the main source of the Grand Propriétaire de toutes choses, a strange compilation, an encyclopedia of medieval knowledge, written for the first time in Latin in the XIII century, and translated into French in the XVI century¹⁰. The Grand Propriétaire, true to its model, is inclined to a mixture of theology and science: to the seven ages correspond the seven planets and seven metals. Youth is supposed to last until 45 or 50, followed without transition by an age of weariness, "sénecté", then by old age, at 70, a period of body shrinking, and finally by senility, "senies", a repugnant period between old age and dust... Even at the end of the XVIII century, the seven-period life imagined by Guillaume Daignan, is more elaborate, but doesn't postpone the beginning of old age. In his Tableau des Variétés de la vie humaine, life is presented as a succession of seven years periods, without any justification for the old num-

ber's fascination; each age is given detailed specific attributions, and this is a more literary and psychological conception than a metaphysical one. Old age starts at 57, accompanied by bitterness and worries, seriousness taking the place of playfulness; at 64 comes the age of infirmities and the end of enjoyment; then at 71 starts decrepitude: one cannot see, one cannot hear, one starts talking nonsense. These faults worsen from 78 with decaying age. Beyond, life changes, falling back to childhood in the eighties, and taking a vegetative form in the nineties, these very old persons being then wonders of nature, and phenomenal from a hundred year old onwards. True, Guillaume Daignan no longer refers to seasons or planets, but his arbitrary division retains a systematic and symbolic character of the old type¹¹. This anachronical scale of ages no longer corresponds to the XVIII century conceptions.

+ + +

Conscience and morals: the disorder of the true periods of old ages

Taking into consideration man's measure, rather than planets' or seasons', and standing for facts rather than speculation, is of course a better proceeding.

Superficially at least: for in reality the physical and moral descriptions given from the XVII century by some more rigorous doctors don't give more information concerning the personal feeling of ageing, compared to the XV century alchemist's positions; and yet age is characterized by the same signs: wrinkles, white hair, short and stinking breath. Beyond the insistence of each epoch on such or such signs, we notice a wide range of disagreement in the apparently objective indications given about the ages of life. For instance, to the medieval confusion of ages, succeeded a rather

precocious conscience of ageing in the XVI and XVII centuries, then a belated one in the XVIII century.

In accord with his writings, saint Augustine considered himself as an old man at 61: so he told to his colleague Jérôme. At least he knows his age, whereas his time is marked, much more than later centuries, by a great ignorance about the birthday. However, in spite of the memory's faults, in spite of the affectation with which the middle-aged declare to be younger than they are, and the oldest to be older, still as if it were an achievement, in spite of the habit of rounding off one's age to the nearest tens, it is possible to state that the medieval man considers that old age starts around fifty ¹².

During the XIV and XV centuries, the age limit seems to be situated earlier still. Or rather the figures given vary considerably, without any coherence between the testimonies. In that, which ends in the laud praise of youth of the renaissance, one feels old age at very different stages: Charles d'Orléans, sick and retired in his last years, thinks himself as getting old around 65 or 70 only, about 1460, and he deplores it ¹³; at the same time Jehan Régnier, feels old at 68 ¹⁴. But François Villon, obsessed by ageing, speaks in his Testament, in 1462, of the beginning of old age at 30, and before him, Eustache Deschamp, doleful and mean, gave the same figure for old women, but gives 50 as the beginning of old age for men ¹⁵. He was more aware of the physical factors, which gave women more precocious signs of ageing, whilst Villon and Charles d'Orléans expressed their sensibility in stead.

The merciless XVI century advances considerably the conscience of ageing. Ronsard, the French, together with the English Edmund Spenser and later Samuel Daniel, compare youth to the fugitive brightness of roses: short-lived, it never lasts long. These poetical metaphors come from the heart, and concern women, but they are confirmed by doctors and philoso-

phers: for the great surgeon Ambroise Paré, the first part of old age starts at 35, when men are called "senes", and the second part at 49; from that age, life is divided into three periods, and in the last one, the time of extreme imbecility, old people are like children -bis pueri senes- and entirely useless ¹⁶. Erasmus, writing the Praise of folly at 45, deems himself becoming precociously old ¹⁷. Montaigne, on the other hand, in the chapter On age, from Les Essais, written at 47, thinks himself lucky to have lived so long, and considers that he is condemned to that "rare, singular and extraordinary" death, death by old age; at 53, definitely an old man, he behaves as such: "years are teaching me every day a lesson of coldness and temperance". At the same time, he suggests another definition of old age, remarking that usually men do not reach his age, and that he has passed the normal limit of a human life. Accordingly, only those who exceed the average longevity should be called old ¹⁸. Jean Bodin, in De la République, published in 1576, heeps to the old symbolic figures: old age starts at 56, the eighth multiple of seven ¹⁹.

In spite of a changing spiritual context and except for a few isolated attempts like the Spanish novelist Balthazar Gracian's, the European XVII century keeps to the harsh attitude of the XVI century towards age. In the first half of the century, Mathurin Régnier calls himself "quite old" at 30, and the poet Racan also thinks that time has come for him to retire in his Touraine castle; in his Bergeries, he gives the age of 50 to Polistenes, "an old man reputed for his wisdom". And it is well known that the Spanish duennas as well as Moliere's old fogeys and the commedia dell'arte's were all quadragenerians ²⁰.

The first great dictionaries published in France at the end of the XVII century, and in England in the XVIII century, do not always confirm this idea of precocious ageing. In the XVIII century, one gets old at a later age. The three big French dictionaries sum up the various perspectives. In 1680,

the first lexicographer Richelet, calls old man from the age of 40 up to 70, and makes about him some unpleasant remarks: an old man is suspicious, miserly, the caricature of an old fogey, and old women are decrepit and shrivelled. This is a merciless description for a woman of 40. For Furetière, ten years later, old age starts at 50, but we call someone old only from 60, and decrepitude, the awful dotting age, starts only at 75. The Dictionnaire de l'Académie, in 1695, doesn't decide between early or late ageing; it doesn't give any figure, and its description of old age is only moral, and more sympathetic than Richelet's. In front of the variety of ages and conceptions, it doesn't situate old age.

In the XVIII century, the Englishman Samuel Johnson, goes round the difficulty in another way and says that to be old means that one has spent more than half of one's life, with no other detail ²¹, whilst Thomas Dyche and William Pardon, in their glossary ²², consider that to be old means simply to be well on in age. This Anglo-Saxon vagueness does not suit the Trévoux Jesuits who, in their Dictionary, stick to 60 for old age and 80 for decaying age.

So the age limits are still uncertain, as well as the frequent division of old age in two periods, old age and decaying age, the former active and serviceable, the latter idle and useless. Strangely, the comparisons with the supernatural world and the use of theologico-symbolico-astrological figures gave a better precision concerning the starting point of old age. Facts, contrary to stars, don't agree about ages. One explanation would consist in emphasizing the co-existence of a high mortality rate at all ages, which reduces the chances of getting really old - as Montaigne pointed out - and of the very advanced ages reached by those who survived the hazards and sickness of childhood, famines, plagues, epidemics and wars. The variety of the conceptions an ages expressed in abstract terms the concrete perception of the demographic disorders and the poor knowledge of biological

facts. The famous Guy Patin, model of Diafoirus, is a frenzied purgator and bleeder of the youngest children as well as the oldest men. The medicine of old age produces its first important works on anatomy only in the second half of the XVIII century, with the books of the Italian Morgagni ²³.

The determination of age is not sufficient. Does there exist another measure of ageing? The first caring institutions for the old appear in Europe in the XV century: an old women hospital in Milan, a house for retired inn keepers, and another one for old sailors in London, a caring service organized by Lyons' hospital, then, in the XVI century, some municipal institutions in several German, French and Dutch towns, caring for the old as part of the general group of the poor. The Poor Law of 1601, in England, deals with children, the jobless poor, the crippled unfit for work, together with the old, the blind and the disabled. Isn't old age, then, associated with poverty and infirmity rather than with a certain number of years? The first establishment for old soldiers, created in France during the reign of Henry IV and remodelled in the foundation of the famous Hôtel Royal by Louis XIV, is destined to the crippled as well as to the old soldiers, mixed together under the next name of invalids: sick, wounded, mutilated or aged soldiers. In the big General Hospitals open in France after 1662, we find, until the end of XVIII century, children, sick, poor and old people ... In the civilian, as well as in the military world, old age is characterized by handicaps, not by age. To be old means first to be weak, physically or socially. To be weak means to be unable to work, to provide for one's own keeping. This is the true and only definition of old age in early modern Europe.

Ancient old age is beyond age. Yet, it has an end, and that is where imagination reappears.

+ + +

The end of old age, between faith and myth

Even if it hasn't been proved that human longevity is approximately a century, many signs point out in that direction. It is easy to notice that the maximum age ever reached by men having a balanced way of life turns around a hundred years. Rare and triumphant, the centenarians are soon dead, and there have always been octogenarians, more numerous than the nonagenarians, themselves more numerous now than in the past, and beyond that age some exceptionally old people, men or women.

This established fact has never prevented wondering: death must follow life, but is there a logical moment for it? Does it come from an unescapable divine will? Or is it possible to learn the complex biological laws to master nature by some recipes and diets? The question of the term of life is open to all sorts of speculations: is there a necessary moral, divine, physical term to old age? People of the past had two answers, two different positions: either a resigned acceptation of death, presented not only as a natural fact, but also as desirable at a certain age, or the obstinate refusal of death, trying to prolong old age and life by a lot of devices. The former submit themselves to God's wisdom, the latter justify their position by producing fabulous examples, which only demonstrate their credulity.

True to his quaternarian system, Philippe de Novare shows the way, and places the term of old age at 80; those who live longer must long for death, and ask God to grant it to them. His peremptory tone makes up for his lack of arguments. The 80 year term is shared anyway by the majority of the quaternarians. For Dante, at the beginning of the XIV century, 80 marks the end of decrepitude, after which man returns to his natural origin, God. If he had not been crucified, the body of Christ would have been glorified at 80²⁴. The supporters of the multiples of seven, like Jean Bodin, usually

mark off 70 as the age of death, "an age which carries away nearly all the old", or in the best cases, 77, but never more. Le Grand Propriétaire also observes that old age "lasts for some until seventy" but admits that some others live longer, until the old man returns to ashes and dust ... All is vain. Yet, in the XVII century, the first demographers draw tables of mortality, and for the first time introduce a more statistical than philosophical point of view; their conclusions only confirm the previous ideas. John Graunt, in his Observations natural and political, published in 1662, states that only one individual out of 100 survive at the age of 76, and none at 86; in 1670, the Dutchman Jacob Van Daël builds a table of extinction according to which out of 400 persons conceived, none survive at 80 years of age²⁵. No one ever wonders about the reasons of this term of life.

In spite of many ignorances, the XVIII century conceptions presented by the Encyclopédie, by Tarin, by Buffon, offer a first anatomy of ageing, which pushes back the term of life. The decaying process of the body, real but slow until the sixties, accelerates later, and death comes before 90 or 100 years²⁶. At the same time, the demographers build up mortality laws better the XVII century's, which also improve the perspectives of ageing. Abraham de Moivre, in his Traité des annuités of 1725, keeps to a term of 81 years; five years later Isaac de Graaf advances the term of 92 years. Finally, a true mathematician, Willem Kersseboom, correcting the old tables of mortality, studies the life expectancy at different ages, which he sets, in 1742, at five years for a man of 80, and more than two years for one of 90; after him, the Frenchman Deparcieux gives almost two years to live to a nonagenarian, and Moheau, in 1778, prolongs it to three years. This shows that very advanced ages no longer seem incongruous to the students of human longevity²⁷.

What about the divagations of the English minister William Derham? Faithful to a theological point of view, he

admits an average age a 900 years for men between the Creation and the Flood, and 500 years after ²⁸. Buffon himself, embarrassed, produces a heavy justification for the legendary ages of the Old Testament patriarchs. More reasonably, the Swiss scholar Albrecht von Haller assigns to man a life expectancy of 200 years, and backs his theory with an enumeration of famous centenarians. He was not an isolated case. For the XVIII century, discovering old age, gives credit to the lists of legendary old people; centenarians become fashionable whilst the alchemists' recipes for eternal youth fall into disuse. But where does the limit stand, between myth and reality?

Until the XVIII century, the secret of long life was eagerly sought by the good botanists, witches and healers; they trusted recipes the virtues of which consisted mainly of mystery and which filled the pharmacopeia of ignorant centuries: Arnold of Villanova, Roger Bacon, Gabriele Zerbi and his gerontocomical recipes, Paracelse deal with abstractions. There is already a progress in the XVI century diets, like the great Cornaro's, rid of sandal wood and dragon blood; in spite of an excessive ascetism and some selfishness in the emotions, the Venetian's recipe made more sense ²⁹. In the XVII century, Francis Bacon recommends a moderate diet, good food, sun and baths, and a few fits of anger; after many others, at the end of the XVIII century, Jean-Baptiste Pressavin is favourable to a "herbivorous" diet ³⁰. The present so-called natural or light diets - health through moderation - are only varieties of their treatises of long life. There is also the inevitable cohort of the charlatans and simpletons: the German Cohausen recommends to old men the breath of young girls; the Englishman Graham presents a rejuvenating bed; the count of Saint-Germain talks to the subjects of Louis XV about Francis I as if he had known him personally. These boosters are listened to: in that age of Enlightenment true and false centenarians multiply, biblical and historical

Mexican and Chinese, merry and virtuous ... There is a centenarian for each taste to choose.

Compulsory are the biblical ones and those from the blue literature of Troyes. First comes Methuselah far behind, Edgebert Hoff, who died at 128 in 1728, Thomas Parr, died at 152 in 1635, Henry Jenkins, died at 169 in 1676, and the Hungarian Peter Czartan, died at 185 in 1724. They are present in all the inventories. The librarian Lottin's calendar does not forget Tiresias, or Nestor, Metellus, Juvenal, and he asks his readers to report to him all the true centenarians that they know about, to consign them in his book, which after some time includes almost a thousand cases, ordinary people, from all the provinces of France, with no exceptional adventures or extraordinary recipes, spectacular liveliness or edifying ascetism; just ordinary centenarians, brothers of those that we find in local newspapers such as the *Affiches du Poitou* in 1778 ³², or in national newspapers such as *Les Petites Affiches de Paris* or even *The Times*, in London, which often signals the cases of French old people.

Does it correspond to a real fact of demography? The end of the XVIII century dwells on cases of exceptional longevities. Some local research confirms the fact: in the province of Anjou in the XVIII century, evidence has been shown for a score of authentic centenarians ³³.

+ + +

Very little progress has been made in a thousand years in the approach to old age. Life and death have enough mystery in them to feed the theologians' thoughts and spirituality. And as they controlled also science and medicine, everything depended on abstraction, symbol, imagination. People were happy with this mixture of age and religion or witchcraft. They didn't feel any need for a clear cut division of ages. The only thing which mattered was the ableness to work,

so insuring one's living. The real division of human life doesn't lie in the number of years but in the physical abilities of the person.

The French Revolution will break this balance and inaugurate a new alliance between age and politics; an official age for adolescence, for youth and for the old, celebrated in a national festival. After putting down the ancient social structures, orders, corporations, rural communities, the Revolution had to create a new social division. But biology and politics will not concord for long.

The general progress of medicine and social organization in the XIX and XX centuries have succeeded in increasing longevity; the mortality rate has declined, and new hopes are now open. Will the third alliance, between age and science, be a success? The prospects have been shifted; the beginning of old age is delayed until well after 60, ageing lasts longer. The limits are still unknown, and there is still a free place for imagination.

NOTES

- 1 G. Minois, Histoire de la Vieillesse, de l'Antiquité à la Renaissance, Paris, 1987, and J-P. Bois, Les Vieux, de Montaigne aux premières retraites, Paris 1989.
- 2 J-C. Perrot, "La vieillesse en questions", Annales de Démographie Historique, 1985, pp. 145-154.
- 3 M. Philibert, L'Échelle des âges, Paris 1968.
- 4 A translation of Galen's Hygien, ed. M. Green, Springfield, 1951.
- 5 P. de Novare, Les quatre âges de l'homme, ed. M. de Fréville, Paris 1958.

- 6 J. Morawski, Les douze mois figurés, Archivum Romanicum, 1926, p. 351-363.
- 7 A. of Villanova, Opera Omnia, Lyon, 1504. See also the Regimen sanitatis salernitanum, Louvain 1484.
- 8 Saint Augustin, Operum omnium primus (u.a. decimum) tomus, Bâle, Froben, 1528-1529. See the complete ed. of Saint Augustin, Oeuvres, Paris, 1873.
- 9 I. de Séville, Libri Etymologiarum, Augsburg, G. Zainer, 1472.
- 10 Le Grand propriétaire de toutes choses, tr. J. Corbichon, Paris, 1556.
- 11 G. Daignan, Tableau des Variétés de la vie humaine, Paris, 1786.
- 12 G. Minois, op. cit., p. 241.
- 13 Charles d'Orléans, Ballade, XXXII.
- 14 G. Minois, op. cit., p. 241.
- 15 E. Deschamps, Le miroir du mariage. See J. Huizinga, Le déclin du Moyen-Age, Paris, p. 39-40.
- 16 J. Guillerme, La longévité, Paris, P.U.F., 1964, p.9.
- 17 Erasmus, Praise of Folly, 13, 18, 31.
- 18 Montaigne, Essais, book I, ch. LVII, published 1580.
- 19 J. Bodin, De la République, book III, ch. I, published 1576.
- 20 J-P. Bois, Les Vieux ..., op. cit., p. 68 sqq.
- 21 Dr. Samuel Johnson, Dictionary ..., Londres, ed. 1773 (-aged, old).
- 22 T. Dyche and W. Pardon, A new general English Dictionary, London, 1744.
- 23 J-B. Morgagni, De sedibus et causis morborum, Bassano, 1767.

- 24 G. Minois, op. cit., p. 327.
- 25 J-P. Bois, op. cit., p. 40.
- 26 Encyclopédie, (art. Accroissement, by P. Tarin), and Buffon, Histoire Naturelle, t. II, ch. IX.
- 27 M. and J. Dupâquier, Histoire de la Démographie, Paris 1985.
- 28 W. Derham, Physico-theology ..., London 1758.
- 29 L. Cornaro, Discorsi della vita sobria, Venice, 1585.
- 30 J-B. Pressavin, L'art de conserver la vie ..., Lyons, 1786.
- 31 A-M. Lottin, L'Almanach de la vieillesse ..., Paris 1761 à 1770.
- 32 J. Dehergne, Le bas-Poitou à la vielle de la Révolution, Paris, 1963.
- 33 B. Bouvet, Les Centenaires, mythe et réalité. Etude de la longévité en Anjou au XVIIIe siècle, Typed copy, University of Nantes, 1989.

Eduard M a u r

LA VIEILLESSE ET LA JEUNESSE EN BOHEME
AUX XV^e - XVII^e SIECLES

La question de l'âge est non seulement un problème démographique, mais aussi biologique, économique, juridique, elle prouve une étroite connexion avec l'organisation de la société ainsi qu'avec la mentalité humaine. Permettez-moi d'éclaircir certaines de ces relations à la base du matériel des pays de Bohême. Il s'agira plutôt des remarques ou des suggestions pour la discussion ou pour des recherches ultérieures. A savoir, cette problématique n'a pas été chez nous, jusque à nos jours, systématiquement étudiée.

Dès l'antiquité, il était de coutume de diviser la vie humaine en plusieurs degrés. Tout d'abord, il y en avait d'habitude 4 ou 5, plus tard 6 ou 7. La division de la vie humaine dans les travaux des théoriciens antiques et médiévaux correspondait partiellement aux importants tournants, relevés d'une manière empirique, dans l'évolution physiologique et mentale de l'homme, partiellement elle était influencée

aussi par des schémas traditionnels, artificiels, dans lesquels le cours de la vie humaine était, contrairement à la nature, divisée. Par exemple, quatre degrés d'âge avaient leur parallèle dans les quatre saisons ou dans les quatre éléments fondamentaux, sept périodes de la vie humaine correspondaient aux sept jours d'une semaine, aux sept sacrements ou honnêtetés, etc.

D'analogues réflexions naquirent aussi en Bohême. Arrêtons-nous au moins à deux auteurs mondialement connus, Jan Hus et Jan Amos Komenský (Comenius). Jan Hus, ainsi que Comenius, utilisent, pour caractériser l'évolution de la vie humaine, un schéma de sept parties. Mais ce schéma, dans la conception de Hus et, partiellement, dans celle de Comenius (Pampaedia), n'est qu'une variante d'un schéma de six parties dû à Saint-Augustin et à Isidor de Seville. A savoir, Hus ajoute aux six périodes de la vie humaine aussi la vie d'outre-tombe, tandis que Comenius ajoute la période embryonale.

Pour caractériser des étapes particulières de la vie humaine, Hus prend pour point de départ uniquement des symptômes physiologiques, éventuellement mentaux. Dans sa conception, la vie est divisée, avant d'atteindre la maturité (respectivement "potestas"), en trois phases. La première d'elles, "infantia" dure dès la naissance au développement de la dentition et au début du langage, la deuxième - "iuventus" - à l'apparition des "signes du menton et des seins", la troisième - "adolescentia" - jusqu'au moment où l'homme cesse de croître. Hus ne réfléchit pas sur les limites d'âge des degrés particuliers, quoique Isidor de Seville ait essayé de les déterminer déjà au septième siècle et il avait beaucoup de successeurs au cours de l'histoire. Il s'y reflète la pensée juridique courante en Bohême à cette époque. A savoir, en déterminant la majorité, qui fonde l'aptitude aux actes juridiques, on ne prenait pas en considération l'âge, mais exclusivement la maturité sexuelle.

La maturité fut délimitée, dans le droit noble, jusqu'aux XVe - XVIe siècles uniquement à la base de l'existence des caractères sexuels secondaires c'est-à-dire la pilosité du menton et du sexe chez les hommes et l'apparition des seins chez les filles. Encore au tournant des XVe - XVIe siècles, cette manière de déterminer la maturité fut conséquemment soutenu par Viktorin Kornel ze Všehrd, théoricien tchèque du droit. La manière "naturelle" de la détermination de la majorité était, à son avis, plus juste que sa détermination à la base de l'âge, car l'enregistrement exacte des naissances n'existait pas. Mais c'est à l'époque de Viktorin Kornel ze Všehrd que cette manière "naturelle" de déterminer la maturité et surtout "l'examen officiel" par la vue et par le toucher commença à être critiquée en tant qu'indécente et outrageante. En Moravie, cette façon fut remplacée, déjà vers la fin du XVe siècles par la détermination de la maturité à la base de l'âge, et au XVIe siècle, cette façon devint obligatoire, sous l'influence des droits romain et municipal, même en Bohême.

Ce n'est qu'à l'âge de 12 et de 24 - 25 ans que Comenius rappelle les capacités physiques de l'homme. Le jeune homme devient adulte à l'âge de 24 - 25 ans, c'est-à-dire, "il a atteint les bornes de la croissance et des forces, il est apte à exercer toutes les fonctions vitales et commence réellement cette espèce de vie à laquelle il s'est préparé." Il est intéressant que les illustrations de son manuel Orbis pictus présentent le cours de la vie humaine par une pyramide de sept degrés où "juvenis" et "virgo" se trouvent sur le degré le plus élevé. C'est-à-dire, l'homme et la femme sont de census sur l'échelle de la vie d'un degré vers le bas. Il est difficile à dire s'il y a une intention plus profonde ou si ce n'est que la conséquence de l'effort d'atteindre la symétrie.

Comenius, dans ses œuvres didactiques et dans Pampaedia, divise la période jusqu'à l'âge de 24 ans en quatre phases.

La division est mécanique, chaque phase dure 6 ans. Il paraît que la raison est suivante: à chaque phase correspond un type de l'école, y compris l'école maternelle, c'est-à-dire l'éducation de l'enfant par sa mère dans les premières années de la vie.

Comme nous l'avons constaté, dans la conception de Comenius, il y a deux tournants importants: 12 et 24 ans. A l'âge de 12 ans se termine la scolarité obligatoire pour tous, à 24 ans se terminent les études scolaires en général. Jusqu'à l'âge de 12 ans, le garçon ne peut pas exercer, "à cause de sa fragilité des travaux d'artisan", à l'âge de 24 - 25 ans s'arrête la croissance physique. Comenius n'a pas choisi la limite de 12 ans par hasard, rien pour qu'elle s'engendre bien dans son cycle de 6 ans. Il paraît que société de l'époque croyait que l'homme peut gagner sa vie par le travail de ses mains à partir de 12 ans. A savoir, cette limite fut respectée par la réforme scolaire autrichienne en 1774 concernant la scolarité obligatoire et elle fut maintenue jusqu'en 1869.

Dans les listes nominatives de l'époque, par exemple dans la conscription selon la profession de la foi de 1651, l'âge des compagnons et des apprentis ne descend pas au-dessous de 12 ans. Quant aux gens de service, la situation était tout à fait différente. Dans les listes nominatives de l'époque, on peut trouver, à la campagne, aussi des garçons de 8 ans et des jeunes filles de 6 ans. Pour la plupart, c'étaient des orphelins pour lesquels le service était plutôt une forme de sécurité matérielle qu'un salariat. L'existence de ces "enfants de service" donne à entendre que même les enfants des paysans s'intégraient très tôt dans le processus du travail, quoique ce fussent des travaux auxiliaires assez faciles. Le nombre élevé des enfants dans la population ne permettait pas, d'ailleurs, d'autres solutions. Mais il faut noter que les "enfants de service" âgés moins de dix ans étaient même à la campagne plutôt d'exception.

L'âge de 12 ans était non seulement un tournant important

physiologique, mais aussi mental. Aux XVIIe - XVIIIe siècles, cet âge était souvent la limite inférieure (inconsciente) pour l'enregistrement des habitants selon la profession de la foi. Il paraît que c'était justement à cet âge qu'on allait pour la première fois à confesse et à la communion. Mais le catéchisme romain approuvé par le concile de Trident fixait seulement que l'enfant n'était pas obligé de se confesser avant l'âge où il pouvait se servir de la raison et reconnaître le bien et le mal. Le Synode de Prague de 1605 est plus précis et établit l'âge de 12 ans comme la limite inférieure de recevoir le saint sacrement. L'aptitude à la confession n'est pas prescrite sans équivoque, mais il paraît qu'en pratique la confession et la communion se confondaient. Il faut aussi remarquer que l'âge de 12 ans était aussi l'âge auquel on arrondissait des données d'âge approximatives. Cela prouve son importance dans la vie d'homme à moins qu'il s'y reflète la coutume de compter par douzaines.

La limite d'âge de 24 ans, c'est-à-dire l'âge où, selon Comenius, l'homme doit commencer à faire valoir toutes ses puissances acquises par l'évolution physiologique ainsi que par l'instruction et l'éducation, était en réalité moins évidente. A savoir, en jeu entraient aussi le droit et l'économie. Du point de vue juridique, la détermination exacte de la majorité était d'une extrême importance. La majorité permettait, entre autres, aux héritiers d'entrer en possession de la propriété paternelle et d'en disposer. Dans le milieu urbain, où la détermination de la majorité par l'âge précis était courante dès la naissance des villes, la limite de la majorité était tout d'abord très basse: dans différentes villes elle variait entre 12 - 14 ans; la limite inférieure concernait en général seulement les filles. Au cours de l'histoire, la limite d'âge de la majorité s'élevait au fur et à mesure. En même temps, la limite d'âge s'unifiait.

Jusqu'au XVIIe siècle, la limite d'âge de la majorité variait, selon les domaines des droits municipaux particuliers

(de Prague, de Brno, etc.) ainsi que selon les états. En Moravie, vers la fin du XVe siècle, l'homme provenant de la haute noblesse était majeur à 16 ans, de la basse noblesse à 17 ans et les sujets à 18 ans, la femme toujours de deux ans plus tôt. L'unification fondamentale, mais pas générale, se produisit aux XVIe - XVIIe siècles. En Bohême en 1549 et en Moravie en 1574 la limite d'âge de la majorité fut fixée pour la haute et la basse noblesse pour les hommes à 20 ans, pour les femmes (en 1628) à 15 ans. Mais la femme peut atteindre cette limite même plus tôt, et cela par le mariage. La modification unifiée, prenant pour point de départ l'usage pragois, fut introduite dans les villes par la Codification Koldín des droits municipaux de 1579. Cette Codification devint obligatoire à partir de 1610 pour toutes les villes en Bohême et, à partir de 1697, en Moravie. Les femmes alors devinrent majeures, comme dans les couches de la noblesse, à 15 ans, les hommes déjà à 18 ans, mais avec une certaine limitation de la subjectivité juridique jusqu'à l'âge de 25 ans. Il paraît que la limite de 20 ans fut transférée du droit noble au droit des sujets.

Le haussement de la limite d'âge fut-il causé par le ralentissement de l'évolution physique et mentale? Il paraît que ce phénomène fut causé par le changement de la façon de voir ce problème. Cela est évident sur l'évolution des avis sur l'âge au mariage convenable. Par exemple, le droit médiéval de Jihlava explicitement lie la majorité à la capacité de la jeune fille de se marier. La majorité et la capacité de se marier fut fixée à l'âge de 12 ans quand chez la fille apparaissait "pudititia corporis". Cet avis fut aussi la cause de nombreuses morts des jeunes mères aux couches telles que nous les connaissons surtout dans les familles des souverains.

Comenius, au XVIIe siècle, hausse considérablement les limites de l'âge convenable au mariage. Il est persuadé que les futurs parents doivent avoir suffisamment du temps pour se préparer à leurs devoirs, pour être aptes à donner la vie à

une descendance saine et forte. Il se rapporte à l'exemple des patriarches, aux Spartiates et aux Germains. Mais il est en désaccord avec Lutter qui propageait, surtout pour les filles, l'âge au mariage beaucoup plus bas. Comenius recommandait que les femmes se marient à l'âge de 18 - 24 ans, les hommes à l'âge de 20 - 30 ans.

Les recommandations de Comenius correspondaient dans une certaine mesure à la situation en Bohême. Dans les listes nominatives de l'époque, les femmes mariées à l'âge de 15 à 18 ans constituaient une exception, surtout dans les villes. Généralement, les femmes mariées plus jeunes étaient introuvables. A la campagne, les femmes mariées apparaissent plus souvent à partir de 19 ans, dans les villes à partir de 20 ans. Relativement beaucoup de femmes se marièrent, surtout dans les villes, encore après avoir atteint 24 ans, l'âge recommandé par Comenius en tant que la limite supérieure. Au milieu du XVIIe siècle, à la campagne, les femmes mariées étaient les plus nombreuses à l'âge de 25 - 29 ans (72,7 à 91,7 %), dans les villes parfois à l'âge de 30 - 34 ans. Selon les données acquises par la reconstitution des familles (recherches faites par P. Mužík), l'âge moyen des femmes à leur premier mariage dans la ville de Domažlice était 26,5 ans et plus de trente pour cent des femmes se marièrent à 30 ans et même plus tard.

L'âge des hommes qui entraient en mariage était encore plus avancé, et c'était tout à fait courant. D'ailleurs, même Comenius recommandait pour les hommes l'âge de 20 - 30 ans. Les listes nominatives selon la profession de la foi de 1651 montrent que les hommes ayant moins de 20 ans ne se marient qu'exceptionnellement, et cela seulement à la campagne. Les hommes mariés à l'âge de 20 - 24 ans formaient à la campagne en général 1/4 - 1/6 du groupe d'âges respectif, dans les villes c'était 1/6 - +/4. L'âge moyen des hommes à leur premier mariage était à Domažlice vers la fin du XVIIe siècle 29,3 ans et 44,2 % des hommes s'y marièrent pour la première fois à l'âge de 30 ans et même plus tard.

Les raisons pour les mariages tardifs des hommes étaient plusieurs. Tout d'abord il faut prendre en considération l'avis de l'époque que l'homme peut fonder la famille seulement quand il est capable de la nourrir et d'assurer pour elle un logement. Les sources de la 2^e moitié du XVII^e siècle attirent notre attention à d'autres circonstances. On y critique le fait que les fils des laboureurs remettent le mariage au plus tard pour ne pas être obligés à s'établir dans les fermes incultes et pour éviter des charges publiques qui étaient imposées aux paysans selon leurs fermes. Cette tendance fut encore approfondie par une grave situation économique après la Guerre de Trente Ans. Les seigneurs affrontaient d'habitude cette tendance par forcer leurs sujets à se marier.

Nous connaissons assez mal un autre fait qui permettait de baisser l'âge au mariage des hommes. J'envisage la cohabitation de plusieurs familles alliées dans une ferme appartenant soit au père des fils mariés, soit à un des frères. Cette cohabitation n'était pas, en général, permanente, mais elle pouvait être assez longue. Elle résultait surtout du fait que le droit de succession en vigueur en Bohême ne permettait pas une division réelle des fermes. La ferme passait aux mains d'un des fils qui remboursait aux autres frères et soeurs leur portion d'héritage. Les autres pouvaient gagner une autre ferme par le mariage, par l'achat au cas où il n'y avait pas d'héritiers après la mort ou le départ du propriétaire, ou bien par la colonisation de la terre inculte. Ces possibilités étant limitées, les fils des laboureurs entraient en possession des fermes à l'âge relativement avancé. Il suffit de citer quelques exemples:

Par exemple, le père de Jan Kozina d'Újezd u Domažlic, un révolté paysan bien connu, vécut environ 15 ans après son mariage en 1652 à la ferme de son frère Fridrich. D'une façon anale ue, à la ferme de Matěj Hrubý dans le village de Draževnov vécut dans les années 1672 - 1679, outre sa famille, aussi les familles de ses deux fils. Quand l'un d'eux acheta

en 1679 sa propre ferme, il avait déjà six enfants. La situation similaire était tout à fait courante dans certaines régions des pays de Bohême il n'y a pas si longtemps. Mais jusqu'ici nous connaissons très mal l'évolution sur le reste du territoire.

Une des raisons de la situation ci-mentionnée était aussi l'habitude de céder les fermes aux héritiers à l'âge le plus avancé possible pour réduire au minimum la durée au cours de laquelle l'ancien propriétaire était à la merci du nouveau propriétaire. C'est pour cette raison que le propriétaire cédait la ferme en général au fils cadet et non à l'ainé. Mais cela remet en question les avis courants qu'à l'époque on vieillissait plus vite que de nos jours. Ainsi nous passons à un autre problème, au problème de la vieillesse.

Notre historiographie accordait au problème de la vieillesse une minime attention. Il n'y a pas longtemps que František Šmahel a attiré notre attention dans le contexte de la discussion sur l'âge de Jan Žižka, aux avis simplifiés sur la vieillesse dans le passé selon lesquels la vieillesse était une période de l'impuissance totale physique et mentale. Il s'est référé, entre autres, aussi aux réflexions théoriques sur les étapes de la vie humaine. Par exemple, selon Jan Hus, ainsi que selon beaucoup d'autres auteurs médiévaux, l'âge adulte "puissance" est remplacé tout d'abord par la vieillesse - "senectus" et seulement après par "senium". La vieillesse fait passer, d'après la définition de Hus, les capacités de l'homme mais non à tel point où il ne soit pas capable d'exercer ses activités vitales. Ce n'est que le dernier degré qui signifie une langueur totale physique et mentale. Nous pouvons trouver une pareille division interne de la période finale de la vie humaine aussi chez Comenius. Comenius exprime clairement l'idée que la baisse de l'activité humaine est graduelle et assez longue. Mais les conséquences pratiques de cette réalité sont pour l'instant moins claires.

Comme on a déjà dit, la question de la vieillesse n'a pas été suffisamment solutionnée dans l'historiographie tchèque. Mais les sources offrent beaucoup de possibilités pour son étude. Par exemple, la reconstruction des familles à partir des registres paroissiaux peut être combinée par les données acquises à la base des autres sources permettant d'établir à quel âge les paysans ou les artisans cédaient leur ferme ou leurs fond à leurs enfants et prenaient leur retraite et quelle était la longueur de la période dès ce moment à la mort. Les mêmes sources nous informent comment étaient assurés leurs premiers besoins pendant cette période.

Pour créer une image complète de la vieillesse, il faudra profiter non seulement des sources officielles, mais aussi des belles lettres, de la littérature homilétique et moralisante ainsi que de l'art plastique. L'étude de la vieillesse n'est en aucun cas autotélique. Ses résultats peuvent être profités aussi pour la solution des problèmes gérontologiques actuels.

Bibliographie sommaire

- Archiv český, T.V., p. 467; XII, 35-36; XXII, 87, 491, XXIII, 255.
- Bois J.-P., Les Vieux, de Montaigne aux premières retraites. Paris 1989.
- Brandl V. (ed.), Kniha drnovská. Brno 1868, p. 13, 133.
- Čáda V. (ed.), Nejvyššího sudího Království českého Ondřeje z Dubé Práva zemská česká. Praha 1930, p. 58-59, 159-160.
- Čáňová E. K problematice studia zpovědních seznamů arcibiskupství pražského jako pramene pro demografickou statistiku. Historická demografie 5, 1971, p. 55-56, 60.
- Jireček H. (ed.), Codex Juris Bohemici, T. IV/5, Pragae 1883, p. 98, 117; V/2, Pragae 1888, p. 400-402.

Jireček H. (ed.), M. Viktorina ze Všehrd O právních země České knihy devatery. Praha 1874, Livre V., chap. 37, § 1.

- Kapras J., Poručenství nad sirotky v právu českém. Praha 1904, p. 12-21.
- Kapras J., Právní dějiny země koruny české, II/1, Praha 1913, p. 184 n.
- Magistri Johannis Hus Opera Omnia, T. 1, ed. J. Daňhelka, Praha 1975, p. 173-174.
- Johannis Amos Comenii De rerum humanarum emendatione consultatio catholica, ed. J. Červenka et. V.T. Miškovská-Kozáková, T. I-II, Pragae 1966.
- Komenský J.A., Orbis sensualium pictus. Leutschoviae 1685, p. 6, 7, 73-75.
- Malý K., Sivák F., Dějiny státu a práva v Československu, I, Praha 1988, p. 194-195.
- Markov J., Kapitoly z dějin českého zemského soudního zřízení XII.-XVII. století. Praha 1967, p. 12, 37, 109-110, 209.
- Maur E., J.A. Komenský o populačních problémech. Demografie 13, 1971, p. 1 - 10.
- Minois G., Histoire de la Vieillesse, de l'Antiquité à la Renaissance. Paris 1967.
- Podlaha A., Dějiny arcidiecéze pražské od konce století XVII. do počátku století XIX., T. I/1, Praha 1917, p. 138-139.
- Procházka V., Česká poddanská nemovitost v pozemkových knihách 16. - 17. století. Praha 1963, p. 365-493.
- Šmahel F., Záhady dvou žižků a žižkova věku. Husitský Tábor 3, 1980, p. 5-50.
- Urbánek R., České dějiny III/2, Praha 1918, p. 507 n.
- Vaněček V., Dějiny státu a práva v Československu do roku 1945. Praha 1970, p. 185.

Georges Minois

OLD AGE AND PLAGUE IN THE XIV AND XV CENTURIES :
THE EFFECTS OF THE BLACK DEATH ON THE RATIO AND SOCIAL
PART OF THE AGED IN EUROPE

Did the great epidemics of the past have an effect on the age-structure of the population ? A careful study of the available records related to the Black Death and its aftermath leads to an affirmative answer to that question.

The most striking result of the recurrent plague of the XIV - XV centuries is the increase of the proportion of old people, and this in turn leads to an increase of the power of the aged in the fields of local government, business, and inside the family group.

Let us remind the facts: in 1348, the bubonic plague reached Europe. The first wave, 1348-1350, killed about 25% of the population; it was followed by a second wave in 1360-61, and a third in 1368-69; then a four year cycle settled, corresponding roughly to the successive rats' generations, as J.C. Russell showed. Combined with tuberculosis and smallpox, these

endemic mortalities lasted until about the middle of the XV century, resulting in a general decline of about half of the total population.

But after the first wave, the diseases regularly killed mostly children and young adults, as the chroniclers noticed: in 1383, the Italian Marchione Stefani noted: "Many good people died, but the plague killed more young people and children than mature men and women" ¹. In 1418, the Burgher of Paris noted in his journal: "This epidemic of the plague has, so the old say, been the cruellest since three centuries. Nobody it touched escaped, young people and children in particular ... Out of four or five hundred deaths there were less than a dozen old people; they were nearly all children and young people." He noted the same thing in 1445, with regard to smallpox: "It struck the children most."

Contemporary demographers confirm these observations. J.C. Russell notes that tuberculosis mainly killed those aged between 15 and 35, and that after the first wave of the plague, the second concentrated on the young: "After the first plague epidemic, the children were particularly vulnerable to further outbreaks as they had been less exposed at all beforehand ... The second plague was called the plague of the children: the young who had grown since the last plague provided the greater part of the victims." ² Generally speaking, the survivors' life expectancy increased with each epidemic: "Presumably, the plague eliminated at earlier ages many who would have died of other diseases in earlier life" ³: the least resistant ones were taken away, many of the survivors reaching a ripe old age.

All the local studies point the same way: in the Comtat during the first half of the XV century, the proportion of elderly people increased appreciably after mortality crises: 24% of heads of families were over 54 years old, 21% were over 57, and 12% over 62 ⁴. In ca. 1380-1400, the mortality rate in Chalon-sur-Saone clearly decreased with age ⁵. In 1400 most

of those affected by the plague in Perigueux were middle-aged adults. The case of the kingdom of Navarre, studied in detail by Maurice Berthe, is particularly illuminating ⁶. Each recurrence of the plague was marked by a brutal increase in the numbers of isolated old people. In the village of Oteiza, in 1422, the plague spared six dwellings inhabited by old women; in Larrainzar, Martin Migua was "dead, along with all his family ... save an old woman called Orchanda", according to the registers. "Families have been almost entirely destroyed, apart from the old people and the very young children" ⁷. At San Martin d'Unx, only the elders survived. In 1429, ten out of twelve farms at Marcalain were decimated and populated entirely by old people. "The only hypothesis that can be summoned to explain this phenomenon is the immunity conferred by the disease on those that have been cured", declares the author ⁸. In 1433, there were only 13 hearths left in the community of Baigorri and two of the heads of households were aged over 70, with only two under 50.

The emigration of the young following these crises led to a further increase in the proportion of older people: in the latter community, two hearths were composed of single old people, the children having left, and the sons and daughters had also left three other households. In the Navarre fiscal listings, the hearths of the mugeses (women) were those which have no adult males capable of work; they mainly consisted of elderly people living alone or elderly couples without children. Their total number was considerable, between 24% and 36%, according to the areas, and between 21% and 31% in the Pampelona valley between 1360 and 1445. The records frequently reveal that hearths were being classified in a lower grouping on account of their physical falling-off due to ageing ⁹, and that other hearths were disappearing as a result of sales or gifts made by elderly men and women alone ¹⁰, notably after 1365.

The survivors were often reduced to begging. One poor old woman at Olondriz was forced by scarcity to abandon everything to go begging; a 70-year-old woman lived alone in her hut. In the community of Sesma in 1433, 29 hearths out of 163, or 18%, consisted of old people like Martin Sacristan and his wife, 80 years old and living alone, or like Theresa, a 75-year-old widow, helpless and living on charity. These old folk whose families had disappeared often regrouped to survive, forming complex households with the remnants of other hearths which had been cut down by the plague: in Zudaire in 1433 two elderly widows were living together with three orphaned grand-children and a married son; Pedro Periz, a 40-year-old, had taken in his widowed 80-year-old aunt, together with two nephews. The same impression predominates everywhere: a deficit of young and middle aged people and increase in the proportion of elderly people ¹¹.

But the greatest quantity of figures relates to England and to Italy. In England, T.H. Hollingsworth and J.C. Russell's calculations have demonstrated a marked increase in the life expectancy of old people following the black death in 1348 until the end of the XV century. Their research, which involved some 3070 land owners, shows that average life expectancy at birth, which had been 35.3 years for men born between 1200 and 1275, had already decreased to 27.2 years for those men born between 1326 and 1348, falling to 17.3 years for the generation born in 1348-1375, before gradually increasing to 32.8 years for the 1425-1450 generation. On the other hand, the life expectancy of sixty-year-old men born between 1200 and 1275 moved from 9.4 years to 10.8 years for those born between 1326-1348, 10.9 years for the 1348-1375 generation, and 13.7 years for the 1425-1450 generation. The life expectancy of 80-year-old men in the same periods moved from 5.2 years to 6 years, 4.7 years, and 7.9 years respectively ¹¹.

Studies dealing exclusively with the English peerage confirm this trend. During the XIV century, the mortality rate

increased rapidly up to the age of 50, but decreased thereafter: before 1325, 18% of the peers died before they reached the age of 50; the ratio increased to 66% between 1350 and 1370 before decreasing to 34% during the first half of the XV century. However, those who did turn 50 lived much longer. ¹²

In Italy, studies of Tuscan demography during the first half of the XV century by C. Klapisch and D. Herlihy ¹³ demonstrate with certainty the existence of a heavy proportion of old people: 13.95% of the inhabitants of Pistoia in 1427-1430 and 16.2% of the inhabitants of Arezzo were aged over 60:

Age group	No. of inhabitants	% of total
PISTOIA		
0-19	6904	43.8
20-59	6677	42.3
60 plus	2194	13.9
AREZZO		
0-19	1598	40.2
20-59	1729	43.6
60 plus	644	16.2

For Tuscany as a whole, the proportion of over 60-year-olds can be established at 14.6% in 1427. As always during the Middle Ages, there was a preponderance of elderly males: a study of 1000 families in Arezzo gives a male/female ratio of 103.1% men aged between 58 and 67, and 97% men (this is an anomaly) aged between 68 and 77, and of 138% men aged 78 and over. The number of widows was, however, proportionally much higher than that of widowers, since men remarried more often than women: of 1000 men aged between 60 and 69, 894 were still married, 42 were widowers, and 64 in unknown circumstances; amongst those aged 70 and over, 739 in 1000 were still married, 193 were widowers, and 68 unknown. Where women were concerned, however, there were already 474 widows among

1000 cases aged between 60 and 69, and 561 widows among 1000 women aged 70 and over. This situation is further illustrated by the tax records of the Florentine "castato" of 1427, which cites a great many households such as that of Agostino di Bartolo, at San Giminiano, which included the two grandparents (Agostino, aged 86, and his wife Caterina, 60), the children (Piero, 26, and his wife Cristofana, 26), and the grand children Mariana and Benedetto¹⁴. The age gap between spouses increased with re-marriage. Scarcely discernible in the first marriage, it often increased considerably the second time round when the new widowers married younger women.

In the case of heads of households alone, there was naturally a far greater proportion of elderly people. In Arezzo, of a total of 832 male heads of family, 341 were aged over 55; 160 were between 55 and 64 years old, 106 were aged between 65 and 74, 75 were over 75, and the average age was just over 50. As far as women were concerned, of 168 heads of family, 92 were aged over 55; 47 were aged between 55 and 64, 29 between 65 and 74, and 16 over 75. Altogether, of a sample of 1000 heads of family, 432 were aged over 55, 205 were aged between 55 and 64, 136 were aged between 65 and 74, and 91 were over 75.

The case of Périguesux has been studied in detail by Arlette Higounet-Nadal, who has clearly shown an increase in longevity after 1350, and particularly after 1400, an indubitable consequence of the plague epidemics. The records are full of old people, and according to author, the ages given were always minimum ages, which may be increased by at least five years. As they stand, they are already remarkable. Of 465 cases where the age at death is known, 217, or 46%, referred to people aged over 60.¹⁵

"The effect of selective mortality could make towns buckle under the weight of the elderly", Jacques Rossiaud observes in his study of urban environment at the end of the Middle Ages.¹⁶ He adds "Perhaps more than at any other time, there

was a greater awareness of the vulnerability of youth during the epidemics. The Black Death was horribly cruel, sparing those who had already lived, and cutting down the young ... " The old people's revenge aroused much bitterness among the young: "Many of them had a father who had crossed the threshold of old age just as they were reaching their twenties, or a step-mother who might well, by a few years, have been their own wife. They were well aware that a notable proportion of marriageable girls were being carried off by established men; finally, that they were all excluded from civic life, the assemblies, offices and bourgeoisie"¹⁷.

+ + +

The increased proportion of elderly people had effectively numerous and far-reaching consequences on private and public life in the period 1350-1450. Let us sum up briefly the main ones:

To start off with, it appeared that the partial disintegration of households beneath the repeated blows of the plague epidemics caused the survivors to regroup and form extended families or communities allowing those worst hit to survive. The elderly could but benefit from this trend, whereas, during the previous period the predominance of conjugal families had abandoned widows and widowers to solitude. This trend seems to have been general. In Trégor (Brittany) in 1427, only 181 of 16 368 hearths belonged to widowers or widows living alone, that is 1.1%. In 1481 in the same area, the proportion had risen to 6.7%. Seen from this point of view, the epidemics favoured the elderly, since they were looked after by the decimated family groups, whereas in normal times the limited conjugal family had often excluded them¹⁸.

In the Bordelais region during the same period there was an increase in the number of groups of "parsonniers and consorts", practicing a form of communal life. In Anjou, families

of brothers and sisters drew up agreements about the support of their aged parents¹⁹. Similar examples occurred in the Limousin and Pyrénées regions, and also in towns, as in Rheims, where grandparents sometimes live with their children and grandchildren. It was, however, more of a rural phenomenon than an urban one, as C. Klapisch noted with regard to Tuscany: "an old man seldom lives alone in a Tuscan "popolo", and he continues to be part of a household run by other generations more often than is the case in town"²⁰.

On the affective level, the coexistence of several generations had the effect of bringing grandparents closer to their grandchildren and of forging new ties with them. The XV century was certainly important as far as the art of grandfatherhood was concerned, in spite of its silence on the subject. The painters have fortunately made up for the writers' lack of interest, as exemplified by Domenico Ghirlandaio's splendid painting of "An old man and his grandson".

But on the other hand, the artists and poets launched ferocious attacks on old women, who had never been so numerous. As the precursor of one of the XVI century favourite themes of Baldung Grien's hideous old women and Quinten Massys' ugly duchesses, the old woman, the incarnation of evil, assumed the appearance of a witch; according to Chaucer, one could never image a more hideous creature. Villon contributed to the genre in his poems, and according to Olivier de la Marche, the 60-year-old woman was the personification of ugliness. In popular circles, the lonely and poor old woman was at the bottom of the social scale: held in contempt, insulted, exploited and defenceless. At least, this is how Chaucer presented her in the Friar's tale.

But above all, the lengthening lifespan of the old and their presence in the households of the younger members of the family accounted for renewed tension and a rebirth of the old conflicts between the generations that had diminished since the disappearance of the Roman empire. In 1405, Christine

de Pisan described the relationship between the old and the young of her period in "The Treasure of the City of Ladies" thus: "There is quite often argument and discord as much in outlook as in conversation, between old people and young ones, to the point that they can hardly stand each other, as though they were members of two different species"²¹.

The increased female mortality, due to child-bearing and aggravated by the ravages of the epidemics on the XIV and XV centuries, was the reason for the dearth of marriageable women. In response to matrimonial needs, girls married younger and younger: the average age in Florence for first marriages was 17.6 years. The first effect of this was to intensify the rivalry between young and old males. The latter, who were richer, were frequently preferred by the parents of the young girls; the former, frustrated in their nuptial desires, began to loathe the old fogeys who were monopolising the young beauties.

The extreme age differences between married couples also affected relationships between parents and children within. As D. Herlihy observes for Florence, a too old father could see his influence diminish; the age gap rendered communication and understanding between fathers and children difficult, and the mother's role became correspondingly more important. Second marriages only served to increase the confusion and made for problems and ambiguous relations between young step-mothers and their step-sons. It was a paradise for mock Oedipus complexes, a repeat of the situations in the Latin comedies where father and son share the same woman.

The Black Death's selective ravages also had the effect of strengthening the economic and political power of old men. A father, if spared by the epidemic, would remain in charge much longer and then sometimes hand his business over directly to his grand son. He would have had time to accumulate more wealth and monopolise all the decision-making more than previously, a situation which led in some towns to serious gene-

ration clashes. Arlette Higounet-Nadal has well demonstrated the decisive role of old age in the social ascendancy of families in Périgueux: in 1254 an immigrant, Bernabé Joy de Dieu, moved into the town; he bought a house, and then another ten years later, in 1276 he was put in charge of the mint; his grandson, Hélie Bernabé, a goldsmith, became a consul in 1323, when just over 25; he went on performing his civic duties right up to the age of 90, and fulfilling several missions whilst continuing to acquire assets; he died after 1393, aged over 95. His son Arnaud, who died about 90 in 1436, married the daughter of a rich merchant of Limoges, sat on the council of the wise between 1388 and 1432 and was elected Mayor ten times between 1387 and 1420. There is no doubt that the exceptional longevity of these three men contributed greatly to their prestige and wealth. The most influential men in Périgueux at the time were mainly over 60, many having pursued a career in the public service for over 25 years until their death. "Generally speaking perhaps, but certainly in Périgueux, longevity was a trump card as far as social life was concerned. Power, influence, action, were the lot of those who lived long" ²².

Posts and benefices were often for life, the most important jobs frequently being given to the elderly. This was the case in the country for the great landowners' petty officials, and even more so in the towns, where conditions of age governed access to civic appointments: in Tarascon between 1370 and 1400, a citizen had to have served on the council for at least seventeen years before becoming mayor; rules such as these ensured that certain municipal elites were minorities on account of their age ²³. Where there was a choice between equally qualified persons, the older ones were always preferred.

In Italy, where municipal appointments had far greater significance, the concentration of power in the hands of the elderly was even more obvious, and led to a direct confrontation between old and young at the beginning of the XV century.

Thus Lucca was controlled by nine old noblemen and one gonfalonier. In Venice, the lengthy cursus honorum led to the more important jobs being reserved for older men, and the doges produced the most remarkable series of aged heads of state of the XIV and XV centuries, breaking all records of political longevity: an average of 78 years at death for the main seven, who were active to the end: Tommaso Mocenigo (1343-1423), elected at the age of 72; Francesco Foscarei (1373-1457), elected at the age of 46, who stayed in power for 34 years, until he was deposed; Pietro Mocenigo (1406-1476), elected at the age of 68; Giovanni Mocenigo (1408-1485), elected at the age of 70; Agostino Barbarigo (1419-1501), elected at the age of 67; Andrea Gritti (1455-1538), elected at the age of 68.

It is true that the doges were not the real instigators of Venetian policy, but their role was none the less not negligible, and the systematic choice of such elderly men constituted a fine homage to old age. Some of them produced veritable lineages of old men, thus amassing considerable power for themselves, the most remarkable instance of this being that of the Mocenigo family. Tommaso (1414-1423) extended Venetian control over Trentino, Friuli and Dalmatia; his nephew Pietro, a famous admiral, defeated the Turks at Smyrna at the age of 66; his brother Giovanni was doge from the age of 70 to 77 (1478-1485). The latter's grandson, Andrea, was a man of letters who died in 1542 aged 69, whereas a nephew, Alvisio, was doge from the age of 63 to 70 (1507-1577).

The city's corporations were all run by old men too: in 1544 the statute governing the ruling on age at the Scuola della Misericordia stated that its Guardiani Grandi had always been "noble men, respectable in rank and age", and they were often aged over 70; in any case the minimum age allowed by the statute was 50 ²⁴. People were aware of the opposition between old and young: doge Mocenigo made several impassioned speeches against youth and in 1433 several young men were known to have been plotting to take over the government ²⁵.

It was in Florence that the rivalry between the generations reached its peak. Already ripe during the first half of the XV century, it became marked in every sphere: in one monastery, the old monks were driven out by the young ones; young noblemen tried to grab the electoral urns. Bernardino of Siena criticised both sides, mocking the physical decline of the old on the one hand and jeering at the "angelic" young governors on the other. In a city where 12 000 of the 20 000 male adults were under 30, unsuited to politics and classed as "idiots", the Medici epoch witnessed a serious confrontation between generations, with the young backing the Medicis, and the old favouring the traditional gerontocracy. Lorenzo il Magnifico's reign was characteristic in this respect; surrounded by young men and women, il Principe, the self-styled brilliant and ostentatious model "courtier", would have been quite incapable of accepting the rule of stern old men, although, in the street, he would step aside for them ostentatiously ²⁶.

Several historians maintain that the political events are better explained in terms of the generation gap than by economic and social rivalries taking place in Tuscany at the time: "The most basic division in the Res Publica was the division between the old and the young", states Richard C. Trexler ²⁷. Piero di Medici would thus have fallen from power in 1494 because he "supported the young and the minor noblemen and preferred them even in the face of opposition from some of the old principali and mature men. It seemd to these old men that Piero did not appreciate them" ²⁸. Savonarola tried to exploit this rivalry; he mistrusted the old men who still hankered after the days of Lorenzo il Magnifico, and he wanted to educate a virtuous youth to supervise society. "Savonarola used the young as a weapon in the battle for his civic and religious reforms" ²⁹. During the sixteenth century these conflicts between the generations, whose origins went back in part to the effects of the Black Death, were to develop further.

In spite of their undeniably strong position during the XIV and XV centuries, the situation of the old was still precarious and ambiguous. Their social importance was fleeting, due to transitory and particular conditions, the devastation of the young by the Black Death. The demographic recovery which started in 1480 provided for an influx of young demanding people, who were to push the elderly people aside and poke fun at them. In a sense, the relative acceleration of history, the challenging of certain traditions and the appearance of new techniques turned to the disadvantage of old age. As parish registers became more systematised and printing was more widespread, the old were gradually stripped of their role as the community's memory.

N O T E S

- 1 Quoted in Richard C. Trexler: "Public Life in renaissance Florence". New York-London, 1980. p.362.
- 2 The Fontana Economic History of Europe. Vol.I, The Middle Ages. Ed. C.M.Cipolla. New York. 1976. pp. 56-57.
- 3 Ibid.
- 4 Monique Zerner: "Une crise de mortalité au XVe siècle d'après les testaments et les rôles d'imposition". In Annales ESC, 1979, n° 3.
- 5 H. Dubois: "L'histoire démographique de Chalon-sur-Saône à la fin du XIVe siècle d'après les crèches de feux". In Annales de la faculté des lettres de Nice. n° 17, 1972. pp. 89-102.
- 6 Maurice Berthe: "Famines et épidémies dans les campagnes navarraises à la fin du Moyen Age". 2 vol. SFIED. 1984.
- 7 Ibid. p. 417.

- 8 Ibid. p. 552.
- 9 Ibid. p. 155.
- 10 Ibid. p. 155. Much later, during the 1603 plague in London, it was also observed that far more children died than old people. Cf. M.F. and J.M. Hollingsworth, "Plague, mortality rate by age and sex in the parish of St Botolph's without Bishopsgate, London 1603". In Population Studies, vol. XXV, March 1971.
- 11 The Fontana Economic History of Europe, op. cit., p.47.
- 12 J.J. Rosenthal: "Medieval longevity: the secular peerage. 1350-1500". In Population Studies, vol. 27, July 1973.
- 13 C. Klapisch: "Fiscalité et démographie en Toscane, 1427 à 1430", in Annales ESC, 1969, pp. 1313-1337. C.Klapisch and D. Herlihy: "Les Toscans et leur famille: une étude du catasto florentin de 1427". Paris. Ecole des Hautes Etudes et Fondation nationale des sciences politiques. 1978.
- 14 This case is cited by J. and M. Dupâquier, "Histoire de démographie", Paris 1985. p. 45.
- 15 A. Higounet-Nadal: "Périgieux aux XIVe et XVe siècles. Etude de démographie historique". 2 vol. Paris, 1977. See plates pp. 805-815.
- 16 Jacques Rossiaud: "Crises et consolidations, 1350-1530", in Histoire de la France urbaine, Paris, 1980, vol.2. p.487.
- 17 Ibid.
- 18 G. Minois: "L'évêché de Tréguier au XVe siècle". Rennes, 1975. p. 174-176.
- 19 M. Le Mené: "Les campagnes angevines à la fin du Moyen Age". Nantes, 1982.
- 20 C. Klapisch: "Fiscalité et démographie en Toscane". Op. cit. p. 1336.

- 21 Christine de Pisan: "The treasure of the City of Ladies or the book of the three virtues". English translation. Harmondsworth, 1985, pp. 162.
- 22 A. Higounet-Nadal, op. cit. p. 510.
- 23 Histoire de la France urbaine, op. cit. p. 510.
- 24 B. Pullan: "Rich and poor in Renaissance Venice" Oxford. 1971.
- 25 Richard C. Trexler: "Public life in Renaissance Florence". op. cit.
- 26 Ivan Cloulas: "Laurent le Magnifique", Fayard, 1982. p.277.
- 27 Richard C. Trexler, op. cit. p. 518.
- 28 Piero Parenti, quoted by Richard C. Trexler, op. cit. p.515.
- 29 C. Puelli-Maestrelli: "Savonarole, la politique et la jeunesse à Florence", in "Théorie et pratique politique à la renaissance", XXIIe colloque international de Tours, Paris, 1977. p. 1-14.

Jean-Noël B i r a b e n

LES CAUSES POPULAIRES DE DECES DES PERSONNES AGEES
en FRANCE au XVIIIe SIECLE

1 - Introduction aux causes populaires de décès

Nous ne pourrons jamais connaître les causes de décès en France au XVIIIe siècle avec autant de détails et de précision clinique et statistique que l'auraient permis les moyens mis en oeuvre aujourd'hui, tant pour le diagnostic que pour la collation des causes.

A cette époque, en effet, si les progrès de l'observation et de l'anatomo-pathologie permettent à certains médecins d'entrevoir quelques diagnostics, la médecine officielle reste farouchement attachée au dogme de la non spécificité des maladies, et la floraison des nouveaux systèmes médicaux, si elle stimule la recherche, est un facteur perturbant non négligeable pour l'établissement d'une statistique des causes de décès. En effet, cela se traduit par une prolifération et une grande diversité des classifications publiées qui

approchent de la trentaine à la fin du siècle. D'ailleurs, l'idée même de statistiques de causes de décès, lancée par Graunt, commence à peine à se répandre parmi les médecins. En France, les premières sont des statistiques hospitalières, celles des causes de décès à l'hôpital de Nîmes de 1757 à 1762, publiées par Razoux en 1767. A partir de 1776, Vicq d'Azyr tente de recueillir des données sur les épidémies en France grâce à un réseau d'environ 200 médecins répartis sur tout le territoire mais les données ainsi recueillies, en général en période de crise épidémique, sont beaucoup trop épisodiques et locales pour fournir à notre sujet une base statistiquement exploitable. Seuls les registres d'hôpitaux, du moins des grands hôpitaux urbains, encore peu exploités, pourraient nous donner quelques indications sur les causes médicales de décès, à cette époque, mais exclusivement pour la population très sélectionnée que constitue leur clientèle: c'est-à-dire, presque toujours, les couches les plus pauvres de la population.

Ainsi, très peu de documents sont susceptibles de nous renseigner sur les causes médicales de décès des personnes âgées et ceux-ci sont biaisés car ils ne concernent que les urbains très pauvres, c'est-à-dire des populations très marginales et peu représentatives.

Les documents auxquels nous nous sommes adressés, bien qu'officiels, n'ont pas d'existence officielle. Il s'agit, en effet, de registres d'état civil anciens dans lesquels quelques rares curés ont éprouvé le besoin de noter durant un temps assez long, en général plusieurs années, la cause de chaque décès ou presque chaque décès. Cette mention, qui n'a été demandée que très tardivement, en 1785, aux curés de la seule Généralité de Paris, et n'a donc ailleurs ou avant cette date aucun caractère officiel, n'a pas non plus de qualité médicale puisque ce n'est pas un médecin qui déclare la cause du décès. Il s'agit donc non d'un diagnostic après examen clinique, mais d'une cause supposée d'après la rumeur

publique ou les indications de la famille: elle entre, comme celles des bills de Londres, utilisées par J. Graunt, dans la catégorie des causes populaires de décès.

Le grand défaut des causes populaires de décès est évidemment la méconnaissance de beaucoup de maladies: on n'y trouve guère qu'une soixantaine de causes, alors que la première classification à usage statistique des causes médicales à Paris, en 1808, en compte 184. Cette simplification extrême, de plus, procède d'un regroupement qui obéit à une logique d'affinités diverses: une symptomatologie proche, ou une origine supposée commune, ou l'atteinte d'un même, ou des mêmes organes suffisent à justifier une appellation identique, alors qu'à l'inverse, deux formes de la même maladie peuvent avoir des noms différents si leurs signes les plus visibles sont différents.

Si l'imprécision du diagnostic est très grande, en revanche, la représentativité est bonne dans l'ensemble. En effet, il s'agit presque toujours de populations rurales parmi lesquelles les décès hors de la paroisse (dans un hôpital, à l'armée, dans un établissement religieux, en voyage, en pèlerinage, etc. ...) sont très rares. Or la population est, à l'époque, rurale à plus de 85 %.

Ces registres mentionnant la cause du décès, nous en avons actuellement trouvé 6 en France, un septième nous a été signalé qu'il faudra vérifier. Mais aucun répertoire systématique n'a été dressé et il en existé certainement d'autres. Hors de France, on nous en a signalé: au Canada¹ (village de Lachine 1700-1706), en Suisse: trois paroisses du canton d'Uri à la fin XVII^e siècle et au début du XVIII^e siècle². Nous devons noter aussi que certains registres mentionnent également la durée de la maladie qui a provoqué le décès et qu'en plus des registres portant la cause du décès, il en est quelques-uns qui portent presque systématiquement cette durée, notamment en Franche Comté.

Tableau des décès par cause, sexe et groupe d'âge

Cause	Hommes				Femmes				Total					
	Age en années		total		Age en années		total		Age en années		total			
	60-69	70-79	80-89	90 +	60-69	70-79	80-89	90 +	60-69	70-79	80-89	90 +		
Cause inconnue ou mal définie	3	4	4	2	10	3	1	3	1	8	3	5	7	3
mort subite		3			6					2				
courte maladie		1		1	1		1		1	1		2		
longue maladie		1		1	1		1		1	1		2		
maladie chronique		2	4	1	7		1	5		6		3	9	1
vieillesse, caducité			1		1		1		1	1		1	1	1
grande douleur					1		1		1	3		1	1	1
sans mal ni agonie								1		1		1		1
humeur répercutée										1				1
<u>Infections, parasites</u>														
pourpre	1				1									
fièvre putride, continue	1	3			4	2	3			5	3	6		
fièvre pernicieuse, intermit.	1				1						1			
fièvre hectique, langueur	2	10			12	1	4	2		7	3	14	2	
<u>Affections respiratoires</u>														
pneumonie	1	1			2	3				3	4	1		
pleurésie	4	3	2		9	2				2	6	3	2	
rhume		2			2							2		
vomique	1				1	1	1			1	2			
asthme	4	2			6	2	5			7	6	7		

Cause	Hommes				Femmes				Total					
	Age en années		total		Age en années		total		Age en années		total			
	60-69	70-79	80-89	90 +	60-69	70-79	80-89	90 +	60-69	70-79	80-89	90 +		
<u>Affections digestives et urinaires</u>														
diarrhée		2			2					2	2			
dysenterie			1		2								1	
colique	1				1								1	
dépot au foie		1			1								1	
jaunisse		1			1								1	
inflammation vessie		1			1								1	
<u>Affections circulatoires</u>														
hypoplasie	3	5			8	4	1			5	7	6		
hypoplasie de poitrine	1				1						1			
<u>Signes neurologiques</u>														
apoplexie paralyse	3	4	1		8	4	3	3		10	7	7	4	
coup de soleil			1		1								1	
<u>Signes de cancer ?</u>														
ni à l'aval, ni à la selle				1	1									1
maladie de matrice						1				1	1			
<u>Affection générale</u>														
goutte sciatique	1				1	1				1	2			
<u>Accidents, violences</u>														
noyé en rivière	1				1								1	
accident d'animal	1				1								1	
accident s.a.i.	1				1					1	2			
Total	30	46	14	4	94	29	22	15	2	68	59	68	29	6

2 - Sommaire de la méthode suivie

Les résultats que nous rapportons et commentons ici se rapportent à quatre villages dont le dépouillement, en cours, n'est pas terminé. Il s'agit donc de résultats préliminaires et sujets à révision.

Après un relevé des causes, notre premier travail a été de tenter un classement et un regroupement, ce qui a nécessité un essai d'identification des maladies dont la signification n'est plus évidente aujourd'hui : certaines d'ailleurs dont l'appellation est exclusivement populaire, restent encore pour nous dépourvues de sens : aucun ouvrage de l'époque n'en parle et nous en sommes réduits à des hypothèses.

La seconde démarche a été un classement des décès par âge et par sexe pour identifier les personnes âgées et les causes de leur décès.

Pour plus de commodité, nous commencerons par les données chiffrées, puis nous essaierons d'identifier les maladies, enfin, nous ferons un essai d'interprétation générale.

Voici donc le tableau des décès par cause, sexe et groupes d'âge au-dessus de 60 ans pour les quatre villages d'Issy, Sceaux, Migennes et La Roque Sainte Marguerite.

Ce tableau résulte des dépouillements de périodes variées : pour La Roque Sainte Marguerite (Rouergue) de 1723 à 1742, Migennes (Bourgogne) 1782 à 1792, Issy (région de Paris) 1785 à 1791, et Sceaux (région de Paris) 1785 à 1787. Malgré cette diversité géographique et temporelle, les maladies déclarées montrent une unité profonde et rien ne s'opposait à leur fusion en une seule statistique. Nous avons ainsi 162 personnes âgées. On observe que dans l'ensemble des décès des quatre villages, on ne compte que 41 décès sans âge noté, dont certains, parmi 9 hommes et 8 femmes mariées et un veuf et deux veuves, peuvent être âgés, et 6 décès sans âge ni cause dont 3 femmes mariées mais ni veuf ni veuve, donc que peu de personnes âgées échappent à notre observation.

3 - Descriptif des résultats préliminaires

Les causes inconnues, sans aucune indication, 10 hommes et 8 femmes ne sont pas trop nombreuses, comme on aurait pu le craindre pour ces âges, mais les causes mal définies, par une simple mention de durée comme "mort subite" ou "longue maladie" ou par "caducité", "vieillesse" ou "grand âge", ou encore par "il est mort de la douleur d'avoir perdu sa femme" ou "sans maladie ni agonie" (mentionné trois fois, exclusivement pour des femmes) sont assez fréquentes. Quant à l'"humeur répercutée", elle se rapporte à une maladie dont les signes extérieurs ont disparu à la suite du traitement, alors que l'état antérieur empirait, on parlait aussi à l'époque d'"humeur rentrée" tout aussi mal définie pour nous.

Parmi les maladies infectieuses, celle appelée pourpre reste difficile à identifier. Selon toute probabilité, il s'agit d'un purpura, mais ce signe apparaît dans beaucoup d'affections. On peut faire l'hypothèse que les grandes épidémies de pourpre avec létalité élevée sont le typhus exanthématique à pétéchies, alors que les cas isolés que nous avons rencontrés dans ces villages sont des syndromes infectieux assez variés, et dans ce cas on parle de fièvre rouge ou fièvre pourprée : nous n'en avons trouvé qu'un cas chez les personnes âgées : un homme de 65 ans à Issy.

Les fièvres continues ont des noms variés mais ne semblent être en général que des formes de typhoïdes : ainsi les fièvres putrides "nom que les humoristes donnent à un ordre de fièvres qu'ils attribuent à la corruption des humeurs parce que l'haleine et les excréments du malade exhalent une odeur fétide"³, les fièvres malignes "accompagnées d'accablement, de faiblesse, de lassitude, de tremblement des lèvres et des mains, de soubresauts dans les tendons, de délire, de crises imparfaites, etc ..." (on peut donner ce nom à la rougeole et à la variole "lorsque surviennent des accidents

plus fâcheux que ne semblait le comporter la nature de la maladie", on parle alors de rougeole maligne, de petite vérole maligne). Et une fois nous avons trouvé l'appellation: fièvre bilieuse. A quelques exceptions près, toutes ces fièvres sont des typhoïdes ou paratyphoïdes et sont encore fréquentes avant 80 ans dans les quatre villages.

Les fièvres intermittentes, ou accès de fièvre, semblent rares, du moins dans les localités étudiées où nous n'avons trouvé qu'un seul décès attribué à cette cause chez un homme de 63 ans à La Roque Sainte Marguerite, on peut penser au paludisme.

Curieusement, aucun cas de gangrène n'est signalé parmi les personnes âgées.

En revanche, la très grande majorité des fièvres lentes, hectiques ou étisie, des maladies de langueurs, de consommations, et autres maladies "qui consomment toute l'habitude du corps, caractérisées par la maigreur, la faiblesse, la fièvre ... " sont très fréquentes et doivent, dans leur grande majorité, être rapportées à la tuberculose pulmonaire. La langueur, avec "débilité et abattement ..." peut aussi provenir d'autres affections chroniques différentes.

Dans les affections respiratoires : les maladies de poumon, pulmonies, pneumonies, fluxions de poitrine, ne sont guère distinguées des péripneumonies et doivent désigner la plupart des formes d'infections bronchiques ou pulmonaires, assez fréquentes chez les sexagénaires. Les pleurésies, beaucoup plus fréquentes chez les vieillards, s'en séparent par "la douleur pongitive, lancinante ... à un des côtés de la poitrine ... La difficulté de respirer plus ou moins grande" et, en cas de guérison "la terminaison par des adhérences, quelquefois par l'exhalation d'un liquide séreux et purulent, d'autres fois par le passage à l'état de phlegmasie chronique".

Le rhume, qui désigne tout état grippal, est présent chez les personnes âgées, de même que les vomiques, ou dépôt dans

la poitrine, qui désignent des abcès du poumon d'origines variées.

L'asthme, ou asthme convulsif, comme les passes asthmatiques, est très fréquent chez les vieillards des quatre villages, est-il distinct de la suffocation, de l'oppression de poitrine ou de l'oppression de l'halaine (sic)? Peut-être, mais il ne semble pas, sauf dans un cas, assez pittoresque d'ailleurs, et qui concerne une femme de 57 ans, donc en marge de notre travail, morte "d'une suffocation causée par un emportement de colère contre son mari".

Les affections digestives ou urinaires sont sensiblement moins nombreuses chez les personnes âgées que les affections respiratoires. Le choléra morbus est "une évacuation de bile par haut et par bas, accompagnée de symptômes très graves, tels que violents efforts pour vomir, tenesmes, coliques, convulsions, quelquefois suivie de mort" : dans certaines régions on le nomme trousse-galant, il n'a rien de commun avec le choléra asiatique que l'on verra au XIXe siècle à partir de 1832. On le trouve chez deux hommes de la Roque Sainte Marguerite, de 70 et 75 ans.

Il est nettement différencié de la dysenterie qui implique une diarrhée sanglante observée chez deux femmes de la Roque Sainte Marguerite âgées de 65 ans. Dans les autres villages, ces deux affections ne touchent que des personnes moins âgées.

Les coliques sont plusieurs fois données comme des suites d'indigestion, elles concernent deux hommes âgés de 69 et 82 ans.

Un abcès au foie, une jaunisse et une inflammation de la vessie restent isolés, sans que nous puissions en préciser la nature.

Les affections de l'appareil circulatoire forment un autre chapitre important dans les causes de décès des personnes âgées. Parmi celles-ci l'hydropisie, ou plutôt les hydropsies, car cette appellation désigne "un épanchement d'eau dans quelque partie du corps", c'est-à-dire tous les oedèmes,

les ascites, etc ... avec une distinction parfois pour la partie atteinte : ainsi l'hydropisie de poitrine (est-ce un oedème aigu du poumon ?).

La très fréquente apoplexie, ou attaque et les paralysies ou suites de paralysies, désigne probablement des lésions de la circulation cérébrale : thrombose, oedème, hémorragie, etc ... suivies de signes neurologiques. Leur poids est peut-être plus important encore car sur les 6 hommes âgés décédés de mort subite, si plusieurs ont pu mourir d'infarctus, quelques-uns ont pu être frappés d'une hémorragie cérébrale brusque et massive. On peut soupçonner d'après cet ensemble que l'hypertension était une affection assez répandue. Le coup de soleil n'est pas non plus seul responsable de la mort d'un homme de 81 ans, car il "lui causa une espèce d'apoplexie", alors qu'une telle mention n'est pas portée pour des enfants décédés aussi de coup de soleil.

Plus remarquable est l'absence de cancer ou squirre qui frappe pourtant des adultes plus jeunes. On peut soupçonner qu'il n'a pas été toujours été diagnostiqué, par exemple chez ce vieillard, veuf de 93 ans, mort "sans autre mal que celui de ne pouvoir presque rien avaler qu'avec grand peine", ou chez cette femme de 69 ans décédée d'une "maladie de matrice"?

La goutte-sciatique reste énigmatique car elle semble désigner à peu près toutes les affections qui rendent douloureux les mouvements des membres inférieurs, aussi bien la sciatique que la coxarthrose, les lombalgies, les rhumatismes du genou ou la goutte proprement dite ...

On note enfin que les accidents, s'ils sont très fréquents chez les enfants et les adultes, sont relativement rares chez les personnes âgées. On remarque un homme de 60 ans "crevé par les cornes d'un boeuf", les animaux domestiques sont nombreux et proches dans la vie courante, il en résulte des accidents plus fréquents que de nos jours.

4 - Comparaisons

Il n'est pas encore possible de comparer nos résultats, ni avec les causes de décès actuelles chez les personnes âgées, ni avec les autres registres anciens.

Même si les diagnostics populaires de l'époque avaient été aussi bons que ceux qui sont établis aujourd'hui, ce qui n'est pas le cas, il nous manquerait encore les effectifs par âge permettant de calculer des taux comparatifs qui seuls donnent des valeurs interprétables.

Quant aux autres registres anciens, nous avons bien une copie du registre de Lachine, mais la population de ce village, récemment immigrée, était si jeune au début du XVIIIe siècle que nous n'avons trouvé parmi les décédés que deux personnes ayant dépassé 60 ans: un garçon de 63 ans, tombé d'un échafaudage et un homme de 74 ans, mort de fièvre sans autre précision.

Pour le village du Lyonnais, dont le curé a noté la cause des décès de 1704 à 1737, la brève publication que nous possédons ne donne pas les âges. Nous pouvons seulement constater que le vocabulaire médical est le même que celui de nos villages : les fièvres putrides, malignes, continues, intermittentes, lentes, étiques, l'étéisie ou phtisie, les maladies de poitrine, l'asthme, l'oppression de poitrine, la fluxion de poitrine, les pulmonies, pneumonies, péripneumonies, pleurésies et fausses pleurésies, la dysenterie, la mort subite, l'apoplexie, l'hydropisie, le cancer, les accidents, etc ...⁴

Sur le registre béarnais de la même époque, nous ne connaissons aucune publication, et sur les trois villages du canton d'Uri, les données ne sont pas réparties par âge, mais on y retrouve, en latin, les mêmes affections, comme si cette médecine populaire faisait partie d'un fond commun européen.

5 - Vue générale et conclusions

Pour nous résumer, sur 162 décès de personnes âgées observées en France dans quatre villages au XVIII^e siècle, environ 30 % ne sont pas attribués à une cause connue ou bien définie à l'époque, sur ces 30%, on en compte seulement 8,2 % attribués à la vieillesse ou caducité, 3,7 % à une mort subite qui peut être d'origine cardiaque ou vasculo-cérébrale, et 2,5 % à des longues maladies ou des maladies chroniques.

Les maladies infectieuses sont importantes: 18,5 % du total des décès, mais parmi elles la typhoïde frappe beaucoup moins les vieillards: 5,6 % que les adultes, spécialement les jeunes adultes. En revanche, la tuberculose est non seulement très importante : 11,7 % mais certainement sous-estimée, plusieurs cas doivent lui être attribués parmi les pleurésies et, dans les causes mal définies, parmi les longues maladies et les maladies chroniques.

Les maladies de l'appareil respiratoire sont les plus nombreuses : 20,4 % de l'ensemble dont 3,0 % pour les pneumonies, 6,8 % pour les pleurésies et 8,0 % pour l'asthme qui apparaît très fréquent et redoutable pour les vieillards à cette époque. Remarquons aussi que le catarrhe ne touche que les adultes.

Les maladies de l'appareil digestif avec 5,6 % des décès ne semblent pas être aussi importantes à ces âges que chez les jeunes et les adultes; il en est de même des affections de l'appareil urinaire qui ne comptent qu'un seul décès.

L'appareil circulatoire est beaucoup plus souvent atteint, spécialement sous la forme des hydropisies variées: 8,6 % des décès auxquelles il faut ajouter, non seulement la plupart des apoplexies: 11,7 %, mais aussi des morts subites, classées dans les causes mal définies, et qui doivent être presque toutes d'origine cardio-vasculaires ou cérébro-vasculaires.

Le cancer, expressément mentionné chez les adultes, n'est pas reconnu chez les vieillards. Il faudrait, probablement, ajouter aux deux cas suspects que nous avons rapportés plusieurs décès mal définis classés à l'époque dans les maladies chroniques ou la caducité.

La goutte-sciatique et les rhumatismes, qui ne comptent que 2 décès, soit 1,2 % de l'ensemble, sont là pour rappeler que les maladies de dégénérescence de l'appareil locomoteur ne sont pas absentes des affections du vieillard au XVIII^e siècle.

C'est peut-être cette réduction des activités qui diminue beaucoup les risques d'accidents qui semblent faibles, à l'époque, pour les personnes âgées, avec seulement 2,5 % des décès, sans aucune sous-estimation car les accidents semblent alors bien déclarés.

N O T E S

- 1 Nous remercions Hubert Charbonneau qui a eu l'obligeance de nous signaler le registre de Lachine.
- 2 Anselm Zurfluh, Une population alpine dans la Confédération: Uri aux XVII^e, XVIII^e et XIX siècles. Edit. Economica - 1987, pp. 503-505.
- 3 La plupart de nos explications sont extraites du "Nouveau dictionnaire de médecine et de chirurgie, de physique, de chimie et d'histoire naturelle" par Joseph Capuron, docteur en médecine de l'École de Paris - chez J.A. Brosson, libraire. Imprimerie de Moronval à Paris, 1806.
- 4 Danièle Lapeine, "Population et mortalité à Saint Symphorien le Château. Bulletin du Centre d'histoire économique et sociale de la Région Lyonnaise. n° 1 - 1974, pp. 31-38.

- 5 René Azemar, Décès et causes de décès à la Roque St Marguerite, Annales de Démographie Historique 1984.
- 6 Patricia Alezelisre, Contribution à l'étude des causes de mortalité françaises au XVIIIe siècle, Etude statistique sur deux paroisses de la région parisienne: Issy et Sceaux. Thèse méd. Paris 1981.

Historická demografie 14/1990, p. 71-88

Hubert Charbonneau - Bertrand Desjardins

VIVRE CENT ANS DANS LA VALLEE DU ST-LAURENT AVANT 1800 +

De tout temps, l'âge a suscité tantôt la vanité, tantôt la falsification. Le grand âge en particulier a toujours été entouré à la fois de vénération, de légende et de crédulité, d'erreur, voire de supercherie. Le cas de la Géorgie soviétique, patrie du "petit père du peuple", représente probablement l'exemple extrême en cette matière, où une fabulation, à l'échelle collective, a été récupérée à des fins politiques et nationalistes.

Dans cette veine, l'idée a longtemps circulé que le peuple canadien-français, "issu d'une race forte", était doué d'une longévité exemplaire. Les prétendus centenaires n'ont pas manqué dans son histoire pour étayer cette prétention,

+ Ce texte a pu être préparé grâce à l'appui financier du Conseil de recherches en sciences humaines du Canada, du Fonds F.C.A.R. du Gouvernement du Québec et de l'Université de Montréal.

sont l'illustre Pierre Joubert, classé au premier rang parmi les occidentaux de sexe masculin, et au quatrième rang au total, chez les détenteurs de record de longévité reconnus¹. Mais la vérité en ce domaine est bien difficile à établir, tant sont sévères les exigences à rencontrer en termes de sources et d'effectifs.

Les connaissances en matière de mortalité aux âges élevés sont d'ailleurs longtemps demeurées fort rudimentaires. Parmi les questions controversées, citons celles qui concernent la durée extrême de la vie humaine. Celle-ci est-elle limitée et, si oui, comment? A-t-elle évolué au cours du temps? Peut-on raisonnablement espérer en reculer les frontières, ou les progrès médicaux serviront-ils strictement à hausser la proportion de ceux qui l'atteignent? Les réponses à ces questions prennent une importance accrue dans le contexte de récentes recherches sur le vieillissement des cellules.

Les travaux du Programme de recherche en démographie historique (P.R.D.H.)² permettent de dégager chez les Canadiens-français des éléments inédits en ce domaine privilégié de rencontre entre la biologie et les mentalités. Axée sur la figure mythique du centenaire, la présente étude cherchera à faire la part entre vérité et folklore pour l'ensemble d'une population sur presque deux siècles. Mais avant de partir à la recherche des centenaires authentiques du Québec d'hier, il importe de procéder à quelques rappels théoriques de nature à préciser ce à quoi on est en droit de s'attendre.

Mourir centenaire était-il possible il y a deux siècles?

L'espérance de vie au Québec était à peine il y a deux siècles la moitié de celle d'aujourd'hui. Il est par conséquent logique de se demander s'il était possible dans un tel contexte de prétendre devenir centenaire. En effet, l'atteinte d'un tel seuil de nos jours, sans être banalisée, est plus ou moins perçue comme la conséquence "normale" des progrès de la

médecine; l'inverse de cette proposition conduit alors à conclure que la situation d'antan s'y opposait.

L'étude de la mortalité aux âges très élevés est singulièrement compliquée par l'inexactitude des déclarations, qui rendent les recensement à toutes fins pratiques inutilisables. C'est pourquoi Paul Vincent, dans son étude pionnière de la mortalité des vieillards³, mit au point la méthode dite des générations éteintes qu'ont utilisée après lui Françoise Depoix⁴ et, plus récemment, Väinö Kannisto⁵. Ces trois auteurs serviront à résumer l'essentiel des connaissances acquises qui nous concernent sur ce sujet, hélas demeuré mythique pour la majeure partie de l'humanité.

Les résultats obtenus des données les plus sûres concordent sur un point fondamental: la croissance régulière des quotients de mortalité avec l'âge se poursuit jusqu'aux âges extrêmes. Vincent en déduit, en extrapolant linéairement la droite des quotients, que "la vie humaine serait limitée, et la limite actuelle de la durée de la vie humaine serait de 110 ans environ pour l'un et l'autre sexes"⁶. Françoise Depoix suit la même voie, obtenant de ses observations, plus récentes, un âge limite de 117,28 ans pour le sexe masculin et de 119,28 ans pour le sexe féminin; elle introduit cependant une distinction entre ces plafonds, dits théoriques, et la "limite pratique de la durée de vie humaine", qui pondère la théorie en fonction de l'ordre de grandeur des probabilités en cause. Ainsi, puisqu'un centenaire n'a qu'une chance sur deux millions d'atteindre 113 ans, ce qui signifie que "on n'aurait pratiquement aucune chance d'observer un homme atteignant cet âge avant la fin du présent siècle, quand bien même l'observation s'étendrait à l'ensemble de l'humanité", le progrès par rapport à son prédécesseur est ramené à 3 ou 4 ans selon le sexe, en termes pratiques, ce qui "est cependant considérable, et d'autant plus remarquable qu'il est probablement sans précédent dans l'histoire"⁷.

Kannisto, pour sa part, refuse de déduire de l'extrapolation des quotients observés une limite théorique à la vie humaine, remarquant avec justesse que "tout ce que l'on connaît sur la nature de la mortalité rend difficile à accepter l'idée qu'il existe un âge - une seule année - que certains pourraient atteindre mais que personne n'aurait une chance de dépasser"; il en conclut que "la seule alternative valide est que la probabilité de décéder tend vers une asymptote et que, par conséquent, elle n'atteint jamais l'unité". Selon lui, l'atteinte d'âges de plus en plus élevés s'explique strictement jusqu'ici par la diminution de la mortalité due à la maladie ou aux accidents chez les vieillards; l'augmentation rapide du nombre de centenaires qui en résulte augmente en effet la probabilité que certains se rendent à un âge jamais atteint auparavant. Ainsi, si le quotient de mortalité à l'âge le plus élevé à avoir été atteint est de 0,75, le quadruplement du nombre de personnes à cet âge rendra probable l'ajout d'une année à la limite supérieure observée et donc à la durée maximale apparente de la vie humaine ⁸.

Il résulte de ces constatations qu'atteindre 100 ans dans les conditions de mortalité anciennes n'était pas impossible, mais plutôt très improbable, en raison de l'ampleur de la mortalité "prématurée", c'est-à-dire celle qui résulte de causes autres que la vieillesse elle-même. Les attentes pour le Québec ancien devront donc mettre en rapport probabilités et effectifs.

Probabilité de mourir centenaire au Québec entre 1608 et 1800

Le phénomène s'impose de plus en plus: des progrès significatifs ont eu lieu depuis la seconde guerre mondiale en ce qui concerne la survie des grands vieillards. C'est pourquoi les travaux de Vincent demeurent d'un grand intérêt pour l'historien, car ils concernent la première moitié du

siècle, la plus proche des temps anciens. Vincent déduit des données des quatre pays pour lesquels le calcul peut être fait sans trop de risques que pour 10 000 survivants à 85 ans, à peine 30 atteignaient 100 ans avant 1950; cette proportion tombe même à 15 dans la plus ancienne de ses tables, celle de la Suisse pour la période 1876-1914 ⁹. Exprimés à l'échelle de l'ensemble d'une génération, de tels ordres de grandeur signifient que les centenaires à escompter de 10 000 naissances se comptaient sur les doigts d'une seule main il y a à peine cinquante ans.

Mais il n'est pas dit que l'évolution ait été nulle avant le XXe siècle, même si tout laisse croire que les changements se faisaient alors des plus lents au chapitre de la mortalité aux âges avancés. Le recours aux tables-types, grâce auxquelles la mathématique vient au secours des déficiences de l'observation, confirme la chose: même en reconnaissant aux pionniers du Canada-français certains avantages comme l'environnement favorable et la sélection des immigrants ¹⁰, plus de 100 000 observations sont nécessaires pour approcher les résultats de Vincent. En effet, les tables appropriées ¹¹ montrent deux centenaires de sexe féminin et un seul de sexe masculin pour 100 000 naissances de chaque sexe. Par conséquent, il faut chiffrer à plus de 66 000 l'effectif requis pour avoir des chances notables de constater le décès d'un centenaire du Québec ancien; si on conçoit dès lors que l'écart entre les sexes doive être considéré comme négligeable, l'oiseau rare, le cas échéant, devrait tout de même être du sexe dit "faible".

Dans les faits, environ 20 000 personnes sont nées au Québec avant 1700. Même en doublant ce nombre pour tenir compte la part des immigrants et des autochtones qu'il convient de considérer comme candidats ¹², il n'y a donc qu'une chance sur deux de trouver un centenaire dans la vallée du Saint-Laurent avant 1800. Voyons les faits.

Les centenaires déclarés

Parmi les quelque 210 000 sépultures enregistrées sur le territoire du Québec avant 1800, 178 font état d'un décès survenu à cent ans ou plus. Cette fréquence est extraordinairement plus élevée que celle prévue par la théorie; une vérification s'impose, mais nous décrirons auparavant l'effectif concerné.

Le groupe se compose d'une proportion à peu près égale d'immigrants et de Canadiens de naissance, et d'une minorité d'Amérindiens (tableau 1). Si la répartition selon le sexe chez les immigrants reflète bien les caractéristiques des courants migratoires vers la Nouvelle-France¹³, le déséquilibre que l'on constate chez les natifs étonne. Peut-être l'explication réside-t-elle dans la plus grande proportion de femmes qui survivent à leur mari: on peut supposer que les rapports de l'entourage étaient plus sujets à la fantaisie que ceux d'un conjoint.

Tableau 1. Distribution des centenaires déclarés selon le sexe et l'origine

Origine	Hommes	Femmes	Sexes réunis
Canadiens de naissance	29	47	76
Immigrants ⁺ :	66	17	83
- établis en famille	52	17	69
- isolés	14	0	14
Amérindiens	8	11	19
T o t a l	103	75	178

+ Les immigrants établis en famille sont ceux qui se sont mariés au Canada ou, à défaut, qui y ont vécu avec épouse ou enfant. Les isolés regroupent en majorité des gens dont le séjour en Amérique fut de courte durée, mais aussi quelques individus plus stables, dont les membres du clergé.

Près de trois sur cinq de ces prétendus centenaires seraient morts à l'âge de cent ans, comme en fait foi la distribution des âges déclarés dans les actes (tableau 2). L'attraction des nombres ronds est manifeste. Nos ancêtres ne manquaient par ailleurs pas de hardiesse, puisqu'un dixième des déclarations atteignent ou dépassent 110 ans, deux se hissant même jusqu'à 120 ans.

Tableau 2. Distribution des centenaires déclarés selon le sexe et l'âge

Age	Hommes	Femmes	Sexes réunis
100	52	48	100
101	4	1	5
102	2	5	7
103	8	3	11
104	2	3	5
105	8	4	12
106	5	4	9
107	5	1	6
108	2	2	4
109	1		1
110	8	2	10
111	1		1
112	2	1	3
115	1		1
118	1		1
120	1	1	2
Total	103	75	178

On ne s'étonnera pas qu'à cet égard la palme revienne aux Amérindiens, dont les prétentions dépassent de deux ou trois ans, en moyenne, celles des autres groupes (tableau 3). Les hommes exagèrent plus que les femmes, sauf chez les individus nés au pays.

La répartition des cas dans les divers registres est des plus révélatrice. Rapportés à l'ensemble des décès, ceux de cent ans et plus se révèlent deux fois moins fréquents dans les deux villes de Montréal et Québec, si on exclut les

Tableau 3. Distribution des centenaires déclarés selon le sexe et l'origine par groupe d'âges

Age	O r i g i n e			
	Canad.	Immigr.	Amérind.	Ensemble
H o m m e s				
100	18	31	3	52
101-104	6	10		16
105-109	5	15	1	21
110-114		8	3	11
115 et +		2	1	3
Total	29	66	8	103
Age moyen déclaré	102,2	104,1	107,4	103,8
F e m m e s				
100	31	10	7	48
101-104	8	3	1	12
105-109	7	4		11
110-114	1		2	3
115 et +			1	1
Total	47	17	11	75
Age moyen déclaré	102,1	102,4	104,7	102,5
S e x e s r é u n i s				
100	49	41	10	100
101-104	14	13	1	28
105-109	12	19	1	32
110-114	1	8	5	14
115 et +		2	2	4
Total	76	83	19	178
Age moyen déclaré	102,1	103,8	105,8	103,3

hôpitaux, pour lesquels la fréquence est au contraire deux fois plus élevée que dans les autres registres. Ceux-ci sélectionnent vraisemblablement les gens les moins connus au moment de leur décès et ceux qui risquaient de se présenter dans le plus mauvais état: immigrants restés célibataires,

vagabonds, vieillards ayant survécu à leur entourage, etc. Les registres urbains, par contre, couvrent la population la plus instruite; le voisinage des autorités civiles et religieuses, par surcroît, n'était pas de nature à encourager la fantaisie. La situation à l'échelle des paroisses rurales témoigne d'une certaine concentration: 17 paroisses, comptant un peu plus du cinquième des sépultures, regroupent la moitié des cas. Selon toute vraisemblance, quelques rédacteurs en particulier ont eu un rôle déterminant.

Ajoutons dans la même veine que l'examen des lieux d'origine des immigrants livre un indice trois fois moindre qu'ailleurs pour ceux de Paris-Ile-de-France. Ainsi, au chapitre des déclarations, la différenciation ville-campagne se confirme. Les régions de l'est et du centre¹⁴ se distinguent au contraire par des proportions particulièrement élevées; la faiblesse des effectifs en cause incitent cependant à la prudence.

Vérification des résultats

La Registre de la population du Québec ancien permet de confronter, cas par cas, ces déclarations à la réalité. Nous allons auparavant chiffrer l'ampleur de l'exagération que le nombre de cas observés laisse envisager.

D'entrée de jeu, il y a lieu de distinguer les Amérindiens. A peine quelques milliers de sépultures les concernent; même s'il s'agit essentiellement de sépultures d'adultes, les 19 décès de centenaires qui leur sont attribués les placent d'emblée dans une catégorie à part. Faut-il s'en étonner? Les missions sélectionnent au départ les sédentaires, et donc les vieillards; les principaux intéressés, pour des raisons culturelles, n'avaient sûrement pas une notion très précise de leur âge; ceux à qui la responsabilité échouait ne pouvaient donc se fier qu'aux apparences, que l'on imagine particulièrement marquées par les conditions de vie propres à

cette catégorie de la population. L'effectif sous observation est impossible à préciser et aucun contrôle des déclarations n'est possible; les Amérindiens seront donc mis de côté pour le reste de notre propos.

De même, le nombre d'immigrants isolés à utiliser en référence ne peut être connu. A l'exception du clergé pour lequel d'excellentes sources sont disponibles¹⁵, cette catégorie recouvre une population hétérogène qui, par définition, échappe aux documents de basse jusqu'à leur décès. Les calculs ci-dessous ne retiennent donc parmi les immigrants que ceux qui se sont établis en famille.

Sur la base de 1,5 centenaires pour 100 000 naissances, le nombre de décès observé correspond à une fréquence 313 fois plus élevée que la théorie (tableau 4). La propension à se déclarer centenaire est plus forte chez les immigrants que parmi leurs enfants nés au Canada, surtout chez les hommes; cette constatation va dans le sens attendu. Par contre, les Canadiennes dépassent nettement les Canadiens, alors que l'inverse est vrai des immigrants. Nul doute que les circonstances particulières propres à l'immigration selon le sexe sous-tendent cette dernière relation.

La contrôle des déclarations a été possible pour 75 des 76 Canadiens et pour 50 des 83 immigrants (figure 1). Dans le cas de ces derniers, il y a lieu de signaler que la vérification repose sur des déclarations d'âge au mariage ou à un recensement; il en découle une certaine approximation, mais nul doute que la marge d'erreur relative aux faux centenaires l'emporte nettement sur celle concernant les âges déclarés des jeunes adultes.

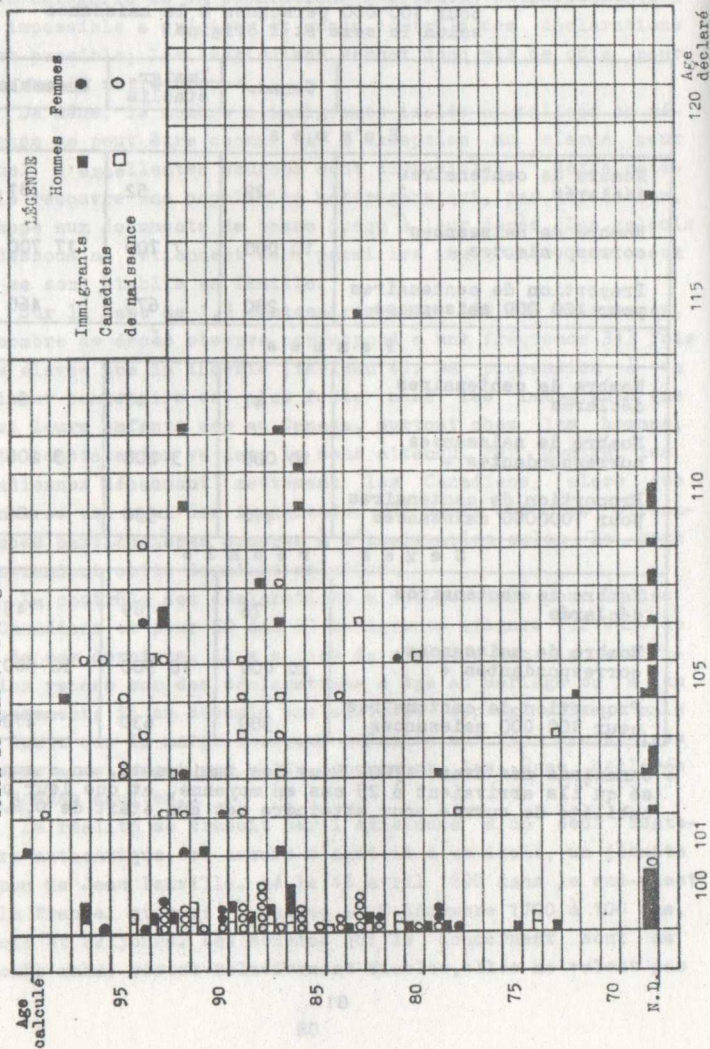
La réalité se traduit par l'existence d'un seul centenaire authentique, et encore s'agit-il d'un isolé, un jésuite du nom de Jean Feuville, né le 16 avril 1600 dans le sud-ouest de la France, et mort à Québec le 8 décembre 1700 à 100 ans, 7 mois et 22 jours. Les sources qui le concernent sont de seconde main; certes relativement fiables, elles ne valent pas

Tableau 4. Proportion de centenaires déclarés pour 100 000 personnes à la naissance selon le sexe et l'origine

	Canad.	Immigr. établis	Ensemble
H o m m e s			
Nombre de centenaires déclarés	29	52	81
Nombre de naissances correspondantes +	10 000	7 700	17 700
Proportion de centenaires pour 100 000 naissances	290	675	460
F e m m e s			
Nombre de centenaires déclarés	47	17	64
Nombre de naissances correspondantes +	10 000	3 200	13 200
Proportion de centenaires pour 100 000 naissances	470	530	485
S e x e s r é u n i s			
Nombre de centenaires déclarés	76	69	145
Nombre de naissances correspondantes +	20 000	10 900	30 900
Proportion de centenaires pour 100 000 naissances	380	630	470

+ Canadiens nés avant 1700. Pour les immigrants, on a supposé qu'ils arrivaient à 25 ans en moyenne, et que leur probabilité de survie pour atteindre cet âge était de 0,6.

FIGURE 1 Age calculé selon l'âge déclaré des centenaires déclarés selon le sexe et l'origine



les documents d'origine. Elles présentent un caractère précis, avec une date de naissance complète et une date d'entrée en religion, le 18 octobre 1617, aussi complète. Le frère Feuville serait venu bien tardivement au Canada, soit à 49 ans, ce qui le classe au premier rang, mais de peu, à ce chapitre parmi les frères jésuites. D'autre part le lieu de naissance que les mêmes sources lui attribuent en Aquitaine nous paraît obscur, voire erroné. Un doute subsiste donc malgré tout; néanmoins, selon les règles que nous nous sommes fixées, le cas ne peut être réfuté.

Une douzaine de pseudo-centenaires auraient tout de même dépassé 95 ans avant la fin du XVIII^e siècle. La doyenne, Elisabeth de Chavigny, une Canadienne, est morte à Québec dès 1748, à l'âge de 99 ans. Le plus vieil homme né et mort dans la colonie serait Jean Baptiste Lacoste, un habitant de Boucherville décédé en 1791 à 97 ans et 4 mois. A l'opposé, quatorze des individus retenus n'avaient pas 80 ans, et cinq même pas 75 ans; le plus jeune, un immigrant, était en réalité âgé de 72 ans environ.

Tableau 5. Age moyen déclaré par les prétendus centenaires selon le groupe d'âge calculé

Age calculé	Age déclaré	(N)
- 80 ans	101,5 ans	14
80-84	102,4	21
85-89	102,7	40
90-94	102,7	38
95-100	103,2	12
	Moyenne	Total
88,2	102,5	125

En moyenne, l'ensemble de ces personnes avaient un peu plus de 88 ans au moment de leur décès, soit près de 14 ans de moins que ce que prétendent les registres (tableau 5). La corrélation entre l'âge déclaré et l'âge réel paraît très faible, avec une hausse d'à peine 1,7 ans sur l'ensemble de la distribution.

Elle disparaît même entièrement si on distingue les cas selon l'origine et le sexe (tableau 6). L'âge moyen réel des hommes est sensiblement le même que celui des femmes et il en va de même si l'on compare immigrants et Canadiens. Tout au plus peut-on déceler un âge moyen déclaré plus élevé chez les immigrants de sexe masculin, sans lien avec le niveau de l'âge réel.

Tableau 6. Age moyen calculé pour les prétendus centenaires, selon le groupe d'âge déclaré

	Age déclaré	Age calculé	(N)
IMMIGRANTS			
	100 ans	86,6 ans	29
	101-104	90,6	7
	105 +	88,5	14
Moyenne	103,2	87,7	50
dont:			
Hommes	103,7	87,5	36
Femmes	101,9	88,4	14
CANADIENS			
	100 ans	87,6 ans	48
	101-104	90,1	14
	105 +	90,3	13
Moyenne	102,1	88,5	75
dont:			
Hommes	102,2	87,0	29
Femmes	102,1	89,5	46

Le phénomène a déjà été observé: dès qu'une personne atteint un grand âge, l'exagération dépend autant de l'imagination que de l'âge réel de l'intéressé. Autrefois, la proportion des personnes qui dépassaient 80 ans était très faible, et 90 ans, infime. Par conséquent, comme l'a énoncé Paul Vincent, les anciens "ne marquaient guère de distinction entre les âges supérieurs à 100 ans et ceux de 90 ans, voire de 80 ans: pour nos ancêtres quelque peu lointains, toutes ces durées de vie étaient du même ordre de grandeur" 16.

La vérification se révèle donc probante, et sans surprise, si ce n'est le sexe du vrai centenaire, sur lequel plane, rappelons-le, un certain doute. La théorie se vérifie ici pleinement pour l'époque considérée. Les femmes accaparent tout de même la majorité des exemples les plus sûrs de longévité extrême, ceux que l'on peut confronter à un acte de naissance au Canada; ce n'est probablement pas un hasard. Elisabeth de Chavigny, née pourtant au milieu du XVIIe siècle dans la colonie naissante, s'est tout de même approchée à quelques mois près du légendaire siècle d'existence.

Conclusion

La question du très grand âge soulève universellement les mêmes idées. Il y a tout d'abord celle qu'une fois passé un certain palier, les risques de décès ont tendance à diminuer. La réalité est pourtant toute autre. Ensuite il y a l'idée que certains personnages phénoménaux échappent aux règles imposées par la nature: sans être complètement fausse, cette assertion doit être assujettie aux implacables lois des probabilités et à l'observation minutieuse des faits; tout est question de probabilités et d'effectifs, nous estimons en faire ici la preuve. Est-il enfin besoin d'ajouter que l'idée que l'on vivait plus vieux autrefois qu'aujourd'hui ne réside guère à la première analyse.

Il se dégage finalement peut-être de notre étude un indice sur les conditions de vie d'autrefois. Les prétendus centenaires n'avaient que 88 ans en moyenne, et plusieurs moins de 80 ans. Sans aucun doute y a-t-il un lien entre l'apparence de l'individu et l'exagération que comporte l'évaluation qui était faite de son âge. Plus on remonte dans le passé, plus la vie était dure, plus l'usure de l'organisme était grande, plus l'on paraissait démesurément vieilli. Ce n'est probablement pas un hasard si les prétendus centenaires abondaient dans les mêmes familles; nos recherches nous ont révélé les cas d'une mère et sa fille, d'un mari et de sa femme et de membres d'une même famille: l'héritage social apportait peut-être la longévité, mais en même temps toute sa cohorte de misères.

NOTES

- 1 Norris McWhirter, Le Livre Guinness des records 1989. Paris, 1988, p. 16.
- 2 Département de démographie, Université de Montréal. Le P.R.D.H., tirant profit de circonstances exceptionnelles, s'est donné pour tâche d'établir sous la forme d'un registre de population informatisé les biographies de tous les individus qui se sont établis sur le territoire actuel du Québec aux XVII^e et XVIII^e siècles. Le Registre de la population du Québec ancien incorpore présentement environ 450 000 faits d'état civil antérieurs à l'année 1800; l'ensemble de ceux qui se rapportent au Régime français, soit de 1608 à 1765, sont d'ores et déjà rattachés aux individus et aux unions qu'ils concernent. Pour plus de détails, voir: Jacques Légaré, "Le programme de recherche en démographie historique de l'Université de Montréal:

fondements, méthodes, moyens et résultats". Etudes canadiennes/Canadian Studies, no 10 (juin 1981), pp.149-182.

- 3 Paul Vincent, "La mortalité des vieillards", Population, 6^e année, avril-juin 1951, no 2, pp. 181-204.
- 4 Françoise Depoid, "La mortalité des grands vieillards", Population, 28^e année, juillet-octobre 1973, no 4-5, pp. 755-792.
- 5 Väinö Kannisto, "On the Survival of Centenarians and the Span of Life", Population Studies, vol. 42, novembre 1988, no 3, pp. 389-406.
- 6 Paul Vincent, loc. cit., p. 194.
- 7 Françoise Depoid, loc. cit., pp. 777-779.
- 8 Väinö Kannisto, loc. cit., p. 403. (Traduction des auteurs).
- 9 Paul Vincent, loc. cit., pp. 197 et 203.
- 10 Hubert Charbonneau et al., Naissance d'une population. Les Français établis au Canada au XVII^e siècle. Paris et Montréal, Presses Universitaires de France, Les Presses de l'Université de Montréal, 1987. viii-132 p. (I.N.E.D., Coll. "Travaux et documents", Cahier no 118).
- 11 Ansley J. Coale et Paul Demeny, Regional Model Life Tables and Stable Populations. New York, Academic Press, 2nd ed., 1983. 496 p. Les tables retenues sont celles du niveau 10 du modèle "ouest", correspondant à une espérance de vie à la naissance de 42,5 ans pour les femmes et 39,7 ans pour les hommes.
- 12 Les Amérindiens étaient essentiellement nomades. Néanmoins, une faible proportion des événements qui les concernent ont été enregistrés dans le cadre des activités des missionnaires. Chez les immigrants, seul doivent être retenus ceux qui se sont établis définitivement en Amérique, soit, vraisemblablement, moins du tiers des indi-

- vidus qui ont traversé l'Atlantique sous le Régime français. Voir à ce dernier sujet: Mario Boléda, "Trente mille Français à la conquête du St-Laurent".(A paraître).
- 13 Mario Boleada, loc. cit.
 - 14 La région de l'est regroupe ici les provinces suivantes: Alsace, Bourgogne, Champagne, Franche-Comté, Lorraine et Lyonnais; celle du centre: Auvergne, Berry, Bourbonnais, Limousin, Marche et Nivernais.
 - 15 Louis Pelletier, Le clergé en Nouvelle-France.(A paraître).
 - 16 Paul Vincent, loc. cit., p. 183.

Jacques Houdaille

AGEING IN PARIS; 1817 - 1982

To study the ageing process of the Parisian population over a long period as compared to that of France as a whole, we may use various indexes.

1) The most common one is the proportion of people over 65 of the whole population.

2) The median age is often used too, although it gives only a vague idea of the age structure. A rise of the births rate, as it happened in the late 1940's and the early 1950's, may blur the increase of the number of elderly people. Furthermore, it implies long and tedious calculation.

3) To get an idea of the ageing process in the active population, we may calculate the ratio people 40-59/people 20-39. This index is easy to calculate, because in many census results these broad age groups are indicated. From an economic or sociological viewpoint, this index is valuable. Unemployment and the progress of productivity may follow its ups and downs.

4) Another type of index has been recently used (see Population 1988, p. 773). For a given age it is the ratio of % population at this age in Paris/ % population at this age in France. It is very convenient to use it for Paris because the aging process started early in France.

Sources

We thought it would be easy to collect data to calculate these indexes but we found it difficult to find the detailed results of a few censuses especially from 1921 to 1946. Our first purpose was to use these indexes for all the sections of Paris. As you probably know Paris is divided into 20 "arrondissements" and each is divided into four "quartiers".

The limits of Paris and of those sections were settled in 1860 and they have not changed since then. In some way, this is a godsend for demographers. But the metropolitan area has spread. What used to be the Seine Departement has been divided in 1968 and it is difficult to decide what part of the new departements were really urban until recent time. To simplify, we shall limit most of our study to the City of Paris itself. We might extend it later to the suburbs.

People over 65

Until 1950 or about, the population of Paris, according to this index, was young and even very young until 1914. The period from 1851 to 1881, that is more or less the Second Empire, shows a great stability of this ratio. On the contrary, for France as a whole there is an almost continuous increase with a sharp rise in 1860's.

The results for the Seine departement are hardly different from those of Paris. They are a little higher before 1921 and lower from 1921 to 1954 as we can see in Figure 2.

Ratio 40-59/20-39

This ratio increases slowly until 1921 and faster after that census. In Figure 1 we used a 30 years time lag to represent this curve. In a closed population in which the birth and death rates would not change this curve should follow that of the people over 65. It does not in this case although it follows the same trend but the rise of the ratio 40-59/20-39 is less steep. There is a sharp increase after World War I due to the war losses which brought about a fall in the age groups 20-39. The increase occurred earlier in France as a whole. The time lag might be due to migrations but it is difficult to explain all these ups and downs as many factors are involved: fall of the birth and death rates, as well as migrations.

Comparison of age groups in Paris and France

We shall be on safer ground using that index. As it requires more detailed data and more calculation, we did not apply it to all the censuses that were taken since 1851. These indexes are given in Table 2.

We can use here the data that refer to Paris in 1817. They seem to be reliable except for age group 0-4 which may have been underestimated. Altogether these indexes show that in Paris children under 15 were few. This may be due to a low birth rate as well as to the emigration of nurslings. In order to make comparisons easier we represented only 4 years in Figure 3 (1851, 1901, 1954 and 1982). As can be seen the changes from one census to the next one are usually slight. Over a period of 50 years, there is a strong shift of the curves towards the right. In 1851 and 1901, these indexes are well above 100 from 25 to 50 years of age. This is probably due to the immigration in Paris of many young people. This index remains rather high around 25 and 30 in the more recent periods. It is only after 1954 that the indexes are higher than 100

above 50 years of age. The high proportion of elderly people in Paris as compared to France as a whole is therefore quite recent. But in all periods Paris was a city where children were few. This feature seems, however, to become less striking at the last census in 1982.

Old age in the 20 sections of Paris

It may be interesting to see if some sections have a high proportion of old people. Unfortunately, data are difficult to get as the results of the censuses have not been published for Paris in separate volumes after 1901. Table 3 gives the proportion of elderly people in each section.

In some sections old people are few. Their distribution however, is becoming more even as time goes on. We can see it without any elaborate calculation with the relative average deviation (*écart absolu moyen*). Its value declines almost constantly from one census to the next one. But in the last two censuses it rises again. In 1982 we get back to the dispersion of 1900. I did not expect that result. I was under the impression that in the old days, many old people lived with one of their children. If it had been that way, the dispersion would have been smaller in the first censuses and we found the opposite.

A few sections changed dramatically in this respect, especially the 13th (les Gobelins) where the proportion of old people was the highest in Paris but fell to the lowest a hundred years later. The explanation is simple enough. There used to be an old age hospital called La Salpêtrière which served as a refuge for old beggars. It stopped serving that purpose by the turn of the century.

We used correlations to estimate the changes that took place. The correlations are significant from one census to the next one and still significant over a period of 20 or 25 years but the correlation is no longer significant if we compare 1881 to 1982.

Ratio 40-59/20-39 in the sections

If we compare (Table 4) this ratio from one census to the next one, we find high correlations but the correlation is not significant if we compare 1881 to 1982. The dispersion of this index declines until 1901, then rises again and in 1982 it returned to the level of 1881. After 1921 there are greater fluctuations in the wealthy sections than in the poor ones.

Correlations with various characteristics

We tried to find out if these differences were related to wealth. The six sections in which this index is high are traditionally known as wealthy. But this question is highly complex. In Paris as in most big cities there are poor people in all sections. This mixture of social classes must have been more common a hundred years ago when most well to do people had servants.

There is no easy way to classify sections according to wealth. We first thought of using the income tax, but it was not instituted in France until the eve of World War I and in so far as I know no statistical data are published on this point at the local level.

That is why I resorted to the method used by Bertillon in the last century. In his study on the cholera of 1833 he classified sections according to the proportion of high class funerals. His assumption was that wealthy people are likely to have a solemn burial. The *Annales statistiques de la Ville de Paris* gave detailed data on this point.

For the end of the XIXth century we checked the validity of this method by comparing our indexes to those we got by using local taxes which are given by sections. The correlations between the two series of indexes are high as they reach 0.92 for 1886 and 0.84 for 1894. I used indexes because there were a few changes in the funeral classes around 1930. I could not

find any data after 1966 and lacked time to inquire with funeral corporations to bring this material up to date. Furthermore indexes make it easier to recognize at first sight the wealthy sections especially after World War I when inflation was high in France.

I did not get significant results when I tried to correlate the proportion of old people with the wealth indexes of each section. For only one census I reached a correlation which was high enough (0,68). For the end of the 19th century, the correlation is almost significant if I leave out the 13th section where as we saw there was an asylum for old destitute people.

A change took place after the First World War. There are more old people in the rich sections than in the poor ones. It might be that poor working people got a better chance to retire outside of Paris. At the same time our index of wealth may have become more reliable. There were probably less servants in rich sections and these people did not have much of a chance to get a high class burial.

With the ratio 40-59/20-39, correlations are most often negative. This may mean that in the poor sections the active population was relatively younger than in the rich sections. This result is not surprising at all. When people get older and make more money they move to a better section of the city. After World War I, however, this negative correlation disappears. This may be due to the lodging shortage that prevailed from 1920 to 1939, or almost.

Religious services

The data provided by funeral corporations indicate if a religious ceremony was performed. Table 6 gives the percentage for each section during 70 years. On the whole, we notice a sharp fall between 1901 and 1906 and even more 1921. It must be due to the famous laws on the separation of Church and State.

Until 1921 the correlation between the percentage of religious services and that of the old people is not significant. It becomes so from 1946 onwards. This might mean that elderly people are more likely to have a religious ceremony than younger people. On the other hand, as there is a correlation between wealth and the percentage of old people, we were likely to find one between this percentage and religious burials.

Old people in old houses

Since 1954, censuses have indicated if the house in which people lived had been built before 1871, from 1871 to 1914 or after 1914. Table 7 gives the results in percentages. As we may expect, high percentages are to be found in the central part of Paris where the number of apartment houses has been declining for over a hundred years.

In 1975 there is a good correlation between the percentage of old people and that of the houses built before 1914. This correlation is also to be observed in 1954. This does not mean that old people are strongly attached to old buildings but rather that they take advantage of the laws that enable them to stay in their apartments where they pay low rents. Very old apartment houses, that is those built before 1871, are not so much in favour among old people although there is still a significant correlation between the percentage of these very old apartment houses and that of elderly people in the 20 sections of Paris.

Other correlation

The annuaires give us so much information that one feels tempted to look for correlations between the proportion of elderly population and various characteristics in the 20 sections of Paris (see Table 8).

We did not find any with the proportion of foreigners except in 1954 for people 65 and over (see table 9).

Up to 1901 we have data on the people born in the Seine Departement. The variance of their proportions is high. It is low in the downtown sections as well as in the wealthy ones. The highest proportion of natives is to be found in the 20th section (Ménilmontant), which was also the poorest one according to the index of wealth we estimated from the data on funerals. There is no correlation with the proportion of people 65 and over. But there is often a significant one with the index of ageing in the active population. It might indicate that people who migrated to Paris were more likely than Parisian born to move out after they had worked and stayed a few years in the big city. This result is by no means surprising.

The last two censuses give data on migrants, that is to say on people who did not live in Paris at the previous censuses, (1968 for 1975 and 1975 for 1982). In contrast with what we found for the people born in the Seine Departement according to the censuses from 1881 to 1901, the variance is low. The only two sections where this percentage is high (the 13th section, i.e. Les Gobelins and the 19th, i.e. Buttes Chaumont) are rather poor sections. In 1982 there is a significant correlation with the proportion of people 65 and over and a highly significant one with the ageing index of the active population. This relation is negative. This might mean that migrations out of Paris are more frequent from 40 to 59 years of age than in the older age groups as well as before 40 years. But here again many factors are involved and it is difficult to interpret these correlations without any other clues.

Conclusion

My first intention was to compare the proportion of old people in Paris and in various big cities of the world. I found it difficult to get data on other cities than Paris or at least enough data to study long term trends.

It was a surprise for me to find that up to 1950 or about, the Parisian population was much younger than that of France as a whole. This feature is all the more remarkable as, for all censuses the proportion of children is much lower than in the whole country.

I tried to study that question at a more local level using the data I could find for the 20 sections of Paris. For the censuses prior to 1901, we might even have gone down to a more local level i.e. the 80 'quartiers' whose limits have not changed for 130 years.

Although the proportion of old people is high in a few sections that are usually considered as wealthy, there is no significant correlation between old age and wealth until World War II. This may be due to the fact that in rich sections there were many servants until 1918 or even after.

In the recent period, we found a good correlation between the proportion of old persons and that of old apartment houses. This is due to the legislation that enables tenants to remain in apartments where rents are low.

It was more surprising to find a good correlation between the proportion of elderly people and that of the Parisian born population. This might mean that by the turn of the century, that is "La Belle Epoque" many migrants spent a part of their active life in the capital and then left when they were not yet 65 years old. To be quite positive on this point, we would need to get into follow-up studies. One is now in process, on the people whose name begins by the letters TRA. This study and others are easy enough to do because the nominal lists of various censuses are available at the Archives of Paris for at least three censuses, 1926, 1931 and 1936.

Table 1 Ratios and indexes of old people

Year	PARIS				SEINE		FRANCE			
	65 and over		40-59 20-39		65 and over ‰	40-59 20-39	65 and over		40-59 20-39	
	‰	1836 =100	ratio	1836 =100			‰	1836 =100	ratio	1836 =100
1817	58	105	67	129			63	100	68	106
1836	55	100	52	100			63	100	64	100
1851	46	84	56	108	46	59	62	98	70	109
1856	45	82	54	104	43	56	63	100	72	113
1861	43	78	57	110	44	55	67	106	74	116
1866	43	78	57	110	48	58	76	121	75	117
1872	43	78	60	115	45	62	76	121	77	120
1875	42	76	61	117	44	62	78	124	76	119
1881	44	80	61	117	48	63	81	129	76	119
1885	48	87	61	117	51	63	81	129	74	116
1891	48	87	60	115	52	61	83	132	75	117
1896	50	91	60	115	54	61	84	133	73	114
1901	48	87	59	113	52	60	85	135	74	116
1906	49	89	61	117	52	62	84	133	75	117
1911	49	89	58	112	51	60	84	133	76	117
1921	55	100	56	108	56	62	91	144	86	134
1926	59	107	66	127	59	66	91	144	81	127
1931	64	116	69	133	62	67	96	152	77	120
1936	72	131	73	140	69	71	100	159	77	120
1946	83	151	98	188	80	98	111	176	86	134
1954	110	200	92	177	103	108	115	183	99	155
1962	135	245	93	179			118	187	86	134
1968	160	291	81	156			126	200	86	134
1975	150	273	72	138			134	213	80	125
1982	170	309	65	125			135	214	76	119

Table 2 Indexes of ageing of the Parisian population as compared to that of France as a whole

Age groups	1817	1851	1881	1886	1891	1896	1901	1911	1921	1936	1946	1954	1968	1975	1982
0-4	58	76	73	71	71	72	73	65	71	76	71	68	53	55	76
5-9	65	66	76	71	74	76	74	67	63	60	62	68	56	55	64
10-14	78	75	77	76	74	75	75	71	65	64	64	77	55	54	57
15-19	109	97	98	89	92	90	96	98	87	86	81	93	71	67	64
20-24	114	141	131	104	112	110	120	129	113	111	105	100	139	112	115
25-29	133	156	140	158	147	144	145	153	142	126	125	112	138	135	129
30-34	123	130	136	149	149	145	138	142	146	129	124	120	110	126	116
35-39			128	134	136	139	134	132	133	131	126	111	97	102	113
40-44	120		122	127	124	127	128	120	121	131	128	116	99	95	108
45-49			112	115	112	115	112	110	110	125	128	123	116	103	98
50-54			100	104	102	98	96	102	98	115	124	124	114	111	102
55-59			87	82	89	89	86	85	87	100	115	121	128	153	107
60-64			76	80	79	78	74	74	77	88	100	108	136	122	111
65-69			64	67	70	68	65	63	65	77	86	98	128	131	118
70-74			57	58	56	58	54	56	57	71	72	88	126	132	117
75-79			43	50	47	53	47	53	53				129	138	126
80-84								57	57				129	147	129
85-89								50	50				137	150	130
90 +								75	40				100	75	125

Table 3 Ratios 65 and over per thousand (Parisian sections)

Section	1881	1886	1891	1896	1901	1921	1946	1954	1962	1968	1975	1982
1	54	42	42	43	42	51	88	116	138	160	201	186
2	33	36	36	37	37	47	79	108	131	155	184	172
3	42	44	46	46	43	55	81	106	130	152	183	162
4	49	46	44	48	45	53	84	104	134	158	183	174
5	47	39	41	50	48	57	74	106	138	167	185	132
6	53	56	64	59	57	65	97	126	150	173	198	179
7	61	64	60	58	55	59	94	125	153	178	196	179
8	52	46	47	51	51	68	104	132	151	172	189	178
9	47	51	53	51	49	58	93	125	154	179	207	168
10	32	52	46	48	47	61	88	115	139	160	187	160
11	36	41	43	46	43	50	97	108	135	158	182	158
12	44	44	46	48	47	51	82	107	132	153	180	172
13	67	59	60	61	56	57	76	96	117	138	143	130
14	43	52	54	55	52	57	82	109	135	156	176	166
15	32	47	47	46	43	47	76	106	132	163	175	163
16	73	61	53	56	57	63	96	122	141	172	194	192
17	33	55	51	53	51	60	92	122	149	176	201	200
18	40	40	45	41	43	48	78	107	138	166	189	170
19	37	43	44	45	42	50	66	89	110	137	151	124
20	48	47	49	55	50	51	70	82	119	145	166	146

Table 4 Ratios 40-59/20-39

Section	1881	1886	1891	1896	1901	1921	1962	1975	1982
1	52	59	56	57	58	71	95	85	73
2	56	57	56	57	58	68	92	69	65
3	61	62	62	61	60	71	93	72	64
4	67	64	58	58	58	68	102	74	68
5	58	57	57	54	55	63	81	59	55
6	57	57	55	56	56	66	83	72	69
7	52	57	57	51	53	65	89	75	73
8	61	58	57	55	58	88	91	80	79
9	56	58	59	55	57	66	98	76	69
10	57	54	55	57	58	68	98	74	63
11	62	64	64	64	60	68	94	66	61
12	57	58	58	61	60	69	96	74	68
13	73	63	62	63	60	65	94	69	62
14	67	64	63	63	60	70	85	61	58
15	59	67	64	60	58	65	94	70	63
16	62	65	61	59	59	76	93	84	82
17	70	62	60	59	59	68	97	75	69
18	60	65	56	64	62	65	96	72	66
19	65	66	64	63	63	69	92	74	62
20	69	71	69	64	66	66	96	76	66

Table 5 Wealth according to funerals - indexes

Section	1881	1886	1891	1896	1901	1906	1921	1947	1954	1958	1966
1	189	171	186	183	187	190	187	145	82	94	118
2	146	150	158	147	129	136	157	94	78	73	116
3	107	110	105	96	104	118	119	81	48	59	127
4	71	85	77	72	71	63	59	81	82	90	80
5	75	73	69	76	75	72	110	102	100	108	101
6	122	130	133	120	112	109	110	111	82	73	99
7	107	122	117	187	137	149	102	140	134	111	88
8	173	191	174	159	154	154	157	174	126	125	142
9	205	207	210	195	212	231	195	128	100	101	119
10	110	106	97	76	87	72	81	85	108	111	73
11	67	65	81	72	83	68	81	68	82	59	118
12	47	45	40	36	37	32	47	94	117	115	67
13	36	33	44	48	46	41	51	98	126	122	56
14	63	53	32	52	54	54	64	85	104	115	73
15	47	45	36	44	46	45	64	94	130	118	86
16	166	171	189	195	203	213	170	174	147	132	125
17	107	118	121	131	154	154	115	119	95	108	133
18	59	53	57	44	50	45	55	17	87	77	94
19	36	45	44	40	37	32	4	43	78	94	101
20	28	28	28	28	25	23	4	68	78	115	82

Table 6 Percentage of religious burials

Section	1882	1886	1891	1896	1901	1906	1921	1946	1954	1962	1966
1	91	88	89	90	88	86	72	69	71	72	69
2	87	86	86	87	88	81	70	76	70	61	63
3	80	80	81	80	79	77	67	74	73	68	71
4	72	78	80	82	81	75	64	67	60	52	55
5	78	79	82	84	84	77	67	70	64	60	60
6	87	90	86	90	88	85	66	75	74	64	59
7	89	88	89	90	89	84	69	68	61	57	59
8	88	89	89	88	88	82	64	74	69	67	77
9	90	91	89	89	87	88	76	73	68	66	62
10	79	78	79	80	79	72	60	59	53	47	48
11	74	74	76	77	77	71	68	71	68	66	68
12	71	74	75	78	77	66	59	59	51	46	43
13	80	79	71	83	81	74	59	59	53	46	42
14	78	77	80	79	80	75	59	63	58	51	45
15	82	77	77	84	83	77	62	65	56	53	53
16	94	93	93	94	94	93	72	66	65	64	66
17	87	88	90	90	92	89	72	75	71	70	70
18	79	77	80	80	82	74	62	69	62	59	55
19	84	82	83	81	80	69	59	64	60	56	57
20	60	58	63	67	65	58	57	61	51	46	47

Table 7 Parisian houses according to years in which they were built (%)

Section	Census of 1954		Census of 1975	
	before 1871	before 1914	before 1871	before 1914
1	79	89	68	92
2	76	92	57	87
3	75	85	74	89
4	70	84	66	89
5	53	85	34	81
6	59	84	48	85
7	41	79	25	72
8	45	87	23	81
9	54	84	36	91
10	58	88	36	83
11	41	82	23	71
12	29	75	11	51
13	24	66	5	33
14	22	75	11	55
15	21	71	5	40
16	13	67	3	42
17	27	79	11	64
18	31	81	12	65
19	26	70	7	39
20	25	65	9	38
Correlation with 65 +	0.28	0.58	0.42	0.71

Table 8 Proportion of foreigners (p. 1000)

Sections	1881	1891	1901	1954	1975	1982
1	101	89	95	85	113	167
2	85	80	86	80	232	242
3	75	52	70	59	203	221
4	55	62	88	63	141	138
5	59	56	63	62	126	139
6	51	50	71	57	122	129
7	47	53	63	51	129	144
8	148	129	134	71	171	197
9	106	105	131	66	145	171
10	71	59	85	52	163	224
11	90	60	82	49	183	208
12	61	48	65	35	103	122
13	59	36	39	25	101	148
14	43	42	50	42	117	146
15	36	37	45	38	97	117
16	117	111	128	82	149	173
17	84	75	85	49	124	148
18	64	40	73	33	146	201
19	103	63	77	41	145	192
20	52	44	55	43	149	188
Correlation with 65 +	00.14	0.15	0.003	0.508	0.101	0.118
Correlation with $\frac{40-59}{20-39}$	-0.15	-0.32	-0.30		0.001	0.00

Table 9 Percentage of Parisians born in Seine - migrants

Section	1881	1891	1896	1901	1975	1982
1	29	31	33	31	35	34
2	27	32	32	31	37	35
3	37	41	40	39	35	38
4	32	34	35	33	33	36
5	29	32	34	33	38	40
6	25	32	31	30	37	37
7	22	31	28	27	38	37
8	24	25	25	25	38	36
9	29	31	31	28	35	36
10	31	36	34	34	36	39
11	59	42	42	41	39	38
12	32	36	36	36	37	38
13	33	42	43	42	43	42
14	36	40	42	40	38	37
15	35	39	39	36	39	38
16	28	32	30	28	35	34
17	32	33	32	31	35	35
18	35	36	38	37	35	34
19	36	41	43	42	41	43
20	47	51	52	50	32	36
Average	33	36	36	35	37	37
Correlation with 65+		0.003		-0.14	0.37	0.53
Correlation with 40-59 / 20-39	0.48	0.83	0.43	0.86	0.41	-0.85

FIGURE 1 Proportion of people over 65 (Paris, France, Seine departement)

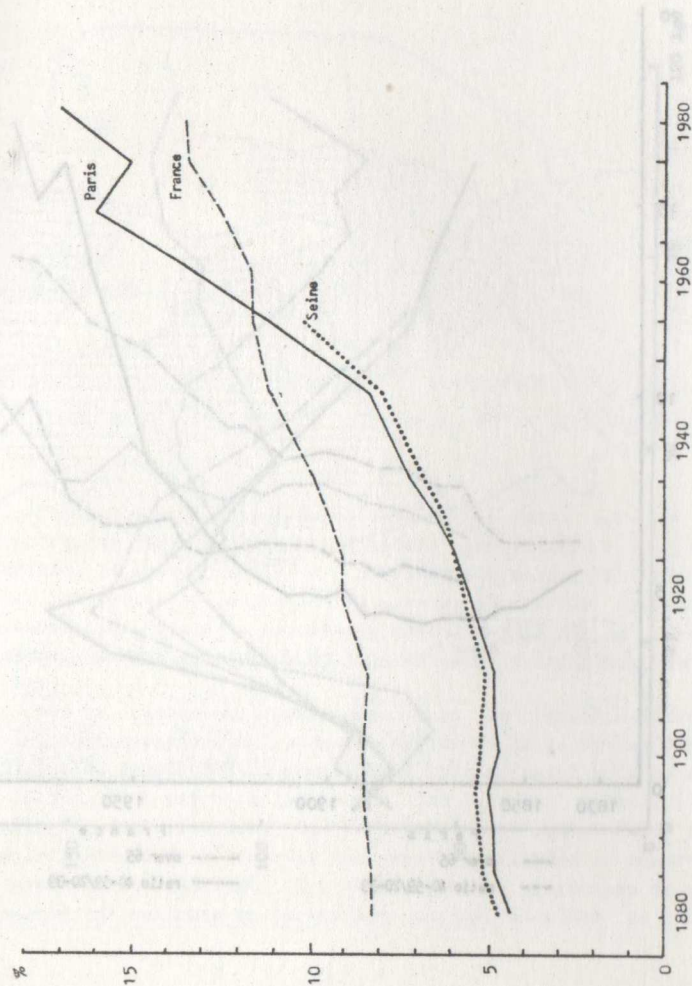


FIGURE 2 Proportion of persons over 65 and ratio ratio 40-59/20-39

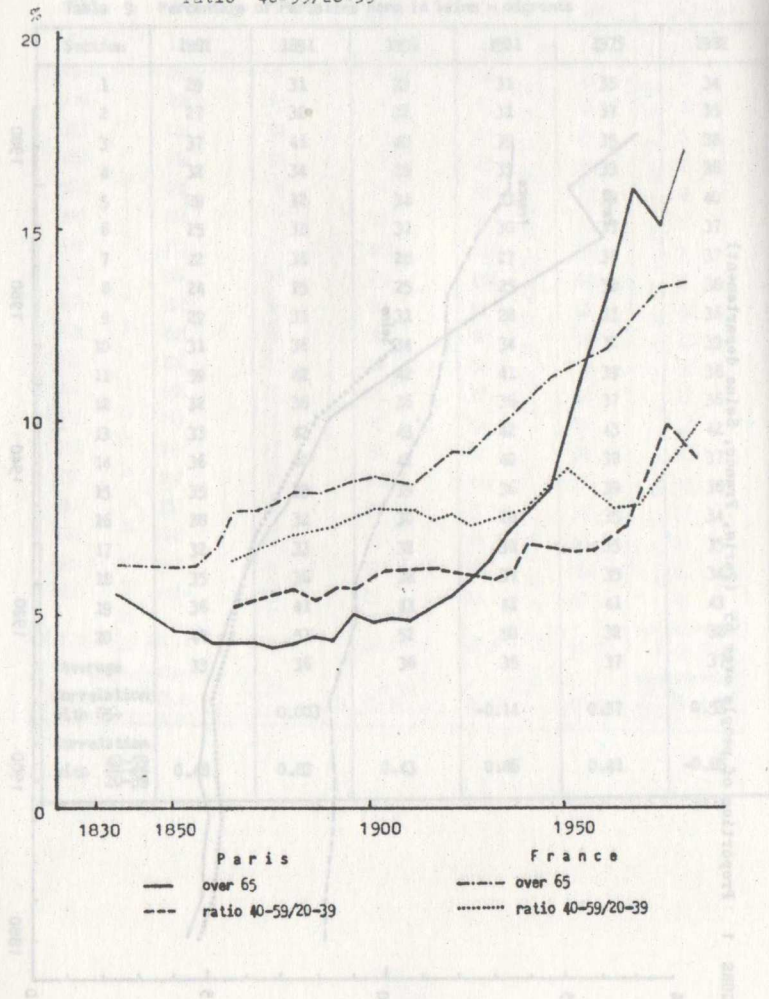


FIGURE 3 Index of Paris/France in each age group

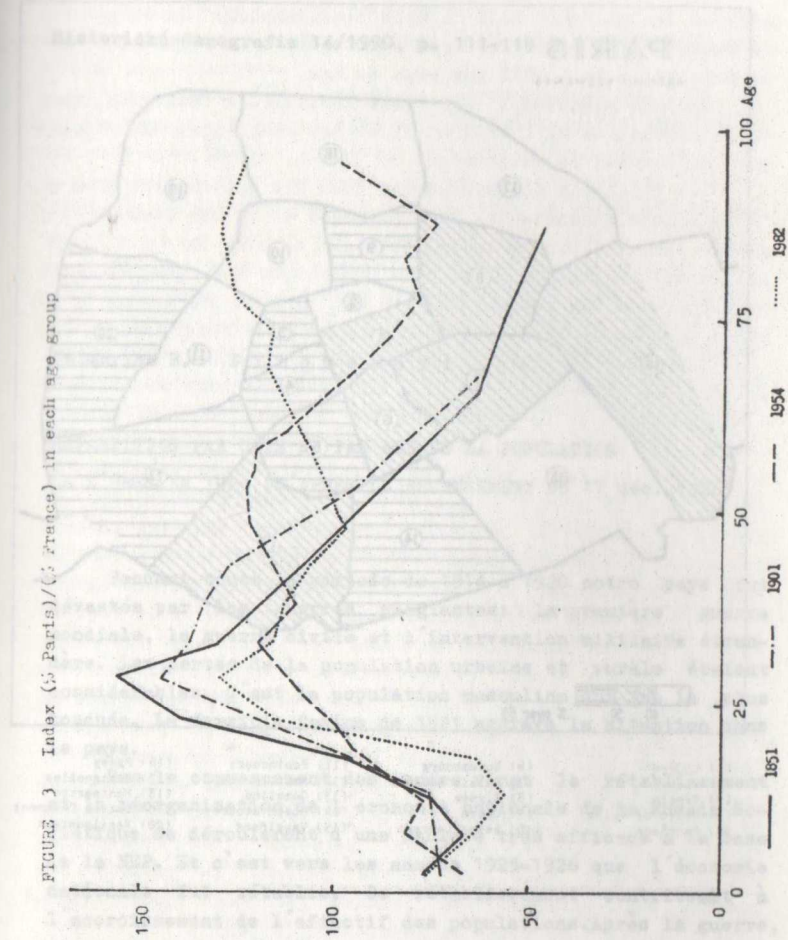
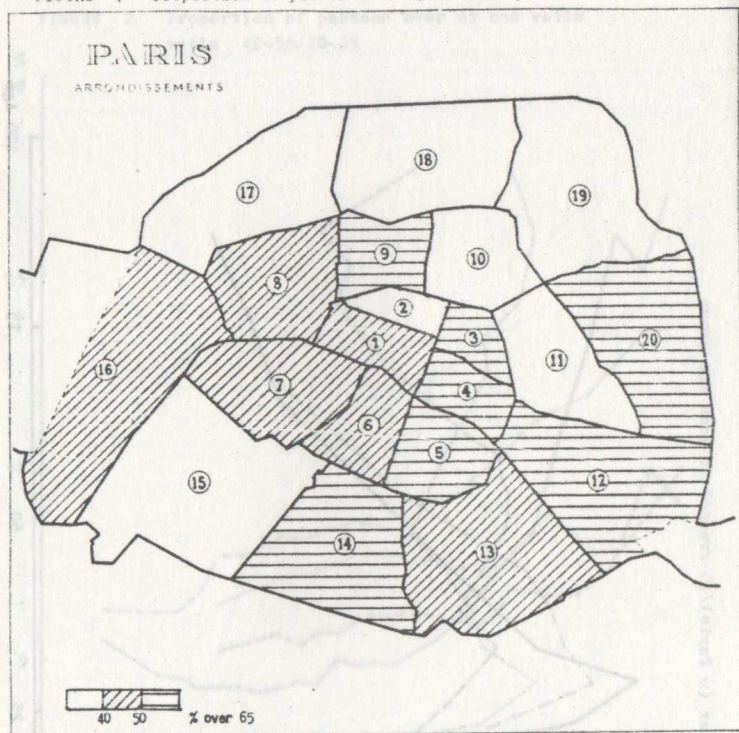


FIGURE 4 Proportion of person over 65 in Paris, 1881



- | | | | |
|--------------------|--------------------|-------------------|----------------------|
| (1) Louvre | (6) Luxembourg | (11) Popincourt | (16) Passy |
| (2) Bourse | (7) Palais Bourbon | (12) Reuilly | (17) Batignolles |
| (3) Temple | (8) Elysée | (13) Gobelins | (18) Montmartre |
| (4) Hôtel de Ville | (9) Opéra | (14) Observatoire | (19) Buttes Chaumont |
| (5) Panthéon | (10) Saint Laurent | (15) Vaugirard | (20) Neuilmontant |

Historická demografie 14/1990, p. 111-119

Valentina B. Z i r o m s k a y a

REPARTITION PAR SEXES ET PAR AGE DE LA POPULATION

DE L'URSS EN 1926 (D'APRES LE RECENSEMENT DU 17 déc. 1926)

Pendant toute la période de 1914 à 1920 notre pays fut dévastée par les guerres sanglantes: la première guerre mondiale, la guerre civile et l'intervention militaire étrangère. Les pertes de la population urbaine et rurale étaient considérables. C'est la population masculine qui fut la plus touchée. La terrible famine de 1921 aggrava la situation dans le pays.

Dès le commencement des années vingt le rétablissement et la réorganisation de l'économie nationale de la Russie Soviétique se déroulèrent d'une manière très efficace à la base de la NEP. Et c'est vers les années 1925-1926 que l'économie nationale fut rétablie. Ce rétablissement contribuait à l'accroissement de l'effectif des populations. Après la guerre, et surtout en 1925-1928, il y avait lieu une croissance de la natalité qui compensa en partie les pertes humaines de la

période des guerres. Mais "l'écho démographique" de la guerre continuait à se ressentir assez nettement à la répartition de la population de l'URSS par sexe et âge.

Parlons maintenant des caractéristiques démographiques de la population de l'URSS en 1926. Nos recherches se basent sur les données du recensement du 17 déc. 1926¹.

Les résultats du recensement sont les suivants: l'URSS a 147 millions d'habitants; 71 mln hommes et 76 mln femmes. La guerre déséquilibra la répartition par sexe de la population: les femmes étaient de 5 mln plus nombreuses que les hommes. La proportion des femmes était de 51,7%. Dans les divers groupes d'âges ce déséquilibre était encore plus sensible.

Examinons la répartition de la population de l'URSS par âge. La croissance de la natalité eut pour conséquence l'augmentation de la proportion des enfants et des adolescents. Le pourcentage du groupe d'âges 0-4 était égale à 15,2%. A cause de la baisse de la natalité dans les années des guerres le groupe d'âges 5-10 ne dépassait que 10,4%. Le groupe d'âges 10-14, la plupart duquel consistait des enfants nés avant la première guerre mondiale, était mieux présenté dans la population (11,6%). Mais ce groupe avait aussi souffert du temps de la guerre de la croissance de la mortalité, y compris infantile. En somme les enfants et les adolescents de 0 à 14 ans représentaient 37,3% (un tiers) de toute la population de l'URSS. Cela est typique pour la société où la "transition démographique" ne fut pas encore terminée et qui, en plus, vient de survivre à la guerre.

A cette époque la part des jeunes fut aussi considérable. Le groupe d'âges 15-19 représentait 11,6% de la population, 20-24 - 9,4%, 25-29 - 8,2%. Les personnes de 25-29 ans avaient surtout subi des pertes pendant la période des guerres. Mais en somme les jeunes personnes constituaient plus d'un quart de toute la population (29,2%).

Les personnes d'âges mûrs ont beaucoup souffert pendant ces guerres: le groupe d'âges 30-34 représentait 6,2% de la

population; 35-39 - 5,7%; 40-44 - 4,7%; 45-49 - 4,0% - c'est-à-dire la part des groupes d'âges 30-49 ne dépassaient pas 20% de la population.

Les groupes d'âges 50-59 ne représentaient que 6,3% de la population, 60 ans et plus - 6,6%. Cette petite proportion des personnes âgées c'était une proportion type pour le régime démographique traditionnel qui est caractérisé par le haut niveau de la mortalité et de la natalité. En outre les pertes humaines de la période des guerres et de la famine de 1921, la croissance dans les années 1914-1921 de la mortalité diminuèrent la proportion d'âges mûrs et la part des personnes âgées. Malgré les grandes pertes dans plusieurs groupes des jeunes âges, surtout 25-29, malgré la baisse de la natalité et de la nuptialité propre aux années des guerres et de la famine les jeunes, les adolescents et les enfants dépassaient en nombre les personnes d'âge mûr et les personnes âgées (97,5 mln, 66,5% de toute la population).

En résumant on peut dire qu'en 1926 la population de l'URSS était jeune. Cela est dû à la croissance de la natalité dans la période après-la-guerre, à la politique de l'Etat Soviétique, orientée vers la sauvegarde de la Santé publique, vers la protection de la santé des enfants, vers la protection des mères et des nouveaux-nés, vers l'aide aux enfants des familles pauvres et aux enfants-orphelins. Le service médical le gratuit a joué aussi son rôle positif.

Le nombre et le pourcentage des vieux n'étaient pas grands, mais il faut souligner que dans notre pays existaient des personnes très vieilles: de 95-99 ans et même de 100 ans et plus. Le recensement de 1926 a compté en URSS 36,1 milles personnes de 95-99 ans et 29,6 milles de 100 ans et plus.

Pour la répartition par sexe, dans tous les groupes d'âges de 15 ans et plus il y avait plus des femmes que des hommes. Les femmes représentaient de 51,1 à 59,8% dans les différents groupes d'âges. Surtout ce déséquilibre était grand dans le groupe d'âges 25-29 (dans lequel les conséquences de

la guerre étaient les plus sensibles). Dans les groupes d'âges élevés les femmes dominaient à cause de l'espérance de la vie plus grande que celle des hommes.

La répartition par sexe et par âge de la population urbaine et rurale était assez différente.

Dans les villes le niveau de natalité était plus bas et en conséquence le pourcentage des groupes d'âges 0-14 était plus petit que dans les localités rurales. Les enfants et les adolescents de 0-15 ans représentaient 31,6% de la population urbaine et 40,9% de la population rurale. Au contraire le pourcentage de la jeunesse (16-29) dans la population rurales (25,5%) était plus petit que celui de la population urbaine (31,7%). A cette époque du commencement de l'industrialisation de l'URSS la migration active des localités rurales vers les villes (de l'agriculture à l'industrie) commença à se développer. Parmi les migrants la jeunesse étant un élément très mobile, se trouvait en majorité. Les jeunes paysans n'ayant pas encore leurs propres exploitations et qui n'étant pas encore devenus chefs des familles abandonnaient plus facilement leurs villages nataux et se dirigeaient vers des villes. Mais ce ne sont pas uniquement des jeunes qui se déplaçaient dans les villes, mais aussi des personnes d'âges mûrs (30-49). Pendant les années de la guerre et le désarroi de l'après-guerre ces derniers avaient quitté les villes, car dans les villages il leur était plus facile de trouver du travail et de la nourriture. Il se fit un abandon de villes. Au cours du rétablissement de l'économie nationale y compris l'économie urbaine, beaucoup de ces gens étaient revenus dans les villes, mais pas tous. Au cours de l'industrialisation ce processus du retour d'ex-citadins continua (s'est recommencé, en parlant plus exactement). En conséquence la part des personnes d'âges 30-49 était plus grande dans les villes que dans les villages (31,0 et 26,0%). La part du groupe d'âges 50-59 était presque pareille en villes et aux villages. En même temps la proportion des personnes âgées de 60 ans et plus

était dans la population rurale plus considérable que dans la population urbaine (en correspondance 6,9% et 5,6%). Et c'était naturel pour les vieilles gens qui préféraient ne pas abandonner leurs villages nataux. Même les citadins qui, dans leur jeunesse, s'étaient déplacés dans les villes revenaient au déclin des jours dans leurs pays nataux.

La proportion des femmes dans la population rurale était un peu plus grande que dans la population urbaine (51,8% contre 50,9%).

Le recensement de 1926 caractérise la population active de l'URSS selon les professions et la position sociale. Dans le recensement on avait désigné les groupes suivants: ouvriers; employés; professions libres; propriétaires ayant des ouvriers salariés; propriétaires sans ouvriers salariés (les derniers se divisaient en deux groupes: ceux, qui travaillaient avec les membres de leurs familles et ceux qui travaillaient seuls), membres des familles aidant les propriétaires; personnes existant à la charge et au frais des institutions de l'Etat; chômeurs etc. La répartition par sexe et par âge de chacun de ces groupes avait ses particularités.

La répartition par âge des ouvriers a été déjà rétablie vers 1926. Les personnes d'âge mûr et de jeune âge, retournées du front, remplaçaient les femmes, les vieillards et les enfants qui avaient travaillé pendant la guerre aux usines et aux fabriques. Les enfants et les adolescents de 10 à 14 ans ne représentaient que 2,9% des ouvriers de sexe masculin et 3,6% des ouvriers de sexe féminin (le pourcentage de ce groupe d'âge parmi les femmes était un peu plus grand). La proportion des ouvriers âgés de 60 ans et plus était aussi petite - 2,7% des hommes - ouvriers et 2,8% des femmes - ouvrières. En compensation, en 1926 il y avait beaucoup de jeunes. Ce sont eux qui entraient activement dans la classe ouvrière. Ainsi, le groupe d'âge 16-20 représentait presque la moitié de cette classe: 47,8% des hommes et 52,5% des femmes (comme nous voyons, des jeunes personnes parmi les femmes-

ouvrières étaient encore plus nombreuses). Mais la classe ouvrière consistait non seulement de la jeunesse. Dans son corps une grande place appartenait aux personnes d'âges mûrs, qui composaient le personnel ouvrier le plus qualifié. Par exemple, le groupe d'âges 30-49 représentait 42,0% des ouvriers (42,8% des hommes et un peu moins des femmes - 38,6%). Chez les ouvriers des localités rurales la part des jeunes et des personnes d'âges mûrs était moins considérable, que chez les ouvriers des lieux urbains. Au contraire parmi les ouvriers des localités rurales il y avait plus d'ouvriers - adolescents et de vieux.

Dans la classe ouvrière les hommes étaient en majorité indiscutable-ils représentaient 3/4 de tous les ouvriers. Parmi les femmes les jeunes et les personnes âgées de 55 ans et plus étaient plus nombreuses que parmi les hommes. Les femmes préféraient de travailler avant le mariage et la naissance des enfants. Dès 25 ans leur pourcentage diminuait successivement, mais après 50-55 ans elles revenaient vers l'activité de travail, car leurs enfants étaient déjà élevés et, en outre, le nombre des veuves augmentait. Ce trait spécifique de l'activité de travail des femmes apparaissait plus nettement dans les villes.

La répartition par âge des employés ressemblait assez fortement à celle des ouvriers. Mais ici les groupes d'âges mûrs (30-49) étaient mieux présentés que chez les ouvriers. Le pourcentage des jeunes était au contraire plus petit. Cela était naturel, car il fallait assez beaucoup de temps pour obtenir l'instruction professionnelle nécessaire aux employés. Parmi les employés il y avait plus de femmes, que parmi les ouvriers, mais les hommes néanmoins étaient en majorité.

Parmi les professions libres (avocats, médecins, professeurs etc.) il y avait beaucoup de personnes âgées. Les groupes d'âges 50 ans et plus représentaient 33,6%. La proportion des femmes parmi les professions libres (et c'était le trait particuliers de ce groupe) était très petite, surtout en localités rurales, où elle ne dépassait que 5,7%.

Parmi les propriétaires ayant des ouvriers salariés il y avait beaucoup de personnes d'âges mûrs et de vieux. Le groupe d'âges 30-49 représentait plus de la moitié des propriétaires ayant des ouvriers salariés, 50-59 - 14,2%, 60 ans et plus - 15,1%. Parmi les groupes de jeune âge le plus représentatif était celle de 25-29 ans - 12,1% des propriétaires, ayant des ouvriers salariés. Les personnes plus jeunes parmi les propriétaires étaient très rares. A cela contribuait une façon de vie patriarcal assez répandue encore dans les années vingt, surtout en localités rurales. C'est pourquoi les propriétaires ayant des ouvriers salariés y était encore plus âgés que dans les villes. Par exemple, la proportion des personnes de 60 ans et plus était égale en localités rurales à 16,0% de tous les propriétaires ayant des ouvriers salariés (dans les villes 9,4%). Mais il y avait d'autres causes pour une telle répartition par âge dans ce groupe. Les fils de ces propriétaires au lieu de succéder à l'entreprise et à la situation sociale de leurs parents préféraient de devenir employés dans les établissements d'Etat Soviétique, intellectuels et même ouvriers. Le nombre des femmes parmi les propriétaires ayant des ouvriers salariés était petit. En majorité c'étaient des femmes âgées, veuves, qui surtout dans les villages pour mener leurs économies paysans étaient forcés d'embaucher les ouvriers.

La répartition par âge des propriétaires travaillant avec les membres de leurs familles ressemblait à celle des propriétaires ayant des ouvriers salariés. Mais dans ce groupe les personnes âgées étaient encore plus nombreuses. Les femmes - propriétaires et chefs de familles étaient rares et d'habitude plus âgées que les hommes. Par exemple, le groupe d'âges 50-59 représentait 16,6% des hommes et 24,5% des femmes.

Mais il y avait un groupe des propriétaires, dont les représentants étaient moins âgés. C'étaient les propriétaires travaillant seuls. Les personnes de 60 ans et plus ne représentaient que 8,0%. Il y avait plus des personnes de jeune

âge (16-29) - presque 30%. La proportion des femmes parmi ce groupe de propriétaires montait jusqu'à 24,7%. Le caractère d'occupations des propriétaires travaillant seul était plus près des professions ouvrières.

Les membres des familles aidant les propriétaires comprenaient les femmes, les enfants, les adolescents et les jeunes. C'était l'unique groupe de la population active, où les femmes étaient en majorité - 66,4%. La part des enfants et des adolescents 10-15 ans montait jusqu'à 17,2% dans les villes et 24,5% en localités rurales.

Parmi les chômeurs le recensement de 1926 a fixé beaucoup de jeunes personnes de 16 à 29 ans - 56,0%. Les personnes d'âge mûr étaient aussi nombreuses - 34,0 %. La part des femmes parmi les chômeurs était de 41,9% dans les villes et 33,7% en localités rurales.

La population déclassée comprenait les enfants et les vieillards. La moitié de la population déclassée était les femmes (56,6%). L'occupation principale de la population déclassée était la mendicité. Mais parmi la population déclassée on voit les personnes d'âge mûr et de jeune âge. En somme les groupes d'âges 16-49 représentaient 5%. C'étaient des estropiés, qui mendiaient, des déçus et des prostituées. Mais à cette époque la prostitution n'était pas largement répandue. Les données du recensement prouvent cela: parmi la population féminine la groupe d'âges 16-19 ne dépassait 2,8%, et 20 à 24 - 3,2 %.

D'après le recensement un assez nombreux groupe de la population se distinguaient - personnes existant à la charge et au frais des institutions de l'Etat. C'étaient en general les enfants et les jeunes (étudiants qui recevaient la bourse d'Etat, enfants sans famille élevés par l'Etat). La part des enfants et des jeunes était égale à 53,7%. Et l'autre grande partie de ce groupe comprenait les vieux (invalides, retraités etc.). Les gens de 60 ans et plus représentaient

16,6% de tous les personnes existant à la charge et au frais des institutions de l'Etat.

Ainsi les données du recensement de 1926 sur la répartition par sexe et par âge de la population de l'URSS nous montre la population qui avait souffert cruellement des pertes de la période des guerres et de la famine de 1921, mais elle se rétablissait avec succès. Les données du recensement prouvent avec évidence que les jeunes et les personnes d'âge mûr (les plus capables au travail) complétaient par excellence les ouvriers et les employés. Dans tous les groupes sociales de la population active étaient présentées les femmes, par essentiel de jeune âge.

N O T E

- 1 Vsesojuznaja perepis' naselenija 1926 goda, Moscou, 1929, vol. 17, p. 46-49; Moscou, 1930, vol. 34, p. 8-89.

This paper is the result of work undertaken while the author was a Visiting Research Fellow at the Netherlands Interdisciplinary Demographic Institute, Box 280, I. Should like to acknowledge the helpful comments of my colleagues Frans van Poppel at the NIDI, and the financial support provided by the Fulfield Foundation, London, England, and the Finagard Institute, Rotterdam.

Christopher Gordon

POPULATION REGISTERS, THE CO-RESIDENTIAL BEHAVIOUR OF THE ELDERLY, AND THE ROLE OF KIN IN THE PAST AND THE PRESENT¹

A population register is a list of inhabitants whose place of residence is continuously recorded; in addition vital events - births, changes in marital status, migration, and death - are recorded. We have therefore a sequence of genealogical links and the sequence of co-residential experience. Many European countries have such registers, often dating back to the early nineteenth century. This paper attempts to highlight their value in historical studies, and to show how they may be applied to a particular study of the living arrangements of

¹ This paper is the result of work undertaken while the author was a Visiting Research Fellow at the Netherlands Interdisciplinair Demografisch Instituut, Den Haag. I should like to acknowledge the helpful comments of my colleague Frans van Poppel at the NIDI, and the financial support provided by the Nuffield Foundation, London, England, and the Tinbergen Instituut, Rotterdam.

the elderly in the past. This should help us to assess, for example, the importance of kin in the household of elderly relatives. The assumption inherent in our approach is that co-residence embodies notions of duty, responsibility, care and assistance, and that the genealogical proximity of co-residents to an elderly person was related to the extent to which they offered this care and assistance. Therefore, it is suggested, such analyses may perhaps tell us a great deal about the extent of kin support. Such a study would also provide, for the first time, data on the actual experience of the changes in the co-residential behaviour of the elderly across their later life.

The importance of the existence of a source of "real" life-cycle data is considerable for historians. So much of the data we use relate to cross sections. So many, for instance, of the family history studies pioneered by the Cambridge Group rely on cross-sectional data¹. If what we want to study is the dynamics of family and individual change then the use of such data presents grave problems. Registers, on the other hand, can be used to study demographic changes over a long period of time, and a continuous series of population registers undoubtedly provides historians with a source of social and demographic data that offers more analytical possibilities than the conventionally used sources - census returns, and vital registration. For instance, there are aspects of household dynamics which we can observe here, which cannot be approached in any other way, and one has data on the length of time spent in particular demographic conditions (widowhood, household types and sizes, etc.). The use of registers for a whole community further allows one to calculate fairly accurately the population at risk, and thus to calculate rates of fertility etc. It becomes possible also to study migration since often these registers can be linked from one area to another. And the inclusion of time-specific socio-economic data relating to individuals allows one to begin to

consider the correlates of change in life cycle characteristics. Their importance as a source for historians therefore should not be understated.

Not surprisingly therefore, a number of studies have employed these registers, to show, for instance, the relationship between social mobility and education, the effect of industrialization and demographic change on family structures². But not as often as the significance of the source would warrant, and not to study elderly people in particular.

The importance of this sort of study, which can only briefly be elaborated on here, is, of course, of more than purely academic interest, more than a contribution to the past "wie es eigentlich gewesen". It is almost certain that the proportion of elderly people will continue to increase in the next five decades throughout the developed world, and that among the elderly themselves there will be an increasing proportion who are very elderly³. This may raise serious problems for any support system. Already we have seen a reversal of the 1960s trend towards institutionalization of the dependent elderly in the Netherlands towards one which stresses the importance of a community locus for care. In England the same has occurred, as well as an erosion of future state-pension rights, and an increasing emphasis on private provision - savings and occupational pensions. In both countries there has been growing reference, largely unsubstantiated, to the role of kin in the past as a principal pillar of support, and the failure of kin in the present to play the same role. There is an obvious danger that what has a political attractiveness may actually be a convenient myth to justify the assertion that kin once again ought to assume that role. Historians therefore have a duty to discuss the relationship between the elderly and their kin in past times if we are to appreciate more fully that relationship today, and its potential for the future.

A valuable start in this would be to use the available population-registers. The longitudinal data from the registers would, in ideal conditions, allow us to reconstitute households in past times, and to investigate the relationship between age and household composition, observe the actual experience of the ageing process on co-residential behaviour, and the transition to later life-cycle stages. The hypothesis that women are more likely to remain in the household of elderly kin, and that unmarried and younger daughters are more than proportionately represented could be tested. By incorporating data on occupation, religion, tenure, we could investigate the socio-economic correlates of co-residential behaviour too. The effect of migration on co-residential behaviour can clearly be seen. For example it will tell us how the co-residence has come about - whether as a result of kin moving into or remaining within the household of their elderly relatives, or whether the experience is really one of the elderly moving into the household of their kin. This will give some indication of the direction of the flow of support.

This in practice turns out to be an ambitious undertaking, and the study that actually followed had to be a much more limited one than the potential offered by the registers, and we ultimately focused on only 30 elderly people. The population registers, depending on their exact format, while rich in the data they contain can be extremely time consuming to use in household reconstitutions.

The registers we selected were those for Den Haag, one of the largest cities in the Netherlands, for the period 1925-1939⁺. We selected a random sample of 30 elderly people, all aged 72 in 1925, and looked at how their households changed

+ The registers give the following information: 1) Surname, 2) First names, 3) Gender, 4) Relationship to the head of the family, 5) Date of Birth, 6) Place of Birth, 7) Marital Status, 8) Date of any change in marital status, 9) Reli-

over the following years. This sample is clearly too small to allow generalizations, but it is certainly enough to illustrate the use of the registers and the sort of conclusions one may obtain.

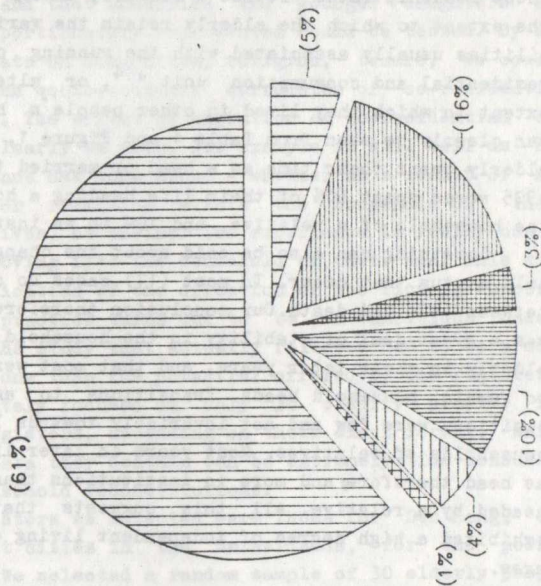
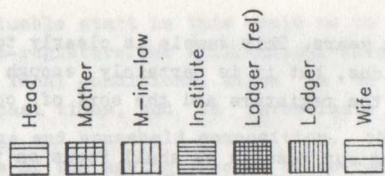
In representing our results we shall focus on the following characteristics: headship rates, marital status, relationship to the household head, household size, and household type. These headship rates provide a measure, though crude, "of the extent to which the elderly retain the various responsibilities usually associated with the running of a distinct residential and consumption unit"⁴, or alternatively, the extent to which they lived in other people's households. As can clearly be seen from Table 1 and Figure 1, most of the elderly spent their time as a head or married to a head: after 1925 women spent 60% of their life heading a household, 9% in the household of a relative, and 10% in an institution.

Something can also be said about the changes in household status that occur. In most (17) cases no change occurred between 1925 and death. Our conclusion therefore is that there was a great deal of stability in the household status of the elderly in their later years, and that most were, and tended to remain, household heads. Transitions to and from other positions were few and not invariably towards living in the households of relatives. Most years in later life were spent as head therefore; and more in institutions than in households headed by a relative. All this suggests that the elderly exhibited a high degree of independent living even at extreme ages.

gion, 10) Remarks - such as whether in receipt of a pension, 11) Occupation, 12) Date of any change in occupation, 13) Date of moving to the address in 14), 14) Address, 15) Date when registered on the register, 16) Place of previous residence if not Den Haag, 17) Date when leaving the register, 18) Destination, 19) Date of death, and 20) Nationality.

Figure 1 Relation to Household Head

Proportion of time spent as:



Females

Table 1 Duration in states in households, 1925 onwards

Group	(N)	Aver.	Time spent in following states						
			H	W	M	LR	ML	L	I
All	26	8.03	5.21	0.35	0.09	0.20	0.31	1.14	0.73
Males	5	4.79	4.79	-	--	-	-	-	-
Fem.	21	8.80	5.31	0.43	0.12	0.25	0.38	1.41	0.91

- Aver. - Average number of years lived per person
- H - Head of household
- W - Wife of household head
- M - Mother of household head
- LR - Lodger, probably related to head
- ML - Mother-in-law of household head
- L - Lodger not related to household head (on basis of names at least)
- I - In a institution

It will come as no surprise to find that by 1925 most of the elderly in our sample were widowed - almost two-thirds - and that that proportion grew with age, while the proportion with a surviving spouse declined. But there are important gender differences: most women were widowed by 1925; most men still had a surviving spouse.

A summary of the longitudinal data concerning marital status is presented in Table 2 and in Figures 2 and 3. They show that men born in 1853 could expect to live only 4.8 more years beyond the end of 1924 but 75% of that time was spent with a spouse. The women lived significantly longer: 8.8 years, but only 7.5% of their time would be spent with a spouse. Very few could look forward to anything other than widowhood at any stage in later life.

The tables that follow deal directly with the question of "How many people lived in the households of the elderly?" and the relationship between the elderly and those people.

Table 2. Duration in marital status, 1925 onwards

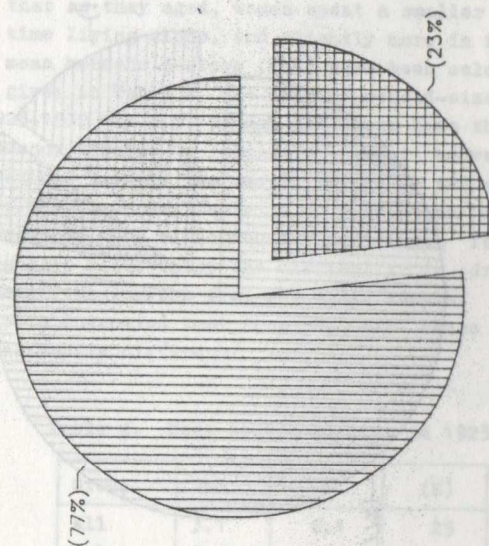
Group	(N)	Ave. no. of years lived per person	Time spent in following status		
			married	widowed	never married
All	26	8.03	1.24	5.70	1.09
Males	5	4.79	3.69	1.11	-
Fem.	21	8.80	0.66	6.79	1.35

There is clearly an important qualitative difference between living with kin (especially close kin) and living with non relatives. In the former case one may expect a degree of help (probably reciprocated) to follow from the fact of being related. In the latter case such assistance is less likely. There is considerable evidence that community support could be significant in many communities, but it tended to be less reliable, more conditional, and more limited than kin-based support. Similarly, there is, we suggest, a significant difference between resident kin and non-resident kin. The lessened geographical proximity of the latter, the presence of competing calls on their resources, coupled with perhaps less motivation, and possibly a more diminished sense of responsibility, which follows from these, make their help less immediate, less intense, and subject to greater qualification. Co-residential behaviour is therefore an important indicator of the potential for close familial support.

Table 3 and Figures 4 and 5 show that household sizes tended to be small rather than large. Men spent 80% of their time in households of size 3 (and most of that time living with a spouse). Women spent 12% of their remaining years after 1924 as solitaries, a similar proportion in institutions, and around a half living in households of sizes 2-4. Large household-sizes (of 7 or more) were experienced for only 12% of

Figure 2 Duration in Marital States

Proportion of time spent as:



Males

Figure 3 Duration in Marital States

Proportion of time spent as:

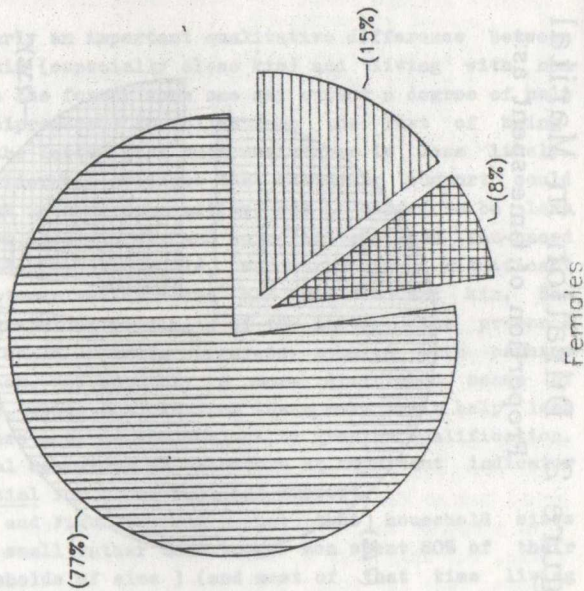
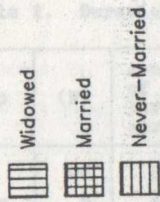


Table 3. Duration in household sizes, 1925 onward

Group	(N)	Ave ¹	Time spent in following household sizes								
			1	2	3	4	5	6	7	8	in. ²
All	26	8.03	0.85	1.76	1.58	0.83	0.83	0.41	0.49	0.55	0.73
Males	5	4.79	-	0.30	3.88	0.58	0.04	-	-	-	-
Fem.	21	8.80	1.05	2.11	1.04	0.89	1.02	0.51	0.60	0.68	0.91

- 1) Average number of years lived per person
- 2) Institutions

their later years. Though the data are not presented here it was true that as they aged, women spent a smaller proportion of their time living alone, and slightly more in institutions.

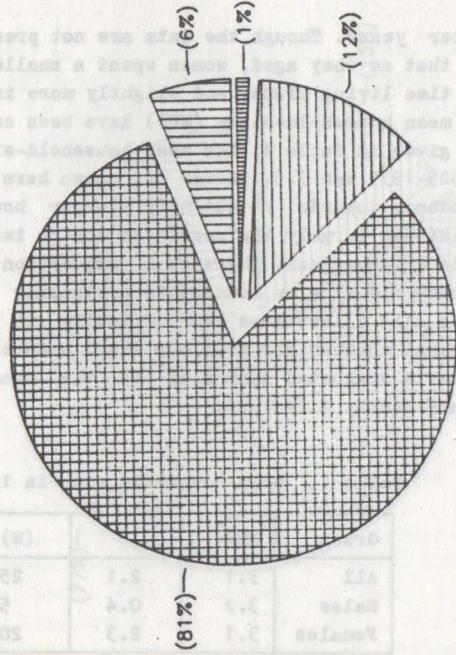
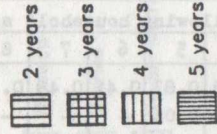
The mean household-sizes (MHS) have been calculated, and they are given in Table 4. The mean household-size over the period 1925-1939 was 3.5. Though not shown here there was a faint tendency towards a slightly larger household-size, though that was largely the result of one or two very large households which appear. There is a suggestion here of a larger household size in households containing females. But this table also illustrates the difficulty in drawing sensible general conclusions from our small sample. Kolmogorov-Smirnov tests suggested that none of the means calculated were significantly different.

Table 4. Mean household size in 1925

Group	MHS	o	(N)
All	3.1	2.1	25
Males	3.2	0.4	5
Females	3.1	2.3	20

Figure 4 Duration in Household Sizes

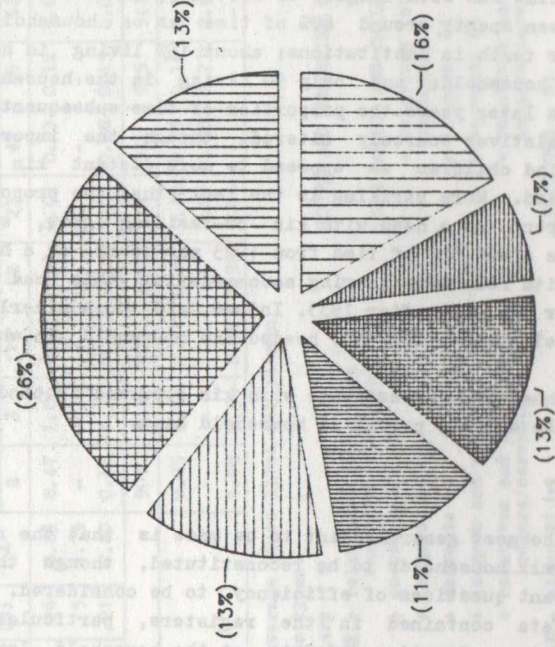
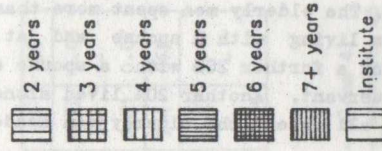
Proportion of time spent as:



Males

Figure 5 Duration in Household Sizes

Proportion of time spent as:



Females

Table 5 and Figures 6 and 7 give the total time spent in various household types. The elderly men spent more than half of their remaining years living with a spouse and at least one unmarried child; and a further 20% with a spouse alone, or more usually with a servant. Another 20% lived alone with servants or lodgers. In all cases, the elderly man headed the household.

Women spent 43% of their remaining years with a relative; about half of this was with unmarried children. About 20% of their time was with lodgers or servants; 10% was as a solitary. Women spent around 60% of time as a household head, another tenth in institutions; about 15% living in non-relatives' household; and only 9% living in the households of kin. In later years the proportion of time subsequently spent with relatives scarcely altered, though the importance of unmarried children as opposed to more distant kin perhaps increased. More striking is the fact that the proportion of time spent as a head with kin co-residing grew, such that whereas about 30% of time from 1925 was spent as a household head with relatives sharing accommodation this had grown to 44% for the time after 1933. Indeed, all those elderly living with relatives after 1933 headed the household in which they lived.

Thus when co-residence with kin occurred it tended to be with the elderly person as household head.

Summary

The most general point to be made is that the registers do permit households to be reconstituted, though there are important questions of efficiency to be considered. Some of the data contained in the registers, particularly that concerning migration and data at the household level, are scarcely available (certainly for historical periods) from other sources. But it will often, in the case of individual-

Table 5 Duration in various household types, 1925 onwards

Group	(N)	X	Time spent in following household types										
			2	3	17	22	23	41	45	62	77	81	99
All	26	8.03	0.47	1.06	0.03	0.09	0.02	0.23	0.12	0.00	0.01	0.73	0.05
Males	5	4.79	-	-	-	-	-	-	-	-	-	-	-
Femal.	21	8.80	0.58	1.31	0.03	0.12	0.03	0.28	0.15	0.00	0.01	0.91	0.07
All			901	902	904	905	911	921	925	941	961	964	965
Males			0.85	0.76	0.57	0.75	0.22	0.06	0.14	0.51	0.96	0.27	0.13
Femal.			-	-	-	-	0.89	0.30	0.73	2.66	0.21	-	-
			1.05	0.94	0.70	0.92	0.06	-	-	-	1.14	0.34	0.15

X - Average years lived per person

Key to types:

Solitary 1

OTHERS + relatives (other than unmarried children) 2

+ co-residents 3

+ lodgers 4

+ servants 5

+ lodgers and servants 11

+ relatives and relatives' lodgers/servants 17

COUPLE - alone 21

+ relatives (other than unmarried children) 22

+ co-residents 23

+ servants 25

COUPLE AND UNMARRIED CHILDREN - alone 41

+ servants 45

LOVE PARENT AND CHILDREN - alone 61

+ relatives (other than unmarried children)

+ lodgers 64

+ servants 65

+ relatives and relatives' lodgers/servants 77

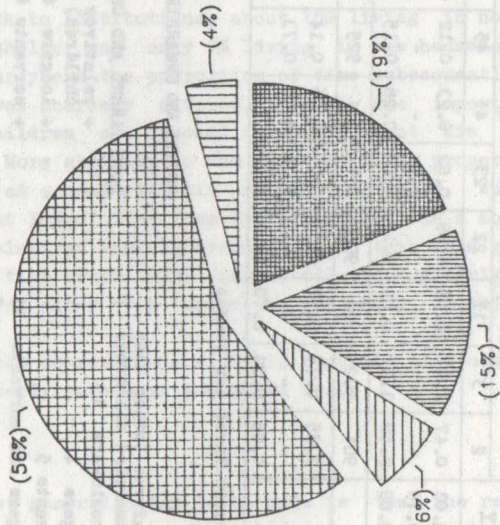
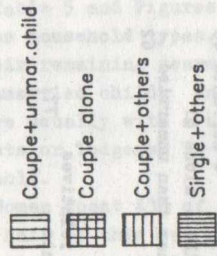
INSTITUTIONS - 81

UNKNOWN - 99

The addition of 900 to a code signifies that the elderly person is a household head

Figure 6 Duration in Household Types

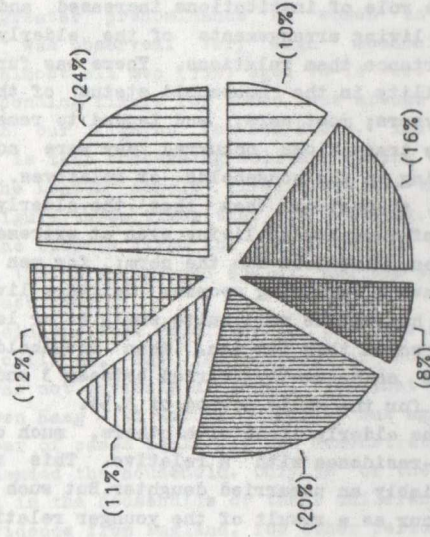
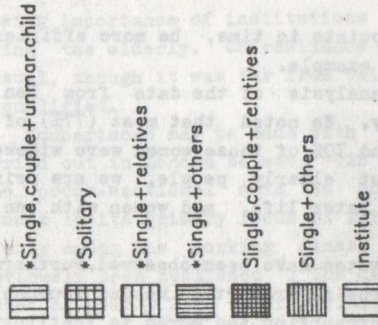
Proportion of time spent as:



Males

Figure 7 Duration in Household Types

Proportion of time spent as:



Females. Time spent as non-head - 39%

level data for specific points in time, be more efficient to use Census materials for example.

The results of our analysis of the data from Den Haag may be summarised briefly. We noted that most (77%) of our subjects were female, and 70% of those women were widowed by 1925. When we talk about elderly people, we are primarily concerned with women in later life, and women with no surviving spouse.

Very high headship-rates have been observed. Furthermore, in the case of women a growing proportion headed households as they aged. An increasing proportion too moved to institutions; a declining percentage lodged either as related or unrelated lodgers. The role of institutions increased and at least in terms of the living arrangements of the elderly achieved a greater importance than relations. There was further a great deal of stability in the household status of the elderly in their later years; most were, and tended to remain, household heads. Where transitions occurred they were not invariably towards living in the households of relatives. There is an overwhelming suggestion then that the elderly exhibited a high degree of independent living even at extreme ages.

For women, widowhood was the norm; for men it was still normal to have a surviving spouse. Solitary living was uncommon. Most households were quite small (4 or less), though larger for women than for men. Mean household-size of the whole sample consequently varied between 3 and just over 4 (with a mean for the whole period of 3.5).

Where the elderly lived with others, much of that time included co-residence with a relative. This relative was almost invariably an unmarried daughter. But such co-residence tended to occur as a result of the younger relative living in the household of the elderly person. The elderly spent little more than 10% of their time in households headed by relatives. Furthermore as they aged the elderly were more likely to be heading a household which contained co-resident kin. And one

might reiterate at this point our earlier finding about the growing importance of institutions viz a viz kin in accommodating the elderly. Co-residence with kin was clearly not unusual, though it was far from being universal, and needs to be qualified.

Comparisons may be made with the results of a survey carried out in London between 1928 and 1930 which produced some cross-sectional data on household composition as an adjunct to its primary focus of interest, which was that of poverty among the working class. A detailed analysis has previously been published⁵. The data set in this case consisted of nearly 2300 working class elderly people, all aged 65 or more, and the descriptions refer to the time of the Survey; it is not a longitudinal data-set therefore.

The greater predominance of women in the elderly population was observed. Very high headship-rates were observed: almost all men (93%) aged 70-74 were heads, while the corresponding figure for women was around 50% (slightly lower than our figures for Den Haag). The most striking difference is that concerning solitary living where almost a third of the London sample lived alone at the time of the Survey - a figure three times that for Den Haag. Correspondingly fewer of the elderly lived in a household of size 5 or more (less than 10% of those aged 65-74) and the mean household size was just over 2.

Co-residence with relatives in practice meant, again, that with children, and the extent of co-residence with children was not markedly different from that found from our data for Den Haag - at around a third. But again, in only a small number of cases could it be demonstrated that these children headed the household. Only 5% of the elderly therefore lived in the households of their children. In fact there is more evidence from England, for other periods, which also suggests that the elderly only exceptionally lived in households headed by kin and which illustrates the very high headship-rates experienced by the elderly.⁶

Conclusions

The limitations of the present study are clear: the inclusion of too few subjects prevents us from making generalisations, and the consideration of only those aged around 72 in 1925 means that very important transitions in living arrangements associated with retirement, the death of the male spouse, and the migration of children from the family lie beyond our study. Nevertheless, it has been demonstrated how the population registers may hold important answers for studies in historical demography, and may be used to cast light on contemporary social problems.

Our main conclusion was that the elderly showed a high degree of independent living - they mostly headed their households; when they lived with relatives it was almost always as household head. These conclusions echo those of Bulder for other parts of the Netherlands in the same period.⁷ But they are also very similar to those for London in the 1930s, which in turn corroborate evidence from other parts of England at other points in time gathered by Laslett, Wall and Thomson.⁸ Indeed, all the evidence so far available supports Laslett's conclusion that it was not regarded as a normal function of the household to support elderly relatives. All possible alternatives seem to have been seized upon before co-residence in the household of children was resorted to. The elderly preferred to be independent.

The idea that household structure can be used to infer something about relationships between individuals is not without justified criticism however. Co-residence need not be indicative of care, for example; it is said to reflect that the family has been in some cases, historically and currently, a place of abuse as well as care and affection. Nor does the fact of co-residence per se say anything about direction of

support. There has been and continues to be a great deal of reciprocal assistance between the elderly and their relatives.

Secondly, this approach has a limited view of the family as strictly a residential unit; yet co-residence was simply one manifestation of a network of reciprocal support, and it may not even have been the most significant.⁹ The strength of kin relationships depended, Anderson has suggested, on their ability to sustain each other, particularly in critical life situations, and that could and often did occur beyond the co-residential unit. Relatives, even those outside the household, almost certainly provided a great deal of informal care and support for the elderly, and this has been demonstrated clearly for our own times too.¹⁰

Thirdly, analyses of co-resident aid in terms of household composition suffer from the fact that factors beyond the family affect that composition. Living arrangements, for instance, may owe more to the housing market, employment opportunities, and demographic variables like the number of surviving children and their propensity to marry than to kinship organization and associated social values.

So much of the reality of familial support cannot be adequately assessed simply by looking at household composition. Nor even by using more elaborate indicators such as kin propinquity or frequency of visits. Yet the sort of data which would give us an accurate view of reality are simply not available for even the recent past, and we are forced *faut de mieux* to rely on indicators such as co-residence. Nonetheless, it is fair to say that co-residence meant a greater likelihood of assistance to and from kin. And kin living apart were never as forthcoming in assisting their elderly relatives as when they lived with them. Thus we would argue that such studies remain important, and their findings challenging.

Historical studies, on a large enough scale, can enable us therefore to offer some comment on the present, rather

rosy, concept of the historical relationship between the elderly and their relatives. The current debate over the historical relationship between the elderly and their kin, the regrettably little research which has been directed towards analysing popular, current opinion, means that the sorts of analyses we have attempted are necessary. If a larger body of evidence also suggests a limited role for kin then an important question which follows is naturally whether this independence owes much to the state (through financial and medical support) or to self-provision. If to the former, then those who argue that the past illustrates the ability of the elderly to survive without the State as the principal provider may find the historical evidence rather discomfoting.

But even if it is true, though, that the decades, and even the centuries, have seen an enduring responsibility of kin towards elderly relatives, we must ask whether those who argue for greater familial responsibility are not in danger of committing a "naturalistic fallacy", and at a time when long-run economic, demographic and social changes are acting precisely to make familial care more difficult.

Familial care is not necessarily the most desirable form of care: there are aspects of caring which kin would prefer to have done by non-kin or which the elderly themselves would prefer others to do. Secondly, not all elderly people have younger close relatives to whom they might look for support, and certainly the number of surviving children is far lower now than in the past. Thirdly, the last 30 years have seen a significant increase in the percentage of women (on whom the burden of care within the family has traditionally fallen) entering the labour market, and that percentage is expected to rise in most European countries. This may have the effect of enabling families more easily to finance private care for relatives, or it may have the effect of increasing personal consumption. Women pursuing careers may be less willing to sacrifice opportunities in order to assist relatives. Finally,

the increasing instability of marriage may leave a greater proportion of people without a spouse in old age.

The effects of all these point to the need to rethink the capacity and desirability of the family to look after their elderly relatives. There are clearly limits to both of these; both may be being diminished, such that in the future the family may be unwilling or unable to accept anything other than a minimal role in caring for its elderly.

Thus the shift in emphasis, from state provision to self-help and informal support, which has been a conscious policy of many governments (those of the United States, the Netherlands, and the United Kingdom for example) over the last decade or more, may be unsustainable, and detrimental to the well-being of the elderly.

Quite how Western governments can respond successfully to the ageing of the population, the implications for public expenditure and the burden on the labour force which follow is, of course, a question of the most pressing significance. It seems likely that any effective response will have to take account of a number of factors: the problems in relying on familial support, the growth of elderly people's own personal provision for their old age (through occupational pensions for example), the stock of capital assets held by the elderly (and the difficulty in realizing those assets), and the wide dispersion of wealth among the elderly. In short, governments may have to be more selective in deciding which elderly people they assist. It may mean, for instance, the re-introduction of a means test. Re-emphasizing the role of the family may appear to be a convenient alternative. But much more research needs to be done to consider the potential and desirability of this, and to question the assumptions inherent in the arguments of those looking towards the family.

REFERENCES

- 1 See P. Laslett and R. Wall eds., Household and family in past time, CUP, Cambridge, 1972, and R. Wall, J. Robin and P. Laslett eds., Family forms in historic Europe, CUP, Cambridge, 1983.
- 2 H. van Dijk, C. Mandemakers, "Secondary education and social mobility at the turn of the century" in History of Education 14(1985) 199-226; A. Janssens, "Industrialization without family change? The extended family and the life cycle in a Dutch industrial town, 1880-1920" in Journal of Family History 11 (1986) 25-42; G. Alter, Family and the Female Life Course, University of Wisconsin Press, Wisconsin, 1988.
- 3 F.W.A. van Poppel and C.A. van der Wijst, "The demographic and socio-economic situation of the elderly in the Netherlands" in Tijdschrift voor Gerontologie en Geriatrie 18 (1987) 107-116.
- 4 R. Wall, "The living arrangement of the elderly in Europe in the 1980s". Unpubl. paper, 1985, p.11.
- 5 C.J. Gordon, "The myth of family care? The elderly in the early 1930s" in Ageing and Society 8 (1988) 287-320.
- 6 P. Laslett, Family Life and Illicit Love in Earlier Generations, CUP, Cambridge, 1977, p. 201; R. Wall, K. Schurer, and P. Laslett, "The changing form of the English household 1891-1921: a four community study", Mimeo, Cambridge Group for the History of Population and Social Structure, Cambridge, 1988, Table 3; D. Thompson, "Welfare and the Historians" in L. Bonfield et al. eds., The World We Have Gained, Blackwell, Oxford, 1986, p.364.
- 7 E. Bulder, "Ouderenzorg binnen de Huishouding in Limb-richt en Scheemda 1920-1940", Mimeo, Tinbergen Institute,

Rotterdam, 1989. See also her contribution to this present Journal.

- 8 See P. Laslett, 1977, R. Wall et al., 1988, and D. Thomson, 1986.
- 9 See M. Anderson, Family Structure in Nineteenth Century Lancashire, CUP, Cambridge, 1971, and M. Anderson, Approaches to the History of the Western Family 1500-1914, Macmillan, London, 1980.
- 10 See NCBS, De Leefsituatie van de Nederlandse bevolking van 55 jaar en ouder, 1982, Staatsuitgeverij, Den Haag, 1984, and for Britain see OPCS, General Household Survey 1980, HMSO, London, 1982, and OPCS, General Household Survey 1986, HMSO, London, 1988.

THE DUTCH FAMILY AND THE EUROPEAN STRUCTURE
IN WHICH THEY ARE ENLINED

Background

Dutch facilities for the elderly have become a matter of public debate. As recent investigations show, funds for such facilities will be put under considerable pressure as a result of the continuing ageing of the population. One of the subjects in the above-mentioned discussion is the search for alternatives for the Dutch system. One of the options for example is "multigeneratie", in which case the family, neighbours or other people living nearby will have some responsibility for caring for the elderly. Those who argue that such a system is viable point to the past, when, they argue, the household was the most important source of support for the elderly. This is more often assumed than demonstrated, and survey ignores the different character of care today, of family relations, and of the changes in economic and demographic conditions. To argue

Elles A.M. B u l d e r

THE DUTCH ELDERLY AND THE HOUSEHOLD STRUCTURES
IN WHICH THEY WERE RESIDING

Background

Dutch facilities for the elderly have become a matter of public debate. As recent investigations show, funds for these facilities will be put under considerable pressure as a result of the continuing ageing of the population. One of the subjects in the above-mentioned discussion is the search for alternatives for the Dutch system. One of the options for example is "mantelzorg", in which case the family, neighbours or other people living nearby will take some responsibility for caring for the elderly. Those who argue that such a system is viable point to the past, when, they argue, the household was the most important source of support for the elderly. This is more often assumed than demonstrated, and anyway ignores the different character of care today, of family relations, and of the changes in economic and demographic conditions. We argue

however that a historical evaluation of the Dutch system of family care for the elderly is essential for the correct determination of the most suitable solution to this problem. In the following article we give an overview of the most interesting characteristics of the households in which elderly were residing in different regions of the Netherlands in the period 1920-1940. We hope thereby to contribute to the discussion concerning the position of the elderly in the Netherlands in the future.

Analytical results

Research in the Netherlands concerning family size and structure has made clear the existence of a high degree of regional variation. Households were found to be small and of a simple structure in the northwestern part of the country, while families in the southeastern part of the country were larger and of a more complex structure. The structure of the labour market is probably one of the factors which explain this regional variation, but it surely is not the decisive one. This is one of the findings also of the investigation of the size and structure of households containing elderly persons in the rural community of Limbricht (where 70% of the working population were engaged in agriculture) and Scheemda (where 40% were engaged in agriculture) in the period 1920-1940.

Three sample population were taken at random from the municipalities of Limbricht and Scheemda; one from Limbricht and two from Scheemda. Because in the case of Scheemda we were able to make a distinction between elderly who were and elderly who were not in receipt of a state pension, two different samples were taken. The criterion for selecting populations was that the elderly were born before 1 January 1861. Within the sample population the data concerning the age-group "70 years and over" were analysed separately in order to test the

supposed relationship between increasing age and dependency. Table 1 indicates certain characteristics of the samples selected.

Table 1 Population by age and gender

Category	Limbricht		Scheemda			
			without pension		in receipt of pension	
	%	(N)	%	(N)	%	(N)
People aged 60-70	59.1	68	51.9	56	91.2	83
Male		35		31		45
Female		33		25		38
People aged 70 and over	40.9	47	48.1	52	8.8	8
Male		25		23		3
Female		22		29		5
People aged 60 and over	100.0	115	100.0	108	100.0	91
Male		60		54		48
Female		55		54		43

Unfortunately the results for the 70+ group from Scheemda in receipt of a state pension had to be omitted because their age structure was not representative of the general population aged over 70. Therefore in all observations concerning total sample population one has to be aware of the fact that almost all people belonging to the "pension-group" are relatively younger than the other sample populations. When the analytical results concerning the 70+ group have an extra explanatory value they are included in our analysis. Finally all tables give separate data for males and females.

Table 2 and Table 3 give the results concerning the household status of the elderly. The figures in both tables show very high headship-rates. In the case of the 60+ groups

in Limbricht 76.1% of total notations imply that the elderly had independent households (i.e. living as head, or married to the head). In Scheemda the corresponding figures for elderly without and elderly in receipt of a state pension are respectively 77.6% and 87%. The high percentage for elderly in receipt of a state pension probably results from the fact that this population is relatively younger than the other populations.

Table 2 Household status, elderly 60 years and over

Category	Limbricht		Scheemda			
	male	female	without pension		in receipt of pension	
			male	female	male	female
Aunt	-	1.6	-	1.6	-	-
Brother-in-law	0.8	-	-	-	-	-
Brother	1.6	-	-	-	-	-
Father-in-law	-	-	4.8	-	4.6	-
Father	4.0	-	1.6	-	1.9	-
Greataunt	-	-	-	0.8	-	-
Grandfather	-	-	0.8	-	-	-
Grandmother	-	-	-	0.8	-	0.9
Head	42.1	21.1	40.0	21.6	40.7	21.3
Mother-in-law	-	3.2	-	4.0	-	1.9
Mother	-	4.0	-	4.8	-	1.9
Lodger	1.6	3.2	0.8	0.8	0.9	-
Sister-in-law	-	0.8	-	-	-	0.9
Sister	-	3.2	-	1.6	-	-
Wife head	-	12.8	-	16.0	-	25.0
Total	50.1	49.9	48.0	52.0	48.1	51.9
Male/Female	52.1	47.8	50.0	50.0	52.7	47.3

This assumption is made plausible by the headship-rates of the 70+ groups in Limbricht and Scheemda, respectively 73.8%, 68.3%, which indicate an inverse relationship between age and independent-household status.

Table 3 Household status, elderly 70 years and over

Category	Limbricht		Scheemda without pension	
	male	female	male	female
Aunt	-	2.3	-	3.2
Brother-in-law	-	-	-	-
Brother	-	-	-	-
Father-in-law	-	-	7.9	-
Father	8.2	-	1.6	-
Greataunt	-	-	-	1.6
Grandfather	-	-	1.6	-
Grandmother	-	-	-	1.6
Head	42.9	24.1	30.2	25.4
Mother-in-law	-	4.5	-	4.8
Mother	-	6.8	-	6.3
Lodger	2.0	-	1.6	-
Sister-in-law	-	-	-	-
Sister	-	2.3	-	-
Wife head	-	6.8	-	12.7
Total	53.1	46.8	42.9	57.2
Male/Female	53.2	46.8	44.2	55.8

The above-mentioned regional variation in household size and structure is illustrated in Figure 1. The elderly in Scheemda in most cases were living in small households of a simple structure, while the elderly in Limbricht were living in relatively large households of a complex structure. When these findings are compared with the findings concerning

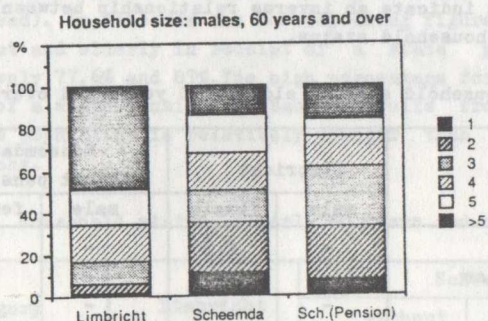


Figure 1

household status, the following features of the households in which the elderly were residing can be observed. In Scheemda the households were small and in most cases headed by the elderly themselves. In Limbricht the households were relatively larger but also here the elderly were in most cases the head of these large and complex households.

The figures in Tables 4, 5 and 6 are all derived from the tables concerning household structures which are appended to this paper.

The figures in these tables show some interesting results. First of all the hypothesis that daughters took care of elderly parents more often than sons, is not supported by our findings in Table 4. The figures in this table suggest that probably the structure of the labour market was of decisive importance in determining the role sons and daughters played in caring for the elderly. For example in Limbricht this task fell to the son, who succeeded to the farm (patrilocality).

Table 4 Household type, elderly 60 years and older

(%)

Household type	Limbricht		Scheemda			
	male	fem.	without pension		in receipt of pension	
			male	fem.	male	fem.
(1) Two or more generational family including exclusively (a) daughter(s) (+family) (41,42,81,82,101)	18.7	13.9	18.7	12.4	22.5	16.0
(2) (1)+structure in which also a daughter (+family) is included ((1)+33,73)	22.6	15.4	18.7	12.4	22.5	16.0
(3) Two or more generational family including exclusively (a) son(s) (+family) (43,44,83,84,102,111)	20.6	19.9	16.5	20.7	16.2	13.0
(4) (3)+structure in which also a son (+family) is included ((3)+34,35,74)	26.5	22.9	16.5	20.7	16.2	13.0
(1)-(3)	-1.9	-6.0	2.2	-8.3	6.3	3.0
(2)-(4)	-3.9	-7.5	2.2	-8.3	6.3	3.0

Tables 5 and 6 give data on the independence of the elderly. These figures reinforce our earlier conclusions concerning the high degree of independence of the elderly even at advanced ages. In most cases they lived in households headed by themselves or their husbands.

Below, the results concerning the independent elderly in the age-groups 60+ and 70+ are given. The influence of age on the independent status of the elderly is clear. Fewer elderly are living independently in the age-group 70+. One of the conclusions that can be drawn from these findings is that, as they age, an increasing proportion of the elderly will share a

Table 5 Household type, elderly 60 years and over

Household type	Limbricht		Scheemda (%)			
			without pension		in receipt of pension	
	male	fem.	male	fem.	male	fem.
(1) Elderly living in (101-131)	8.9	24.6	11.0	23.3	7.2	7.0
(2) Elderly who are head of a family (or married to the head)	83.5	59.7	49.3	31.9	53.1	54.0
(3) Elderly living alone (1,2 and 6)	7.9	14.8	41.0	45.2	39.6	39.0
(4) Independent elderly ((2)+(3))	91.4	74.5	90.3	77.1	92.7	93.0

Table 6 Household type, elderly 70 years and over

Household type	Limbricht		Scheemda without pension (%)	
			male	female
	male	female	male	female
(1) Elderly living in (101-131)	14.4	24.9	24.9	30.9
(2) Elderly who are head of a family (or married to the head)	77.3	46.5	37.5	30.9
(3) Elderly living alone (1,2 and 6)	8.6	28.5	37.5	38.4
(4) Independent elderly ((2)+(3))	85.9	75.0	75.0	69.3

household as a dependent member. Then the results of Table 2 and 3 are taken into the consideration; we will find that in these cases the elderly in almost all cases were living with their children.

Still the most important conclusion of this investigation is, regarding the regional variation in the Netherlands in the size and structure of households, the fact that even in their advanced years, the Dutch elderly were in most cases living independently, as the head (or wife of the head) of the household in which they were residing.

Principal Archival Sources

The Bevolkingsregister of the municipality of Limbricht for the years 1922-1940 (kept in at the municipal record-office of Sittard).

The Bevolkingsregister of the municipality of Scheemda for the years 1921-1940 (kept at the municipal record-office of Scheemda).

REFERENCES

Berkner, L.K. "The stem family and the development cycle of the peasant household: an eighteenth-century Austrian example". American Historical Review, 77 (1977) 398-418.

Berkner, L.K. "The use and misuse of census data for the historical analysis of family structure". Journal of Interdisciplinary History, 5 (1974-75) 721-738.

Brink, T. van den. "The Netherlands population registers". Sociologia Neerlandica, 3 (1966) 32-53

Bulder, E.A.M. "De grootte en de structuur van de huishouding historiografisch bekeken". Unpublished paper, N.W. Posthumus Centrum, Utrecht, 1988.

CBS. 80 Jaren statistiek in tijdreeksen. 's-Gravenhage, 1979.

Gordon, C. "The bevolkingsregister and their use in analysing the household composition of the elderly". NIDI, 's-Gravenhage, forthcoming.

Hareven, T.K. "Cycles, courses and cohorts: reflections on the theoretical and methodological approaches to the historical study of family development". Journal of Social History, 12 (1978) 97-109.

Janssens, A. "Industrialization without family change? The extended family and the life cycle in a Dutch industrial town, 1880-1920." Journal of Family History, 11 (1986) 25-42.

Kertzer, D.I. Family Life in Central Italy, 1880-1910. New Brunswick, 1984.

Kertzer, D.I. Handbook to the Casalecchio Project. I. Dept. of Sociology Bowdoin College, USA, 1985.

Kooy, G.A. De oude samenwoning op het nieuwe platteland. Assen, 1959.

Kooy, G.A. (ed.) Gezinsgeschiedenis. Vier eeuwen gezin in Nederland. Assen, 1985.

Laslett, P. (ed.) Household and family in past time. Cambridge, 1972.

Netting, R.M., Wilk, R.R. and Arnould, E.J. (eds.) Households: comparative and historical studies of the domestic group. Berkeley, 1984.

Schiaffino, A. and Kertzer, D.I. Longitudinal perspectives on coresidential behavior: Casalecchio di Reno (1865-1921). Paper presented to the SSRC Colloquium "Family and community in the Mediterranean, 16th-19th centuries". Essex, 1982.

Sieder, R. and Mitterauer, M. "The reconstruction of the family life course: theoretical problems and empirical results" in Wall, R., Robin, J. and Laslett, P. (eds.) Family forms in historic Europe. Cambridge, 1983.

Stone, L. "Family history in the 1980s. Past achievements and future trends". Journal of interdisciplinary History, 12 (1981) 51-87

Wall, R., Robin, J. and Laslett, P. (eds.) Family forms in historic Europe. Cambridge, 1983.

Walle, E. van de. "Household dynamics in a Belgian village, 1847-1866". Journal of Family History, 1 (1976) 80-94.

Wijet, T. van der and Poppel, F. van. Economic and social implications of ageing in the Netherlands. Working Paper no. 67. NIDI, 's-Gravenhage, 1985.

19	2.0	2.0	2.0	2.0	2.0
20	2.0	2.0	2.0	2.0	2.0
21	2.0	2.0	2.0	2.0	2.0
22	2.0	2.0	2.0	2.0	2.0
23	2.0	2.0	2.0	2.0	2.0
24	2.0	2.0	2.0	2.0	2.0
25	2.0	2.0	2.0	2.0	2.0
26	2.0	2.0	2.0	2.0	2.0
27	2.0	2.0	2.0	2.0	2.0
28	2.0	2.0	2.0	2.0	2.0
29	2.0	2.0	2.0	2.0	2.0
30	2.0	2.0	2.0	2.0	2.0
31	2.0	2.0	2.0	2.0	2.0
32	2.0	2.0	2.0	2.0	2.0
33	2.0	2.0	2.0	2.0	2.0
34	2.0	2.0	2.0	2.0	2.0
35	2.0	2.0	2.0	2.0	2.0
36	2.0	2.0	2.0	2.0	2.0
37	2.0	2.0	2.0	2.0	2.0
38	2.0	2.0	2.0	2.0	2.0
39	2.0	2.0	2.0	2.0	2.0
40	2.0	2.0	2.0	2.0	2.0
41	2.0	2.0	2.0	2.0	2.0
42	2.0	2.0	2.0	2.0	2.0
43	2.0	2.0	2.0	2.0	2.0
44	2.0	2.0	2.0	2.0	2.0
45	2.0	2.0	2.0	2.0	2.0
46	2.0	2.0	2.0	2.0	2.0
47	2.0	2.0	2.0	2.0	2.0
48	2.0	2.0	2.0	2.0	2.0
49	2.0	2.0	2.0	2.0	2.0
50	2.0	2.0	2.0	2.0	2.0
Total	100.0	100.0	100.0	100.0	100.0
(N)	100	100	100	100	100
	(50)	(50)	(50)	(50)	(50)

Household structure

A) Key to Types

Independent elderly

Solitary	1
Solitary with relatives living nearby	2
Solitary with children living in	3
Solitary+children+lodger/servant	31
Solitary+children+other relatives	32
Solitary+children including a daughter+her family+lodger	33
Solitary+children including a son+his family + lodger	34
Solitary+children including a son+his family+other relatives	35
Solitary+daughter(s)	41
Solitary+ daughter+her family	42
Solitary+son(s)	43
Solitary+son+his family	44
Solitary+lodger/servant	51
Solitary+lodger/servant+other relatives	52
Couple	6
Couple with children living in	7
Couple+children+lodger/servant	71
Couple+children+other relatives	72
Couple+children including a daughter+her family +lodger	73
Couple+children including a son+his family+lodger	74
Couple+daughter(s)	81
Couple+daughter+her family	82
Couple+son(s)	83
Couple+son+his family	84
Couple+lodger/servant	91
Couple+lodger/servant+other relatives	92

Elderly living in

Solitary living in with daughter (+family)	101
Solitary living in with son (+family)	102
Couple living in with son (+family)	111
Couple living in with other relatives	121
Couple living in with non-relatives	131

B) Data

Household structure, elderly 60 years and over

Household structure	Limbricht		Scheemda			
			without pension		in receipt of pension	
	male	female	male	female	male	female
	%	%	%	%	%	%
1	4.0	10.8	14.4	21.9	9.0	13.0
2	-	-	2.2	2.8	3.6	4.0
3	10.8	7.7	2.2	-	1.8	3.0
31	5.9	1.5	4.4	-	-	1.0
32	1.0	3.1	-	-	-	4.0
33	2.9	-	-	-	-	-
34	3.9	1.5	-	-	-	-
35	-	1.5	-	-	-	-
41	5.9	1.5	4.4	1.4	3.6	5.0
42	5.9	3.1	3.3	-	1.8	-
43	2.0	9.2	2.2	6.9	3.6	10.0
44	6.9	4.6	4.4	2.8	1.8	4.0
51	2.0	1.5	1.1	2.8	-	-
52	5.9	-	-	6.9	1.8	2.0
6	3.9	4.6	24.4	20.5	27.0	22.0
7	7.8	3.1	4.4	4.1	8.1	7.0
71	3.9	1.5	3.3	1.4	0.9	1.0
72	-	1.5	-	-	1.8	1.0
73	1.0	1.5	-	-	-	-
74	2.0	-	-	-	-	-
81	4.9	6.2	2.2	1.4	11.7	8.0
82	2.0	3.1	2.2	1.4	0.9	-
83	2.9	3.1	6.6	2.8	12.6	7.0
84	3.9	1.5	2.2	-	-	-
91	1.0	1.5	1.1	-	0.9	1.0
92	1.0	1.5	3.3	-	1.8	-
101	-	6.2	6.6	8.2	4.5	3.0
102	3.9	7.7	2.2	8.2	1.8	2.0
111	1.0	1.5	-	-	-	-
121	2.0	7.7	1.1	5.5	-	2.0
131	2.0	1.5	1.1	1.4	0.9	-
Total	100.0	100.0	100.0	100.0	100.0	100.0
(N) ⁺	102	65	90	73	111	100
	(60)	(55)	(54)	(54)	(48)	(43)

Household structure, elderly 70 years and over

Household structure	Limbricht		Scheemda without pension	
	male %	female %	male %	female %
1	2.9	21.4	15.6	20.5
2	-	-	-	4.5
3	8.6	10.7	3.1	-
31	5.7	3.6	9.4	-
32	-	-	-	-
33	2.9	-	-	-
34	5.7	3.6	-	-
35	-	-	-	-
41	-	-	3.1	2.6
42	5.7	3.6	6.3	-
43	2.9	7.1	3.1	7.7
44	17.1	7.1	6.3	2.6
51	2.9	-	-	2.6
52	5.7	-	-	7.7
6	5.7	7.1	21.9	12.8
7	5.7	-	3.1	5.1
71	-	-	-	2.6
72	-	-	-	-
73	2.9	3.6	-	-
74	-	-	-	-
81	5.7	3.6	-	-
82	2.9	3.6	-	-
83	-	-	-	-
84	2.9	-	-	-
91	-	-	-	-
92	-	-	3.1	-
101	-	7.1	15.6	10.3
102	8.6	7.1	3.1	10.3
111	2.9	3.6	-	-
121	-	7.1	3.1	7.7
131	2.9	-	3.1	2.6
Total	100.0	100.0	100.0	100.0
(N) ⁺	35	28	32	39
	(25)	(22)	(23)	(29)

+ NB: As a result of mutations during the period of observation, the number of observations (N) is higher than the number of males and females who form the population under investigation. Their numbers are for the sake of completeness given in brackets.

Enessa G. Istomina

THE ECOLOGICAL FACTOR AND HUMAN LONGEVITY IN RUSSIA

IN THE 19th AND EARLY IN THE 20th CENTURY

(formulating the problem)

Special importance in historical demography is attached to the range of questions associated with the interdependence of demographic processes and natural conditions. Knowledge of answers to these questions will allow, first of all, to elaborate on the problem of population replacement. Retrospective explanation of the effect of the complex of various natural factors on demographic development is important for a realistic evaluation of the present ecological situation as a basis for long-term forecasting of the exploitation of natural resources.

The author attempted to identify, as a preliminary hypothesis, an optimum approach to the elaboration of methodology for ecologico-geographic research.

The physico-geographical setting provided man with tools and means of work. The non-productive picker-and-hunter eco-

nomy and the pre-capitalist forms of producer (agrarian) economy were organically involved in natural processes and were governed by the regularities of these processes. Feudalism changed the social structure of the society and this in turn changed the long-established ties with the world of nature. As trades developed in towns, the towns got rid of their direct dependence on the rural areas around; however, their dependence on the natural resources of raw material increased. This in fact is where today's ecological problems began. Science and technology developed and capitalism, using its achievements, began to exploit natural resources ravenously; as a result, the influence of environment on man radically changed. There are wide possibilities for the ecological factor to influence the development of economic relationships: on the society scale, these possibilities have arisen from the involvement of agricultural production in the complex general division of labour, which in turn is a consequence of the development of large-scale mechanized production. Hence, the nature of the various forms of man's relationship to the physical world depends on the socio-economic structure of the society, which has developed in a given historical situation, and on the various social relationships and aspects. On the other hand, when technology reaches a certain stage of development, natural conditions (the ecological factor) may eliminate or significantly hinder man's existence.

The concept of "ecological factor" is used fairly widely at present. In this particular case it applies to the natural environment in which man is to live, including the climatic conditions, water, soil, flora and fauna. Figuratively, ecological factors enter man's socio-economic milieu: the industrial and agricultural production, human nutrition, the actual conditions of life. It is very difficult to investigate separately the effect of each of these components on man because none of them does occur in a pure form. In this context it is even difficult to introduce quantitative para-

meters that would characterize the dependence of the demographic situation on environmental conditions. The dominant quantitative characteristics of the demographic-ecological processes constitute a regular phase of research which is still at a starting stage.

Better results of investigation of the interaction between the ecological factor and the level of population replacement are as a rule obtained when limited objects are investigated: a certain territorial economic unit, a historical region, one or several homogeneous aggregations of population. The effect of the ecological factor on human health, longevity or genetic pool is inseparable from the actual historically conditioned setting. The mechanism of the action of ecologico-geographical conditions (as material factors) manifested itself most clearly in a number of actual forms of interaction between the world of nature surrounding man and the health of the people. The effect of climate and environment on man's survival and longevity is one of these forms.

As known, geophysical, geochemical, biological, social, technological and other factors exert their influence on the human organism, involved in the processes of work. The only way how to trace those factors which combine to form the ecological conditions is to investigate various pathogenic reactions of the human organism to the environmental effects. In this context it is also important to consider the concept of human "health", which is in fact a form of adaptation to environmental conditions, or a kind of interaction between man and environment as a bio-socio-system, including all aspects of the adaptation: biogenetic, physiological, socio-economic, and bioclimatic¹.

Within the general objective of investigation, it is important that the relationships between man and the world of Nature be studied separately in rural areas and in urbanized regions. The research programme should involve an all-round

approach to both the rural and urban communities, taking into account the physical, chemical and biological, as well as cultural, components in their complexity and dynamic development. First it is useful to identify the ecological characteristics of the area under study, including the aggregations of population involved; this requires a quantitative and qualitative description of the key natural processes that form the main links in the system "man - physical world". In the subsequent stage of the work, the object is to be analyzed according to the socio-economic parameters, and the relationships between the ecological characteristics of the object and the health and welfare of the population are to be explained.

The general ecological approach and need for spatial orientation in such investigations emphasize the importance of a preliminary preparation of all-round and thorough physico-geographical characteristics of the object studied. In this particular case, the natural conditions of Russia in the 19th century and early in the 20th century can be characterized as follows:

As to the physico-geographical environment, regions significantly different from one another were distinguished in the country. The natural peculiarities of all the geographical zones constituted the different conditions of people's life. In many northern, northwestern, northeastern and southeastern regions of the European part of Russia, in the large plains of Siberia and in Central Asia, the people had to live under difficult, sometimes extreme, conditions, including low temperatures, high air humidity, or lack of water, salinized soils, long period of drought etc.

In 1861, the European territory of Russia covered an area of 4903 thousand km². Of this, 34.6 % was represented by arable land and grassland, i.e. farmed land². In some areas, the unfavourable environmental conditions caused frequent failure of crops and led to epidemics, which changed the demo-

graphic situation considerably. Nevertheless, in each actual case the nature of the dependence of the society or community on the environment was also conditioned by the nature of the social factors and, in particular, by the mode of material production.

On an average for Russia early in the 19th century, the average death age of adult men was 50.2 years, in 1825 - 1834 51.4 years, in 1850 - 1862 48.9 years. Life expectancy was 50.0 years in the first half of the 19th century, in 1894 it was 52.0, and in 1910 52.3 years³. In the latter half of the 19th century, the age-specific mortalities slightly declined, and there was also a decline in the proportion of premature deaths of adult persons; however, this was not the case everywhere and the decline was not so large. The ethnic as well as geographical differences in longevity still existed. The Russians had an extraordinarily high infant mortality and a high mortality of persons in productive age. The longevity of the Baltic nations was 1.5 times greater than that of the Russian people⁴. Explanation of these differences with due respect to ecological factors will require thorough analysis.

In the latter half of the 19th century, there was a particularly conspicuous increase in human longevity and in the growth of population in the regions of Novorossiia, Zavolzhie, regions west of the Urals and particularly north of the Caucasus. For example, in Novorossiia (the Khersonskaya, Ekaterinoslavskaya and Tauridskaya provinces and the region of the Don Army, the number of population increased by 99.2 % between the years 1867 and 1897⁵. In this connection it is pointed out by the famous Russian historical demographer V.M. Kabuzan that "a great, in many cases decisive, role in the rapid growth of population in the marginal territories was played mainly by the climate and natural conditions (large tracts of chernozem soil, often still uncultivated, and more suitable climatic conditions".⁶

The most rational integral parameters that can be used for the analysis of the effect of physical world on man's ecology include the state of health, pathology and some other peculiarities of man's existence in a certain environment. It is particularly important to explain the significance of climate in man's ecology. Most probably, climate played the most important role where the conditions were extreme: either extremely favourable or unfavourable to human life. In a large part of European Russia the effect of climate was more significant than the effect of the social factor. Many northern provinces, part of the Baltic region and Byelorussia had extraordinarily low population densities owing to cold and humid climate and because of swamps: there were 0.46 persons per sq. verst (1 verst = 3 500 ft.) in the Arkhangelsk province², 2.5 in the Olonetskaya province, and 3.2 in the province of Vologda. The density was also low in those provinces where water sources were scarce: 0.90 persons in the Amudarskaya, 0.92 in the Turgaiskaya, and 1.17 in the Semirechenskaya provinces. On the other hand, in provinces with plenty of water and with fertile soil the density of population was high: 59.7 persons per square verst in the Podolskaya, 57.6 in the Kiev, and 45 in the Orel and Ryazan' provinces⁷.

In territories with unfavourable climatic and generally natural conditions, the state of health of the population largely depended on situation in agriculture, especially on farm output. The largest changes in the demographic processes were caused by frequent poor crops, closely associated with unfavourable - sometimes extreme - weather conditions. For instance, severe failure of crops occurred nine times in Russia between the eighteen-twenties and fifties. Mortality usually increased in the year that followed the poor harvest. Further increase in mortality occurred in the second year after the poor crops when livestock died on mass owing to a lack of fodder and when the population was decimated by epidemics, caused by starvation.⁸

In the period between 1880 and 1915, European Russia was hit by serious poor crops seven times. In 1891, 1906 and 1911 they occurred in the eastern and southeastern provinces. Their territorial centre lied in the zone along the middle course of the Volga: the Kazan', Simbirsk, Samara and Saratov provinces. The population of the Penskaya, Ufinskaya and Orenburgskaya provinces also suffered from starvation⁹.

Poor crops affected mainly the demographic situation in the producer provinces. For example, in the main five producer provinces of Samara, Saratov, Tula, Kiev and Volyn', increased mortality could be observed after below-average crops and poor crops. In the consumer provinces of Peterburg, Vladimir, Lifland, and the City of Moscow, the amount of grain harvested was observed to influence the demographic situation only in a mediated way. When the all-Russian grain output level declined by 30 %, mortality in the age group of 10-12 years almost doubled. At a decrease of output, the highest increase in mortality was recorded in the groups of population at productive age.

Further, it should be borne in mind that in periods of outbreak of epidemics (cholera, typhoid fever, small-pox and others), the ecological factor usually combined with social phenomena such as low standard of living, poor hygiene, poor medical care. In the given case, research on the socio-ecosystem derives from the basic hypothesis concerning the relationship of the biophysical composition of man, and the conditions of his life, with the environment that surrounds him.

In the 19th century and early in the 20th century, Russian data on mortality caused by infectious diseases were the highest of 15 European countries¹⁰. Medical research has demonstrated that the ecological factor played an extraordinarily important role in the spread of the epidemics. For example, in 1907, in the province of Samara, cholera hit towns and villages along rivers which usually were poor in

water in summer (Big Irgiz, Eruslan, Kinel, Samarka) and which were polluted with down-washed deposits and sewage. The epidemic spread considerably in the towns and villages located in the delta of the Volga and along the northern shore of the Caspian Sea. The water sources in this area (wells, streams, lagoons, which often dry, are filled with deposits and have a water regime depending on the water in the Volga) became a factor encouraging the disease to spread quickly. The young age groups and those of the middle age constituted the largest percentage of those who were ill or who died. ¹¹ Sporadic cases of cholera also occurred in the province of Irkutsk in 1907, but they did not develop into an epidemic: physicians believe that the frozen soil and the clean and ice cold water of the Angara prevented the disease from spreading.

Epidemics were particularly severe in those provinces where swamps covered large expanses of the territory. The report from a community gathering at Tesov in the Novgorod province includes the following passage: "... it (the swamp-author's note) causes us most unbearable trouble: poor crops of grain almost every year, and diseases such as malaria and scarlet fever ... We are ready to sacrifice a large part of our property if it could help to dry our swamps". ¹²

In the eighteen-eighties, death rate ranged between 35.1 and 40 deaths per 1000 persons in the provinces of Vologda, Olonets, Novgorod, Pskov, Peterburg and Yaroslavl where moorland stretched over enormous expanses of landscape. There were only eight other provinces (out of the fifty provinces in the European part of Russia) that had higher death rate data, including those of Astrakhan, Saratov, Orenburg, Samara, all characterized by unfavourable natural and climatic conditions. ¹³ Ethnoecological adaptation in these areas was poor; this in turn influenced longevity to a considerable extent.

It is particularly difficult to develop a method for explaining the causes of the low longevity in urban environments. Socio-economic areas should be distinguished and identified with a certain type of urban environment or with the borders of territories where the studied phenomena are most pronounced. The ecologico-geographic peculiarities which affect the social and functional structure of a town or city cannot be studied separately. To a considerable extent, the conditions of life of the urban population depend on the extent and quality of exploitation of natural resources and on a number of other factors. The town as a whole exerts an influence on the natural and geographical conditions, and these conditions, in turn, exert their influence - changed or unchanged, indirect or sometimes direct - on the population and on the technosphere produced by the population. Pollution of the environment (air, water, soil) is among the most important factors underlying the pathological processes that affect human health. Pollutant concentrations largely depend on the development of industry, power production, transport etc., and also on the year-to-year variation of climate. Cold years require a higher fuel consumption than warmer years in the same region.

In an industrialized city such as Peterburg in the mid nineteenth century, the life expectancy was 32.5 years, in Moscow 41.0 years; both these data are much lower than the national average. ¹⁴ In the latter half of the 19th century, urban population had to tackle still more complicated environmental problems. A rapid development of industrial centres started at the beginning of the industrial revolution, especially in the Moscow and Peterburg industrial districts where hundreds of plants and many thousands of people concentrated. The introduction of steam energy (generated from solid fuels) in the industrial plants led to considerable pollution of the air where hundreds of tonnes of ash and poisonous sulphur compounds were thrown. In the new centres of heavy industry

(the Donetsk - Krivoi Rog Basin) and oil processing (Baku), where the chemical methods of the processing of raw materials were used most intensively, petroleum gases were burned and combustion products were released into the air, causing mass occurrence of diseases of which many cases became chronic.

The various aspects (as characterized here) of the ecological factor's effect on the demographic situation, on survival conditions, on epidemic and chronic diseases which in turn affect mortality and longevity parameters, testify to the many-sided and specific interrelations between mankind and the world of Nature. This implies difficulties in the elaboration of the methodology and leads to the need for a system approach to the investigation of the ecologico-demographic situation at different stages of development. Particular emphasis is laid on the need to work out a definition of the integral parameter of the effect of environment on longevity. The difficulty of methodical and practical research is due to the absence of a system of classification of the factors involved in the over-all ecological influence on man.

Evaluating the results with respect to what has been mentioned above, it should be noted that research on the effect of the ecological factor on survival and longevity requires, first of all, a list of all phenomena that put some limits to man's life (from the viewpoint of man's spreading on the Earth in different historical periods); it is necessary, at the same time, to have an actual idea of the formation of the relationship between the society and the physical world. The research must be carried out at a local level, within the territorial socio-economic systems. It is important in this connection to explain both the positive and adverse effects of the ecological factor.

Large quantities of accurate data are necessary if the effects of the components of environment on longevity are to be explained. These data should report on the climatic,

weather, soil, health and hygienic conditions in the landscape by which the ecological environment is determined (data from lists, health statistics, special natural-science literature).

NOTES

- 1 A. Popov, Effect of the quality of natural environment on human health. In: Natural environment and population. Moscow, 1981, p. 47 (in Russian)
- 2 A. V. Dulov, Geographical environment and history of Russia (end of the 15th to mid 19th centuries). Moscow, 1983, p. 13 (in Russian)
- 3 B. C. Uralis, The evolution of life expectancy. Moscow, 1978, p. 27 (in Russian)
- 4 M. V. Ptukha, Essays in population statistics. Moscow, 1960, p. 280 (in Russian)
- 5 V. K. Yatsunsky, The role of differences in natural population growth rates in Russia in the 19th and 20th centuries. In: Voprosy geografii 83, Moscow, 1970, p. 51 (in Russian)
- 6 V. M. Kabuzan, The natural and climatic conditions and population replacement (natural growth) in Russia in the 19th and early in the 20th centuries. Synopsis of report and summary on the scientific conference "XXVII Congress of the Communist Party of the USSR and problems of the interaction between society and physical world in different historical stages". Moscow, 1987, p. 125-126 (in Russian)
- 7 I. Levakovsky, Russia's waters and their relation to the population. Khar'kov, 1890, p. 15-16 (in Russian)
- 8 A. I. Shchapov, Historico-geographical distribution of the

- Russian population. In: Shchapov, Collected Works, vol. 2, St. Petersburg, 1906, p. 222 (in Russian)
- 9 V.Obukhov, Variations in grain output in European Russia during 1883-1895. In: Effects of poor crops on the national economy of Russia. Moscow, 1927, tom 1, p.290-295 (in Russian)
 - 10 S.Novosel'sky, Mortality and life expectancy in Russia. Petrograd, 1916, p. 159 (in Russian)
 - 11 Report on the state of health of the people and the organization of health care for 1907-1908. St. Petersburg, 1909, p. 157 (in Russian)
 - 12 State archives of the Novgorod region, F. 605, s. 1, d.2, f. 33
 - 13 G. Eikhval'd, On the problem of mortality reduction in Russia. St. Petersburg, 1887, Annex, map IV.
 - 14 O.Spasky, On the effect of external conditions on longevity. Collection of statistical data on Russia. St.Petersburg, 1854, t. 2, p. 312 (in Russian)

Naïla E. Bekmakhanova

PROCESS OF ANNEXING EASTERN REGIONS TO RUSSIA AND
ITS EFFECT ON THE LONGEVITY OF NOMADS

The investigation described here refers to the territory of Kazakhstan and Kirghizia from the 19th century to the year 1917. The annexing of this territory to Russia started in 1731. The process continued for longer than 100 years and was finished in the first half of the 19th century. The economic and political contacts of Kazakhstan and Kirghizia with Russia started in the preceding centuries. The basic factors that led Kazakhstan and Kirghizia to join Russia were the disastrous tribal conflicts and feudal wars and the territorial pretensions of the neighbouring states: Jungaria, China, Khiva, Kokand, Bokhara. The joining of the large multinational Russian state was a progressive act for the Kazakh and Kirghiz people. It put an end to the feudal wars and conflicts between tribes which had brought enormous suffering to the working masses. The patriarchal feudal system was changing and the economic and cultural contacts between nations

intensified. They began to be increasingly involved in revolutionary liberation struggle. On the other hand, it should be mentioned that the tsarist regime pursued a policy of social oppression and national conflicts, fitting the interests of the ruling strata. Combination of social, national and colonial oppression objectively gave rise to the joint rising of the multinational labour strata of Russia against the oppressors in the 19th century, during the first Russian revolution in 1905-1907, in the February bourgeois democratic revolution and in the Great October Socialist Revolution in 1917.

When Kazakhstan and Kirghizia joined Russia, scientific research of their population began. Statistical service was established which allowed to study important factors, associated with the joining of Russia, such as the increasing longevity of the nomads. Data from the censuses of nomads taken every three years, the First All-Russian Census of 1897, Census of Cities of 1916, and Census of Farms of 1917, and data of church and medical statistics were used.

Parochial statistics provide valuable materials on the numbers of population and their natural change, especially from the latter half of the 19th century to 1917 (births, deaths, weddings). Registers for Kazakhstan and Kirghizia were studied; they were concentrated with the Holy Synod and are kept in the collections of the Central State Historical Archives of the USSR in Leningrad. Records of births and deaths were sent to the Synod. For recapitulations and parochial tables on the natural movement of the population, special forms were prescribed. The Synod collected records according to religion. The records on the nomads, Kazakhs and Kirghizes were gathered in Synod Departments dealing with Mohammedan affairs; data on baptized Kazakhs and Kirghizes were recorded by departments for Orthodox population. Summaries on the parochial population censuses were also investigated. These published data were corrected by comparison with the current administrative and police records. This was

necessary, because part of the nomads went neither to the church nor to the mosque, so they could not be recorded in the files of either of the churches.

The Governor summaries and surveys from the 19th century to 1917 contain records on the numbers of persons living in the parochial districts according to religion, and on the natural population growth (birth and death rates) according to regions, provinces, domains, and cities and towns.

The Central Statistical Committee of the Ministry of Internal Affairs, the Chief Medical Inspector of Russia and other institutions published (beginning in the latter half of the 19th century) the data of the parochial and health statistics on the natural movement of the population, including the Mohammedans. These data were based on the health statistics and parochial files: 1. All the data were classified according to months (seasons), 2. the birth records contained data on legitimacy, on the numbers of twins etc., foundlings and stillbirths, 3. the dead were classified in every year according to age and the children that had died during the first year of life were recorded in three-month groups, 4. the age of the bride and bridegroom was recorded at wedding.

The credibility and completeness of the statistical data on the natural movement of the population of Kazakhstan and Kirghizia varied with the administrative areas. Data from the south, especially from the Syrdarya region, are somewhat less credible than from other areas. In addition, the Kazakhstan registers, like in fact all registers in Russia, had one common drawback: they contained data on the religious ceremonies concerning babies who were born and old persons who died, as well as the weddings, instead of data on births and deaths themselves; hence, there was the date of baptism instead of the day of birth and the date of burial instead of the date of death. The ceremony in the church or mosque could be delayed for various reasons, so that part of the babies born

and persons who had died might be entered in the register only the next month or even the next year. The registers were closed sooner than the 31th of December because they had to be submitted for revision to the Ecclesiastical Court. Hence, all those who were born or died during the period between giving over the old books and obtaining new ones had to be transferred to January of the following year. This is why in all regions of Kazakhstan and Kirghizia the number of births in December is the smallest and in January almost always the highest. Further, when the Mohammedans were baptized, the baptisms of children were entered in the registers together with the baptisms of adults, so when statistical data on the babies born are gathered, mistakes may very easily be made: the baptized adults may be considered as new-born babies. However, this does not happen very often, and in many registers the baptized adults were entered separately. ¹

These published data and archival sources allowed to study the rate of the natural growth of the population of Kazakhstan and Kirghizia from the 19th century to 1917 and to arrive at the conclusion that the Kazakh and Kirghiz nations were not dying out and that the length of life of the nomads was increasing.

The data on Kazakhstan and Kirghizia in the first half of the 19th century indicate that there was a slight but permanent growth of population in Kazakhstan and Kirghizia during the period under study. Its annual rate was 0.4 %. The author of this report obtained this figure as a result of an analysis of the administrative and police records, censuses of the nomads taken every three years, and parochial statistics. ² Evidence proving that this figure is close to reality is provided by calculations performed by the pre-revolution researchers, N.M. Yadrintsev, S. Kovaliko and J. Janson. ³ These authors considered a growth of 0.39 % as the most probable rate of growth of Kazakh and Kirghiz population. The low rate of growth of the nomadic population was

ascribed to the very low proportion of women in the population. The above-mentioned authors were the first in pre-revolution historiography to point out the fact that the Kazakh and Kirghiz nations were not dying out.

In the first half of the 19th century, birth rate was not high in Kazakhstan: there were 3.8 babies born per each 100 persons in the Akmolinskaya region, 2.2 in the Semipalatinskaya region, 2.3 in the Turgaiskaya region and 1.6 in the Uralskaya region. Death rate was the highest in the Akmolinskaya region with 2.6 deaths per 100 persons, followed by the Semipalatinskaya region with 1.6, Turgaiskaya region with 1.4, and Uralskaya region with 1.1 deaths per 100 persons. The natural increase, on an annual average, was 1.2 persons per 100 persons in the Akmolinskaya, 0.6 in the Semipalatinskaya, 0.9 in the Turgaiskaya, and 0.6 in the Uralskaya regions. The numbers of weddings per 100 persons in the respective regions were 0.6, 0.4, 0.7 and 0.3.

During the eighteen-sixties, the natural growth of population remained low in Kazakhstan - lower, for example, than in the Ukraine in the European part of Russia. The regions of Kazakhstan and Kirghizia had different natural increases of population. In the Semirechenskaya, Akmolinskaya and Turgaiskaya regions the natural growth was higher and in the Uralskaya and Syrdarskaya regions it was lower. It is characteristic that the rate of natural increase remained unchanged during the periods of 1877 to 1886 and 1887 to 1896.

The average annual population growth, consisting of the excess of births over deaths, was 208.8 thousand persons, which was 7 % per 1000 persons, the total population of the whole area being 3413.1 thousand in 1877. In 1877-1886 this excess was 286.3 thousand, i.e. 11.9 % (population 3808.5 thousand in 1887). In 1887-1896 it was 281 thousand, i.e. 7.4 % (population 4932 thousand in 1897).

On the basis of the natural growth (%), the regions within the whole area can be ordered as follows: 1867-1876:

Semirechenskaya region 9.1 %, Akmolinskaya 8.1 %, Syrdarskaya 7.8 %, Semipalatinskaya 6.3 %, Uralskaya 5 %, Turgaiskaya 3.5 %; 1877-1886: Syrdarskaya 14.4 %, Semirechenskaya 12.6 %, Akmolinskaya 4.8 %, Turgaiskaya 4.7 %, Uralskaya 2.5 %, Semipalatinskaya 1.8 %; 1887-1896: Semirechenskaya 13.4 %, Turgaiskaya 10.2 %, Uralskaya 6.2 %, Semipalatinskaya 4.7 %, Syrdarskaya 4.6 %, Akmolinskaya 2.3 %.⁵ The general idea of the rate of the natural growth of population in the separate parts of the area can be drawn from these data. The highest relative excess of births over deaths in 1867-1876 was recorded in the Akmolinskaya and Semirechenskaya regions (8.1 - 9.1 %), a medium excess in the Semipalatinskaya and Syrdarskaya regions (6.3 - 7.8), and the lowest in the northwestern part of the area, the Uralskaya and Turgaiskaya regions (3.5 - 5 %). In 1877-1886, the highest excess was recorded in the Semirechenskaya and Syrdarskaya regions, a medium excess in Akmolinskaya and Turgaiskaya regions (4.7 - 4.8 %), and the lowest in the Uralskaya and Semipalatinskaya regions (1.8 - 2.5 %). In 1887-1896 the regions ranked as follows: Semirechenskaya and Turgaiskaya (10.2 - 13.3 %), Uralskaya and Semipalatinskaya (4.7 - 6.2 %), and Akmolinskaya and Syrdarskaya (2 - 4.6 %).

In all the six regions, the data suggest that there was a permanent growth of population, which was due to the excess of births over deaths.

Now let us consider the analysis of data on births in the area under study. The data for the three decades, 1867-1876, 1877-1886, 1887-1896, indicate that the number of births declined in the Akmolinskaya, Syrdarskaya and Semipalatinskaya regions. Natality in these three regions was influenced by the gradually introduced health care in cities, vaccination against small-pox and the control of the epidemics of cholera and plague. The decline in the number of births in the Akmolinskaya and Semipalatinskaya regions is associated with severe frosts, which caused a lack of fodder;

this in turn led to mass mortality of livestock (called djut). Djut occurred three times in these regions in the period between 1867 and 1896. A lack of balance remained there until 1896 and natality remained below its 1867 level.

Analyzing natality, it should be mentioned that only the birth rate can be calculated for Kazakhstan and Kirghizia. The fertility parameter cannot be calculated because age structure data are not available (except for the year 1897).

Now let us analyze the statistical data on deaths. The high mortality in Kazakhstan and Kirghizia was largely associated with the high mortality of children. In each month we confronted the number of all babies that had died before an age of one year with the number of births within the same year. The calculated result is that out of 1000 births, 240 to 340 babies died before reaching an age of one year.⁶ If the six regions of Kazakhstan and Kirghizia were ordered according to the level of fertility (from the highest to the lowest) and if this series were compared with the series arranged according to infant mortality, no agreement would appear. This shows that infant mortality did not depend on fertility rate. Infant mortality in the area under study had the same causes as mortality in general in Russia: various diseases, unfavourable climatic conditions, and poor socio-economic conditions. The health statistics at the end of the 19th century recorded the highest mortality in Kazakhstan and Kirghizia in the autumn and winter seasons. In cities and towns the levels of infant mortality were as high as in the country.

As to death rate in relation to the age of those who died, the data are not complete and do not allow to draw an over-all picture of mortality in each age group. A maximum death rate was recorded where birth rate was also the highest and vice versa, a minimum death rate was recorded where birth rate was the lowest or very low. This can be partly ascribed to the high infant mortality, especially during the first

years of life. For example, the high mortality recorded in 1885 (in health statistics) can be ascribed to the epidemics of typhoid fever, dysentery and small-pox which killed a large proportion of babies under 1 year of age. Thus in the Uralskaya region, 50 % of the cases of small-pox at an age of up to one year resulted in death. ⁷

As already mentioned, there were more men than women in all regions of Kazakhstan and Kirghizia.

In Kazakhstan and Kirghizia, 5 persons out of 1000 married annually; this number varied between regions from three to seven: 6 in the Akmolinskaya region, 4 in the Semipalatinskaya region, 7 in the Turgaiskaya region, and 3 in the Uralskaya region. Among the Mohammedans the number of weddings varied greatly. Drought, poor harvest, and epidemics reduced the numbers of weddings.

Generally it can be said that in the latter half of the 19th century the natural growth of the Kazakh and Kirghiz population can be characterized as follows: the sex ratio was unfavourable (not more than 90 women per 100 men); the fertility of the Kazakh and Kirghiz women was low; there was a high infant mortality caused by diseases such as small-pox, scarlet fever and others; medical care was poor; it was difficult for the poorer part of the population to marry because the men could not afford to pay for the bride.

In 1897-1917 the natural growth of the population of Kazakhstan and Kirghizia was somewhat higher than in the 19th century. From the end of the 19th century the natural growth began to increase rapidly everywhere and in 1907-1916 it reached a maximum of 15.3 %. In this period the parameters of natural growth in Kazakhstan and Kirghizia matched those for the Russian Empire as a whole. In 1910 and in 1914-1916 the rate of population growth in this area was even high above the all-empire level. Analysis of these data suggests that there are two trends: first, the quality of recording of the natural movement of the population improved and second, the

mortality of Kazakhs and Kirghizes declined while birth rate remained high.

The highest natural growth was recorded in the Akmolinskaya, Turgaiskaya, Semirechenskaya and Syrdarskaya regions: 14.9 to 21.9 % per 1000 persons.

The average annual population growth, reflecting the excess of births over deaths, was 557.5 thousand persons in 1897-1906, which was 11.3 % per 1000 persons (the number of inhabitants in the whole area was 4932 thousand in 1897). In 1907-1916 this growth amounted to 888.6 thousand, i.e. 15.3 %, the population of the area being 7532.9 thousand in 1917.

In the individual regions within the whole area, the natural population growth was as follows: from 1897 to 1906: 17.1 % in the Akmolinskaya, 14.2 % in the Turgaiskaya, 12.6 % in the Uralskaya, 12 % in the Semirechenskaya, 9.4 % in the Syrdarskaya, and 5.3 % in the Semipalatinskaya regions. From 1907 to 1916: 21.9 % in the Turgaiskaya, 21.8 % in the Akmolinskaya, 16.2 % in the Syrdarskaya, 13.7 % in the Semirechenskaya, 10.3 % in the Semipalatinskaya, and 7.7 % in the Uralskaya regions. These data confirm the active growth of population practically in all regions within the area under study. During the first decade of the 20th century the largest excess of births over deaths was recorded in the Akmolinskaya and Turgaiskaya regions: from 14.2 to 14.7 %. In the Uralskaya, Semirechenskaya and Syrdarskaya regions the data on natural growth ranged between 9.6 and 12.3 %. The lowest natural growth of population was recorded in the Semipalatinskaya region: 5.3 %.

In the second decade of the 20th century the natural growth remained highest in the Akmolinskaya and Turgaiskaya regions (from 20.9 to 21.8 %); it was also fairly high in the Semirechenskaya and Syrdarskaya regions (13.7 to 16.2 %), and a slight decline was observed in the Uralskaya region (from 12.3 to 7.7 %). In the Semipalatinskaya region the natural population growth doubled to reach 10.3 %.

As to the development of birth rate, the summarized data for the first two decades of the 20th century show an increase in the number of births in all regions, especially in the Akmolinskaya and Turgaiskaya regions where the in-migration of the Russian and Ukrainian population was fairly high and where health services were comparatively good in the cities and towns.

The nuptiality of the population exerted an influence on the increases in birth rates; in spite of some adverse circumstances, nuptiality increased at the beginning of the 20th century. Both the Kazakh and Kirghiz bridegrooms were supposed to pay 15 to 20 head of cattle or 150 to 200 roubles for the bride. Men of the poorer strata were unable to pay so much sooner than they were 30 - 40 years old - a really serious obstacle to wedding.

The growth of the population was also influenced by the existence of levirate by which a widowed woman was supposed to become wife of one of her husband's closest relatives.

Investigation of the male-to-female sex ratio shows that men prevailed in all the regions (53% in the whole area). This is seen most clearly in the Semipalatinskaya region where there were only 31 women per 37 men. The most balanced ratio was recorded in the Turgaiskaya region.

Data are given for the Semirechenskaya region in the period of 1897 to 1906. Eight age groups are used. Slight changes took place in each age group over the ten years of observation. The group of persons younger than 30 years was the largest, whereas in age groups from 40 to 70 years the number of population declined rapidly.

Table Number of population in the Semirechenskaya region in 1897 to 1906 by age groups (%)

Year	Age group							
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70+
1897	25,7	19,1	18,9	13,5	10,2	6,1	4,1	2,3
1906	25,7	19,1	18,9	13,6	10,1	6,2	4,0	2,4

Data on the natural movement of population at the end of the 19th century until 1917 suggest that there was a steady population growth as a result of natural increase. A slow but steady increase was also observed in longevity.

It is seen that the natural growth of the nomadic Kazakh and Kirghiz population and the length of their life grew during the whole 19th century until 1917. This confirms that these nations' joining Russia was a progressive act for them. The development of new forms of farming, livestock housing, gradual settlement of part of the nomads, development of industries and trade, successes of the care of human health and veterinary care, exchange of experience in culture and mode of living among the multinational population of the whole area, all this had a favourable influence on the life of the Kazakh and Kirghiz people, as confirmed by demographic data.

NOTES

- 1 Central State Historical Archives of the U.S.S.R. (CSHA), F.1298, dep. 2851, f. 2-4; d.2958, f. 71-75; Statistical Bulletin of the Russian Empire. St.Petersburg, 1871-1884. Ser. 2, Vol. 8, 12-14, 17-25; 1884-1890. Ser. 3, Vol. 7, 20-21, 23-24; Reports of the Health Department of the Ministry of Internal Affairs for 1880-1895. St.Peters-

burg, 1882-1898; Reports on the state of people's health and organization of health care in Russia in 1896-1914. St. Petersburg, 1905-1914

- 2 N.E. Bekmakanova, The Formation of the Multinational Population of Kazakhstan and Northern Kirghizia. Last Quarter of the 18th Century to the 1860s. Moscow, 1980, p. 194 (in Russian)
- 3 Scientific archives of the Geographical Society of the U.S.S.R. F. Series 75, dep. 5, d. 8, f. 1, 5, 16
- 4 CSHA, F. 1290, dep. 4, d. 755, f. 1-450
- 5 Summarized tables on births, deaths and weddings in the European part of Russia in 1871 to 1878. Ser. 3. St.Petersburg, 1884-1889, vol. 3, 7, 20, 21, 23, 24. The same for 1879-1884.
- 6 Statistical Bulletin of the Russian Empire. St.Petersburg, 1879, ser. 2, vol. 14, f. XVII.
- 7 Report of the Health Department for the year 1885. St. Petersburg, 1887, p. 32, 39, 42, 43, 46, 53, 55, 57, 59, 78, 82, 83, 92, 99.
- 8 CSHA, F. 1290, dep. 4, d. 755, f. 1-450; Reports of the state of people's health and organization of health care in Russia in 1896-1914. St.Petersburg, 1905-1916, table 1; CSHA, F. 1298, dep. 1, d. 2851, f. 71-75; Statistical Yearbook of Russia, 1916 (year 13). Petrograd, 1918, vol. 1, f. 94-103; Preliminary results of the 1916 Farm Census. Petrograd, 1917, vol. 2, p. 4-75; Results (by domains) of the All-Russian Farm and Land Census of 1917 for 57 provinces and regions. Moskva, 1923, p. 2-213; 1905 Bulletin of the Semirechenskaya region, Vernyi, 1906; The same for 1906, Vernyi, 1907; N.E. Bekmakanova, Multinational population of Kazakhstan and Kirghizia in the period of capitalism (from 1860s to 1917). Moscow, 1986, p. 165-170.

Jiří Pešek

DEVELOPMENT OF PRAGUE AND ITS POPULATION IN DOCUMENTS
OF THE ARCHIVES OF THE CITY OF PRAGUE ⁺

On the occasion of the Demographic Congress, the Archives of the city of Prague have prepared an exhibition aiming to present most significant sources - or selected representatives of source units deposited in the archives - that are valuable for the knowledge of the population and, in some respects, urbanistic and social developments of Prague towns from the 15th century to the modern times.

Since the late 9th century when some time after 885 Count Bořivoj built a castle on a hill above the Vltava River, Prague was a tribal and national centre and later, after villages and a town were established by the Vltava a capital

+ This paper was presented at the opening of the show held under the same title.

city of Bohemia and the Bohemian State. Due to its central position in the country and its commercial, strategical and administration significance as well as its position as an important manufacturing centre, Prague soon acquired a special status in the country and its vicinity. As to the size and population, it could not be compared to any of the other towns in the kingdom. As a residential town of the monarch and the seat of the majority of significant offices and the university which had been founded in 1348, Prague grew into a prominent consumption centre attracting migrants from both the Bohemian countries and abroad and cumulating within its walls even more functions and activities than its size, population and economic potential could afford. Prague simply became a head of the kingdom, and, under the Luxemburghs as well as the Hapsburgs, also a royal seat of Roman kings and emperors. In many respects, Prague has kept this special position until these days.

Prague of the Middle Ages or early modern era, however, was not a single organism. It was a unit of five independent royal as well as tributary towns among which Prague's Old Town was prominent as to significance and wealth, and Prague's New Town that had been founded by Emperor Charles IV, as to area and population. In the 15th century, all of Prague's towns had over 25,000 inhabitants who resided in about 4,000 houses. That is, however, an estimate based on taxation registers and topographical studies. In the twenties of the 15th century Prague's population structure was somewhat changed because, as a consequence of the outburst of the Hussite revolutionary movement, the German patricians were expelled from the town and, on the other hand, a lot of new burghers of Czech origin were admitted.

By the mid-16th century, the population of Prague's towns doubled in size - to about 30,000 inhabitants. Prague was at the head of the municipal estate as a prominent power factor and significant land authority with notable political

ambitions. Only the failure of the anti-Hapsburg resistance in 1547 made it possible for the sovereign and nobility to crush Prague's position of power. Nevertheless, the position of the Prague towns as the economic, information, administration and cultural headquarters was unshakable which resulted in a continuous increasing wave of in-migrants to the Prague towns. By the early 17th century, the population of Prague which had been a seat of the Emperor's court since 1583 again, grew to 60,000, i.e. a double of the number from the middle of the century. Unlike in the Middle Ages when the number of houses reached a maximum, their number was reduced to 3,600 but the fact was brought about by reconstructions, connecting individual lots and rebuilding houses into new, better-looking structures. The wave of in-migrants did not grow weaker - they were coming from the Bohemian countries as well as Germany, Italy, the Netherlands and France. Prevailing were Germans and Italians who were no more Czechicized in Prague's international atmosphere around 1600, as was the rule in the previous years. The Italians even formed a significant colony in Prague influencing specifically life of the town under the Castle - in Malá Strana.

Essential consequences for the Prague towns were brought by the uprising of Estates between 1618-1620 which resulted in the defeat of Estates including towns, confiscations and - after declaring the Catholic faith as the only permitted belief - eventually in the emigration of a relatively significant number of Prague's inhabitants. In the twenties, 620 families of wealthy burghers left abroad, i.e. 2,500-3,000 persons. The reduction, however, also increased during the war years, and after 1648 Prague had less than 40,000 inhabitants. That level of population remained more or less the same for nearly a hundred years, the main reason for the population stagnation being large plague epidemics. During one such epidemic in 1680, the Prague towns lost almost a half of population according to unverified reports while in 1713 the verified records reported one quarter.

An independent world within Prague's fortifications was the Jewish ghetto, the largest Jewish community in Central Europe. The ghetto had some 10,000 inhabitants which represented about a quarter of Prague's population. Significant in the cultural, financial as well as general economic spheres, the Jewish Town was growing continuously despite a number of limiting decrees such as that on a given number of houses and inhabitants allowed (such specific regulations were issued in 1650 and 1726). In 1745, Empress Maria Theresa expelled the Jewish population from Prague - reportedly for their unloyal behaviour under the French occupation of the city during the wars for the Hapsburg inheritance. As early as in 1748, however, the first wealthy Jewish families were allowed to return and the Jewish Town soon became as significant as it used to be.

Shortly before the Prague towns were united in a single unit within the framework of Joseph's reforms in 1784, there were over 80,000 inhabitants in all the towns. The increase was most considerable, particularly in the last three decades. Prague reached 100,000 inhabitants shortly after the Napoleon wars and in 1827, the population already amounted to 104,000. At that time, however, independent villages on the city's circumference were growing faster than Prague itself; these were especially the industrial suburbs which later became independent towns, Smíchov and Karlín. In 1843, Inner Prague had 112,000 people while the villages on its circumference within the boundaries of the future Greater Prague were inhabited by 35,000 persons. By 1880 a number of inhabitants of Prague's conurbation increased to 314,000 out of which more than a half resided in the suburbs.

In the eighties Prague became a metropolis of the Czech nation - the Czechs prevailed in the Town Council while there were only some 16% Germans left in Prague's conurbation, in contrast to the middle of the century when they represented some 40%, the fact being caused by a mass in-migration from the Bohemian countryside.

Complicated negotiations aimed at uniting the ring of suburbs with Inner Prague, which were as lengthy as in other large Central European cities, were accomplished only after the Czechoslovak Republic was declared. In 1922, Greater Prague was established with the area of 17,000 hectares, i. e. a territory comparable to Birmingham or Amsterdam, and 677,000 inhabitants. As a capital of the young state, Prague kept growing the way it did before. By 1938, the city grew to reach some 962,000 inhabitants out of whom only 5.4% claimed to be German.

In the years of the German occupation, Prague exceeded a million inhabitants for a short time. The fact was brought about partly by an influx of refugees from the borderland regions that had been annexed by the German Empire, partly by the stationing of a large garrison of Wehrmacht. Nevertheless, Prague also suffered population losses. In the first place, one of the main factors was the evacuation of Prague's Jews to ghettos and concentration camps where most of them were exterminated; also the Czech universities were closed down and, subsequently, a lot of students were arrested and thousands of others sent to work in factories or Germany where also large numbers of fresh high school graduates and workers were consigned. Nearly 2,000 inhabitants of Prague were killed in the Prague Uprising in 1945.

In the post-war years, the population of Prague decreased to some 921,000 in 1947, the main reason being the displacement of the German population from the Czechoslovakia to Germany. Only around 1950 the population began to grow more considerably and the figure of one million inhabitants was reached as late as 1961. Further growth was achieved particularly by enlarging the territory of Prague's conurbation. The population of today's Prague represents some 8% of inhabitants of Czechoslovakia.

The exhibition was intended to document the population development of the city described above, as well as to show

the visitors the significant sources of city-wide nature and those to acquaint with specific groups of population, or specific problems of the population and social history. Those exhibits which are remarkable as to the information they provided but somewhat monotonous as to their exhibition character, were complemented with vistas, plans and photographs of the city aiming to acquaint the visitors with its looks and document its growth. Attention was also paid to the documentation of the city's life by means of pictures, small prints, public notices and various samples of file material, personal documents etc. from the period of the last hundred years. Prague's statistical literature is also part of the exhibition.

The abovementioned description shows that the centre point of the exhibition are a census of the population and counts of houses and, alter, apartments, i.e. lists of a taxation-office character, in the first place. The exhibited lists began with the manuscript - Taxation Book of Prague's Old Town from 1427-1434. The rather indecorous contemporary of the far detailed Catastrus of Firenze is of an extraordinary importance for the knowledge of Prague's history of the 15th century because it lets us follow the changes in the tenure of houses during the Hussite period. As for taxation sources from before the Thirty Years' War, two more books have been selected. Those are the Malá Strana Taxation Register Books from 1611-1613 and the Summary Book of Old Town Taxes from 1616-1620.

The basic source of the description of Prague's population after Thirty Years' War was the Roll of Assessment from 1654 and other centrally organized censuses of population and real estates from the 17th and 18th centuries. Daily needs of city's fathers as well as contemporary tax campaigns, however, brought to life partial censuses and registration aids. Out of those there have to be mentioned taxation register books of the New Town from 1674, including the income and expenses of taxpaying money for the army provisions, tax accounts of the

New Town from 1681, or a book describing a visit to an Old Town quarter or St. Linhart's Parish in 1683. The visitation recorded the proprietors of houses, the condition of buildings and business that was made in them, and naturally also the tax. An important source of information on inhabitants is the so-called Theresian Land Registry from 1757 and also preceding taxation book of the Týn quarter in the Old Town compiled between 1750-1751. As far as the New Town is concerned, there is interested the Description of Houses from 1754 with the names of owners and assessment of individual houses. The Description of Houses was followed by the elaborate List of Houses from 1770 including data on male inhabitants.

At the exhibition, the Jewish Town was represented by a list of deceased Jews who died between 1749-1759, the Book of Rental Tax of the Jewish Town, and from a later period The Alphabet List of House Proprietors in the Jewish Town between 1844-1845. The abovementioned sources are supposed to show how strict were the limitations restricting the growth of the Jewish Town and a number of existing houses as well as families and to document that the Jews who tried to settle outside the ghetto or buy a Christian real estate were repeatedly inflicted until the mid-19th century.

Although the Prague conurbation was divided into independent administration units, some institutions had to respect the reality of the city as a single unit. That was the case of particularly the Statistical Commission of the Royal Capital City of Prague which was connected with the name of statistician Josef Erben. The exhibition included some working manuscripts for the Commission's papers and a following series of various sorts of booklets from 1871-1939. The Statistical Books that were issued by the Commission regularly provided data concerning the whole conurbation of Prague. Similarly, the existence of Greater Prague was respected by the Food Supply Commission established at the beginning of World War I in 1914.

Let us now take a more detailed look at individual sources. The most important ones, naturally, are registers, classical material for demographic analyses. The oldest preserved register of Prague is a tiny long volume including records of newborns' baptisms at the New Town's Parish of St. Henry. The records were kept since 1584. The St. Henry Register was of Protestant origin. The oldest Catholic register is the register of St. Tomas' Parish from 1588-1632, and somewhat younger is the register of St. Vitus metropolitan Church at the Prague Castle of 1606-1642. Since artists of the Emperor's Court and architects and artistic craftsmen of the Italian colony were concentrated at the two parishes, both of the abovementioned registers are significant from the historical-cultural point of view.

The two registers dating from a later period may be utilized in the professional literature - the register of the Old Town Parish of St. Castulus from the early 18th century includes a tabular list of persons who died of the plague in 1713. Day after day the vicar of St. Castulus recorded and counted the dead in individual towns of Prague until he reached the number of 10,350 people who died of the plague by early 1714. The unique index of the newborn, newly-weds and dead in the registers of St. Margaret Parish in Břevnov, then a village in the vicinity of Prague, from the period between 1652-1800 includes practically complete reconstructions of families throughout a hundred-and-fifty-year period of their development.

The books of testaments, estate inventories, marriage contracts or books of newly-settled burghers are of a great importance for the study of development and structure of population in the pre-register period. The exhibition presented the oldest books or manuscripts of mixed character including the oldest records of individual types, as well as books including records on prominent personalities of the period. For example, from the Book of Testaments there was

selected a manuscript with Pavel Kristián of Koldín's testament, who was Chancellor of the Old Town and author of the significant codification of the city civil law from 1579. Similarly, a certificate of marital origin and good behaviour of the Old Town mayor-to-be Mikuláš Turek of Rosenfeld, included in the Book of Marriage Contracts from 1609-1649, was also chosen.

To mention minor sources that deal with specific groups of Prague's inhabitants, a list of emigrés who returned to the towns of Prague during the Saxon invasion in 1631 was presented, which is part of the Old Town Book of Decrees. An exceptional source is also a list of Prague's beggars from 1712 with their brief biographies. Interesting may also be the Description of Prisoners in the Upper (i.e. confinement as opposed to a cell) Prison of the New Town from 1732-1745, which provides the personal data of the prisoners as well as reasons for their sentences.

As for the younger sources, we should like to mention the Book of Foreign Journeymen in the Towns of Prague between 1830-1842, a peculiar source acquainting with the professional migration. For social history, of interest are the book of Burghers' Rights of the United Towns of Prague from 1834-1850, the Book of Honorary Burghers and the Register of Community Elders of the United Towns of Prague from 1848-1899.

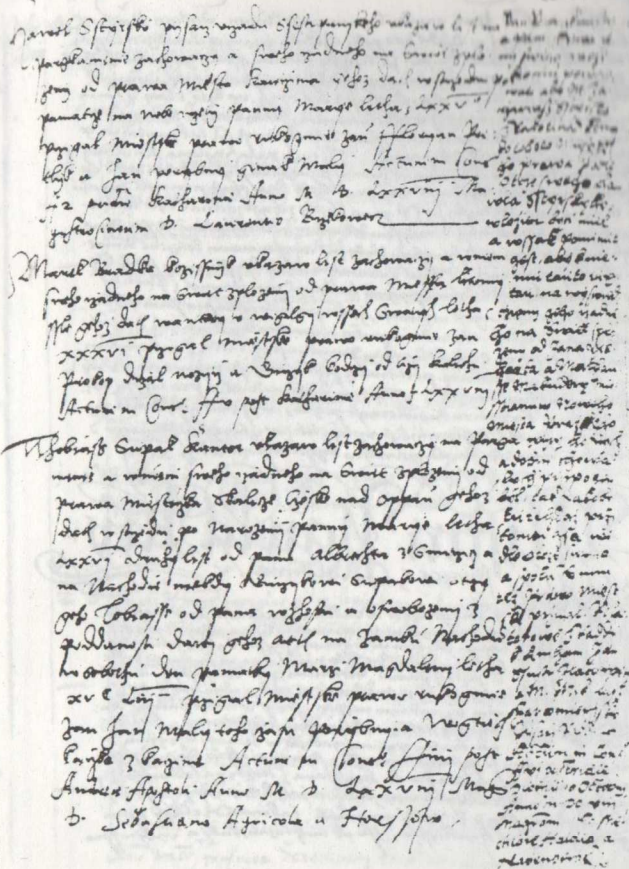
From the Council's Military Department there have been chosen a list of recruits who were born between 1845-1847, young men who went to the bloody war in 1866. Personal stories of World War I are reminded of by lists of Jewish refugees from Galicia who were in the care of Versorgungskomitee für Jüdische Flüchtlinge in 1915, and a list of refugees from Galicia and Bukovina who settled down in Vršovice, Prague's suburbs, between 1915-1917.

As for the modern material, especially a set of documents and photographs, mostly unpublished, documenting the history of Prague under the Protectorate and in the first post-war

years deserves a close look. In the form of records on food and census cards, the evacuation of Jews from Prague is described, as well as the process of sending the inhabitants of Prague to work in Germany, the return of Prague's inhabitants from concentration camps in 1945 and the gradual procedure of gathering Prague's German population in internment camps as well as their evacuation to Germany between 1945-1946. This period of the history of Prague's population is completed by the Decree on National Census from 1950.

Apart from statistical yearbooks of the capital city of Prague from 1967 and 1968, the youngest exhibits at our archival exhibition were represented by the Protocol on Meetings of the Council of the National Committee of the Capital City of Prague from 1969, with the Reasoned Statement on the Population Development of Prague, and a text of the Area Plan of the Capital City of Prague from 1984.

Out of over 500 tons of the archival material, only a hundred exhibits, or slightly above, were chosen for the exhibition documenting the history of Prague's population of the 15th to 20th centuries. They attracted attention to less-known aspects of the history of Prague and helped to open new trends in the research on the history of Prague's population.



The image shows two pages of a handwritten document in a cursive script, likely from a 16th-century civic rights book. The text is dense and fills most of the pages. The book is bound in the center, and the pages are slightly aged and yellowed. The handwriting is dark ink on light-colored paper. The text appears to be a list or record of names and their associated rights or obligations, with some lines starting with 'Jan' or 'Jana'. There are some marginal notes and a small signature at the bottom right of the right page.

Fig. 1 Book of civic rights, Old Town 1550-1600 (Archives of the Capital Prague)

ma odhrazanwet. Item oznamit, ze mne jest daryen Ondrejz Kotvovet...
... Item oznamit, ze mne jest daryen Ondrejz Kotvovet...
... Item oznamit, ze mne jest daryen Ondrejz Kotvovet...

Mistra Pavla Kriv.

kyrka z Koldijna



... Item oznamit, ze mne jest daryen Ondrejz Kotvovet...
... Item oznamit, ze mne jest daryen Ondrejz Kotvovet...
... Item oznamit, ze mne jest daryen Ondrejz Kotvovet...

Fig. 2 Book of testaments, Old Town 1582-1620
(Archives of the Capital Prague)

- | | |
|----|---|
| 6 | fontē Baptismali renatus fuit Nicolaus filius Matthei Janita... |
| 8 | Bapt: i: Jacobus filius Laurentij Graff S. C. M. Lingg et Jovis Helene... |
| 10 | Bapt: i: Conradus filius Jacobi Kemper et Catharinae Kewer... |
| 19 | Bapt: i: Thomas filius Georgij Schubert f. bellarij cur: Jovis... |
| 1 | Bapt: i: Susanna filia Heieronimii Remmeri, quoniam nuptiarum... |
| 6 | Bapt: i: Joac̄ Georgij filij Joac̄is Georgij Kaupter et Catharinae... |
| 1 | Bapt: i: Stephañ filij Jovanijs Ludovici Laniaris et Catharinae... |
| 1 | Bapt: i: Joac̄ Stephañ filij Joac̄is Jovis f. futoris et Jovis... |

Fig. 3 The register of births and marriages of St. Thomas
Parish, Malá Strana 1590-1632
(Archives of the Capital Prague)

Index alphabeticus I

Juxta cognomina Familiarum omnium Břevnovii
in Regulari ac Parochiali Ecclesia S. Margarethae
U. et M. Ordinis S. Benedicti. Baptizatorum, Copula-
torum, ac Sepulchorum ex Matriculis collectus ab anno
Domini 1751 usque ad annum 1800 exclusive.

Parentes	Proles	Baptizati	Copulata Mortui
A.			
Pranob. ac Cleber D. de Alenck Ferdinandus, Doctor et Professor Chirurgia, sponsa Prae. Virgo Barbara Kernin, filia Domini N. Reti mercatoris. Vltoro. Praga, idcirco Pragensis.			1786. 2 Julii
Josephus, vid. Josephina filiter R.			
Almano Mathias, Sartor et Casarius et pago Michelup, copulatus cum Catharina filia Antonii Libertini et Catharina, Sartoris, ac Cuijponis in Teguca.			1787. 10 Decembris
B.			
Debenes Franciscus lenio, in Teguca filius Jacobi et Franciscæ ex pago Hestenberg Laniensis, frater Anna, iuxta Mathia Balvini Laniensis et casario ex Teguca N. S. Uxor Ursula Maria Theresia, filia Joannis Balvini et Lidmila Sartoris in Teguca N. S. æta eisdem an. 1788. 9 Januarii hujusmodi Childberto Teguca viduo, Laniensi et pago Hestenberg oriundo.			1756. 20 Martii matricul. annorum 70 1787. 13 Junii
Proles - Catharina	1758. 20 Martii		1758. 1 Maji
Maria	1758. 29 Junii		1758. 2 Junii

Fig. 6 Index of the registers of St. Margaret Parish in Břevnov, 1751-1800 (Archives of the Capital Prague)

No. Register	Nomen et Cognomen	Sex	Erat	Mortuus	Causa		Tempus		Locus		Status		Observationes
					Tempus	Locus	Tempus	Locus	Tempus	Locus			
1	...	M.	...	...	...	...	...	...	...	...	...	...	...
2	...	F.	...	...	...	...	...	...	...	...	...	...	...
3	...	M.	...	...	...	...	...	...	...	...	...	...	...
4	...	F.	...	...	...	...	...	...	...	...	...	...	...
5	...	M.	...	...	...	...	...	...	...	...	...	...	...
6	...	F.	...	...	...	...	...	...	...	...	...	...	...
7	...	M.	...	...	...	...	...	...	...	...	...	...	...
8	...	F.	...	...	...	...	...	...	...	...	...	...	...
9	...	M.	...	...	...	...	...	...	...	...	...	...	...
10	...	F.	...	...	...	...	...	...	...	...	...	...	...
11	...	M.	...	...	...	...	...	...	...	...	...	...	...
12	...	F.	...	...	...	...	...	...	...	...	...	...	...
13	...	M.	...	...	...	...	...	...	...	...	...	...	...
14	...	F.	...	...	...	...	...	...	...	...	...	...	...
15	...	M.	...	...	...	...	...	...	...	...	...	...	...
16	...	F.	...	...	...	...	...	...	...	...	...	...	...
17	...	M.	...	...	...	...	...	...	...	...	...	...	...
18	...	F.	...	...	...	...	...	...	...	...	...	...	...
19	...	M.	...	...	...	...	...	...	...	...	...	...	...
20	...	F.	...	...	...	...	...	...	...	...	...	...	...

Fig. 7 Protocol of the postmortem examination, 1st district 1825-1832 (Archives of the Capital Prague)

Pozemkový Zápis		Příslušníci domácnosti	
Číslo pozemku	Právní stav	Jméno	Věk
1781/100	...	Antonín Dvořák	...
...
...
...

Fig. 8 Family card from 1874 - the list includes the family of composer Antonín Dvořák (Archives of the Capital Prague)

Zečim Bohumír
První Praha
Podatelství Praha

Číslo 1781/100
Právní stav ...

Arch sčítací

pro sčítání lidu a nejnižších domácností
zvlášť užitkových podle stavu ze dne 31. prosince 1890.

(Pro města, ve kterých popisejí se listy)

První část - popis bytu

II. a. Arch sčítací

Pro vyplnění vnutní stránky archu sčítacího naposledy buďte tyto údaje:

I. z koho skládá se strana byt obyvatel a úhrnný počet přítomných osob,
II. poloha, číselní bytu a k čemu bytu se užívá.
I. Z koho skládá se strana byt obyvatel a úhrnný počet přítomných osob:

Číslo bytu	...
Úhrnný počet přítomných osob	12

II. a. Popis bytu:

1. Vlastník bytu? (pro vlastníka)
2. Vlastník bytu? (pro pronajímatele)
3. Vlastník bytu? (pro pronajímatele)
4. Vlastník bytu? (pro pronajímatele)

Fig. 9 Envelope of the questionnaire from population census in 1890 (Archives of the Capital Prague)

ROUND TABLE "AGE AND HISTORY"

On the occasion of the Conference on the Ageing of Population in Developed Countries, historical demographers organized a round table on "Age and History". It had three working sessions, one on Wednesday, July 5, and the other two on Thursday, July 6, 1989.

The problem of distribution by age of the past populations and the problem of the position of old people in the societies in the past go far beyond the scope of demographic analysis. It undoubtedly remains necessary to continue expanding our knowledge of the age pyramids and the actual proportions of persons above sixty in the past populations. However, what appears essential is the need to separate the biological aspects of the history of old age from the social and cultural phenomena which in fact underlie old people's position, their influence, and the reverence they enjoyed in different epochs and different environments.

With respect to all this, the discussion concerned the following ranges of questions:

Biology: What was the relationship between legal and biological age in the past? Did the average age of puberty change over centuries? What was the upper age limit of the process of reproduction?

Economy, culture, society: At what age did people enter active life? At what age did they leave it? What did the work of children consist in and what was the quality and volume of the work of old people?

How did the age of attaining majority by law vary according to countries and to social groups? What was the social status of the adolescents and that of the elderly in the past societies?

Finally, why do our ancestors seem to have declared their age to be such and such in preference to another? What is the cultural meaning of the mistakes in age statements and of the tendencies to state rounded ages and to overstate the length of life of very old persons?

Our round table could not answer all these questions, but it helped to enhance our knowledge, to get closer to the core of the problems discussed and to refuse some of the accepted views.

On the whole, there were 21 contributions to the discussion. Ten of them had been published in advance in Historická demografie 13.

Two of the contributions concerned palaeodemography, especially the problem of the sparsity of finds of children's skeletons in the majority of old cemeteries.

Five of the papers suggested the possibility to use new sources, e.g. lists of subjects, records on persons who died in hospitals, or the popular names of the causes of death, as recorded in some parishes.

Seven contributions showed typical examples of age structures; five of them referred to the Bohemian countries, one to the Soviet population in 1926, and another one concerned the interesting development of the population of the City of Paris in the 19th and 20th centuries. Our Canadian colleagues explained the problem of the false hundred-year-olds.

There were four contributions on the explanatory power of factors such as migration, excess mortality in cities, high mortalities, and household structure.

Authors of two contributions attempted to make a broader synthesis, taking into account the social and cultural aspects of old age: Jean-Paul Bois with his report on "The Periods of Old Age in Ancient Times", and Edouard Maur with "La jeunesse et la vieillesse du XI^e au XVIII^e siècle dans les pays tohèques".

It can be considered as a valuable conclusion of the round table that the following three important points were explained:

1. During the past century the age of attaining puberty slightly declined and the age of menopause slightly rose. However, the maximum length of life (once the problem of the hundred-year-olds is solved) has not changed since the earliest times. An increase has only been observed in the number of longevity candidates; this allowed one of our contemporaries to overcome the scientifically determined age record.
However, study of the process of ageing cannot be expected, in the near or more distant future, to predict a biological revolution that could control or at least delay the processes of ageing. Something like that would have far-reaching consequences for social balance.
2. Persons above sixty always formed a significant group in all traditional societies; their proportion ranged

between 5 and 10 %, depending on the historical epoch and countries.

3. In all societies where families consisting of a single married couple prevail, old people have retained a more or less independent existence. Their return to their families, which is sometimes proposed and which could help to reduce the volume of social support, would by no means be a return to the past.

Jacques DUPAQUIER

TABLE RONDE "AGE ET HISTOIRE"

A l'occasion du colloque sur le vieillissement de la population dans les pays développés, les historiens démographes ont organisé une table ronde sur le thème "Age et histoire". Il y a eu trois séances de travail, l'une le mercredi 5 juillet, et les deux autres le jeudi 6 juillet.

Le problème de la répartition par âges des populations du passé, et du rôle des vieillards dans la société déborde largement le domaine de l'analyse démographique. Sans doute reste-t-il nécessaire d'approfondir et de préciser nos connaissances sur les pyramides d'âges et la proportion réelle des personnes de 60 ans et plus dans les populations d'autrefois, mais l'essentiel nous semble être de séparer les aspects biologiques de l'histoire de la vieillesse des phénomènes socio-culturels, qui conditionnent en fait la place du vieillard, le pouvoir et la considération dont il jouit selon les époques et selon les milieux.

C'est pourquoi notre questionnaire comportait deux parties majeures:

Biologie: quel rapport existait-il dans le passé entre âge légal et âge biologique? L'âge moyen à la puberté a-t-il varié au cours des siècles? Jusqu'à quels âges pouvait se poursuivre le processus de reproduction?

Economie, culture, société: A quel âge, à quels âges entrait - ou dans la vie active? A quel âge, à quels âges eu sortait - ou? Quelle était la nature du travail des enfants, la qualité et la quantité de celui des personnes âgées?

Comment l'âge légal de majorité variait-il selon les pays, selon les groupes sociaux? Quel était le statut des adolescents, celui des vieillards dans les sociétés du passé?

Enfin pourquoi nos ancêtres semblent-ils avoir eu tendance à déclarer de préférence certains âges plutôt que d'autres? Quel est le sens culturel des erreurs de déclaration, aussi bien de l'attraction des âges ronds que de la tendance à surestimer la durée de vie des grands vieillards?

Notre table ronde n'a pu répondre à toutes ces questions, mais elle nous a permis d'affiner nos connaissances, de mieux reconnaître la nature des problèmes posés, et de récuser un certain nombre d'idées reçues.

Au total, 21 communications ont été présentées, dont 10 avaient été préalablement publiées dans le numéro 13 de Historická demografie.

Deux d'entre elles touchaient à la paléodémographie, en particulier au problème de la sous-représentation des enfants dans la plupart des anciens cimetières.

Cinq autres ont montré le parti qu'on pouvait tirer de l'exploitation de nouvelles sources, par exemple les listes de serfs, les registres de décès des hôpitaux, ou les causes

populaires de décès relevées dans certaines paroisses.

Sept communications ont présenté des exemples typiques de répartition des âges, dont cinq pour les pays tchèques, une pour la population soviétique en 1926 et une sur la curieuse évolution de la ville de Paris aux XIXe et XXe siècles; et nos amis canadiens ont élucidé le problème des faux centenaires.

Quatre contributions ont mis en lumière les facteurs explicatifs que peuvent constituer les migrations, la surmortalité urbaine, les grandes mortalités et la structure des ménages.

Enfin deux auteurs se sont risqués dans des synthèses plus vastes prenant en compte les aspects socioculturels de la vieillesse: Jean-Paul Bois sur "The periods of old age in ancient times" et Edouard Maur sur "La jeunesse et la vieillesse du XIVe au XVIIIe siècle dans les pays tchèques".

En conclusion de cette table ronde, trois points importants peuvent être considérés comme acquis:

1. Au cours du dernier siècle, l'âge à la puberté a légèrement avancé, et l'âge de la ménopause légèrement reculé, mais la durée maximale de la vie humaine - une fois réglé le problème des faux centenaires - n'a pas varié depuis la Préhistoire. C'est seulement le nombre des candidats qui a augmenté, permettant à l'une de nos contemporaines de battre le record séculaire scientifiquement établi.

Par contre, il ne serait pas unimaginable que l'étude des processus du vieillissement puisse déboucher, dans un futur plus ou moins proche, sur une révolution biologique qui consisterait sinon à les maîtriser entièrement, du moins à les retarder. Il en résulterait des conséquences immenses sur les équilibres sociaux.

2. Les personnes de plus de 60 ans ont toujours constitué, dans les sociétés traditionnelles, un groupe non négligeable, leur part allant de 5 à 10 % selon les époques et les pays.

3. Dans toutes les sociétés où prédomine la famille conjugale, les personnes âgées ont conservé, dans toute la mesure du possible une existence indépendante. Les rendre à leur famille, comme on le propose parfois pour soulager les finances du système de protection sociale, ne constituerait nullement un retour au passé.

Jacques DUPAQUIER

List of participants

Liste des participants

Jean-Noël BIRABEN (France)

Institut National d'Etudes Démographique, Paris

Jana BRABENCOVÁ (Czechoslovakia / Tchécoslovaquie)

Institut of Czechoslovak and World History of the CSAS /
l'Institut de l'Histoire tchécoslovaque et mondiale de
l'ATS, Prague

Eles A.M. BULDER (Netherlands / Pays-Bas)

Erasmus University / Université de Erasmus, Rotterdam

Carlo CORSINI (Italy / Italie)

University of Firenze / Université de Florence

Eliška ČÁŇOVÁ (Czechoslovakia / Tchécoslovaquie)

Czechoslovak Demographic Society of CSAS / Société
Tchécoslovaque de démographie de l'ATS, Prague

Bertrand DESJARDINS (Canada)

Department of Demography, University of Montreal /
Département de Démographie, Université de Montréal

Lumír DOKOUPIL (Czechoslovakia / Tchécoslovaquie)

Faculty of Pedagogy / Faculté Pédagogique, Ostrava

Jacques DUPAQUIER (France)

Ecole des Hautes Etudes eu Sciences Sociales, Paris

Ladislav DUŠEK (Czechoslovakia / Tchécoslovaquie)

State Regional Archives / Archives régionales de l'État,
Litoměřice

Ludmila FIALOVÁ (Czechoslovakia / Tchécoslovaquie)
Institut of Czechoslovak and World History of the CSAS /
l'Institut de l'Histoire tchécoslovaque et mondiale de
l'ATS, Prague

Christopher GORDON (Netherlands / Pays-Bas)
Netherlands Interdisciplinary Demographic Institut,
Den Haag

Ludmila HLAVÁČKOVÁ (Czechoslovakia / Tchécoslovaquie)
Institut for History of Medecine / l'Institut de l'Histoire
de Médecine, Prague

Pavla HORSKÁ (Czechoslovakia / Tchécoslovaquie)
Czechoslovak Demographic Society of the CSAS / Société
Tchécoslovaque de démographie de l'ATS, Prague

Jacques HOUDAILLE (France)
Institut National d'Etudes Démographique, Paris

Ludá KLUSÁKOVÁ (Czechoslovakia / Tchécoslovaquie)
Faculty of Philosophy, Charles University / Faculté des
lettres, Université Charles, Prague

Jiří KUDĚLA (Czechoslovakia / Tchécoslovaquie)
Archives of the Capital Prague / Archives de la ville
de Prague

Jaroslav LÁNÍK (Czechoslovakia / Tchécoslovaquie)
Institut of Czechoslovak and World History of the CSAS /
l'Institut de l'Histoire tchécoslovaque et mondiale de
l'ATS, Prague

Peter LASLETT (United Kingdom / le Royaume-Uni)
Cambridge Group for the History of Population and Social
Structure, Cambridge

Jacques LEGARE (Canada)
Department of Demography, University of Montreal /
Département de Démographie, Université de Montréal

Eduard MAUR (Czechoslovakia / Tchécoslovaquie)
Faculty of Philosophy, Charles University / Faculté des
lettres, Université Charles, Prague

Ludmila NESLÁDKOVÁ (Czechoslovakia / Tchécoslovaquie)
Faculty of Pedagogy / Faculté Pédagogique, Ostrava

Francois NAULT (Canada)
Department of Demography, University of Montreal /
Département de Démographie, Université de Montréal

Alla PESHKOVA (U.S.S.R. / l'URSS)
Science-Research Institut of Technical Information and
Economic Investigation, Minsk

Jana PRAŽÁKOVÁ (Czechoslovakia / Tchécoslovaquie)
Administration of Archives of the Czech Socialist Republic/
Administration des Archives de la République socialiste
tchéque, Prague

Jiří PEŠEK (Czechoslovakia / Tchécoslovaquie)
Archives of the Capital Prague / Archives de la ville de
Prague

Petr SVOBODNÝ (Czechoslovakia / Tchécoslovaquie)
Institut for History of Medecine / l'Institut de
l'Histoire de Médecine, Prague

Contents / Sommaire

Introduction	5
L'introduction	6
Rimantas Jankauskas, Degenerative changes of the vertebral column in Lithuanian palaeopopulation . .	7
Jean-Paul Bois, The period of old age in ancient times	13
Eduard Maur, La vieillesse et la jeunesse en Bohême aux XV ^e - XVII ^e siècles	29
Georges Minois, Old age and plague in the XIV and IV centuries: the effects of the Black Death on the ratio and social part of the aged in Europe	41
Jean-Noël Biraben, Les causes populaires de décès des personnes âgées en France au XVIII ^e siècle	57
Hubert Charbonneau - Bertrand Desjardins, Vivre cent ans dans la vallée du St Laurent avant 1800	71
Jacques Houdaille, Ageing in Paris, 1817-1982	89
Valentina Ziromskaya, Repartition par sexe et par âge de la population de l'URSS en 1926 (D'après le recensement du 17 déc. 1926)	111
Christopher Gordon, Population registers, the co- residential behaviour of the elderly, and the role of kin in the past and present	121
Elles A.M. Bulder, The Dutch elderly and the household structures in which they were residing	147
Enessa G. Istomina, The ecological factor and human longevity in Russia of the 19th century and early in the 20th century	161

Naïla E. Bekmakhanova, Process of annexion of eastern regions to Russia and its effect on the longevity of Nomads	172
Jiří Pešek, Development of Prague and its population in documents of the Archives of the city of Prague	185
Jacques Dupâquier, Round table "Age and History	205
Table ronde "Age et Histoire	209
List of participants /Liste des participants	213

Název	Historická demografie 14
Editor	Pavla Horská
Vydavatel	Historický ústav ČSAV
Místo a rok vydání	Praha 1990
Počet stran	220
Náklad	600

Rozmnoženo v Historickém ústavu ČSAV

JEN PRO SLUŽEBNÍ POTŘEBU