S. Timofeev
D. Pomazkin

Demographic History. Part three.
In what were you lucky to be born?

The proposed and applicable method of graphic reflection of the dynamics of relative indicators of mortality in various age groups of the population, allows not only to obtain varied and high quality new information on the nature of demographic processes, but also identify fundamentally new, previously unknown to science, demographic occurrences.

In this case we talk about the existence of demographic trends of generations – population groups, born in a certain year, differentiated by increased or lowered mortality.

Annual changes in the level of mortality, France, men[1]

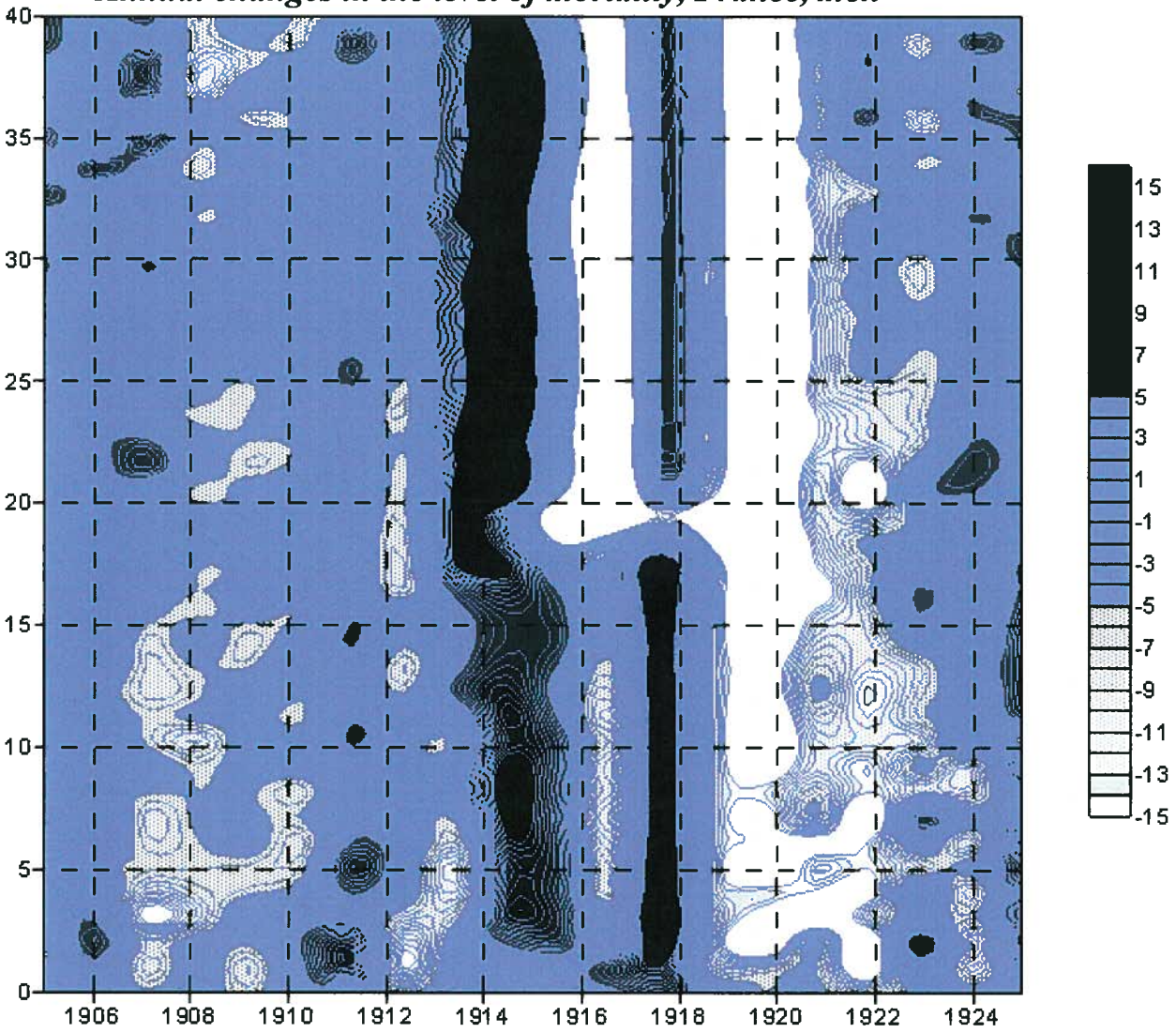

Figure 1

[1] Source: www.mortality.org

Let's draw attention to Figure 1, reflecting changes in mortality of the French population in the age range 0-40, during the period of history, covering the flue pandemic period, which was called the «Spanish influenza». Most interesting is the fact that almost direct dark line, reflecting growth in mortality during this epidemic is interrupted for men aged 19 (born in 1899). Mortality of this population group during the pandemic did not just stop growing, but in relation to previous years even decreased.

It shall be assumed, that behind this phenomenon, is a high life potential of the given age group, the reasons of formation of which can only be guessed. But the fact that such population groups (as the opposite ones, are characterized by increased mortality) exists in many countries of the world, can be deemed as the established fact.

Let's consider Figures 2,3, 4 and 5.

Annual changes in the level of mortality, Spain, men[2]

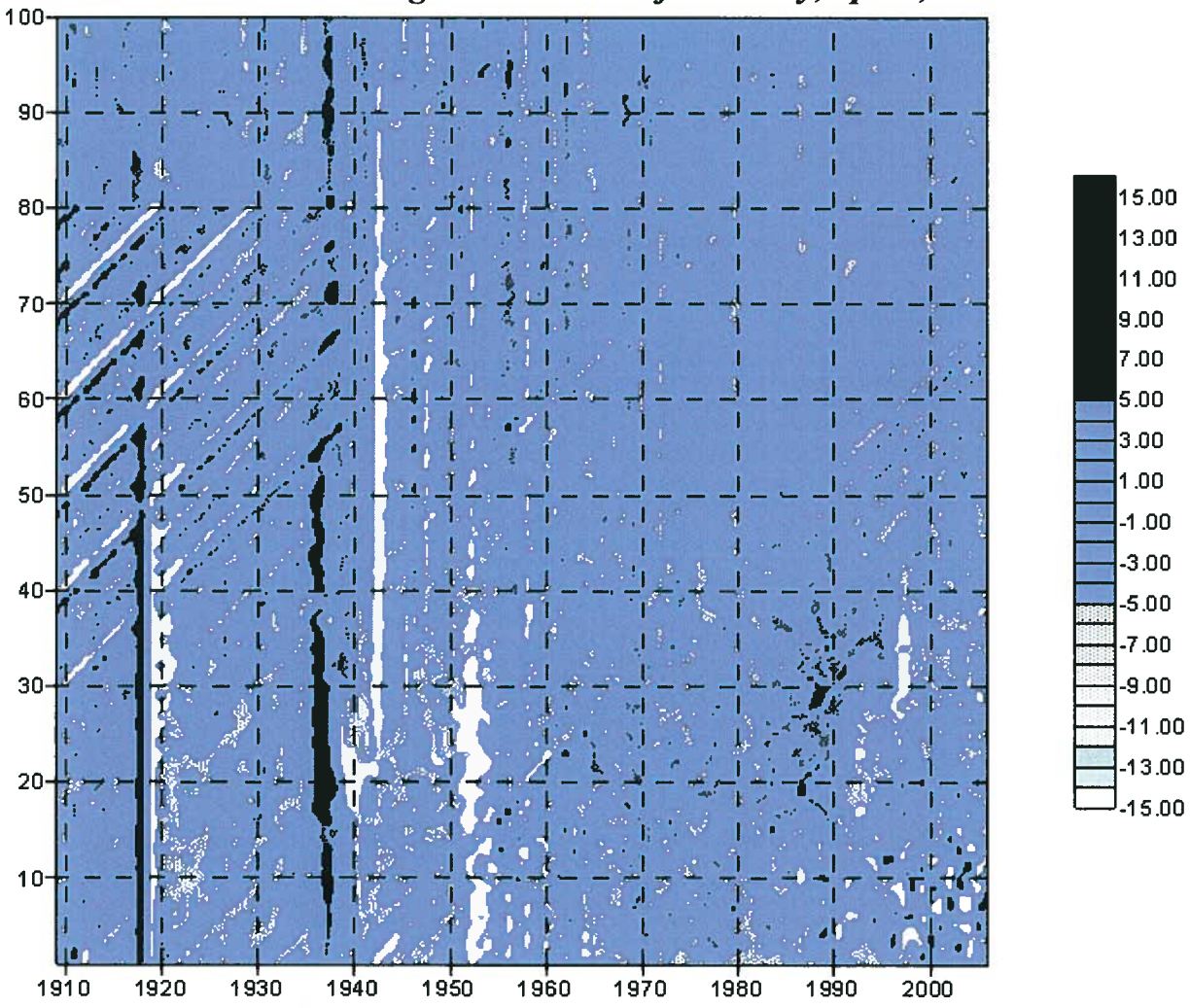

Figure 2.

Presented figures reflect demographic history maps during various periods. They are united by one factor – they possess demographic trends – interrupted inclined lines, crossing the distribution of dynamic mortality indicators. These

[2] Source: www.mortality.org

lines coincide with the age trend – they flow in parallel to the straight lines, describing the increase in the age of people, born in a certain year.

Annual changes in the mortality level, Australia, men[3]

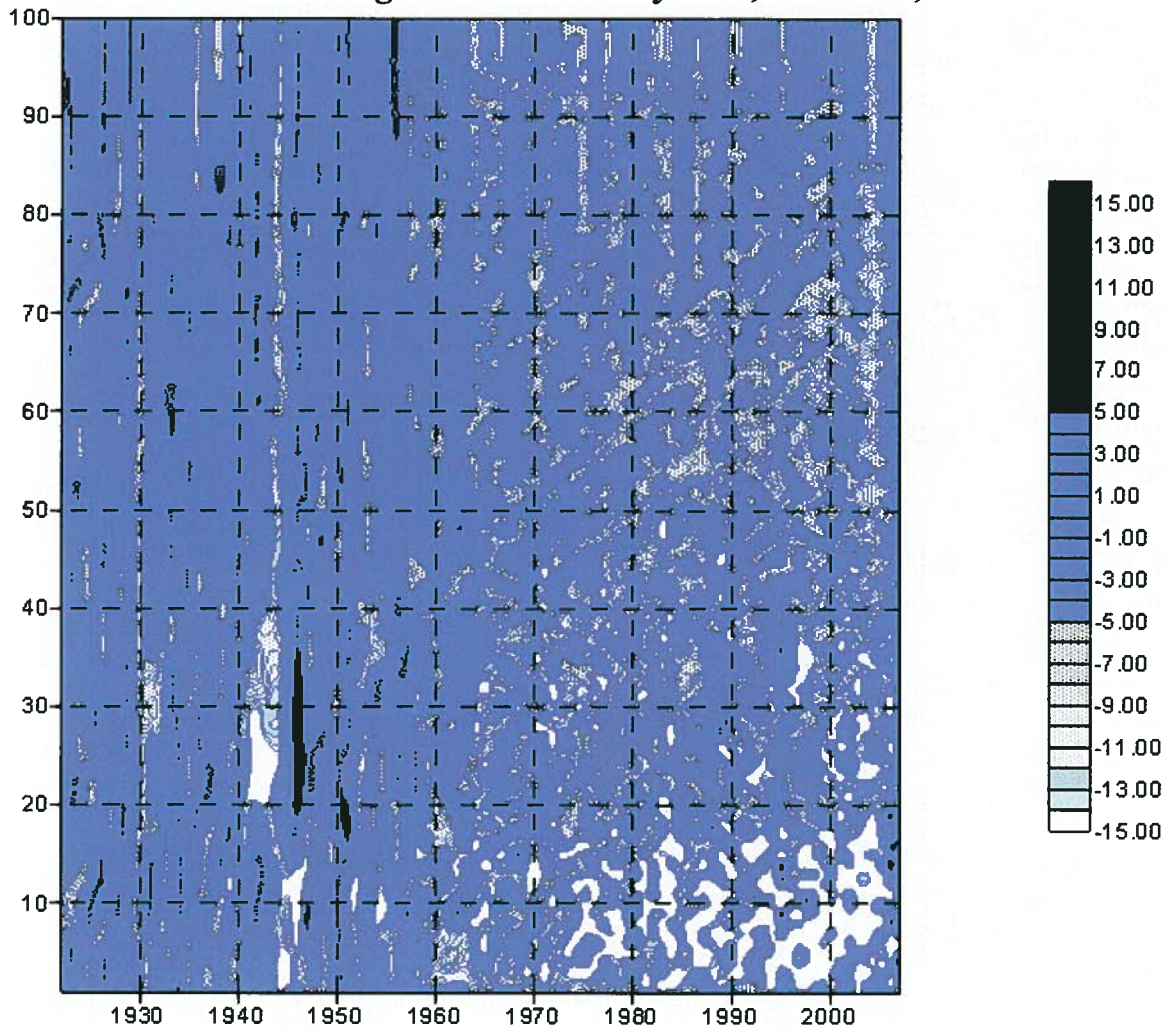

Figure 3.

Example of Australia (Figure 3) shows the real possibility of the prevalence of trends of decreased mortality.

It is significant that the age trends of increased (or decreased) mortality rates are characteristic of matching age groups of men and women. Figure 4 and 5 clearly show that high (above the average) mortality was observed in American men and women born in 1898 and 1902.

It may be noted that the mere manifestation of trends in the demographic history map of the country, in a particular interval, suggests that this period coincided with certain adverse effects, reflected in increased mortality. This is when the trend manifests itself, reflecting a relatively higher or lower mortality in various age categories of inhabitants of a particular country.

---

[3] Источник: www.mortality.org

Those negative trends, as in Figure 4 for the age categories of men of war and early postwar years of birth in the US are hardly noticeable, for the male population of Russia can be seen more clearly (see Figure 6).

.

Annual changes in the mortality level, USA, men[4]

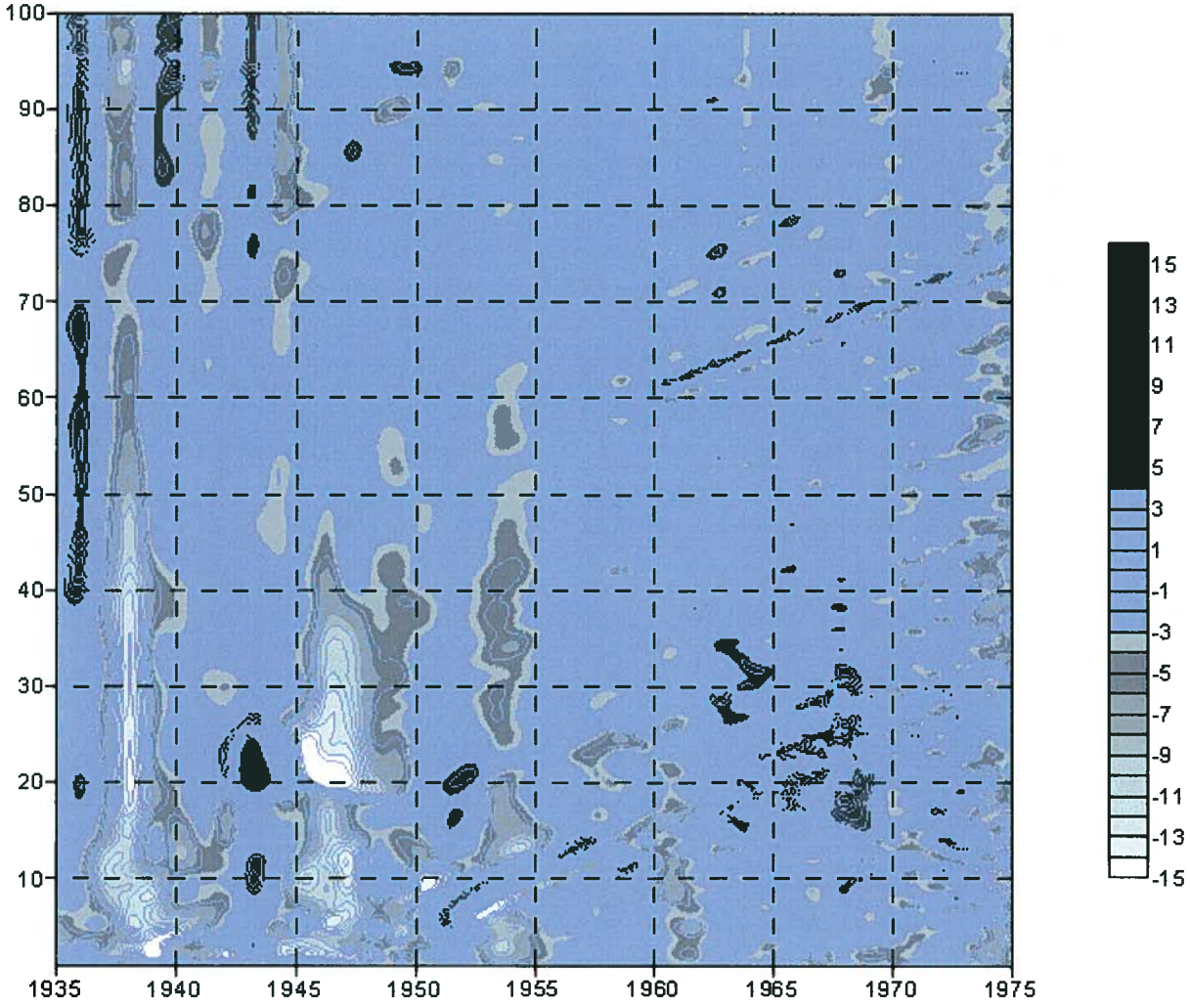

Figure 4.

Figure 6 most clearly distinguished the trend for men born in 1943. Tracing the trajectory of the trend, we can conclude that throughout its continuance the importance of the indicator of mortality for people born this year are higher than the close to it age strata. The existence of age trends qualitatively different in terms of mortality during the lifetime is confirmed by calculations made for men and women in many countries, whole Russia, Moscow and St. Petersburg. It is noteworthy that the "black" trends - increased mortality of those born in a certain year are the same in all the calculations in both men and women as a whole in Russia, and in its major cities.

[4] Source: www.mortality.org

Annual changes in the mortality level, USA, women[5]

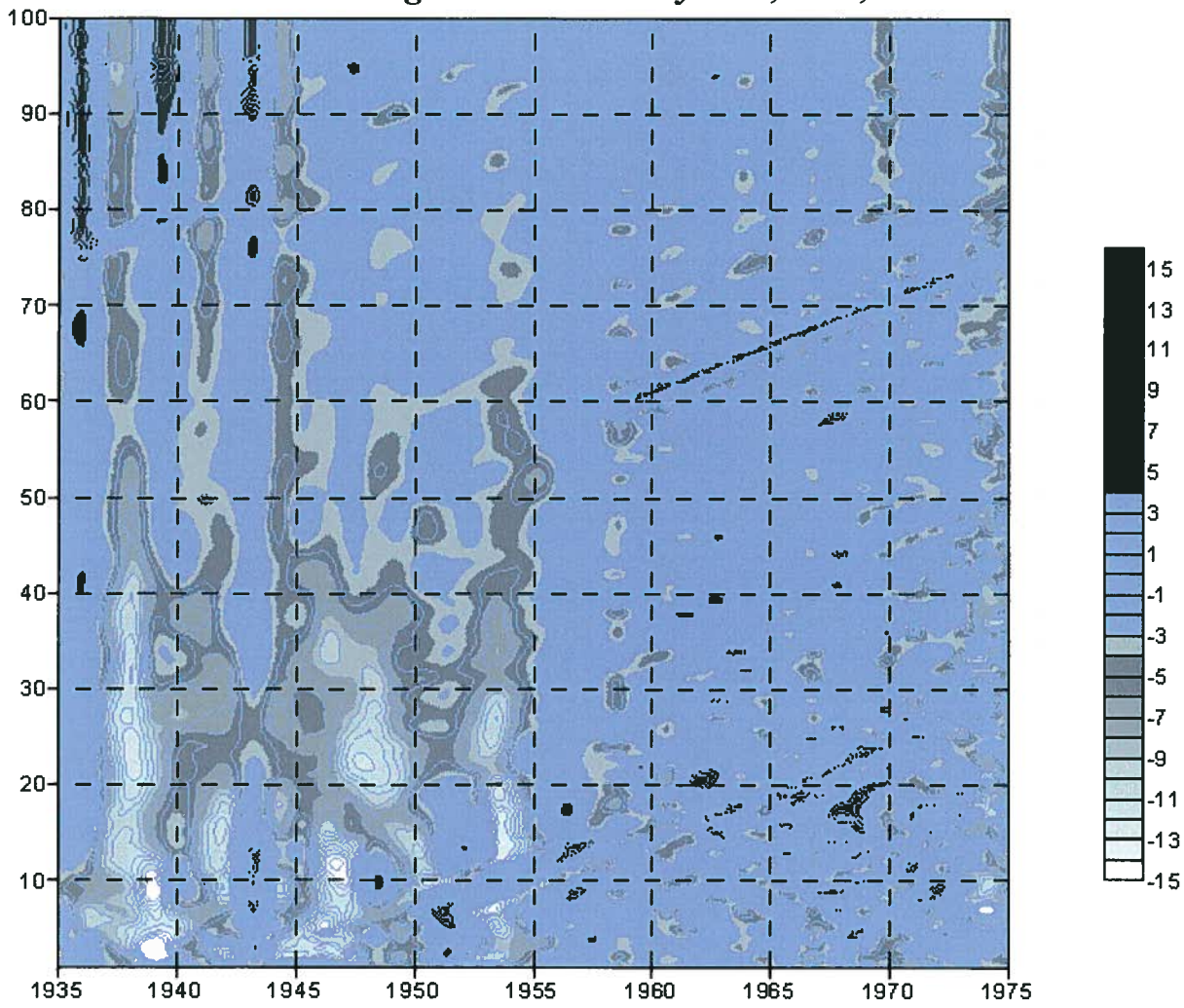

Figure 5.

In Russia, a particularly high mortality rate was typical for men and women born in 1941, 1943, 1945, 1947.

Highly interesting and important is the sequence of alternating "black" and "white" age trends and their fairly high stability during the life of the age group.

In addition, we observed a manifestation of the demographic trends in mortality in almost many age groups as they approach your age border of life. Figure 7 displays a demographic map of the history of Japan, executed in technique of reflection of the actual mortality rates for older age horizons (more than 60 years). Trends (differing in color of the inclined line) appeared in this technique quite clearly.

It must be assumed that in the lower time horizons they are reflected in some differences between the mortality rates of people born in different years.

[5] Source: www.mortality.org

Annual changes in the mortality level, Russia, Men[6]

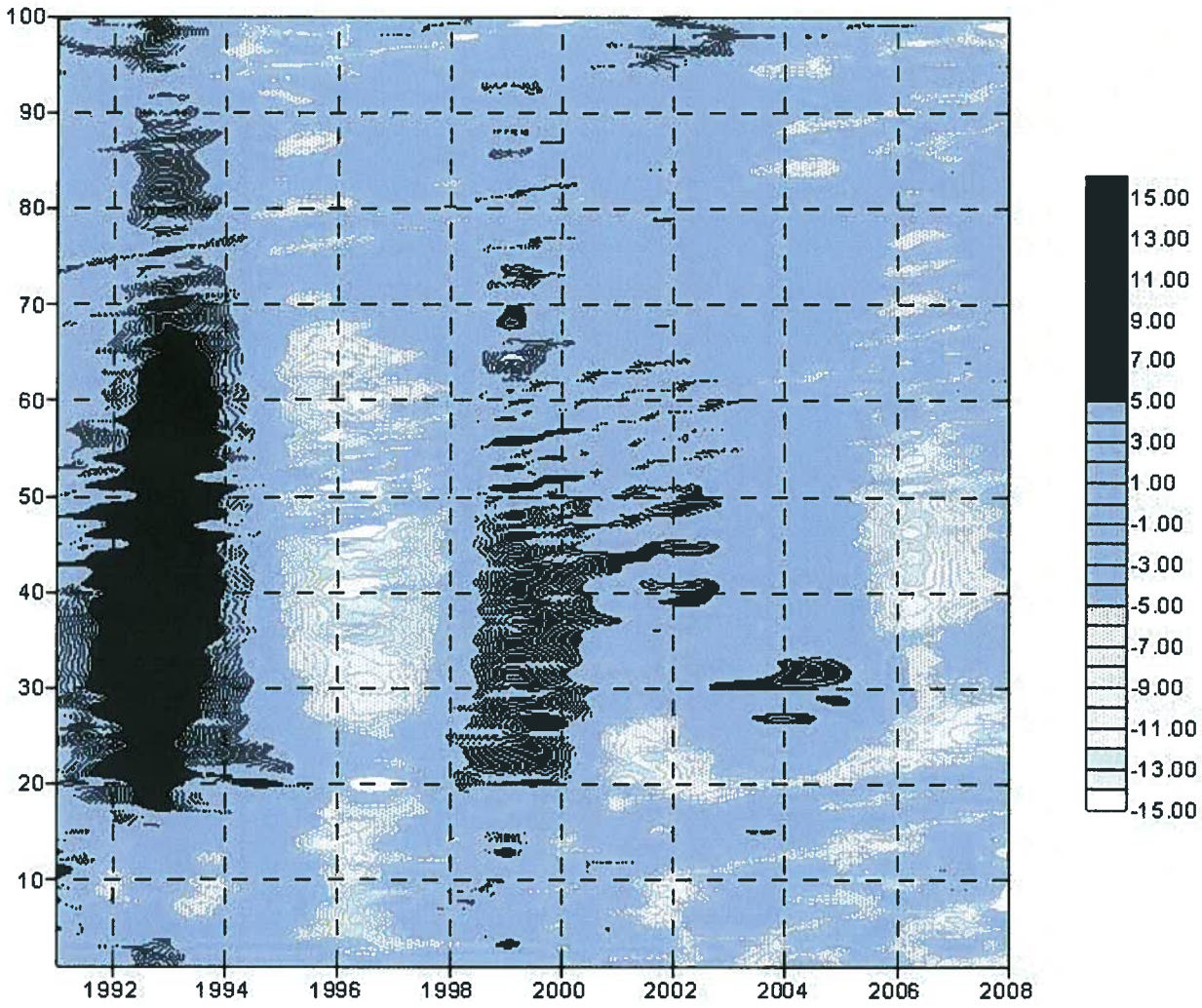

Figure 6.

The explanation of this phenomenon, in our opinion lies in the imposition of demographic "pits" - periods of relatively poor living conditions, that also affected the viability of the parents. The extreme conditions encountered during the life of a particular age group (wars, crises, natural disasters ...) are manifested in the formation of progeny with a relatively (in comparison with neighboring age groups) higher or lower potential for survival.

For the majority of states classified as "developed", the alternation of trends with different levels of mortality in the age categories below 60 years is not typical. However, one should pay attention to the appearance of the fields of "point deaths" in this category of countries (see Figure 8). The example displayed as an illustration of this situation in the Netherlands is typical and is repeated on the demographic history maps of all EU countries, USA and Japan.

[6] Source: ANO "Russian Statistics"

Actual mortality ratios. Japan. Men.

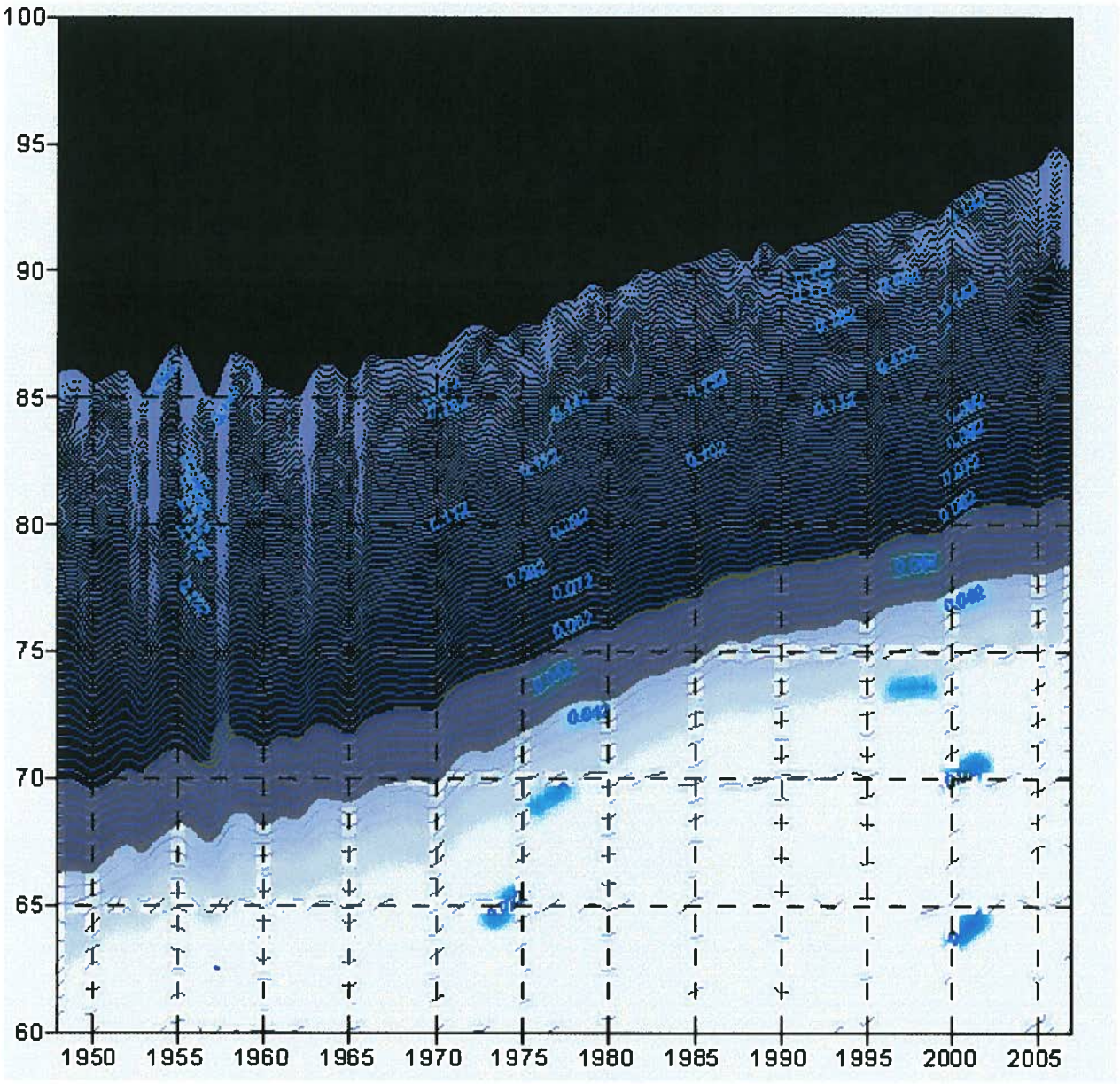

Figure 7.

It should be noted, that this phenomenon was not seen before during the entire recorded statistics of demographic history and arose at the beginning of 60ies of the last century, starting from child age horizons, gradually spreading in the direction of older age groups. There arose a type of «triangle of point mortality», expansion of which may be deemed as an already occurred fact.

Annual changes in mortality levels, Netherlands, men.[7]

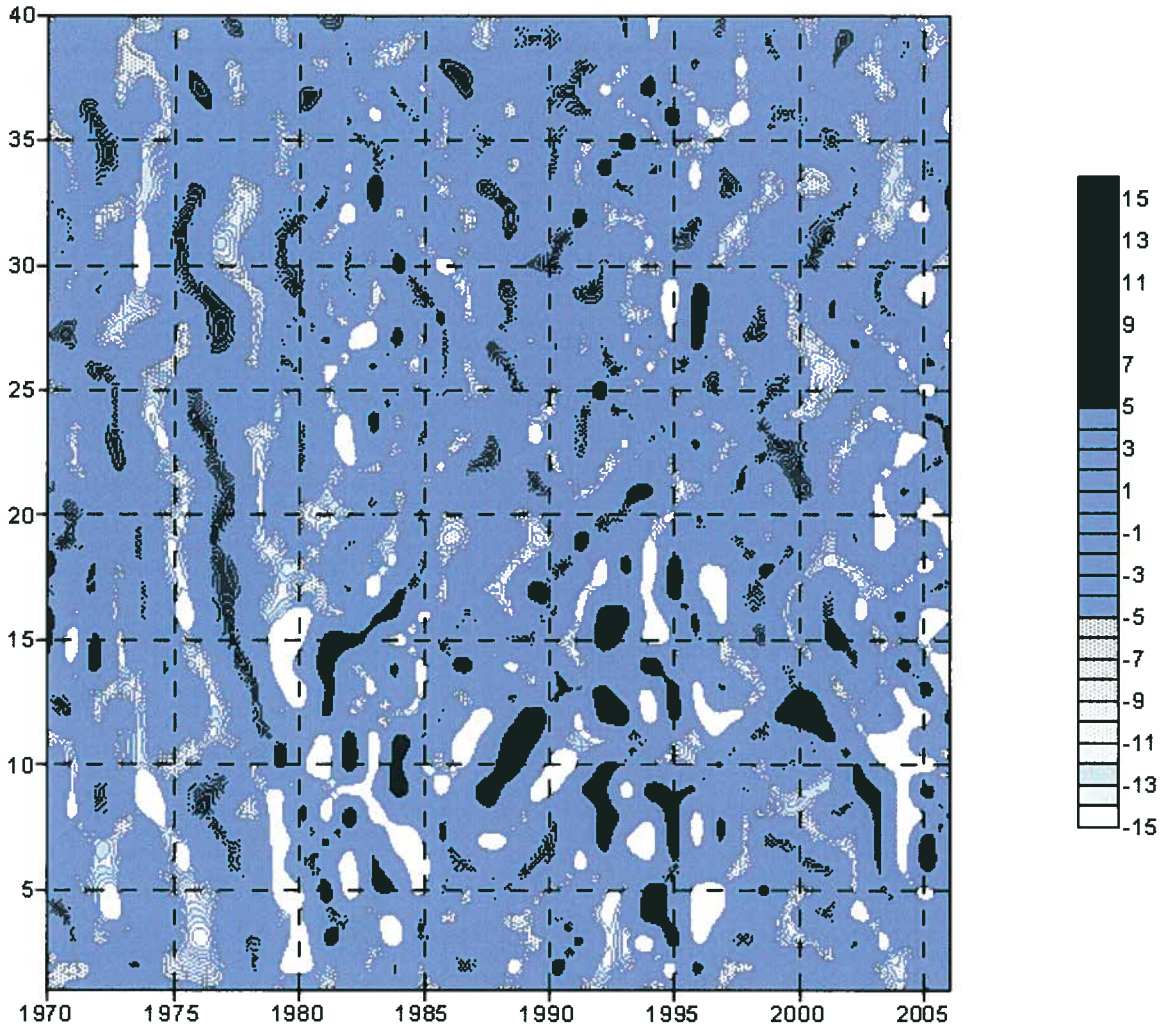

Figure 8.

As far as we are aware, this demographic phenomenon was not a subject of close research. Thus both the given phenomenon and the existence of demographic trends – differing by the level of mortality, require deeper research as part of the profile field of knowledge.

[7] Source: www.mortality.org.