

number of generations. This model is, actually, a re-statement of the frequency-damping principle for the matrix columns; however, it can be advantageous in this form. That it is natural becomes clear if we recall that, for historical texts embracing a large time interval, the identity “complete name = personage” is valid in the overwhelming majority of cases. Hence, calculating for $X(t)$ the mean name age, we thereby compute that of the personages described. Since this is bounded above by, say, one hundred years, most of the names cannot be older than a century, too. Therefore, the number of anomalously old names in $X(t)$ should be negligibly small, compared with the bulk of the old ones. Generally, all the formulated laws are valid only for large totalities like collections of names, etc. Certainly, there will always be names of some famous historical figures who will be constantly mentioned, and form the anomalously old name set. However, as shown by computation, their percentage, or that of the historical figures, is negligibly small relative to the bulk of all used in the text; hence, we shall see that the appearance of a large number of anomalously old names is a weighty argument that we have discovered to be a duplicate.

6.3. Square matrix of biblical names and statistical duplicates in the Old and New Testament

The validity of the model was confirmed by processing the texts of ancient Russian chronicles written in the 15–16 cc. A.D., and those parts of the Old and New Testament, which do not contain any duplicates. Consider Case (1) above and analyze the old names. Indeed, counting the names of zero age allows us to construct the graph of $a(t)$, and makes the general experimental picture somewhat more blurred, because the variance is increased. The graph of $c(t)$ for the whole of the Old and New Testament is shown in Fig. 71. To get rid of small and random oscillations of the graph, we marked off the values $2[c(t)/2]$ ($[]$ meaning the integer part of a real number) along the vertical. It can be clearly seen, e.g., that the graph of $2[c(t)/2]$ in a continuous line does oscillate around a certain constant value, the mean age for the fragment being made up of Chapters 70–86 without duplicates. The same is also valid for the one composed of Chapters 100–116. However, as soon as the experiment was extended to the entire sequence of chapters for the Old and New Testament, the repeated splashes indicating duplicates surfaced immediately. The graph of $c(t)$ for Chapters 1–218 is represented in a continuous black line whereas the dashed line indicates the variance (Fig. 71). The anomaly of the graph shows that the mean age does not at all oscillate about a constant value, but is subject to sharp “aging” anomalies in certain chapter groups. For now, we confine ourselves to the Old Testament. The series T chapter duplicates are denoted by black triangles. The maxima of the $2[c(t)/2]$ graph are associated just with them, i.e., the chapters are characterized by aging the names sharply, and by employing the anomalously old ones; those in which the graph forms splashes are especially interesting. Consider Chapters 15, 35 and 48 in which it exhibits well-expressed splashes. We observe not only the use of anomalously old names, but also the variance minimum, i.e., practically all the names mentioned there are anomalously old. Most probably, the chapters are duplicates repeatedly describing the events already discussed in the