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CHANGES IN DEVELOPMENT AND SPATIAL DISTRIBUTION OF POPULATION IN ALEKSANDROVAC MUNICIPALITY IN THE SECOND HALF OF THE 20TH CENTURY

Abstract: There are numerous different and spatially dispersive marks of a human living (material and spiritual) and especially of a settlement development at the present territory of Aleksandrovac municipality (387 km², 55 settlements and 29,387 inhabitants). They are characterized by historical continuity, from late prehistory until present time, as well as by chorological and chronological fluctuation in concentration. The most important localities for the research of the oldest settlement and cultural history of this geographic area are situated in following settlements: Vitkovo, Venčac, Garevina, Tuleš, Rudenice, Trnavci, Aleksandrovac, Puhovac, Ljubinci etc. The basis of modern settlement-demographic structure dates from the middle 18th and the beginning of 19th century. In this article are stressed particular, especially important for recent condition, population changes that occurred during the second half of 20th century.

Key words: population, households, Aleksandrovac municipality.

Извод: Трагови људског живљења (материјални и духовни), а пре свега насеобинског развоја, на данашњој територији општине Александровац (387 km², 55 насеља и 29.389 становника) су многобројни, разноврсни и просторно дисперзни. Карактерише их историјска континуираност присуства, од млађе праисторије до данас, али и хоролошка и хронолошка промењивост концентрације. За тумачење најстарије насеобинске и културне прошлости овог геопростора посебно су значајни локалитети у атарима насеља: Витково, Венчац, Гаревина, Тулеш, Руденице, Трнавци, Александровац, Пуховац, Љубинци и др. Основа савремене насеобинско-демографске структуре утемељена је од средине XVIII и током прве половине XIX века. У овом раду су посебно апострофиране поједине, за рецентно стање пресудно значајне, популационе промене присутне током друге половине XX века.

Кључне речи: становништво, домаћинства, општина Александровац

Introduction

Current population situation and its trends in the territory of Aleksandrovac municipality are characterized by numerous interconnected and syn-

chronized changes and trends. During the second half of the 20th century, the following stood out as significant and typical:

- Slight increase and further stagnation and fall of the total population;
- Permanently lower population density rate in Aleksandrovac municipality compared with the population density rate of the Rasinski Region according to the 1971 census and compared with Serbia as a whole;
- Fall in the proportion of Aleksandrovac municipality population in the total population of the Rasinski Region and Central Serbia;
- Dynamic demographic growth of the town and the share of urban population in the total population of the municipality;
- Permanent absolute decrease of rural population and its share in the total population of the municipality;
- Evident demographic aging and feminization, above all of rural population, etc.

Changes in population change and distribution

The population of Aleksandrovac municipality, as a complex bio-social and territorial system, is exposed to numerous external and internal factors and interactions of development resulting from the impact of natural environment, historical, socio-economic and psycho-social processes. For such a broad and complex interdependence, population development, as a real demographic process, represents a continuous and complex course of quantitative and qualitative changes at different levels of organization of life, from family and settlement locally, to regional, national and global levels. Also, population as a complex and multidimensional structure is prone to changes resulting from its own developmental tendencies.

Aleksandrovac municipality has dispersed population with population density (80.98 pop/km²) which is smaller than the population density of the Rasinski Region (103 pop/km²) and Central Serbia (103.79 pop/km²). Actually, population density of the municipality was in decline since 1953 when it reached its peak (89.79 pop/km²) – in 2002, it accounted for 78.02% of the population density of Central Serbia, i.e. 78.62% of the Rasinski Region. At the same time, the proportion of Aleksandrovac municipality population in the total population of the Rasinski Region was registering permanent fall – from 14.48% in 1948 to 11.33% in 2002 (according to the 2002 census methodology).

In spite of intercensal oscillations, the total population of the municipality decreased from 32,612 to 31,338 between 1948 and 2002, which is 23.6 inhabitants a year. Observed according to intercensal periods, the largest growth of the total population of the municipality was registered in 1948-1953 (2,136) and the sharpest fall in 1991-2002 (1,877). Statistical value of the regis-

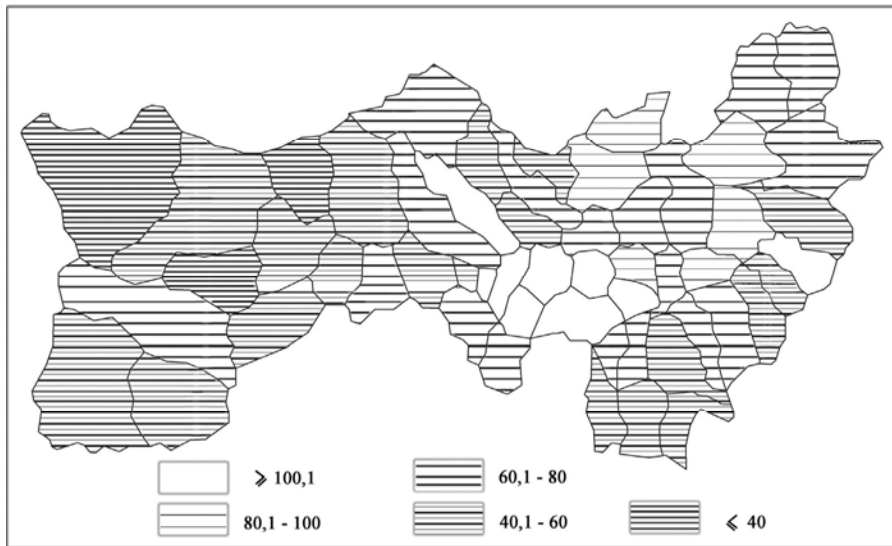
Простор: предмет картографског моделовања

Table 1. – Population and households in 1953-2002.

| | Population | | | | | | Number of households | | | | | | Average size of the household | | | | | |
|---------------|------------|------|------|------|------|------|----------------------|-----|------|------|------|------|-------------------------------|-----|-----|-----|-----|-----|
| | 53. | 61. | 71. | 81. | 91. | 02. | 53. | 61. | 71. | 81. | 91. | 02. | 53. | 61. | 71. | 81. | 91. | 02. |
| Aleksandrovac | 1153 | 1320 | 3067 | 5177 | 6354 | 7014 | 362 | 411 | 1027 | 1605 | 1857 | 2208 | 3.2 | 3.2 | 3.0 | 3.2 | 3.4 | 3.2 |
| Bzenice | 1019 | 1005 | 723 | 588 | 432 | 434 | 146 | 166 | 158 | 146 | 123 | 132 | 7.0 | 6.1 | 4.6 | 4.0 | 3.5 | 3.3 |
| Bobote | 549 | 556 | 516 | 473 | 424 | 366 | 89 | 96 | 104 | 116 | 121 | 111 | 6.2 | 5.8 | 5.0 | 4.1 | 3.5 | 3.3 |
| Boturići | 413 | 399 | 354 | 336 | 308 | 279 | 63 | 60 | 64 | 71 | 80 | 78 | 6.6 | 6.7 | 5.5 | 4.7 | 3.9 | 3.6 |
| Bratići | 284 | 252 | 216 | 204 | 168 | 144 | 38 | 46 | 48 | 46 | 42 | 39 | 7.5 | 5.5 | 4.5 | 4.4 | 4.0 | 3.7 |
| V. Vrbnica | 794 | 774 | 705 | 619 | 484 | 471 | 113 | 115 | 120 | 128 | 121 | 116 | 7.0 | 6.7 | 5.9 | 4.8 | 4.0 | 4.1 |
| Velja Glava | 367 | 376 | 324 | 302 | 263 | 198 | 53 | 58 | 62 | 62 | 57 | 52 | 6.9 | 6.5 | 5.2 | 4.9 | 4.6 | 3.8 |
| Venčac | 448 | 390 | 396 | 401 | 478 | 456 | 66 | 64 | 81 | 95 | 120 | 119 | 6.8 | 6.1 | 4.9 | 4.2 | 4.0 | 3.8 |
| Vitkovo | 535 | 565 | 514 | 493 | 565 | 508 | 87 | 96 | 108 | 115 | 139 | 151 | 6.2 | 5.9 | 4.8 | 4.3 | 4.1 | 3.4 |
| Vražogrnči | 480 | 485 | 450 | 378 | 381 | 309 | 72 | 80 | 98 | 101 | 110 | 100 | 6.7 | 6.1 | 4.6 | 3.7 | 3.5 | 3.1 |
| Vranštica | 315 | 318 | 266 | 206 | 125 | 75 | 37 | 39 | 34 | 39 | 28 | 24 | 8.5 | 8.2 | 7.8 | 5.3 | 4.5 | 3.1 |
| Vrbnica | 823 | 834 | 715 | 671 | 609 | 564 | 166 | 176 | 167 | 175 | 163 | 156 | 5.0 | 4.7 | 4.3 | 3.8 | 3.7 | 3.6 |
| G. Zarevina | 315 | 304 | 513 | 503 | 451 | 431 | 46 | 55 | 118 | 114 | 113 | 125 | 6.9 | 5.5 | 4.4 | 4.4 | 4.0 | 3.5 |
| G. Zleginje | 773 | 728 | 648 | 621 | 580 | 458 | 126 | 136 | 143 | 160 | 151 | 137 | 6.1 | 5.4 | 4.5 | 3.9 | 3.8 | 3.3 |
| G. Rataje | 1155 | 1113 | 1055 | 1004 | 964 | 890 | 193 | 217 | 228 | 230 | 226 | 219 | 6.0 | 5.1 | 4.6 | 4.4 | 4.3 | 4.1 |
| G. Vratari | 380 | 338 | 284 | 246 | 213 | 200 | 57 | 58 | 59 | 58 | 52 | 57 | 6.7 | 5.8 | 4.8 | 4.2 | 4.1 | 3.5 |
| G. Stupanj | 1166 | 1101 | 1022 | 925 | 859 | 691 | 210 | 223 | 234 | 231 | 224 | 212 | 5.6 | 4.9 | 4.4 | 4.0 | 3.8 | 3.3 |
| Grčak | 350 | 340 | 269 | 229 | 182 | 151 | 42 | 51 | 53 | 54 | 46 | 45 | 8.3 | 6.7 | 5.1 | 4.2 | 4.0 | 3.4 |
| Dašnica | 845 | 825 | 795 | 752 | 754 | 713 | 148 | 161 | 185 | 191 | 191 | 188 | 5.7 | 5.1 | 4.3 | 3.9 | 4.0 | 3.8 |
| Dobroljupci | 653 | 587 | 548 | 481 | 425 | 374 | 107 | 112 | 128 | 136 | 124 | 119 | 6.1 | 5.2 | 4.3 | 3.5 | 3.4 | 3.1 |
| D. Zleginje | 588 | 569 | 503 | 430 | 392 | 302 | 113 | 120 | 128 | 120 | 116 | 97 | 5.2 | 4.7 | 3.9 | 3.6 | 3.4 | 3.1 |
| D. Rataje | 1203 | 1158 | 1098 | 1045 | 1010 | 960 | 206 | 231 | 242 | 245 | 245 | 240 | 5.8 | 5.0 | 4.5 | 4.3 | 4.1 | 4.0 |
| D. Vratari | 476 | 448 | 395 | 340 | 316 | 299 | 72 | 78 | 82 | 79 | 75 | 76 | 6.6 | 5.7 | 4.8 | 4.3 | 4.2 | 3.9 |
| D. Stupanj | 1622 | 1589 | 1414 | 1344 | 1243 | 1138 | 281 | 316 | 312 | 311 | 298 | 293 | 5.8 | 5.0 | 4.5 | 4.3 | 4.2 | 3.9 |
| Drenča | 573 | 559 | 296 | 275 | 299 | 278 | 95 | 111 | 57 | 63 | 69 | 75 | 6.0 | 5.0 | 5.2 | 4.4 | 4.3 | 3.7 |
| Jelakeci | 980 | 1109 | 1082 | 844 | 627 | 505 | 117 | 132 | 152 | 158 | 164 | 137 | 8.4 | 8.4 | 7.1 | 5.3 | 3.8 | 3.7 |
| Kožetin | 355 | 350 | 504 | 885 | 888 | 936 | 78 | 91 | 156 | 276 | 246 | 297 | 4.6 | 3.9 | 3.2 | 3.2 | 3.6 | 3.2 |
| Koznica | 323 | 313 | 321 | 267 | 211 | 150 | 45 | 46 | 52 | 54 | 52 | 48 | 7.2 | 6.8 | 6.2 | 4.9 | 4.1 | 3.1 |
| Latkovac | 780 | 775 | 756 | 674 | 574 | 502 | 113 | 125 | 135 | 144 | 146 | 139 | 6.9 | 6.2 | 5.6 | 4.7 | 3.9 | 3.6 |
| Lačisled | 1042 | 1055 | 961 | 964 | 954 | 864 | 181 | 203 | 229 | 228 | 224 | 221 | 5.8 | 5.2 | 4.2 | 4.2 | 4.3 | 3.9 |
| Lesenovci | 315 | 331 | 288 | 256 | 209 | 195 | 43 | 48 | 59 | 60 | 57 | 54 | 7.3 | 6.9 | 4.9 | 4.3 | 3.7 | 3.6 |
| Leskovica | 489 | 503 | 515 | 440 | 381 | 322 | 62 | 81 | 88 | 88 | 78 | 76 | 7.9 | 6.2 | 5.9 | 5.0 | 4.9 | 4.2 |
| Ljubinci | 505 | 492 | 430 | 361 | 371 | 328 | 78 | 87 | 92 | 90 | 97 | 95 | 6.5 | 5.7 | 4.7 | 4.0 | 3.8 | 3.5 |
| Mrmoš | 1106 | 1133 | 1017 | 971 | 954 | 864 | 206 | 232 | 246 | 244 | 248 | 230 | 5.4 | 4.9 | 4.1 | 4.0 | 3.9 | 3.8 |
| Novaci | 521 | 510 | 502 | 463 | 450 | 422 | 91 | 96 | 104 | 115 | 121 | 121 | 5.7 | 5.3 | 4.8 | 4.0 | 3.7 | 3.5 |
| Panjevaca | 622 | 547 | 507 | 425 | 339 | 293 | 92 | 97 | 108 | 107 | 101 | 100 | 6.8 | 5.6 | 4.7 | 4.0 | 3.4 | 2.9 |
| Parčin | 408 | 373 | 373 | 348 | 283 | 274 | 56 | 62 | 72 | 72 | 70 | 70 | 7.3 | 6.0 | 5.2 | 4.8 | 4.0 | 3.9 |
| Pleš | 777 | 795 | 695 | 585 | 490 | 403 | 111 | 130 | 127 | 132 | 122 | 115 | 7.0 | 6.1 | 5.5 | 4.4 | 4.0 | 3.5 |
| Ploča | 640 | 726 | 701 | 606 | 574 | 476 | 87 | 94 | 100 | 111 | 118 | 120 | 7.4 | 7.7 | 7.0 | 5.5 | 4.9 | 4.0 |
| Popovci | 73 | 77 | 61 | 73 | 77 | 103 | 12 | 14 | 19 | 21 | 23 | 31 | 6.1 | 5.5 | 3.2 | 3.5 | 3.4 | 3.3 |
| Puhovac | 499 | 543 | 495 | 388 | 531 | 510 | 71 | 88 | 96 | 87 | 130 | 135 | 7.0 | 6.2 | 5.2 | 4.5 | 4.1 | 3.8 |
| Raklja | 262 | 273 | 359 | 442 | 583 | 727 | 39 | 45 | 94 | 108 | 156 | 214 | 6.7 | 6.1 | 3.8 | 4.1 | 3.7 | 3.4 |
| Ržanica | 570 | 538 | 489 | 458 | 388 | 350 | 85 | 93 | 96 | 112 | 98 | 89 | 6.7 | 5.8 | 5.1 | 4.1 | 4.0 | 3.9 |
| Rogavčina | 831 | 1091 | 829 | 687 | 410 | 221 | 184 | 153 | 159 | 152 | 122 | 78 | 4.5 | 7.1 | 5.2 | 4.5 | 3.4 | 2.8 |
| Rokci | 664 | 712 | 672 | 551 | 508 | 282 | 77 | 85 | 93 | 104 | 99 | 81 | 8.6 | 8.4 | 7.2 | 5.3 | 5.1 | 3.5 |
| Rudenice | 298 | 302 | 281 | 299 | 264 | 258 | 47 | 56 | 57 | 60 | 60 | 58 | 6.3 | 5.4 | 4.9 | 5.0 | 4.4 | 4.5 |
| Stanjevo | 363 | 352 | 676 | 991 | 1197 | 1337 | 66 | 67 | 182 | 265 | 295 | 372 | 5.5 | 5.3 | 3.7 | 3.7 | 4.1 | 3.6 |
| Starci | 90 | 92 | 74 | 74 | 69 | 53 | 14 | 12 | 16 | 14 | 16 | 14 | 6.4 | 7.7 | 4.6 | 5.3 | 4.3 | 3.8 |
| Strmenica | 799 | 584 | 473 | 360 | 270 | 194 | 108 | 77 | 86 | 84 | 79 | 72 | 7.4 | 7.6 | 5.5 | 4.3 | 3.4 | 2.7 |
| Stubal | 527 | 535 | 503 | 524 | 591 | 654 | 71 | 98 | 107 | 119 | 138 | 173 | 7.4 | 5.5 | 4.7 | 4.4 | 4.3 | 3.8 |
| Subotica | 1067 | 995 | 916 | 851 | 838 | 724 | 156 | 174 | 220 | 222 | 214 | 206 | 6.8 | 5.7 | 4.2 | 3.8 | 3.9 | 3.5 |
| Tržac | 361 | 310 | 305 | 287 | 270 | 253 | 59 | 60 | 69 | 69 | 66 | 69 | 6.1 | 5.2 | 4.4 | 4.2 | 4.1 | 3.7 |
| Trnavci | 866 | 872 | 763 | 635 | 581 | 494 | 155 | 177 | 177 | 171 | 153 | 159 | 5.6 | 4.9 | 4.3 | 3.7 | 3.8 | 3.1 |
| Tuleš | 696 | 729 | 674 | 687 | 629 | 561 | 119 | 129 | 136 | 144 | 140 | 134 | 5.9 | 5.7 | 5.0 | 4.8 | 4.5 | 4.2 |
| Šljivo | 640 | 590 | 490 | 448 | 425 | 380 | 99 | 103 | 117 | 117 | 115 | 114 | 6.5 | 5.7 | 4.2 | 3.8 | 3.7 | 3.3 |

Space: subject of cartographic modeling

The population of rural settlements was in permanent decline – from 33,595 in 1953 to 24,243 in 2002. Fall in the population of rural settlements has been particularly intensive since 1961, resulting from the migration of a portion of economically active and fertile contingent, mostly to Aleksandrovac urban settlement and to a significant extent to foreign countries. Rural population index for 2002/1953 is 72.40. The time and volume of intensive absolute and real decrease in rural population show high level of positive correlation with growth in urban population. Thus, in 1961-2002, the share of urban population in total population rose from 3.82% to 22.38%.



Layout 2. – Index of changes in population number, 2002-1953.

Although total rural population of the municipality started decreasing since the 1953-1961 intercensal period (-375), its analysis for individual rural settlements shows significant differences in trends, dynamics and chronology. In the 1953-2002 intercensal period, in eight (Venčac, Puhovac, Garevina, Stubal, Kožetin, Raklja and Stanjevo) out of 54 rural settlements, population rise by a total of 2312 inhabitants was registered. The absolute value of population growth for specific settlements is as follows: Stanjevo (974), Kožetin (581), Raklja (465), Stubal (127), Garevina (116), Popovci (30), Puhovac (11) and Venčac (8). The largest growth index was registered in Stanjevo – 368.32, Raklje – 277.48 and Kozetin – 263.66.

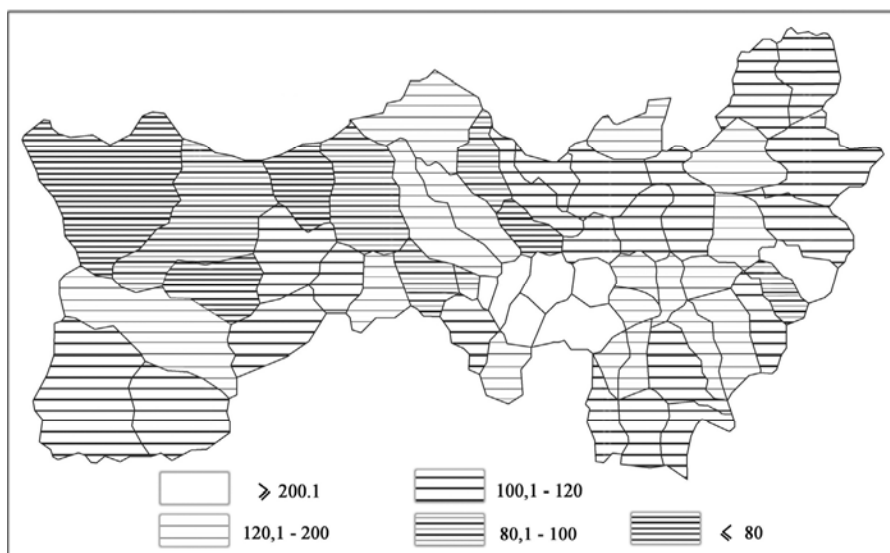
Of the total number of rural settlements in the period 1953-2002, fall in population was registered in 46, i.e. 85.2%. In nine rural settlements (16.6%), the registered fall exceeds 50%. The highest absolute value of depopulation in this period was registered in Rogavčina -610, Strmenica -605,

Bzenice -585, D. Stupanj -484 and others. As opposed to the absolute values of population change, where rural settlements with the largest population mostly dominate, relative indicators reveal the level of intensity of depopulation in smaller settlements, too. The largest percent of decrease in 1953-2002 was registered in Vranštica – 76.19%, Strmenica – 75.72%, Rogavčina – 73.41% etc.

Changes in movement and distribution of households

In the period 1948-2002, the number of households in the territory of the municipality was on permanent rise – from 5,229 to 8,789 or by 68%. The average population size was reduced from 6.24 to 3.39 pop/household. With regard to interdependence between total population trends and the number of households, what could be observed are clear differences between municipal center and other settlements, cumulatively and individually.

With regard to the urban settlement, the number of households was permanently growing – more or less intensively: between 1948 (331) and 2002 (2,208), it increased 6.67 times. The relative ratio of urban households to other households ranged from 6.24%:93.76% (1948) to 24.56%:75.44% (2002). At the same time, in the settlements categorized as other, the number of households increased from 4898 to 6783, or by 38.49%. The municipal center accounts for approximately 50% of the total growth in the number of households in the municipality in 1948-2002.



Layout 3. – Index of changes in number of households, 2002-1953.

At the level of municipality, the most intensive absolute and relative growth in the number of households was registered in the 1961-1971 intercen-

sal period by 1,230 or 19.74%. The largest decrease of the average size – from 5.54 to 4.52 pop/household was registered during the same period. This trend, with somehow lower intensity, continued into the next intercensal period, when the number of households rose by 935 or 12.49%. The pace of growth in the next intercensal periods evidently stagnated; thus, in 1981-2002, its number increased by 572 or 28.6 households a year on average

In Aleksandrovac urban settlement, the dynamic of growth in some intercensal periods displayed variable absolute and relative indicators. The most significant absolute growth by 616 households or 150% was registered in 1961-1971. Developments in the number of households in the group of settlements categorized as other registered growth in 1948-1981 and then fall until 2002. As far as individual rural settlements are concerned, in 1948-2002, absolute growth in the number of households was present in 44 or 81.48% of all households, while eight registered fall. In two settlements (Starci and G. Vratari), the number of households remained unchanged. The most significant absolute growth in the number of households is registered in Stanjevo (306), Kozetin (219), Raklja (175), while the most pronounced fall is present in Rogavčina (-106), Strmenica (-36), D. Zleginje (-16) etc.

And while the average household size in the settlements classified as other was in permanent decline (the reduction of broader family structures to family nucleus), in the municipal center it had dominant upward trend, resulting in the following ratios in specific intercensal processes: 4.3:2.8 (1961); 3.8:2.9 (1971); 3.5:3.0 (1981); 3.2:3.2 (1991) и 3.0:3.1 (2002).

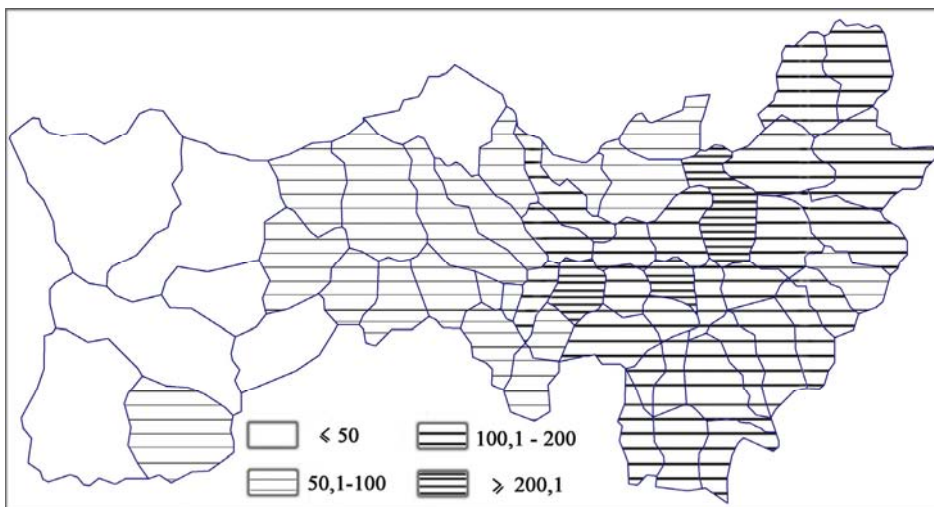
Spatial distribution of the population

Population density of the territory is analyzed at the level of settlement district in censal processes in 1961 and 2002. During 1961, 26, i.e. 47.27% of settlement districts, with the total area of 239.96 km², that is 62% of the total territory, had the density smaller than 100 pop/km². Also, 26 settlement districts with the total area of 135.43 km² had population density between 100 and 200 pop/km². The largest population density exists in the settlement districts of Aleksandrovac (368.72), Vitkovo (243.44) and D. Rataje (230.67). The smallest population density is present in Koznica (32.17), Rogavčina (33.52) and Vranštica (38.36).

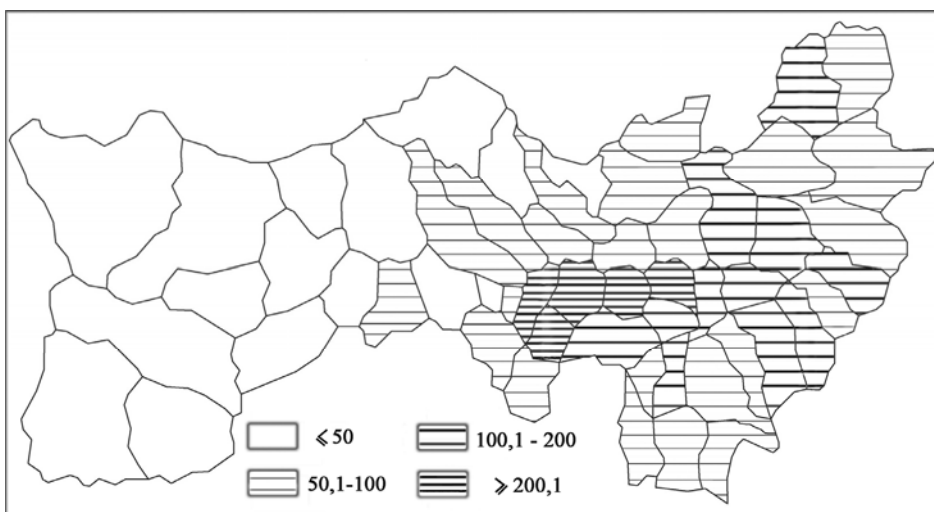
During 2002 (calculated according to the previous census methodologies), 39, i.e. 70.9% of the total number of settlement districts, covering the area of 329.16 km² or 49.43% of the total municipal territory, had population density smaller than 100 pop/km². In 16 settlement districts, area 191.23 km² or 49.43% of the total municipal territory, population density is smaller than 50 pop/ km².² Population density of 100-200 pop/km² is present in 11 settlement

² Based on the analysis of specific foreign experiences, Mendras, (1986) draws a conclusion that a sustainable developmental minimum should tend to the density of at least

Простор: предмет картографског моделовања



Layout 4. – Population density (population/km²) per settlement area in 1961.



Layout 5. – Population density (population/km²) per settlement area in 2002.

50 pop/km². Research done under the auspices of the UN indicates that low density/concentration and dispersion of rural population aggravate and increase the costs of equipping them with social and technical infrastructure and complicated and expensive services (Lackó, 1986). It is small concentration of the population both in rural territories and in settlements as basic inhabiting units, together with population aging and irrational network of settlements, that does not enable the sustainability of the existing or the development of new supra- and infrastructure facilities or the attainment of necessary forms of social standard.

Space: subject of cartographic modeling

Table 2. – Area, population density (1961 and 2002) and demographic age index (i_s) by settlements (1961, 1991 and 2002).

| | Area in ha | Demographic age index (i_s) | | | Area population density (pop/km ²) | |
|---------------|---------------|---------------------------------|------|------|--|---------|
| | | 1961 | 1991 | 2002 | 1961 | 2002 |
| Aleksandrovac | 358 | 0.3 | 0.3 | 0.6 | 368.72 | 1959.22 |
| Bzenice | 2122 | 0.2 | 1 | 1.4 | 47.36 | 20.45 |
| Bobote | 310 | 0.4 | 1.6 | 2.5 | 179.35 | 118.1 |
| Boturići | 518 | 0.3 | 1.1 | 1.9 | 77.03 | 53.81 |
| Bratići | 390 | 0.2 | 0.9 | 3.1 | 64.62 | 36.92 |
| V. Vrbnica | 738 | 0.2 | 1 | 1.4 | 104.87 | 63.82 |
| Velja Glava | 588 | 0.2 | 0.9 | 1.8 | 63.95 | 33.67 |
| Venčac | 256 | 0.4 | 0.9 | 1.2 | 152.34 | 178.13 |
| Vitkovo | 241 | 0.3 | 0.8 | 1.4 | 234.44 | 210.79 |
| Vražogrnji | 320 | 0.2 | 1.8 | 1.6 | 151.56 | 96.56 |
| Vranštica | 829 | 0.1 | 1.2 | 1.6 | 38.36 | 9.05 |
| Vrbnica | 1530 | 0.3 | 1.6 | 2.1 | 54.51 | 36.86 |
| Garevina | 364 | 0.2 | 1.1 | 1.6 | 83.52 | 118.41 |
| G. Zleginje | 423 | 0.3 | 1.5 | 2.2 | 172.1 | 108.27 |
| G. Rataje | 910 | 0.3 | 1.5 | 1.7 | 122.3 | 97.8 |
| G. Vratari | 442 | 0.2 | 0.9 | 1.0 | 76.47 | 45.25 |
| G. Stupanj | 827 | 0.4 | 1.7 | 2.3 | 133.13 | 83.56 |
| Grčak | 428 | 0.2 | 1.2 | 1.5 | 79.44 | 35.28 |
| Dašnica | 540 | 0.4 | 1.2 | 1.3 | 152.78 | 132.04 |
| Dobroljupci | 425 | 0.3 | 1.2 | 1.8 | 138.12 | 88 |
| D. Zleginje | 338 | 0.3 | 2.2 | 2.8 | 168.34 | 89.35 |
| D. Rataje | 502 | 0.3 | 1.5 | 1.4 | 230.67 | 191.24 |
| D. Vratari | 498 | 0.2 | 0.9 | 1.0 | 89.96 | 60.04 |
| D. Stupanj | 1178 | 0.3 | 1.2 | 1.7 | 134.89 | 96.60 |
| Drenča | 442 | 0.4 | 1.2 | 1.3 | 126.47 | 62.9 |
| Jelakci | 2372 | 0.1 | 1.2 | 2.6 | 46.75 | 21.29 |
| Kožetin | 196 | 0.3 | 0.3 | 0.5 | 178.57 | 477.55 |
| Koznica | 973 | 0.2 | 0.6 | 1.9 | 32.17 | 15.42 |
| Latkovac | 816 | 0.2 | 0.9 | 1.4 | 94.98 | 61.52 |
| Lačisled | 911 | 0.3 | 1 | 1.5 | 115.81 | 94.84 |
| Lesenovci | 386 | 0.2 | 1.4 | 1.8 | 85.71 | 50.52 |
| Leskovic | 1235 | 0.1 | 0.7 | 1.2 | 40.73 | 26.07 |
| Ljubinci | 253 | 0.3 | 1.2 | 1.4 | 194.47 | 129.64 |
| Mrmoš | 850 | 0.3 | 1.2 | 1.6 | 133.29 | 101.65 |
| Novaci | 330 | 0.4 | 1.2 | 1.7 | 154.55 | 127.88 |
| Panjevac | 470 | 0.3 | 1.9 | 1.9 | 116.38 | 62.34 |
| Parčin | 289 | 0.2 | 1.8 | 1.9 | 129.07 | 94.81 |
| Pleš | 900 | 0.2 | 1 | 1.5 | 88.33 | 44.78 |
| Ploča | 1745 | 0.1 | 0.6 | 1.4 | 41.60 | 27.28 |
| Popovci | 115 | 0.3 | 1.1 | 0.9 | 66.96 | 89.57 |
| Puhovac | 639 | 0.2 | 0.6 | 0.8 | 84.97 | 79.81 |
| Raklje | 326 | 0.2 | 0.6 | 0.7 | 83.74 | 223 |
| Ržanica | 508 | 0.3 | 1.1 | 1.7 | 105.91 | 68.9 |
| Rogavčina | 3255 | 0.2 | 1.6 | 3.4 | 33.52 | 6.79 |
| Rokci | 1398 | 0.2 | 0.8 | 7.6 | 50.93 | 20.17 |
| Rudenice | 389 | 0.3 | 1.3 | 2.2 | 77.63 | 66.32 |
| Stanjevo | 352 | 0.3 | 0.4 | 0.7 | 100 | 379.83 |
| Starci | 165 | 0.2 | 0.4 | 1.7 | 55.76 | 32.12 |
| Strmenica | 751 | 0.2 | 1.6 | 2.7 | 77.76 | 25.83 |
| Stubal | 530 | 0.3 | 0.9 | 1.1 | 100.94 | 123.39 |
| Subotica | 613 | 0.3 | 1.2 | 1.9 | 162.32 | 118.11 |
| Tržac | 263 | 0.3 | 1.3 | 1.3 | 117.87 | 96.2 |
| Trnavci | 855 | 0.4 | 1.3 | 1.8 | 101.99 | 57.78 |
| Tuleš | 822 | 0.2 | 1 | 1.6 | 88.68 | 68.25 |
| Šljivovo | 416 | 0.3 | 1.5 | 2.0 | 141.83 | 91.35 |

districts that cover the total area of 49.71 km². The smallest population density exists in Rogavčina – 6.79, Vranštica – 9.05 and Koznica – 15.42 pop/km². On the other hand, the largest population density is registered in Aleksandrovac – 1959.22, Kožetin – 477.55 and Stanjevo 379.83 pop/km².

Population age structure

The age structure of the population is the most important qualitative indicator of the demographic framework of population and economic prospects of settlements and their administrative territories. Moreover, it is also a key determinant of demographic, settlement-related, functional, economic and overall economic-geographic and physical-geographic processes. The age structure of the population could thus be the basis for the projection of overall evolution and existence of economic activities and geographic space in general.

Although this process is cumulatively and individually differentiated between the municipal center and other settlements, generally speaking aging is a general characteristic of continuous change in the age structure of the population in almost all settlements.

Under current circumstances it is so unfavorable that it appears as the primary limiting factor of its spatial and socio-economic survival and development. Age differentiation of the population is established by the comparison of age index³ for each individual settlement in the 1961, 1991 and 2002 censal processes.

Based on a selected indicator of demographic age, it may be concluded that the settlements of Aleksandrovac municipality, although significantly and broadly diversified, had conditionally the most homogeneous age structure at the beginning of the observed period in 1961, while in analyzed periods of 1991 and 2002 they become heterogeneous and polarized. The differentiation of changes of demographic age is typical both for individual settlements and for the groups of settlements according to the type (urban and other), the categories of settlements of different population size, functional capacity (municipal center, centers of rural communities, primary rural settlements) etc.

The existing scales of the stage of demographic age (Фригановић М., Пенев Г., Спасовски М. et al), with regard to this group of settlements, especially in the 1991 and 2002 census, were not convenient for application, because the values of demographic age index in the significant number of individual settlements were such that they were concentrated on the borders of the said models. The obtained results and the dynamics of their changes have such

³ Aging index speaks of the ratio of elderly (60 years of age and older) and young (up to 20 years of age) segment of the population ($i_s = V_{60}/V_{0-19}$).

variations that their further classification would be difficult. Classification would make sense only if every category of population age could be attributed specific name.

No settlement was identified in the stage of the deepest demographic old age in 1961, while the demographic age index for individual settlements ranged between 0.1 (Vranštica, Jelakci, Leskovica and Ploča) to 0.4 (Venčac, G. Stupanj, Dobroljupci, Drenča and Trnavci). In 1991, settlements with the youngest population ($i_s - 0.3$) were Aleksandrovac and Kožetin, while Zleginja ($i_s - 2,2$) was the oldest.

There were 17 settlements in the group of settlements with the deepest demographic old age in 1991 and 43 in 2002. According to the share of settlements in the stage of the deepest demographic old age in 2002, Aleksandrovac municipality had 78.19% of the total number of settlements, which is considerably above the average for Central Serbia – 68.9%.

Relative homogeneity of the age structure in 1961 was certainly to a significant extent due to the impact of post-war compensation period (birth rate growth in 1946-1954) and still incomplete processes of demographic transition, for which reason relative shares of young population were of approximate size. While in the following intercensal periods changes in population age structure of the municipal center were minor, until the last intercensal period, in the group of settlements categorized as other, since 1971, they trended towards pronounced aging.

Such change in the population age structure in the settlements categorized as other resulted from combined impact of the establishment of standard secular flows of natural movement which normally occur after the compensation period, above all as a result of selective migration of the population in the reproductive period and consequent effect of reduction in birth⁴.

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⁴ The dynamic of population aging in individual settlements shows significant correlation with the process of their and population atomization and decrease in functional capacity.

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**ПРОМЕНЕ У РАЗВОЈУ И ПРОСТОРНОМ РАЗМЕШТАЈУ
СТАНОВНИШТВА ОПШТИНЕ АЛЕКСАНДРОВАЦ
ТОКОМ ДРУГЕ ПОЛОВИНЕ ХХ ВЕКА**

Резиме

Са површином од 386,55 km² и 29.389 становника (попис 2002.) Александровац је општина Централне Србије са просечним величинским параметрима

(0,69% територије и 0,54% становника). У склопу Расинског округа (2.668 km²) учествује са 14,5% територије и 11,33% становника. Од шест општина Расинског округа, по површини од ње су мање Ћићевац (124 km²) и Варварин (248 km²), а по броју становника Ћићевац (10.755), Брус (18.764) и Варварин (20.122).

Савремену насеобинску мрежу општине Александровац чини 55 статистички евидентирана насеља (51 К.О.) организованих у 53 месне заједнице и 11 месних канцеларија. По правном критеријуму једно насеље је градско (управно-административни центар) и 54 насеља у категорији осталих. Реална структура мреже насеља надограђена је постојањем несамосталних насеобинских јединица („пољане“ као сезонска виноградарска насеља котлинског дела општине, захваћених различитим процесима функционалних трансформација и викенд насеља планинског дела простора), која нису предмет регистра актуалне статистичке евиденције.

Општина има дисперзну насељеност са густином становништва (80,98 ст/km²) која је мања од оне за Расински округ (103 ст/km²) и Централну Србију (103,79 ст/km²). Заправо, густина насељености општине од 1953. - 89,79 ст/km² опада тако да 2002. године достиже 78,02% вредности за територију Централне Србије, односно 78,62% за Расински округ.

Истовремено, учешће популације општине Александровац у укупном становништву Расинског округа, бележи континуиран пад са 14,48% - 1948. на 11,33% - 2002. године. Посматрано по међупописним периодима највећи пад укупног становништва општине остварен је у периоду 1991-2002. (1.877). Статистички износ оствареног пада у овом међупописном периоду је заправо, применом нове пописне методологије, још и већи са 33.215 на 29.389 или за 3.826 становника.

Од 1953. године становништво сеоских насеља се континуирано смањује са 33.595 на 24.243 - 2002. године. Ово смањење је интензивовано од 1961. године услед исељавања дела радно способног и фертилног (репродуктивно способног) контингента, претежно у градска насеља Александровац и Крушевац, али у значајној мери и на рад у иностранство. Индекс становника сеоских насеља за период 2002/1953. године је 72,40. Истовремено, популација општинског центра се континуирано увећава са 1.027 становника 1948. на 6.476 - 2002 године, односно за 530,57%. У периоду 1961-2002. године учешће урбане у укупној популацији расте са 3,82% на 22,38%.

У категорији најзначајнијих тенденција у развоју и просторном размештају становништва општине Александровац током друге половине хх века истичу се:

- пад укупне популације,
- континуирано апсолутно смањење становништва сеоских насеља и његовог учешћа у укупној популацији општине,
 - изразито демографско старење и феминизација, пре свега, сеоског становништва,
- популациона атрофија и ерозија виталних функција планинских насеља и атара,
- фактички процеси популационог и насеобинског проређивања планинских (популационо гашење и/или груписање појединих морфо-физиономских

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делова сеоских насеља) и груписања на нижим котлинским деловима простора (новија изградња дуж савременијих саобраћајних комуникација, функционална трансформација појединих „пољана“ из привремених у стална насеља) и др.