RETROSPECTIVE ETHNIC VARIETY OF SETTLEMENTS AS COMPONENTS OF THE PRYKARPATTIA NATURAL REGIONS

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Annotation

The article views the method of calculating of the average retrospective variety coefficient with the factor of the ethnic group language and religion. The work analyzes average ethnic diversity of settlements as an element of retrospective changes in the natural regions of Ivano-Frankivsk Oblast: physic-geographical zone, physic-geographical oblast and physic-geographical rayon.

Keywords: the average retrospective ethnic variety, settlement, natural region, physic-geographical taxonomic units, language group, ethnos

Introduction

Appearance of settlements was within a long-time archaeological period associated with their ethnic-cultural environment. Thereafter, the process of colonization was associated with directly national or ethnographic composition of population within settlement geo-systems. The latter genuinely base on naturalterritorial complexes, and this is why the linkage between the landscape and the ethnos as a system is indisputable. Leo Goumilyov suggested that the ethnic phenomenon is geographic phenomenon, and the landscape variety causes variety of ethnic groups [1. Humilev L.N., 1994, 2. Shtoyko P., 2000]. Similar suggestion was outspoken by O. Smyntyna with respect to ancient ethnic groups and their archaeological cultures [3. Smyntyna O.V., 2003]. Hence, the genesis of different-quality ancient and presentday ethnic groups within different-type landscapes is scientifically substantiated, while their mutual influence is doubtless. Meanwhile, the influence of settlement's natural environment upon its ethnic variety (mosaic structure) stands in this respect relatively apart within the ethnos-landscape system.

Methods and aims

The present study aimed at disclosure of retrospective ethnic variety of settlements being the components of natural regions and river flows of the Prykarpattia within the limits of the present-day Ivano-Frankivsk Oblast. To solve the problem, we have made use of the method to calculate the ethnic mosaic (variety) of geosystems of different level of colonization within all historic epochs from the Old Stone Age to present days, previously applied in their studies by M. Dnistrianskyy [4. Dnistryans'kyy M.S., 2008], B. Ekkel [5. Ekkel B.M., 1976], L. Kosinskyy [6. Ekkel B.M., 1976], and specified by V. Dzhaman [7. Dzhaman V.O., 2006]. Further complex analysis of the coefficients of ethnic variety in different settlements became an important constituent of the present study.

Scientific coverage of Ivano-Frankivsk Oblast in the context of ethnic studies was scrupulously observed in various publications [8. Hyshchuk R.M., 2014, 9. Hyshchuk R.M., 2007, 10. Hyshchuk R.M., 2007, 11. Hyshchuk R., 2009]. However, the Ivano-Frankivsk Oblast was not mentioned in any ethno-geographic research where they dealt with natural regions, so our works within this framework are the only exceptions [12. Hyshchuk R.M., 2007, 13. Hyshchuk R.M., 2009, 14. Krul' V.P., Hyshchuk R.M., 2010, 15. Krul' V.P., 2010, 16. Krul' V.P., Hyshchuk R.M., 2010, 17. Krul' V.P., Hyshchuk R.M., 2009, 19. Hyshchuk R.M., 2009, 20. Krul' V.P., Hyshchuk R.M., 2012].

Study results and analysis

The final data of the primeval colonization of the Prykarpattia before the end of the "mineral" history, and consideration of the relative share of primeval settlements (hereinafter – PS.) that possessed certain ethnic culture component within each colonization stage, as well as statistical data of ethnic composition available for present-day communities, allowed for calculation and estimation of average retrospective ethnic variety rE_v (B. Ekkel's general method

with introduction of V. Dzhaman's additional coefficients of language variety [4. Dnistryans'kyy M.S., 2008, P.53, 5. Ekkel B.M., 1976, 7. Dzhaman V.O., 2006] characteristic for present-day communities (hereinafter – PDC) of the Ivano-Frankivsk Oblast. Insomuch as no thorough revision of general populousness and numerical strength of ethnic composition was performed in Halychyna (Galicia) since medieval period, not to speak of earlier times (we previously pointed to that fact in [21. Krul' V., Hyshchuk R., 2006], the present research grounded on the dynamics of formation of qualitative-quantitative characteristics of the primary colonization network in the Prykarpattia together with its ethnic component.

In other words, to help disclose average ethnic composition of the Prykarpattia communities inhabiting these lands from the early Old Stone Age until the 20th century, we counted the PS shares for each culture, in particular, if with respect to PDC - before the end of the archaeological history (Old Rus period). Upon the end of the Old Rus period and the decline of the Kingdom of Galicia-Volhynia, it was the territory with predominance of practically single titular nation, while its assimilation by other nations took place within the last century and a half before 1939, that is, before these lands were included to the Soviet Ukraine. Thus, the Ev value was continuously growing beginning from the Austrian ruling in Halychyna. Amounting to 0,367 at the end of the 18^{th} century, the value grew to 0,515 in the by the half of the 19th, and to 0,559-0,618 at the beginning of the 20^{th} century. It was in 1939 that the E_v value amounted to 0,594 (0,429 in the Ivano-Frankivsk Oblast). In this way, the E_v dynamics points to the fact that poly-ethnicity of the Halychyna in general and the Ivano-Frankivsk Oblast in particular was formed only in the Austro-Polish days [22. Hyshchuk R., 2008].

To disclose the E_v value of settlements existing after the Old Rus epoch, we took the data of the Ivano-Frankivsk Oblast communities available for 01.01.1939 [23. Kubiyovych V., 1983, 24. Kopchak S.I., Moyseyenko V.I., Romanyuk M.D.,1996] when their ethnic composition was the most mosaic [11. Hyshchuk R., 2009], while the average retrospective E_v value was obtained with the use of E_v coefficients related to said period and the same related to settlements within previous stages of colonization prior to the Old Rus period. In the meantime, we should note that the average coefficient of retrospective ethnic variety for the communities of the Ivano-Frankivsk Oblast corresponded in most cases to average geometric value, since it did not depend on the scope of their extreme values. And it was only in some cases when "zero" ethnic variety was shown that such coefficients were calculated as average arithmetic.

Another important point to use V. Kubiyovych's statistical data related to communities' ethnic composition as for the end of the 1930s lay in the fact that it was practically a sole source available to wide circle of scientists that disclosed ethnic composition for 657 (81,7%) present-day communities of the Ivano-Frankivsk Oblast. The values of the Prykarpattia ethnic structure *in the aspect of its communities were available in no other sources*, inclusive of the

data of Soviet Population Counts, or 2001 National Population Count, save for cities directly governed by the oblast administration.

To sum it up, we shall emphasize that the average retrospective E_v coefficient for the communities of the Ivano-Frankivsk Oblast was calculated as the average arithmetic value of E_v coefficients of their PS until the Old Rus period, and V. Kubiyovych's data of the 21st century. In such a way, having applied B. Ekkel's method, we obtained a specific *maximum allowable* E_v value (hypothetically, all other stages of colonization influenced only upon its decrease, since the oblast's total E_v was generally decreasing [22. Hyshchuk R., 2008]) for 657 both ancient settlements and "younger" communities of the Ivano-Frankivsk Oblast existing today. The number of communities that comprise the basis of this study approaches 81,7% out of all existing communities in the oblast, which, to our opinion, is a sufficient figure to make complete and representative conclusions.

At the same time, we suggested that in the process of computation of E_v coefficients as suggested by B. Ekkel, the methods of application of V. Dzhaman's language coefficients should be specified (the latter being computed on the basis of the data presented by L. Zalizniak [25. Zaliznyak L.L., 2004, P. 43-45, P.55], F. Filin [26. Filin F.P., 1963, P.126, P.128, P.152, P.161, P.165], V. Rusanivskyy [27. Rusanivs'kyy V.M., 1980, P. 8], B. Magomedov [28. Mahomedov B.V., 1999, P. 19-24], Yu. Mosenkis [29. Mosenkis Yu.L. (2002)], and Yu. Karpenko [30. Karpenko Yu.O., 2006, P. 86-97]. The process started with computation of all E_v coefficients for all settlements in all stages of colonization to obtain the value of average retrospective ethnic variety. To narrow the step and extend the concept of their application, the authors, in their turn, suggested that V. Dzhaman's language specifications to B.Ekkel's formula were added with a number of their own coefficients related to language and religion. Such addition would allow for disclosure of the place and the language coefficient of the ethnos (or its transitional groups, e.g., Latinists - Ukrainians) with poly-confessional (mono-confessional) composition which simultaneously belongs to different (common) ethnolinguistic families, groups and sub-groups with territorial neighborhood (nonneighborhood) of their inhabitance with respect to titular nation, or its own inhabitance with major areal of its population.

Thus, alongside with V. Dzaman's coefficients where 0,7 stands for the ethnos of same-language sub-group with respect to titular ethnos, 0,5 – same-language group, 0,1 – same-language family, and 0,05 – different-language family, we suggested introduction of *specified coefficients* to mean as follows:

1 was appropriated to the ethnos which nationally, ethnically or ethnic-culturally prevailed on this or that territory; **0**,**9** was appropriated when the prevailing ethnos was simultaneously a polyconfessional (poly-religious) ethnos;

LANGUAGE SUBGROUP

0,85 meant that the ethnos and the prevailing ethnos belonged to same-language sub-group with common religion and territorial neighborhood of inhabitance with respect to territories (countries) of their major living; **0,8** – the ethnos and the prevailing ethnos belonged to same-language sub-group with common religion and separate (non-neighboring) territorial inhabitance with respect to territories (countries) of their major living; **0,75** – the ethnos and the prevailing ethnos belonged to same-language sub-group with different religions and territorial neighborhood of inhabitance with respect to territories (countries) of their major living; **0,75** – the ethnos and the prevailing ethnos belonged to same-language sub-group with different religions and territorial neighborhood of inhabitance with respect to territories (countries) of their major living; **0,7** – the ethnos and the prevailing ethnos belonged to same-language sub-group with different religions and separate (non-neighboring) the separate (non-neighboring) territories (non-neighboring) territories (non-neighboring) territories (non-neighboring) territorial neighborhood of inhabitance with respect to territories (countries) of their major living; **0,7** – the ethnos and the prevailing ethnos belonged to same-language sub-group with different religions and separate (non-neighboring)

territorial inhabitance with respect to territories (countries) of their major living;

LANGUAGE GROUP

0,65 – the ethnos and the prevailing ethnos belonged to samelanguage group with common religion and territorial neighborhood of inhabitance with respect to territories (countries) of their major living; **0,6** – the ethnos and the prevailing ethnos belonged to samelanguage group with common religion and separate (nonneighboring) territorial inhabitance with respect to territories (countries) of their major living; **0,55** – the ethnos and the prevailing ethnos belonged to same-language group with different religions and territorial neighborhood of inhabitance with respect to territories (countries) of their major living; **0,5** – the ethnos and the prevailing ethnos belonged to same-language group with different religions and separate (non-neighboring) territorial inhabitance with respect to territories (countries) of their major living; **0,5** – the ethnos and the prevailing

LANGUAGE FAMILY

0,4 – the ethnos and the prevailing ethnos belonged to samelanguage family with common religion and territorial neighborhood of inhabitance with respect to territories (countries) of their major living; **0,3** – the ethnos and the prevailing ethnos belonged to samelanguage family with common religion and separate (nonneighboring) territorial inhabitance with respect to territories (countries) of their major living; **0,2** – the ethnos and the prevailing ethnos belonged to same-language family with different religions and territorial neighborhood of inhabitance with respect to territories (countries) of their major living; **0,1** – the ethnos and the prevailing ethnos belonged to same-language family with different religions and separate (non-neighboring) territorial inhabitance with respect to territories (countries) of their major living; **0,1** – the ethnos and the prevailing

DIFFERENT LANGUAGE FAMILY

0,05 – the ethnos and the prevailing ethnos belonged to different-language family.

Summarizing the aforesaid, we should accentuate that the average retrospective ethnic (ethnic-cultural) variety (rE_v) was defined according to the following formula (1),where :

 rE_v stood for retrospective ethnic variety of certain territorial unit, k – language coefficient of ethnic or ethnic-cultural group in jcommunity, π – share of ethnic or ethnic-cultural groups (in archaeological time – the share of primeval settlements in jsettlement belonging to certain ethnic-cultural groups) in jcommunity, m – number of ethnic or ethnic-cultural groups in jcommunity, n – number of stages that defined the rE_v value.

The analysis of the millenniums-lasting retrospective ethnic loads on 657 communities of Prykarpattia showed that, on the average, the Ivano-Frankivsk Oblast was not very intensely assimilated and colonized by different ethniccultural and ethnic elements, and that was why the E_v coefficient from the early Old Stone Age to present days thus amounted to 0,131. Higher values were observed for the Zone of Deciduous Forests (0,219) and all its natural regions (from 0,311 within the West-Podillia Oblast to 0,181 in the Mykolaiv-Berezhany Physic-Geographic Rayon), Peredkarpattia Uplands Oblast (0,134) and all its natural regions (from 0,178 in the Obertyn-Gvizdets to 0,144 in Yabluniv-Kuty physic-geographic rayons), save for Zaviy-Yamnytsia and Dolyna-Kalush physic-geographic rayons (0,094 i 0,105 correspondingly), Upper Svich-Upper Bystrutsia Physic-Geographic Rayon in the Outer-Carpathian Oblast (0,419), Yasinia (0,159) Rayon in the Vododilno-Verkhovynska Oblast, and Svydovetsko-Chornogorskyy (0,164) Physic-Geographic Rayon in the Polonynsko-Chornogirska Oblast.

$$rE_{v} = \frac{\left(\frac{(1-\sum_{i=1}^{m}k(\pi)^{2})_{1}+(1-\sum_{i=1}^{m}k(\pi)^{2})_{j}}{j}\right)E_{vI} + \left(\frac{(1-\sum_{i=1}^{m}k(\pi)^{2})_{1}+(1-\sum_{i=1}^{m}k(\pi)^{2})_{j}}{j}\right)E_{vI}}{n}$$
(1), where

Physic- geographical taxonomic units	Number of communities by rE_v groups											ient	-0	her o	ng
	0,000-0,100	0,101-0,200	0,201-0,300	0,301-0,400	0,401-0,500	0,501-0,600	0,601-0,700	0,701-0,800	0,801-0,900	0,901-1,000	Total	Average rEv, coefficient	Share of Group 1 communities (0,000- 0,100) rEv,%	Δ rE _v from the higher taxonomic unit, %	Taxonomic unit rating by the average rE _v coefficient
Roztoky-Opillia Monticulate Oblast	39	23	19	23	17	15	7	2	0	0	145	0,190	26,9	-13,0	3
West-Podillia Uplands Oblast	2	1	0	3	2	0	1	0	0	0	9	0,311	22,2	42,2	1
Prut-Dniester Uplands Oblast	10	8	5	3	4	3	1	0	0	0	34	0,203	29,4	-7,2	2
Zone of Deciduous Forests	51	32	24	29	23	18	9	2	0	0	188	0,219	27,1	67,5*	-
Peredkarpattia Uplands Oblast	158	75	50	39	25	23	7	3	0	0	380	0,134	41,6	16,4	4
Outer-Carpathian Oblast	45	12	7	4	3	5	1	0	0	0	77	0,108	58,4	-5,5	6
Vododilno- Verkhovynska Oblast	7	1	1	0	0	0	0	0	0	0	9	0,083	77,8	-27,55	7
Polonynsko- Chornogirska Oblast	1	2	0	0	0	0	0	0	0	0	3	0,119	33,3	3,58	5
Ukrainian Carpathians	211	90	58	43	28	28	8	3	0	0	469	0,115	45,0	-12,10*	-
IVANO- FRANKIVSK OBLAST	262	122	82	72	51	46	17	5	0	0	657	0,131	39,9	-	-

Table 1 Distribution of the number of communities by the average retrospective ethnic variety (rE_v) in natural regions of Ivano-Frankivsk Oblast

* - deviation (Δ rEv) was taken as general for the Ivano-Frankivsk Oblast

Thus, it is clearly traced that the number of communities possessing the highest average E_v value decreased from natural territorial taxonomic units of the Zone of Deciduous Forests and Peredkarpattia Uplands Oblast towards more "mountainous" physic-geographical oblasts of the Ukrainian Carpathians located above sea level. This was additionally confirmed by both moderate crowding of groups with communities possessing high average retrospective E_v coefficients, and the higher share of communities from the first group where E_v value tended to zero. Thus, while the share of settlements related to the first group ranges within the limits of 22,2-27,3% in the Zone of Deciduous Forests and all its natural region, it reaches nearly 41,6% in the Peredkarpattia Uplands Oblast, 58,4% in the Outer-Carpathian Oblast, 87,5% in the Vododilno-Verkhovynska Oblas, while, totally, their specific weight in Ukrainian Carpathians reaches almost the half of its communities (44,5% or 211 communities) (see Table 1).

Conclusions

Thus, the highest average retrospective ethnic loads in the course of millenniums (early Old Stone Age – XXI century) were observed in those settlements of. the Prykarpattia that occupied natural regions along the rivers of Dniester, Bystrytsia, Nadvirnianska and Prut, that is, within the limits of the present-day historic-ethnographic oblast of the Pokuttia. The average rE_v value was only decreasing if higher up the Dniester (from 0,251 in the Gorodenka Rayon to 0,152 in the Rogatyn Rayon), especially in the river flows of the Svich, Limnytsia, Bystrytsia Solotvynska, and Cheremosh. The only exceptions

were the communities located in the high-altitude types of landscapes of the river flows of the Bystrytsia Nadirnianska and the Prut that wedged in the Nadvirna Rayon and the lands of the Yaremcha City Council: these showed higher average retrospective E_v value (ranging within the limits of 0,146-0,159). The same rayon (Nadvirna) separates two huge massifs (*north-western and south-eastern*) possessing the simplest retrospective-present-day ethnic structure of their communities. In the first, *north-western massif*, it varies from 0,059 in the Rozhniativ Rayon to 0,077 in the flows of the Limnytsia River, 0,105-0,112 in the same of the Svich River, and to 0,137 in the Kalush Rayon. In the *south-eastern massif* the average rE_v of the communities varies from 0,051 in the Verkhovyna Rayon, 0,063 in the flows of the Cheremosh, to 0,142 in the Sniatyn Rayon (see Fig. 1)

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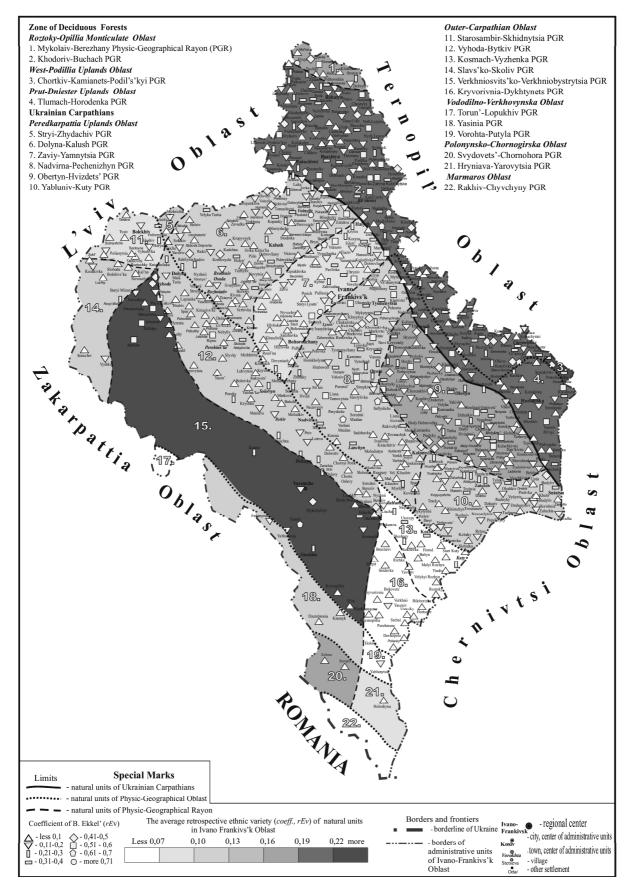


Fig. 1. The average retrospective ethnic variety (rEv) of natural units in Ivano-Frankivs'k Oblast

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