

## Scientific report - Synthesis

regarding the implementation of the project between October 2015 and December 2016

Between October 2015 and December 2016, the research projected in the research grant “Rhythms and patterns. The quantitative dimension of the family life in Transylvania (1850 – 1918) (PN-II-TU-TE-2014-4-2208) has witnessed significant progress, in accordance with the activities and objectives proposed in the initial implementation contract. All difficulties encountered were overcome, while the activities undertaken and the findings disseminated by the members of the project made significant contributions to the broader research field, in which the project is framed.

### A. Tidying data through sampling

The first activity, which took place in the 3<sup>rd</sup> and 4<sup>th</sup> months of project implementation, concerned the data tidying process, undertaken through sampling. This process, generally neglected within the framework of traditional humanities research projects, which firstly rely on textual hermeneutics and deal with essentially narrative sources, constitutes an indispensable step in working with historical information that has been systematized into a database. As numerous studies in the field of historical data management have noted, the human factor in database construction will always lead to a certain percentage of errors in transcription/data entry. It is therefore crucial that the final datasets from the *Historical Population Database of Transylvania* undergo a systematic and documented tidying process. The standardisation and analysis of longitudinal data would then prove impossible – or would present significant interpretation errors – if these would not have previously been verified and corrected. Moreover, this task will be continuously undertaken during the entire period of implementation, and constitutes one of the most time-consuming but stringently necessary procedures in database management.

This procedure was firstly undertaken by temporal sampling, and then by sampling each data entry operator’s work chronologically. Approximately 30% of the total entries for each operator were verified for accuracy. Afterwards, each source table for each kind of vital event (births, marriages, burials) was compared to the original source, and re-verified for transcription errors. Certain logical principles were followed and documented during this process: for instance, in the case of birth registers, the date of baptism needed to follow that of birth in time, etc. This process thus helped to create a set of ‘best practices’ that will undoubtedly constitute a highly useful instrument not only for the present project, but also for the researchers who will employ HPDT samples in other kinds of analyses.

### B. Data standardisation

This second activity was closely tied to the data tidying process, and involved adding the standard layer to the ‘raw data’, that would then enable the quantitative/statistical analysis of data, as well as the linkage procedures that will be later undertaken. Standardisation focused both on nominative information, as well as on information related to occupational status,

which was coded using HISCO and HISCLASS. Data standardisation is a second essential step in transforming the raw information, obtained through accurate and precise transcription of historical sources, into proper datasets that can undergo statistical analysis. By standardising historical data, they become useable for other researchers in the fields of family history and historical demography, both on a regional and on a European level.

### C. Exporting and restructuring the data from the database

A third step in the process of preparing the data for the analysis were the procedures of exporting and restructuring, tailored to suit the specific needs and priorities of analysis. Restructuring data involves their harmonization with the standards of the IDS (intermediate data structure), which will then allow the integration of Transylvanian data with comparable datasets resulting from the historical population databases from Sweden, the Netherlands, etc. The IDS format is a specific one, that allows for longitudinal analysis of aggregate individual-level data, which can undergo the process of linkage. This activity, continuously undertaken throughout the entire implementation period, will ensure the visibility and operativity of the HPDT-generated data on a European level. Towards the end of the implementation period discussed in the present report, one team member – Ph.D. student 2 – will attend a workshop organized by the International Institute for Social History in Amsterdam, where the newest extraction and formatting software for IDS-structured data will be discussed.

### A. Analysis of birth data

The first activity that involved analysis was focused on birth data, extracted from baptismal records presently included in the HPST. The analysis traced aspects such as the frequency of births in various micro-areas, the seasonality of births, the sex ratio, parents' occupation, medical assistance at birth, and vaccination. Besides these primary, quantitative-level findings, we have also concentrated on the quantitative and relational aspects of the phenomenon of godparenthood in one of the main micro-areas contained in the database. The implementation of a method that initially developed in the field of *digital humanities*, which has not previously been employed for the analysis of relational information pertaining to spiritual kinship in Transylvania (or even in South-Eastern Europe) has permitted the formulation of bold new hypotheses regarding the institution of godparenthood in modern Transylvania. These new hypotheses, for the better part, partially contradict many of the findings of anthropologic/ethnological discourse that has focused on spiritual kinship in this rural area (see also section G. of the present report).

### B. Analysis of marriage data

A second analysis concerned marriage data, extracted from the marriage registers contained in the HPDT. This undertaking focused on issues such as marriage frequency by area, seasonality, bride and grooms' origins, age at marriage, etc. A pioneering study for Transylvanian historical demography resulted from this activity: for the first time in this region, an extensive and coherent sample of first marriages (3009 events) underwent analysis. Through this longitudinal analysis, we were able to enter into a direct debate with the major

state-of-the-art research concerning marriage patterns, and bring forth findings that contributed to chipping away at the hegemonic demographic discourse regarding age at first marriage in South-Eastern Europe. The bi-variate analysis of the factors that influenced age at first marriage included the impact of denomination, occupational status, endogamy and exogamy, migrant status, area characteristics (from well to weakly-developed) and allowed us to formulate new hypotheses, which will guide the forthcoming studies in this field.

### C. Analysis of death data

The analysis of data related to deaths and burials, based on the burial records contained in the HPDT, has offered new information regarding the frequency of deaths by areas, the seasonality of deaths, causes of death, age at death, etc. We have primarily focused on the factors which led to the drop in infant mortality in the latter half of the 19<sup>th</sup> century and the beginning of the 20<sup>th</sup> century in Transylvania, and were thus able to frame this regional-level phenomenon in the supra-regional tendencies of the demographic transition. This activity materialized in a study concentrating on the seasonality of mortality in various micro-areas in Transylvania, published by Ph.D. student 1 (Georgiana Izabela Coroian) in the *Romanian Journal of Population Studies*. It also occasioned the organisation of a panel by the project leader, CS I Dr. Luminița Dumănescu, during the prestigious international European Social Science History Conference, which took place in Valencia in late March – early April of 2016.

### D. Opening new research avenues

Beside the initially envisaged activities, new research avenues were opened during the interval of October 2015 – December 2016. By actively involving the 2<sup>nd</sup> Ph.D. student (Oana Sorescu-Iudean) in the research process, varied methods of analysis of demographic data from different perspectives, primarily from the sphere of the *digital humanities*, but also from social history and anthropology were employed. We have emphasized the proper contextualization of research findings from the analyses D to F in the South-Eastern European region, as well as the harmonization of Transylvanian demographic and anthropologic discourse, by underlining the processual and profound approaches to the transformations occurring within the family.

Thus, we were able to trace subjects such as the influence of gender relations on credit networks established in 18<sup>th</sup> century Transylvanian urban areas, as a means of evaluating the status of women in Transylvanian society, and the crystallization of intangible personal traits, such as ‘creditworthiness’. Seeing as gender relations followed profoundly different coordinates in the modern period, and decisively contributed to the structuring of family roles and to women’s position in society, we considered this issue to constitute one of the potential focal points in the study of the rhythms and patterns of family life in Transylvania.

Moreover, the attempt to bridge the conceptual gap between the anthropologic discourse regarding kinship and the family, and the historical one, predominantly based on quantitative analyses, the project members (the 2<sup>nd</sup> Ph.D. student) were involved in organizing a panel

during the 8<sup>th</sup> edition of the conference of the *International Association for Southeastern European Anthropology*, which took place in Sofia, in September 2016. Within this panel – chaired by one of the most highly regarded specialists in Southeast European family history, Prof. Dr. Karl Kaser from the University of Graz – the team members explored both the way in which litigious activity arising from estate divisions affected relations within the family during the 18<sup>th</sup> century in Transylvania, as well as the applicability of social network analysis to the study of the godparenthood in modern Transylvania. The paper presented by the project leader and the 2<sup>nd</sup> Ph.D. student, entitled *Godparenthood in rural Transylvania 1850-1918: Choices, practices, and discourse*, formally recovered the missing relational dimension of this phenomenon in a quantifiable way, and thus proposed a model of analysis that may be extended to other geographical areas or historical eras. This type of analysis, which relies on the systematization of individual-level historical data, was implemented for the first time in Transylvania, and will in the future bring significant contributions both to historical demography and to social history.

#### H. Dissemination

Two working papers will be sent for publication to well-ranked international journals, which will significantly improve both the authors' international visibility, and that of the project's host institution. They have been attached as annexes to the present report.

Elena Crinela Holom, Mihaela Hărăguș, Luminița Dumănescu, Oana Sorescu-Iudean, Ioan Bolovan, *Mean age at first marriage in three Transylvanian contexts, 1850 – 1914: A discussion.*

Luminița Dumănescu, Oana Sorescu-Iudean, *Godparenthood in rural Transylvania 1850-1918: Choices, practices, and discourse.*

The project members attended, as authors and presenters, several prestigious international conferences with great visibility in the European academic environment. In these avenues, they were able to communicate and disseminate the project's new research findings, and receive valuable feedback from a highly competitive and critical scholarly environment, thus improving their chances of publishing the papers they gave in well-ranked journals. Both the Ph.D. students, as well as the project leader, the postdoctoral researcher and the other team members (CS II Dr. Mihaela Hărăguș, Prof. Univ. Dr. Ioan Bolovan) were actively involved in the dissemination process.

1. Georgiana Coroian, The seasonality of mortality in three Transylvanian settlements in the second half of the 19th Century, World Lumen 2016 Congress, Iasi, 12-17 April 2016.

2. Luminița Dumanescu, Daniela Mârza, Mihaela Hărăguș, New Data on Infant Mortality in Transylvania in the 19th Century based on the HPDT at European Social Science History Conference, Valencia, 30 March - 2 April 2016.

3. Daniela Mârza, Ritmuri ale morții în Transilvania epocii moderne (informații despre mortalitate cuprinse în Historical Population Database of Transylvania), at CNIR, Cluj-Napoca, 2016.

4. Oana Sorescu-Iudean, „Weaving webs of gold: women in informal credit networks in eighteenth century Hermannstadt (Sibiu)”, at EAUH 2016, Helsinki, Finland, 24-27 August 2016.

5. Luminita Dumanescu, Oana Sorescu-Iudean, “Godparenthood in rural Transylvania 1850-1918: Choices, practices, and discourse” at 8th InASEA congress Balkan Life Courses: Family, Childhood, Youth, and Old Age in Southeast Europe, 15-18 September, Sofia, Bulgaria

6. Oana Sorescu-Iudean, „Divided fortunes, divided families: A micro-exemplary analysis of inheritance litigation in 18th century Sibiu”, at 8th InASEA congress Balkan Life Courses: Family, Childhood, Youth, and Old Age in Southeast Europe, 15-18 September, Sofia, Bulgaria.

7. Luminița Dumănescu, Oana Sorescu-Iudean, Ioan Bolovan, „Aspects on Transylvanian marriages in the second half of 19th Century based on Historical Population Database of Transylvania” at Biennial Meeting of the European Society of Historical Demography (ESHD) 21-24 September 2016, Leuven, Belgium.

Moreover, the team members were actively involved in organizing several thematic panels within the framework of the most significant international and national scholarly events in the fields of historical demography and anthropology.

I. Eastern Infant Mortality: Religion, Ethnicity, Location at European Social Science History Conference, Valencia, Spain, 28 March-2 April 2016.

Organizers: Luminita Dumanescu, Gunnar Thorvaldsen

Chair: Anders Brändström

Discussant: Ólöf Garðarsdóttir.

II. From data to narrative and back again: Digital Humanities approaches to the family in the Balkans, at the 8th InASEA congress “Balkan Life Courses: Family, Childhood, Youth, and Old Age in Southeast Europe” - <http://inasea.net/>.

Organizer from the team: Oana Sorescu-Iudean

Chair: Prof. Dr. Ulf Brunnbauer (Institute for East and Southeast European Studies, Regensburg),

Discussant: Prof. PhD Karl Kaser (Southeast European History and Anthropology, University of Graz).

III. Tipare ale vieții de familie în spațiul românesc în epoca modernă – abordări cantitative, Congresul Național al Istoricilor Romani, Cluj-Napoca, 25-29 august 2016.

Organizers: Luminita Dumanescu, Daniela Mârza.

## I. Conclusions

Between October 2015 and December 2016, the project team members were actively involved in fulfilling the objectives and activities stated in the initial research plan. Despite the high workloads required by the first activities – focused on tidying and standardizing the data from the Historical Population Database of Transylvania – the analysis of the main demographic events was in no way neglected. Moreover, due to an especially favourable cooperation between the project members, which materialized in numerous panels at international conferences, published papers, or studies that have been sent for review, these new contributions to the Romanian demographical research were disseminated to an extremely wide scholarly audience. In addition, by including new members into the team – particularly the 2<sup>nd</sup> Ph.D. student – has allowed us to incorporate new methods and topics into the analysis, which are currently still in an exploratory phase even on a broader European level: social network analysis applied to godparenthood, the crystallization of credit relationship as a function of gender roles, and the way in which various family configurations played a role in (conflictual) property divisions in modern urban Transylvania. We are confident that the following months of project implementation will witness consistent results of high quality, and the dissemination of findings that will enable not only the increased harmonization between Romanian research and Western and Northern European scholarship, but also the tracing of new research avenues in historical demography.