

is, for governmental districts. Finally, multimedia presentations on each state, as well as on administrative units and special territories, will soon be available from the project website. The presentations contain explanatory texts and visual documents such as historical maps, manuscript documents, images, tables, and graphs. The objects in these presentations will be integrated at the upper query level, as will the maps on the IEG mapserver.

HGIS Germany will become available as an Internet-based system. A prototype may be available as early as the fall of 2005. It will be accessible both through the IEG and the *i3mainz* websites. We may also create a more expert-oriented version, which would be available on demand through academic and/or institutional channels for all members of the growing historical GIS community.

### *HGIS Germany Resources Online*

- Development of German and European states: <http://www.ieg-maps.uni-mainz.de>.
- HGIS Germany: Will be accessible through <http://www.ieg-maint.de> and <http://www.13maint.fh-mainz.de>.

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—*Wolfgang Boehler, University of Applied Sciences Mainz*



### Historical GIS Initiative in Russia

Russian archives contain hundreds of thousands of large and medium-scale maps and related manuscripts describing administrative boundaries and the nature and economy of the country on a very detailed level. They belong to military surveys, surveys of forests, and estate plans from the eighteenth to the twentieth centuries. Every historian uses them to study localities. A wide spectrum of statistical data on nature, land use, population, economy, culture, and social life was gathered, processed, and stored by the government with the data's affiliation to the relevant administrative division and place-names. The demand for such data now comes from a broader scientific community, including political scientists, geographers, economists, ecologists, and linguists. Meeting all the needs of detailed, countrywide research based on these materials still exceeds human power.

There have been few attempts in Russia to integrate spatially referenced historical data. The main obstacles have been (1) the incompatibility of maps from different periods due to various scales, coordinate systems, projections, and mapping technology; (2) the difficulty of dealing with the great variety of textual data that can be spatially referenced; (3) changes over time in administrative boundaries; (4) variability in spelling

of place-names; and (5) low accessibility of cartographic materials. There are many historical maps of Russia, but they are scattered between archives; there is not enough information about their availability; and, not long ago, the majority of them were classified ("top secret"), whatever their age and scale, and so were out of reach to researchers. The reforms of the last fifteen years opened archives and map collections for research. But still maps are scattered between different archives, making them difficult to study, and statistical data are usually kept separately from maps.

The main purpose of our initiative is to provide an overview of the network of Russian administrative boundaries and place-names from 1775 up to 1920. The starting date is the year of the administrative reform of Catherine II that concluded the long period of modernization of administrative control over the regions. The principle task is to create an accessible electronic reference system that allows one to view administrative boundaries at the local level (*uezd* and *volost'*) and their temporal dynamics, and to determine the past and present administrative affiliation of an area or village. We aim to build a system that will be easy for researchers to use and that will be compatible with the most common GIS software.

We consider compiling the framework of Russian administrative boundaries and place-names to be the decisive step for applying digital methods in Russian historical geography. This work will provide the academic community with the spatial data and technological framework for the analysis of their own spatially related data. It will also provide a framework that other researchers may use to create their own digital maps and data. Though all these goals are too ambitious to be fulfilled within a single project, starting the whole initiative may have a broad promotional influence on the state of research.

The initiative is now in a pilot phase. All information on the current activities can be found at the project website (see the URL at the end of this article). Up to this point, the most work has been done compiling lists of historical maps in archives, including the Russian State Archive for Military History, the Archive of the Foreign Policy of Russian Empire, the Russian State Archive of Ancient Documents, the Cartographic Department of the Russian State library, the library of the Russian Geographical Society, and other repositories. The information gathered during the study was included in the online bibliography devoted to Russian historical geography and a set of scanned historical maps presented in a small Internet-gallery (listed at the end of this article).

In 2003-2004, we conducted two small projects on the construction of a georeferenced gazetteer of historical place-names, which we consider to be the integral part of historical GIS. The first one was conducted in collaboration with the Harvard Yenching Institute. We analyzed old maps of western China, created in the second half of the nineteenth century by Russian military surveyors, agents, and travelers of the Russian Geographical Society. Though this project did not cover the territory of Russia, it enabled us to work out technological approaches for processing, stan-

andardizing, and integrating Russian historical data on the global level. We digitized maps of various scales and dates, extracted historical information, and built several geo-referenced datasets of historical place-names. These datasets, together with a catalogue of cartographic sources from Russian archives, formed the Russian contribution to the China Historical GIS (see CHGIS report).

Another project focused on the territory of Petersburg *gubernia* (the northwest of European Russia) and is being conducted in collaboration with the Center for Environmental and Technological History of the European University at St. Petersburg. The general goal is to reconstruct the spatial development of fisheries in the eastern part of the Baltic since the sixteenth century in order to understand the main changes in the Baltic ecosystem. The usage of fishery statistics from Russian cadastres for the sixteenth to the nineteenth century required knowing the exact geographical location of many ancient fishery sites. Our contribution is the geo-referenced historical gazetteer of place-names, digitized from old Russian maps for the Russian section of the Baltic sea coast. By the end of the project we plan to publish materials on the World Wide Web.

As we continue to develop the Russian HGIS, we are strongly interested in any possible contribution from and collaboration with the academic community worldwide. We want to build on the momentum created by the main initiator of historical GIS activities in Russia, our colleague and friend Alexei Karimov, whom we lost in a car accident in February 2004. As a historical geographer, he foresaw the great prospects for developing historical GIS in Russia and its potential usefulness to the scientific community. He contributed much to the detailed study of the historical cartographic sources being kept in Russian archives. His personal pages on the Web represent his contributions to, and his vision for, a historical GIS of Russia.

### *Russian HGIS Resources Online*

- Russian HGIS home: <http://www.ihst.ru/personal/imerz/bound/bounds.htm>. This site includes a bibliography of Russian historical geography in Russian ([imerz/bound/biblio.htm](http://www.ihst.ru/personal/imerz/bound/biblio.htm)).
- Web gallery of historical maps: <http://195.19.12.125/personal/krm/work/collection/collection.htm>
- Russian section of China Historical GIS: [http://www.fas.harvard.edu/~chgis/data/rus\\_geo/](http://www.fas.harvard.edu/~chgis/data/rus_geo/)
- Alexei Karimov pages: [http://www.ihst.ru/personal/krm/Karimov\\_pages.htm](http://www.ihst.ru/personal/krm/Karimov_pages.htm)

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