COMMERCIAL CARTOGRAPHY IN POLAND 1989–2000

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Creating of large number of private enterprises developing editorial activity in the field of cartography was one of the most visible results of the liberalisation of the law referring to the economic activity in Poland at the end of 1988. The tradition of editing cartography in Poland has its roots back in 1925 as the first private cartographical publishing company "Książnica–Atlas", a joint-stock company, was founded in Lvov by Prof. Eugeniusz Romer. This company has still existed after the World War II in Wrocław, where it was transferred from Lvov by its staff members. 1951 the State Cartographical Publishing House (PPWK) was founded in Warsaw. As result of the nationalisation process of small private companies the "Książnica–Atlas" was incorporated into PPWK which was since then the only publisher of maps (except for topograhical ones) and atlasses for general and school purposes.

Cartographical Publishing Companies in Poland

It is very difficult to state clearly how many cartographical companies were founded in 1989. The company EKO-GRAF Ltd., founded in Wrocław in December 1988 can be considered the first contemporary private cartographical publishing company. At the beginning of 1989 the company BAKS – Usługi Konsultingowe (BAKS – Consulting Services) was created in Warsaw and it dealt with geodesy and cartography. In result of changing of ownership almost all state owned cartographical companies became limited liability companies. PPWK is the only joint stock company, enregistered at the Warsaw Stock Exchange since 1996. The transformation was followed by change of the company name which is now Polskie Przedsiębiorstwo Wydawnictw Kartograficznych SA (Polish Cartographical Publishing House). The only publisher of geological maps in Poland – Przedsiębiorstwo Państwowe Wydawnictwa Geologiczne (State Enterprise Geological Publishing House) was transformed into joint-stock company Polska Agencja Ekologiczna SA. (Polish Ecological Agency, plc.) with its own Cartographical Publishing House.

New state publishers appeared, as well. Główny Geodeta Kraju (the General Surveyor of Poland) and Wojskowe Zakłady Kartograficzne (WZKart – Military Cartographical Enterprise) publish topographical maps for civil purposes.

A register created by the Association of Polish Cartographers contains entries of more than 150 cartographical issues. The data come from different sources, mainly from bibliographies published in *Polski Przegląd Kartograficzny* (*Polish Cartographical Review*) from 1993–2000, but also from data base of internet. The registered companies can by no means be treated equally. Most of them are advertising agencies publishing maps in their advertising material. There are about 23 strictly cartographical companies drawing up and publishing maps. The third group are companies working on commissions. So taking into account only the 23 cartographical publishers with professional output there are, statistically, 1,5 enterprises in each province. In the country the size of Poland (as far as the area and the population are concerned) it is too much. Most of these companies are located in the largest towns of Poland: Warsaw, Cracow, Katowice, Lublin, Wrocław and in some smaller places. The "geography" of the companies which deal with map publishing is as follows:

Warsaw and surroundings – 46 companies, including four big ones: Główny Geodeta Kraju (the General Surveyor of Poland), WZKart (Military Cartographical Enterprise), PPWK SA., Wydawnictwo Kartograficzne PAE (Cartographical Publishing House of Polish Ecological Agency) and three significant ones – Daunpol, Demart, Rewasz.

Cracow – 12 companies including 2 significant ones: Wydawnictwo pod Aniołem, Navigator.

Katowice (and Upper Silesian Industry Region) – 6 companies with 4 significant ones: PGK Katowice (Geodetic-Cartographical Enterprise), Mapy Ścienne Beata Piętka (Wall Maps B. P.), Wydawnictwo Kartograficzne Witański (Cartographical Publishing House Witański), Wydawnictwo "Karta" S. Ryś ("Karta" Publishing House, S. Ryś).

Bialystok – 6 companies including 2 significant ones: OPGK (Regional Geodetic-Cartographical Enterprise) and D'Orocart.

Lublin – 5 companies with 2 significant ones: Karto-Graf and Kartpol.

Poznań – 5 companies including 1 significant: Pietruska & Partner

Szczecin – 5 companies including 1 significant: Meridian-Stiefel.

In other towns there are single publishing houses with serious cartographical output like Eko-Graf (Wroclaw), Sygnatura (Zielona Góra), Plan (Jelenia Góra), Atma (Nowy Sącz), BiK (Piła). There are also publishers of "electronic" cartography like Cartall (Łódź) and Optimus–Pascal (Bielsko-Biała).

Significant Cartographical Products on Polish Market

The range of cartographical products available on the market is as follows:

- tourist maps (including road maps) and town plans,
- school cartography (atlases, wall maps, globes) and picture atlases for children,
- atlases and maps of general use.
- multimedia and electronic cartography (city plans and atlases)
- topographical maps
- official registers of geographical names,
- scientific publications mainly regional atlases.

Tourist Maps and Town Plans

Tourist and road maps as well as road atlases prevail in the editorial offers. Most of them are the products of PPWK followed by tourist-topographical maps in the scale 1:100 000 and 1:50 000 made by Military Cartographical Enterprise. Publishing of the 1:100 000 maps was begun in 1993 and at present all the area of Poland is covered. It contains touristic information on the map and in the text. The map consist of 151 sheets. It is the only tourist-topographical map of the whole area of Poland, and not only of the chosen touristic regions. Another interesting undertaking is the set of tourist-topographical maps of towns surroundings in 1:50 000 scale. The latest maps of this series contain the coordinate system which enables to use the GPS satellite receivers.

The PPWK publications prevail in the group of tourist maps and town plans. But the significant part of this kind of maps is offered as well by Eko-Graf, PGK Katowice, Daunpol, followed by cartographical publishers as Witański, Plan and Karta. One of the prolific publishers is Wydawnictwo pod Aniołem publishing about 20 titles a year (1998-99). Unfortunately, many of these are advertising publications.

In the group of road maps and atlases the most important publishers are PPWK followed by Mapy Scienne (Wall Maps) Beata Piętka, Demart or Daunpol. Since 1992 PGK Katowice has published the set of road maps for 12 provinces in 1:150 000 scale and the map of Poland in 1:800 000 scale. But the biggest hit was the road atlas of Poland in 1:300 000 scale made by PPWK (1st edition1992) and published again in 1:250 000 scale, in spiral binding. The newest hit is the road atlas of Poland in 1:200 000 scale (PPWK), completely new in elaboration and it is planned to be publish in spring 2001.

The big part of tourist maps are imported products by foreign publishers. There are mainly road maps of European countries and rarely countries outside Europe (for example series "Marco Polo" of Mairs Geographischer Verlag or four series of RV Verlag, Germany). There are also tourist-topographical maps in 1:50 000 scale of regions of Czech Republic and Slovak Republic (VKU Harmanec – Military Cartographical Enterprise in Harmanec) and Austrian maps of Alps (Freytag&Berndt).

School Maps and Atlases

School cartography is the second significant section of cartographical market. PPWK prevails in this group with its products, although is ceased to have a monopoly. The greatest part of PPWK's offer are the wall maps and teaching charts, not only for geographical purposes. Apart from its own titles PPWK has been publishing license so called landscape maps of Poland, continents and the world (Klett-Perthes Verlag license). New publishers of school maps and atlases, such as Demart, M. Rożak Publishing House and Meridian-Stiefel (wall maps) emerge beside PPWK. It was the result of the new education reform which meant the opportunity to produce new teaching resources. Only in the last three years 13 new school atlases have been published.

In the last decade the offer directed to children has increased immensely. There are mostly some license atlases with picture maps. The first one was "Człowiek i świat.

Atlas geograficzny dla dzieci" (The World and Man. Geographical Atlas for Children), published in the USSR in 1989.

Atlases and Maps for General Use

As far as atlases are concerned we can notice on the market relatively many foreign geographical atlases in Polish version. PPWK once again has lost its status of monopolist. Different versions of the same Geograficzny Atlas Świata (Geographical Atlas of the World), published in the eighties, failed in comparison with modern foreign products. The most serious rival was Bertelsmann (GeoCenter), which introduce so called "blue series" of atlases (Księga Świata – TheBook of the World; Nowy Atlas Świata – The New Atlas of the World and Podręczny Atlas Świata – Concise World Atlas) followed by the Wielki Ilustrowany Atlas Świata (Great Illustrated Atlas of the World). All other significant companies also publish such atlases. In 1991 it was Ilustrowany Atlas Świata (Illustrated Atlas of the World) published on Dorling Kindersley license – the pictorial atlas for children, in 1998 Encyklopedyczny Atlas Świata (Encyclopedic World Atlas – Grande Atlante Geografico de Agostini license) by PWN (State Scientific Publishing House), in the same year Szkolny atlas geograficzny (The Geographical School Atlas – Alexander Weltatlas of Klett Verlag license) by PPWK and WSiP (School & Pedagogical Publishers).

General maps are mostly administrative maps of Poland and its provinces, both in folded and wall forms. Such maps are mainly published by PPWK and Wall Maps Beata Piętka as well as Demart, Daunpol, Muza and General Surveyor of Poland. The new administrative map of Poland at a scale of 1:500 000 is planned to be publish by the General Surveyor of Poland in 2001.

Cartographical Multimedia

This type of publications is a novelty which has appeared on the market in the last decade. The first product of this kind, although not in multimedia form, was an electronic *Mapa Polski (Map of Poland)* by Sophonias Cartesco from Łódź (1993). The first computer atlas was the *Szkolny atlas Polski (The School Atlas of Poland)* made by WSiP and Vulcan in 1996. Within the last 6–7 years about a dozen cartographical multimedia publications appeared. The products of Cartall, Polsoft or Optimus-Pascal prevail. They offer mainly road maps and atlases and multimedia town plans of Warsaw, Cracow and Gdańsk. Another company with significant output and experience in this field is Vulcan Media Ltd. from Wrocław which made maps to *Multimedialna encyklopedia PWN (Multimedia Encyclopedia of PWN)*. In 1999 this publishing house produce as well the interactive maps to *Multimedialny atlas historyczny (Multimedia Historical Atlas)* by PPWK considered to be the best Polish cartographical multimedia publication. PPWK is also the publisher of the *Wielki multimedialny atlas świata (The Great Multimedia Atlas of the World)* on two CD-ROMs (1998). Another educational product is the latest version of *School Atlas of Poland* (WSiP + UNEP/GRID + Ambient Multimedia, 1999). In the

same year was published *Atlas świata (The World Atlas*, Dorling Kindersley license) by Optimus-Pascal.

Summing up, cartographical multimedia are in minority comparing to such publications like encyclopedias or lexicons. Owing to high costs of production and relatively high prices the increase of Polish cartographical multimedia should not be expected in the nearest future.

Topographical Maps

Topographical maps are a kind of novelty on the Polish market. They are visible result of abolition of censorship as well as a different situation on the market. At present these products are in high demand. Although they have not eliminated touristic maps it must be admitted that the touristic version of 1:100 000 topographic map has received with interest by customers.

The civil publisher of official topographical maps is the General Surveyor of Poland. The reserve of maps by this publisher has some faults and only the latest and newest edition of topographical maps of Poland in 1:10 000 and 1:50 000 scales fulfills the formal requirements and expectations of users. For the area of Poland over 17 000 sheets of map in 1:10 000 scale are needed. So far 3400 sheets have been published. The map at the scale of 1:50 000 contains 1083 sheets, from which ca. 490 sheets have been published.

Scientific Publications

The picture of published cartographical output would not be full without mentioning scientific publications, although they are not generally available on the market. In the last decade there has been an increase of scientific publications, which proves that science becomes meaningful in practice and it should be commercialised. The most significant cartographic work on the market is the *Atlas Rzeczypospolitej Polskiej (Atlas of the Republic of Poland)* published by the General Surveyor of Poland and elaborated in the Institute of Gegraphy and Spatial Organization of the Polish Academy of Sciences. It is the second national atlas of Poland in the last 25 years.

Some regional atlases have been published, as well. The most extensive and model one is the *Atlas Śląska Dolnego i Opolskiego (Atlas of Lower and Opole Silesia)* drawn up under the guidance of Prof. Władysław Pawlak in Wrocław University (1997).

Quality of Polish Commercial Cartography

At present the market of polish cartographical publications offers products of diverse quality. Owing to higher possibilities of graphic programmes and growing experience of persons working on the programmes a slight change of the better is noticeable as far as technical side is concerned. On the other hand the intension to reduce of production costs frequently means giving up the editing control, which results in lower quality of maps. Content-related mistakes are the most serious faults of a map. They are not only the problem of small publishing and advertising companies. They happen as well in license atlases. Some publishers buying the license took into consideration first of all favourable

price and graphic side of an atlas. What is even worse – some atlases are designed for schools although they do not meet the demands of Polish geography. The instances are the *Geograficzny atlas świata* (*Geographical World Atlas* by Kluszczyński) with unified relief which does not represent the diversity of landscape and the *Ogólnogeograficzny atlas świata* (*Universal Atlas of the World* by PPWK, Andromeda Oxford Ltd. license) which ignores the consistence of some contents elements (mainly forests) on different maps of the same area.

The latest topographical maps of Poland in 1:10 000 and 1:50 000 scale have been generally acknowledged to be the best as far as graphics is concerned since the pre-war map in 1:100 000 scale. They are highly acclaimed owing to their extensive contents, rarely appearing on foreign maps. This advantage, however, can be perceived as the disadvantage, because there are many elements which quickly go out-of-date. There are also some mistakes in naming as well as in administrative borders.

The electronic and multimedia cartography is also on relatively low level. Only the maps made by professional cartographers and by experienced programmers are acceptable. The instance is the *Multimedia Historical Atlas* (by PPWK + Vulcan Media), where interaction has been used efficiently. On the other hand, *The Great Multimedia Atlas of the World* (PPWK) criticised for the lack of interactive maps contains only scanned maps from school atlases of high quality graphics, better than in other atlases on compact discs. Fortunately the majority of maps published by professional cartographers in publishing companies stand on high level, both content-related and graphics ones. The maps of Eko-Graf, PGK Katowice, Daunpol, Witański, Pietruska&Partner, Kartpol have worked out certain standards and styles. Such scientific works as the *Atlas of Lower and Opole Silesia* can also be set as an example to follow.

The Quantity Profile of Polish Cartography

It is very difficult to present the quantity profile of Polish cartography because of the shortage of data concerning the number of copies or the sale value. Maps are qualified as books and hence the difficulty of separating this group.

The easiest way is the estimate the number of the titles offered for sale by the individual publishers. The PPWK offer amounts to several hundred titles annually. In June 2000 it was about 460 titles (including 45 globes and 7 maps of foreign publishers), without books, guide-books and teaching aids.

The WZKart (Military Cartographical Enterprise) offer is about 230–250 titles annually. It must be taken into account that topographic maps of Poland 1:100 000 and 1:200 000 will not be renewed. The quantity of titles offered by smaller publishers can be estimated from 30–40 (Karta, Witański, Demart, Eko-Graf, Daunpol) to 60–70 (Beata Piętka, Wydawnictwo pod Aniołem). Some titles are published in various forms (for example wall and folded ones) which on one hand increases the offer but on the other does not give a clear picture of new publications.

The attempt to estimate the size of cartographical production considering the number of new editions, reissues and the number of copies is much more difficult. Before 1989 the information about the size and year of editions appeared on all printed publications.

After 1989 it vanished from maps. In some cases only it was possible to draw conclusions about the subsequent edition has become a must lately because of the market requirements. On the other hand the information about the size and year of edition, quite important for a customer, is avoided by producer. The higher the size of edition the longer the period of selling and the higher the risk of becoming outdated.

For example, in 1989–99 PPWK published yearly ca. 3–4 million copies of maps and atlases, but the amount of copies was very varied. At present mostly 6000–12 000 copies of town plans and tourist maps are printed (depending on touristical attractiveness of region), and about 1500–3000 copies of wall maps in each issue. Topographic maps are printed in 600–1000 copies each sheet

The Distribution and Sale of Cartographic Products

Until 1989 several big organisations dealt with distribution and selling of cartographic products. They were "Składnica Księgarska" (wholesale) and "Dom Książki" (retail) in general cartography and "Cezas" in school cartography. At the beginning of the 90' the organizations mentioned above disintegrated and several hundred new distribution companies came into being. Nowadays many publishers deal with distribution and sale of their own products both to bookshops and beyond their network

Summing up at present there are three channels of distribution and sale of cartographical publications:

- 1) wholesalers which can be divided into universal (cartography and books), specialistic (cartography and guide-books) and school ones (handbooks and school cartography),
- 2) bookshops including specialistic ones,
- 3) other channels direct sale (book clubs and mail orders), supermarkets, petrol stations, internet.

Wholesale amounts to about 50% of cartographical market. The direct delivery by publishers is increasing gradually and amounts to about 30%. Other channels of distribution take about 20% including 1% made via internet.

The biggest general wholesalers of cartographical products are Kwadro (Wrocław), Holding-Centrum (Warsaw), Matras (Katowice), NWN (Częstochowa), Piluch-Jankowski (Nowy Sącz), Wolumen (Łódź), Jerzy (Katowice), Calamus (Wrocław), Skamer (Poznań) and MarKa (Tarnów). Since 2000 Pascal join this group (now Onet.pl).

The most efficient among specialistic wholesalers are Cartographica and Inter-Map (Cracow), Globus (Warsaw), Polmap (Poznań), PGK (Katowice), Eko-Graf (Wrocław), Mapa (Warsaw), Abacus (Szczecin) and Sygnatura (Zielona Góra). In school cartography the most significant are Wkra and WSiP Service wholesalers.

Production Costs and Prices

The cartographical production is relatively expensive in comparison to the production of books. The reason are the editing costs, the costs of paper and printing and the fixed

costs of a company. In result small 1–2 person companies without permanent head-office are in the privileged position.

The following factors should be taken into account while disscussing production costs:

- the seasonal nature of sale with its high season in May/June August period,
- preparation of new production for high season means investing in the first half-a-year,
- limited possibilities of bank credits for small companies,
- high prices of paper and printing comparable to world prices.

In result the final price of Polish map is relatively too low in comparison to European prices. It is about \$0,75 - \$1,5 while the price of a map in other European countries is about \$3-4. So more realistic price should be about \$2-2,5 and such companies gradually introduce such prices.

What causes the lowered price of Polish maps is the competition on the market, high supply of maps of attractive areas, big amount of advertisment and minimized production costs in small companies.

Conclusions

The presented picture of Polish cartography is obviously not complete. The complexity of problems and quick change of conditions do not allow to define clearly the future of this market. In the last 2–3 years slight deterioration of majority of cartographic companies can be noticed. It is caused by breaking up of the market and sale decrease.