

“Role of surveying is critical”



HOLGER MAGEL
PRESIDENT, FIG
CHAIR, UN HABITAT PROFESSIONALS
FORUM AND OF JOINT BOARD OF
GEOINFORMATION SOCIETIES (JBGIS)
magel@landentwicklung-muenchen.de

Born in Bavarian Neuburg / Donau in 1944, Prof Holger Magel has actively been performing various significant roles and also been instrumental in shaping the domains of urban planning, surveying and rural development in different regions of Europe and Asia. Director of the Institute of Geodesy, GIS and Land Management at Technische Universität München in Munich, Prof Magel discusses with *GIS Development* his views on geo-spatial sciences

? In your opinion, what is the need and relevance of surveying and mapping in present societal development?

The role of surveying is paramount and critical. It has been so in the history of development and is emerging to be more critical for the future. The maps and spatial data, that a lot of individual countries have today, are still mostly outdated and old.

The latest maps and data are either owned by other people or are inaccessible for some reason or the other. On the other hand, the development needs have grown manifold and in the coming days development cannot be afforded to be hindered because of lack of accurate and timely data. The role of surveying and data generation emerges here.

The criticality is due to other emerging concerns worldwide that call for closer look towards grassroots level planning and focus towards homeland security. In all this right frame of 'education' is extremely important. Knowing how to run the software is only the beginning. Knowing the subject and becoming an expert in that is another thing. The field of surveying and mapping holds forth a massive potential as a discipline as well as a basic requirement for development of

societies. Govern-ments have to understand this and they are doing so.

? How do you see the evolution of 'inclusive societies' concept and where is it heading?

If you simply follow carefully the daily newspapers and local TV of any place, you will find that the world is at home everywhere! Anything happening anywhere in the world is known nearly everywhere in a short time. Humans and societies behave similarly in most cases. It is just the traditions and local beliefs that differ. And that is why even though problems can be generalized at 'global' level, solutions need to be realistically 'local' in nature. The growing role of civil societies in the present world is something that is practical and on the field of bottom-up development and civic engagement in rural areas. Participatory planning and moderation, mediation and conflict solution is inevitable, at least in democratic countries of the contemporary world.

This type of development approach has a strong impact on theory, education and practice of planning processes and decision procedures of municipalities or local authorities. Hence it is pragmatic to

look at development or rather 'sustainable development' in the perspective of 'inclusive societies'. 'Inclusive societies' are societal setups that have internalized the role and say of local residents in their development and planning phase.

? But don't you think that local representation has its limitations in expert inputs required in planning?

I agree with the role of experts. It is not a matter of eliminating experts. Rather, as I have just said, the role of surveyors and geospatial experts shall grow in the days to come. What is far more important is to visualise a model that takes room of all the stakeholders of a community and not only leaves development in the hands of experts prescribing strategies. Discourse that is positive and maybe initially conflictive is required very much. Refer to the model alongside to understand how sustainable local authority can be matured in partnership with the inhabitants, expert groups and commercial establishments.

? What in your opinion are the key challenges and constraints for the disciplines of surveying?

The declining importance of a profession

can be first noticed easily by seeing the interest shown by young people. It is true that there exists a serious crisis in many parts of the world regarding these sciences as professions and disciplines of study.

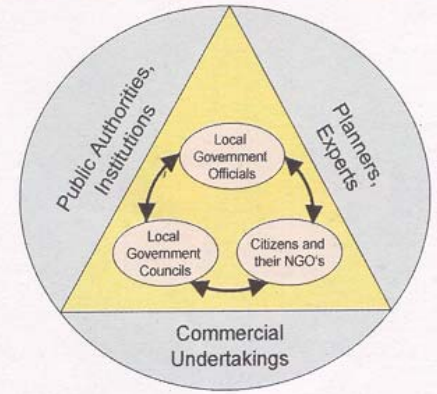
Presently education centres for surveying and GIS, and professional associations and administrative authorities are working hard on 'clear visions' and self-promotion.

The focus is more on image and publicity campaigns of educational courses that are demand driven and that has high returns, not necessarily, which are intended to reach politicians and decision makers, society, industry and young people. A big paradox is there - on one hand, as a result of political changes or crisis management, there is a growing demand for geospatial and surveying services, and on the other hand there actually is a dearth of traditional surveyors and geospatial expert manpower. The solution lies in universities and government to

give focus on these areas and stimulate research.

? How would you profile Asia as a region in terms of geospatial sciences as a market and discipline?

There is no doubt that there cannot be a bigger market than Asia! The region is one of the most challenging and promising regions of the world with huge resources and opportunities. The region is rich in local sensitivities that stem from rituals to national security. And definitely the region has some of the best brains. However, we need to remember the strong issues of development in most of Asia. Primarily Asia is rural. The new realities in rural areas, i.e. over-ageing, de-population, loss of jobs, down-grading of the infrastructure, deficits in the provision of basic and primary needs etc., demand concentrated efforts as well as discussion of future living standards and quality of life. Perhaps the biggest challenge is rural development - development



▲ Fig 1 Sustainable Local Authority in Partnership with the Inhabitants

that is guided by local participation and rational tools like geospatial sciences and village renewal or land consolidation than mere whims of political powers.

Most countries of Asia and especially India have the capability and expertise to tackle these issues within their countries. Surveying departments are decades and in some cases hundreds of years old.

It is time that these departments and government institutions sit down and



strategize growth models and talk to local communities and evolve models of sustainable development that is driven by local people. There is no doubt that these departments would benefit a lot of being member of FIG. Unfortunately, the surveyors of the large country India are not still incorporated in FIG, the "mother of all surveyors and surveying".

? What are your views on partnerships at the international level that can stimulate the grassroots?

Identity and role of surveyors and cartographers have grown. Today multiple disciplines are merging in surveying. This makes the situation complex and challenging to serve society and our planet earth. Cooperation and partnership is something that is the need of the hour to make this Earth a better place.

FIG has its biggest objective to merge and partner with UN- and other agencies and institutes across the globe that aim at

"Most countries of Asia and especially India have the capability and expertise to tackle issues of development within their countries"

taking forth the discipline of surveying and mapping to greater depths of research and application. I believe in cooperating, but in a manner that benefits all parties cooperating.

? Tell us about FIG and its initiatives?

The best way to get information about FIG and its many activities and initiatives like our annual working weeks, e.g. in Cairo 2005 or regional conferences, e.g. in March 2006 in Accra or to benefit from the work of our ten technical commissions is to visit our excellent website maintained by our FIG office - www.fig.net.

We also have just distributed the annual review 2003 - 2005 with a short description of the highlights of the first 2 ½ years of my presidency. Therefore, only some few words:

FIG is present in more than 110 countries and is officially acknowledged as the leading representative (NGO) by some very important UN-agencies like UNEP, UN Habitat, UN OOSA, UNFAO etc. We also have close connections with global companies like ESRI or Intergraph.

FIG has edited and printed a lot of publications covering a broad range from cadastre to urban-rural-interrelationship or spatial data infrastructure.

? What is your vision with respect to taking the cause of FIG and surveying in the coming years?

My visions of FIG and surveying in the coming years are:

- FIG becomes really global, i.e. that all absent countries like India, Pakis-tan or Kazakhstan and other GUS-countries and many African countries will join FIG in the next years.

- FIG continues to strengthen the survey profession and education in the individual countries thus aiming at a more influential role of surveying on politics and society. It was really typical for surveyors' situation that the minister of department in Brunei Darussalam has said after my keynote speech at the 8th SEASC: "I am really surprised, and did not know that surveyors have a wide range of activities and competences as you have described it with the slogan 'From the single parcel to the planet Mars'".

- Surveyors and surveying should become an essential part and highly appreciated partner of the whole geospatial community. To reach this, they must be able to cross discipline borders, especially to bridge the gap between survey and GIS, or they must become more competent also in the field of spatial planning, land management or decision making. Without excellent education and Continuous Professional Development (CPD) this ambitious vision will not be reached. My vision for our university education in surveying is therefore very clear: Our graduates should become "well grounded specialized generalists"! Against this background and needs it makes much sense that more and more universities join FIG as academic members thus getting a direct communication with professionals and a really global insight in the changing world of surveying. ■