



# ISPRS SC Newsletter

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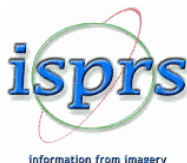
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Let's Come Together  
to Make The World  
Smaller and Smaller,  
While Enlarging  
and  
Powering Our  
Student Consortium  
Network!!

JOIN US!!!

## ANNOUNCEMENTS

### 4<sup>th</sup> ISPRS SC and WG VI/5 Summer School

We would like to inform you the ongoing preparations for ISPRS Student Consortium and Working Group VI/5, 4<sup>th</sup> Summer School, which will take place in Warsaw, 13. - 19.07.2009.

A group of 30 students have been involved in the preparations since October of 2008. Over the winter months we have been busy organising a program of events including inviting lecturer, updating the webpage and promotional material for the Summer School and Conference.

We would like to inform you that such Lectures as: Prof. Barbara Koch, Dr. Paul Alpin, Prof. Piero Boccoardo, Dr. Niklaus E. Zimmermann and lab instructor Fabian Fassnacht will participate in our event and will pass their knowledge related to Summer School topics.

Further information to the current **program** SS and Conference can be found on:

<http://isprs-ss.wl.sggw.pl/> and <http://isprssc-1conference.wl.sggw.pl/>

Within the program you will find details on a breakdown hour by hour and a plan for our meeting. Hope you will find it interesting.

If you are interested in this event please register as soon as possible as places are limited

For official leaflet click [here](#)

## SPOTLIGHTS



### Interview with Prof. Shunji Murai

by Urša Kanjir

In this Newsletter we are proud to present an Interview with prof. Shunji Murai, emeritus professor at the University of Tokyo, Japan. Prof. Murai is a renowned figure in the field of Geoinformatics throughout the world and has

been very active in promoting the technology for more than 40 years especially in the Asian region. His extensive work, collaboration and achievements would be very hard to enumerate just in few lines.

Click [here](#) to read the entire interview

## XXII IGSM 2009 – ETH Zurich, Switzerland

The International Geodetic Students Meeting (IGSM) will take place from the 14<sup>th</sup> – 19<sup>th</sup> of April (2009) in Switzerland. This annual event will take place for the first time at the Swiss Federal Institute of Technology (ETH) in Zurich.

Every year more than 100 students from different countries (principally from Europe) meet at another university for technical and social exchange. The upcoming edition is going to be attended by 180 students and alumni from 40 universities, situated in 18 countries.

They can expect a multifaceted program, ranging from geodesy - related presentations, workshops and excursions over to sports and cultural events as well as social events. As the the IGSM is going to be in Switzerland a visit to Leica Geosystems will be an absolute must and presentations, e.g. about tunnel surveying in the world's longest rail tunnel (Gotthard base tunnel, under construction), will provide an insight into high precision metrology.



This year's IGSM organizers

You can find more information on our website: [www.igsm.ethz.ch](http://www.igsm.ethz.ch).



**IGSM2009**  
S W I T Z E R L A N D



## PAST EVENTS REPORTS

### Satellite - Based Photogrammetry, Cuba by Emmanuel Baltsavias

This workshop was co-organised by ISPRS and the Cuban ISPRS Ordinary member with the support of Selper (The Latin American Society of Remote Sensing and Spatial Information Systems, an ISPRS Regional member) and was financially supported by our Cuban hosts and Selper. It was part of the 6<sup>th</sup> International Congress on Geomatics, which took place in Havana, February 10 - 13, with ca. 185 participants from over 15 countries. The lecturers were Thierry Toutin, Canada Center for Remote Sensing, and Gordon Staples, MDA, Canada. The presentations by the lecturers were excellent both in content and didactically, and there was a simultaneous translation in Spanish. The main topic, presented by Thierry Toutin, was the generation of mapping products from both optical and microwave satellite sensors. The focus was on high-resolution sensors. This topic of generating and updating 3D topographic maps is very relevant for Cuba and many other countries that have limited financial resources and where airborne sensors are non-existent or limited. Gordon Staples introduced the new Canadian Radarsat-2 sensor, and focused on new exciting possibilities and applications by using radar polarimetry, currently one of the hottest topics of research in microwave remote sensing. Finally, Thierry Toutin gave a short demonstration of the polarimetric processing tool, within the software package OrthoEngine of PCI, Canada. The lecturers also distributed 4 CDs with material associated to the workshop. The material of the workshop presentations will soon be placed at the ISPRS WEB site ([www.isprs.org](http://www.isprs.org)) under Education, Tutorials. The 32 participants from Cuba and six other Latin American countries were very satisfied and actively participated with questions and discussions. Our Cuban hosts were extremely helpful and gentle to the foreign participants and lecturers enjoyed the flair of Havana and the Cuban music, dance and culture. This was an example of an excellent international cooperation for capacity building to the benefit of countries and regions, where people do not have the financial resources to participate in expensive scientific events. It was also an action within the plan of ISPRS for increased involvement in Latin America and its commitment for international cooperation, education and training, particularly for the students.

Thierry Toutin begging Gordon Staples to give him freely Radarsat-2 data, shortly before trying the famous Cuban “mojito”. He succeeded after buying Gordon a few mojitos. This is how business is done ...



### STUDENT ACTIVITIES AT ACRS-2008

by Kyaw Sann Oo

Asian Conference on Remote Sensing (ACRS) 2008 took place from 10<sup>th</sup> to 14<sup>th</sup> of November at the Galadara Hotel of Colombo in Sri Lanka.

One of the sessions that are organized every year in the ACRS was also a “student session” which attracted loads of young people and served as gateway to professionalism for students. Last student session was conducted on 11<sup>th</sup> of November with the theme “How to promote student activities within ACRS”.

The session was divided into two parts: Student Session I and Student Session II. The session-I was to give information to youths and the session-II was representation of each nation’s student activity by student representatives.

For the entire report click [here](#)

Our Newsletter team is LOOKING for people willing to help with the creation of the Newsletter, SO If you feel a bit of a JOURNALIST or you are familiar with DESIGNING & would like to work inside INTERNATIONAL TEAM of students contact us on our email:

[info@isprs-studentconsortium.org](mailto:info@isprs-studentconsortium.org)

AND ALSO...

...if you would like to PUBLISH your RESEARCH WORK in our Newsletter send us your ARTICLE on e-mail written above and we'll contact you for further information!



by Krzysztof Stereńczak

Few months have passed since the last issue of Newsletter. What has happened in ISPRS Student Consortium in these months? I can ensure you a lot.

- As usual Board Members have had internet meetings to discuss ongoing aims and activities:
- We are planning to start closer relations with other Students Associations to explore new fields of interests.
- There are a lot of activities regarding to ISPRS WG VI/5 and SC Summer School in Warsaw 2009. At the moment more than 60 participants have registered for the event.
- Some Student Consortium representatives are going to participate in IGSM 2009. Hope it will be a fruitful time for knowledge and experience exchange.
- One final note. If you have not noticed, I would like to inform you that our Student Consortium network is grooving up. We have now 174 members from 45 countries. Please keep this network alive.

## ISPRS SC Presentation during ARGEOS in Berlin

by Ahmet Şengül

During the latest ARGEOS meeting, which was held on the 6th of December 2009, a short presentation of the Student Consortium was made. Presentation was represented to students studying geomatics at universities in Austria, Germany, the Netherlands and Switzerland. ARGEOS was founded in 1970 in order to enhance the education at the universities. Every year ARGEOS prepare two events in each semester at one of the member university. Each event consists of four days of lectures, working groups, subject related and scenic trips and parties. The last meeting was held in December 2008 at TU Berlin - Germany. A chance to become involved in this valuable meeting which around 150 students participated was given to one of the SC board members, Ahmet Sengul. The presentation lasted for 10 minutes during plenary meeting and it was an excellent opportunity to inform young german speaking students about our student organization.

You can find this presentation [here](#).

## How to Share Information on SC Website

by Mete Ercan Pakdil and Ahmet Şengül

The first version of the members' area served basic features, however, nowadays members' area has many unique features that parallel SC missions where students and youths can exchange information easily and get together from all over the world. In the previous year the database had approximately 60 registered members and the number is increasing day by day with your support, today we reached more than 160 members.

The main idea is to collect all the members on the same platform where everyone has the opportunity to share their ideas, useful information, several opportunities like travel grants, foundations or job offers, upcoming activities such as Summer School, international conferences, workshops etc.

As a registered member of the website, you are welcome to leave a comment on member's messages or on the message board and even comments about our website. We will be happy to see your contributions.

To achieve easy exchange of information, firstly we exchanged traditional and disorganised e-mail groups with message boards and secondly we developed a private message system for peer to peer messaging. Step by step instructions on how to use these new tools can be find [here](#).



## EO Educational Activities of the European Space Agency

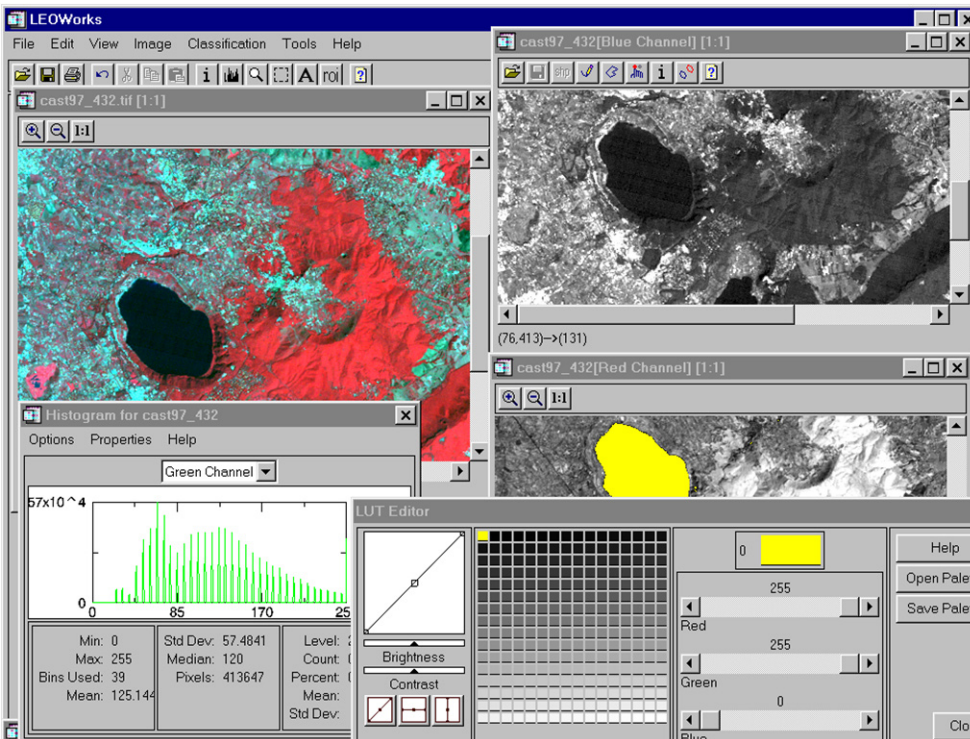
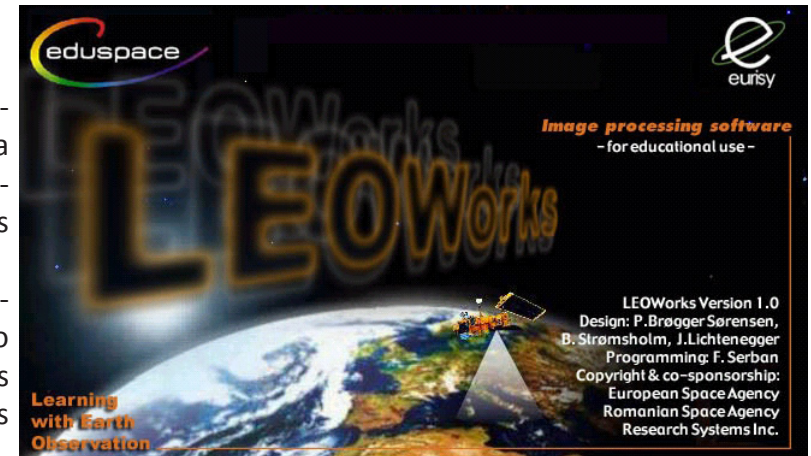
by Vasileios Kalogirou (RSAC c/o ESA)

One of the most important activities of a space agency is to make space science and technology available to a wide audience and inform the various stakeholders – industry, academia and the public - of the different ways they may benefit from recent achievements and developments. The European Space Agency ESA is addressing questions such as why these groups should take an interest in space and why they should be involved.

Under this perception, the European Space Agency builds its own pillars for a knowledge - based society, in order to ensure the existence of a high - level qualified workforce and to promote the benefits of developments in space technology. Starting from very young ages to university - level students, the Agency is implementing its Educational plan that includes worldwide teaching and outreach activities.

This year, ESA's agenda includes EO training courses in many countries (i.e. Austria, Romania, Peru, Argentina etc.). The next training course will take place between the 19th – 22th April in Vienna on the European Geosciences Union (EGU) Symposium called GIFT - Geosciences Information for Teachers.

More at: <http://gift.egu.eu/gift-home.html>



As a response to the needs of education, ESA developed its own Earth Observation software called LEOWorks, which is also supported by a series of various tutorials covering a large variety of remote sensing applications monitoring vegetation, glaciers and volcanoes. In order to improve software understanding training material is continuously updated with recent exercises that cover more advanced topics like SAR interferometry and polarimetry. Although the LEOWorks package and its accompanying training material are targeting secondary - school or undergraduate students, the software includes a powerful image processing tool, able to perform more advanced processing operations. Moreover the package includes some standard GIS functionality. The new version of LEOWorks v4.0 builds upon the existing ESA toolboxes (BEAM and the recently developed NEST) and adopts a java - based open source philosophy. The first major release of LEOWorks 4.0 is foreseen for June 2009.

For more information about LEOWorks please contact [Dr. Steffen Dransfeld](#)

The author acknowledges Dr. Steffen Dransfeld and Dr. Francesco Sarti from ESA/ESRIN for their contribution and acceptance to release the above information.

### Australian Region News

by Joanne Poon

The count down begins to ISPRS Melbourne 2012! We are already excited and looking forward the 2012 ISPRS Congress in Melbourne, Australia from Friday 24 August to Monday 3 September 2012. The Executive Committee, lead by Congress Director Cliff Ogleby, are in the early stages of preparations with the aim of holding the best Congress to date!

Please contact me (email: [jpoon@skm.com.au](mailto:jpoon@skm.com.au); tel: +612 6246 2716) if you are interested in getting involved in this very important event in the ISPRS calendar.

### Observations on Geoinformation activity in Asia

by Kyaw Sann Oo

Various geoinformation activities held place in the Asian region lately with the intent to promote profession commercially, regionally, nationally or internationally (Map India and Map Asia, Health GIS by AgIT, Malaysian Remote Sensing & GIS Conference & Exhibition, Users' Conferences of ESRI and Intergraph, ISDE6 by digitalearth - isde, ACRS by AARS, ISPRS's activities, Asian Conference on Disaster Reduction by ADRC, Asia-Pacific Regional Space Agency Forum by APRSAF, Geoinformation Forum Japan and many others).

"Geoinformation Forum Japan", being one of the most noticeable among them, has more participants every year. The forum is arranged with special lectures, symposium, technical seminars and applications of surveying technologies, survey and exploration technologies, academic students' forum and research presentations by educational institutions, technical showcase by survey-related organizations, exhibition and English technical session.

The forum is mainly focused on:

1. Instruments, Software, Technology and Systems for Survey, Exploration and Design
2. GPS/GNSS Instruments, Software and Services
3. GIS Instruments and Software
4. Remote Sensing Instruments
5. Peripherals Materials and Devices

Next Geoinformation forum in Japan will be held on 17<sup>th</sup> – 19<sup>th</sup> June 2009 at Pacifico Yokohama in Japan (the same place as every year). In the last Geoinformation Forum new session "English Technical Session" was established. This technical session is meant for the participants from neighboring countries, international students who study in Japanese universities and Japanese students and professionals who want to improve their English. Session is a day-long and is a good opportunity for students to present their research works.

### GEOSS Workshop XXVI - Forestry

3 - 8 May 2009, Stresa, Italy

**"Towards a Global forest Carbon Monitoring System"**

For more info click [here](#)

### IFAC Workshop

6 - 8 May 2009, Agora, Finland

**"Control Applications of Optimisation"**

For more info click [here](#)

### Joint Urban Remote Sensing Event

20 - 22 May 2009, Shanghai, China

For more info click [here](#)

### Earth Observation on Global Changes

25 - 29 May 2009, Chengdu, China

For more info click [here](#)

### 29<sup>th</sup> EARSeL Symposium

15 - 18 June 2009, Chania, Greece

For more info click [here](#)

### E-Learning Tools, Techniques and Applications

17 - 19 June 2009, Potsdam, Germany

For more info click [here](#)

### Geoinformation Forum Japan 2009

17 - 19 June 2009, Yokohama, Japan

For more info click [here](#)

### ESA Advanced Training Course on Land Remote Sensing

28 June - 3 July 2009, Prague, Czech Republic

For more info click [here](#)

**3D Nature****Visual Nature Studio 3 with Scene Express**

VNS 3 is a complete 3D landscape creation tool with the ability to place trees and vegetation, buildings, roads, bridges, vehicles, lakes and streams into the scene with photorealistic visual quality. Working with data from GIS and CAD tools as well as free data available online, VNS can be used to depict new projects

designs, multiple proposed alternatives or historical re-creations with equal ease.

3D Nature is shipping its updated Visual Nature Studio 3 (VNS 3) with Scene Express including support for new features in Google Earth 5. The new feature added in Google Earth 5 is Guided Tours - pre-recorded viewpoint paths that take the viewer on a pre-determined route through the landscape. Visual Nature Studio has always offered "Animated Cameras" to accomplish this, but this capability was never available when exporting to Google Earth. Now, golf course designers, landscape architects, foresters, developers, highway planners and other interested parties can direct the viewing public through their creations by way of Google Earth.



VNS 3 with Scene Express can build realistic and accurate 3D environments and publish them to Google Earth 5. VNS 3 includes a substantial library of trees and vegetation that can be used in Google. VNS can also be used to make still images and animations of landscapes with a visual quality exceeding what Google Earth is capable of.

Source : <http://www.3DNature.com>

**Geo-Imaging Software, Geomatica 10.2**

Geomatica 10.2, a complete set of geo-imaging software for remote sensing, digital photogrammetry, raster spatial analysis, map production, mosaicking and automated production workflows, provides new capabilities and extended functionality which allows users to be more productive. Additionally, it includes new and simplified re-packaging options.

Enhancements to 10.2 include additional satellite sensor support including GeoEye - 1 and COSMO-SkyMed. Also new is a "Get Data" option that allows users to access different data provider websites to locate their data in an easy and convenient way. Additionally, Geomatica 10.2 offers added support now available for Automatic GCP extraction from vectors such as roads.

**Point of Beginning**

<http://www.pobonline.com/>

**The ISPRS Foundation**

<http://www.isprs.org/foundation/>

**RESOURCES****WorldView-2**

Satellite with highest commercial resolution imagery of Earth

Click [here](#)

**Google Mars**

<http://www.google.com/mars/>

**EDUCATION**

Mobility for undergraduate, master, PhD students, for PostDocs, and Staff from Asian partners countries to EU partner universities

<http://math.unice.fr/EMMA/>

**JOURNALS****Location**

<http://location.net.in/magazine/>

**SDI Regional Newsletters**

<http://gsdi.org/newsletters.asp>

**FREE SOFTWARE****Computer Vision Software**

<http://www.cs.cmu.edu/~cil/v-source.html>

**RELATED ORGANIZATIONS****IGSO**

<http://www.igso.de/>



This column serves as a guide for the students who are thinking or are willing to go studying or doing practical work abroad. We have searched for new opportunities in different faculties, schools and other learning programs all over the world in order to encourage as many students as possible to take new steps towards new horizons.

The **Institute for the Protection and Security of the Citizen** (IPSC), located in Ispra, Italy, is one of the seven institutes of the European Commission's Joint Research Centre (JRC). They opened three different **post doctorate positions** on: SAR image processing and analysis, VHR image processing and analysis, Validation and GIS data specialist. Application must be delivered until **7th of April 2009**, so hurry up!

- Expert in SAR image processing and analysis click [here](#)
- Expert in VHR image processing and analysis click [here](#)
- Validation and GIS data specialist click [here](#)

**Universitat Politècnica de Catalunya** (Barcelona, Spain), The Department of Signal Theory and Communications organises **Mobility Courses Spring 2008/2009** which are distinguished lectures series as part of its MERIT (European Master of Research on Information and Communication Technologies) master program. The seminars are open on a limited basis to non-enrolled master students, and registrations are considered on first come first serve basis. For the list of Master Mobility Courses, Doctorate Mobility Courses and other info click [here](#).

The **International Institute for Geo-Information Science and Earth Observation** (ITC), **Enschede** and the **Royal Tropical Institute** (KIT), Amsterdam, The Netherlands, jointly organize certificate course of Using Geographic Information Systems (GIS) in disease control programmes. Course registration deadline is May 11th 2009.

More info can be found [here](#)

**Universidad de Concepción**, Departamento de Geomensura from Los Angeles, Chile is offering an **academic position** to a person with skills in Geodesy, Geoinformation or other related field, starting as soon as possible. Interested applicants can read more information following next [link](#) (pdf).

### Modelling the Great Wall of China

The Great Wall of China is one of the largest manmade wonders of the world, comprising many different and irregular structures. We employed airborne LiDAR to produce highly accurate digital elevation models (DEMs) to identify areas requiring repair. A terrestrial laser scanner mounted on a tripod was used to improve the terrain model, especially for surfaces covered with dense vegetation.

[Read more...](#)

### ERDAS Launches New Suite of ArcGIS Extensions

Norcross, GA ERDAS announces a new suite of extensions that operate with Stereo Analyst for ArcGIS, available for ArcGIS 9.3. These extensions form a production set of tools aimed at assisted feature collection and terrain editing. Recently, ERDAS also announced a new release of Stereo Analyst for ArcGIS. [Read more...](#)

### Global Coverage Expands

The first navigable databases for Angola, Kenya, Malawi, Mauritius, Nigeria, Tanzania, Uganda and Zambia in Africa from Tele Atlas have become available, facilitating Tele Atlas customers such as Google and TomTom to launch solutions across the continent. The database also includes coverage for the French Overseas Territories of Guadeloupe, Martinique, Mayotte, Réunion, Saint Barthélemy and Saint Martin. [Read more...](#)

### OGC forms Spatial Law and Policy Committee

The Board of Directors of the Open Geospatial Consortium (OGC) has chartered a committee of the Board to specifically address the "spatial law and policy issues" which will influence development requirements of the Consortium's technology process. The Spatial Law and Policy Committee (SLPC) will be chaired by OGC director and Executive Committee member, Kevin Pomfret, and will be organised under board leadership as an educational forum to include both select member and community participation. [Read more...](#)

### INSPIRE@EC Contract Awarded

The Statistical Office of the European Communities (Eurostat) has awarded the INSPIRE@EC contract to a consortium that based its solution on ESRI technology. This contract covers the development of the technical components of a European Commission spatial data infrastructure (SDI) compliant with the provisions of the Infrastructure for Spatial Information in Europe (INSPIRE). [Read more...](#)

**Terrainscapes 2009** - Free webinars sponsored by Intermap technologies

[Read more...](#)



# Turn the World Upside - Down

or

## Why Should the North be on Top and the South on Bottom?

by Nikos Alexandris

### Eratosthenes' world map

All reconstructions of Eratosthenes'<sup>1</sup> world map available on the Internet (and probably in all published studies?) agree with the established cartographic orientation, that is, North being up and South being down. Vangelis Pantazis however, in his book *Maps and Ideologies*<sup>2</sup>, claims that Eratosthenes had actually placed the South on the top of his world map. Since there is no evidence<sup>3</sup> it is fair to treat both North-up reconstructions and Vangelis Pantazis' claim equally.

He bases his claim on the following reasons<sup>4</sup> :

**Firstly**, for Eratosthenes, whose origins are from Egypt, as well as for all the inhabitants in the Nile valley, **the upper part of Egypt was the South of Egypt**, towards the sources of its river. It would be strange for a cartographer who is not bound to maps with the opposite orientation to reverse the established orientation of his country, which along with the language, has taken root in the consciousness of its citizens.

**Secondly, in the center of Eratosthenes interests and scientific activity**<sup>56</sup> **lies the sun and its course as seen from the Earth, namely the South.** The observations, discoveries and inventions that made him famous, recorded on his maps, are connected with the sun that shines from the southern heights. The gnomon, used to define the true North - South direction, works with the sunlight coming from the South and its shadow lying towards the North. The perpendicular lines to the equator (shadows created by the use of the gnomon) were named meridians<sup>7</sup> because they indicate the sun's position at highnoon. Since they are not drawn by starting from the North Star, they are not named after it. Hence, we have every reason to believe that they are drawn (like the gnomon's shadow indicates) from South to North.

These two reasons are not enough to prove his hypothesis, writes Pantazis. He continues by citing Strabo<sup>8910</sup> directly (including original fragments of Strabo's work in order to avoid the danger of an interpretation of the interpretation):

Most information about Eratosthenes comes from Strabo. According to Strabo, Eratosthenes divided the Earth in two stripes by drawing a line from the Pillars of Hercules<sup>11</sup> to the last mountainous locations of India. Furthermore, he partitions these two stripes by drawing vertical lines and calls the resulting pieces stamps. Then he defines the first stamp as the Indian, the second as the Arian, etc.

Pantazis questions whether it is possible to conclude the orientation of Eratosthenes' maps based on these poor fragments saved through Strabo's critiques.

The criterion we are looking for is to be found in the way that the Greeks, at Eratosthenes time, were writing and successively the way they were designing the pages for their texts and maps. In earlier times they used to write Boustrophedon<sup>12</sup>. This way of writing was abandoned long before Eratosthenes' epoch (around the 6th century B.C.). **Writing from left to right and from top to bottom, as we know it today, was established at his time. The fact that Eratosthenes defines as first the southeasternmost stamp (the Indian) means that his map had its southern side on top.**

[Using command-line tools under Linux to turn the world map upside-down and reassign geo-tags in Geotiff raster files that have been edited with non-geospatial image processing applications.](#)