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Maplines

Elephants on Parade
See pages 12 – 13
Welcome to our Summer edition. I guess the first thing to explain, and one that you are undoubtedly pondering over your morning croissant, is the elephant. You might notice a few more elephants scattered throughout the issue! The answer is in a new Corporate Members’ feature (p12-13), where we take an in depth look at the recent Elephant Parade in London. The images are simply stunning; our only regret is we couldn’t show more within our pages! Even Mark’s new daughter, Jessica Megan, couldn’t stay away from them as you can see!

Elephants aside, we have another excellent selection of feature articles for you – media mapping, Roman cartography and Martian projections! For more details please contact Maplines Editors, Lynda Bailey or Martin Lubikowski

Visit the BCS website at www.cartography.org.uk 2010 / Maplines Visit the BCS website at www.cartography.org.uk Summer 2010 • 3
A comprehensive knowledge of geography is important to understanding our increasingly “globalised” society, especially as public opinion increasingly influences politicians as they have to grapple with such issues as environmental change or the use of armed forces to intervene in other states. The role of the news media, including their representation of critical issues through maps, is crucial to developing this knowledge. This article describes a longitudinal survey of maps in the UK “quality press” covering Jan-July 1999 and Jan-June 2009.

The quality press was chosen as a key information source for decision makers and educationists, as well as the general public. The importance of broadcast news sources is acknowledged, but these are more ephemeral, complementing rather than replacing print news sources. It is also important to note that web-versions of newspaper items often omit graphic materials accompanying print versions (photos, graphs or maps). The survey included all maps accompanying home, international and business news stories (1128 maps in 1999, and 1248 in 2009) and provided information on map design and on thematic and geographical coverage – this article focuses on the latter.

What in the World?

Thematic context is fundamental to the study of the role of news maps. Map coverage of specific themes will have an impact on public understanding of key issues. The results of the 1999 survey confirmed earlier studies that recorded military conflicts and geopolitics as key themes dominating maps in the news, for example, Monmonier’s study of US news in 1980s, and Perkins and Parry’s UK study in the early 1990s. The single highest scoring category in this survey in 1999 was international conflicts (25.2% of all maps), especially involving Iraq (41.2% if combined with internal conflicts). This figure was inflated by the number of maps devoted to the Kosovo crisis which represented 25.3% of all news maps published between January and July, rising to 54.7% of all maps in April at the height of NATO bombardment. The 2009 survey yielded a combined figure of 29.6% for these two categories (18.3 and 11.3% respectively). This may represent more “normal” conditions (similar to the findings of Perkins and Parry), although UK and US forces were actively engaged in Iran and Afghanistan during this period.

The importance of these maps is emphasised when their specific use is addressed. News maps generally vary from simple locator maps (30.7% of all maps in 2009) to more complex uses involving representation of dynamic spatial processes, or complex political boundaries. Maps devoted to conflict represent 58% of all maps of dynamic spatial processes and 84.6% of maps of special regions. Such information is critical to understanding conflicts and other geopolitical issues, an example being control zone and troop movement maps during the Sri Lankan government’s successful campaign against Tamil Tiger forces (May 2009). Other geopolitical issues, represented by a few maps only, were also highly significant in terms of public awareness of global developments; an example being Russia’s territorial claims in the Arctic as this has long term significance for command and control of resources such as oil.

Most other themes were represented by a relatively small number of maps. The proportions did not vary greatly from 1999 to 2009. Maps accompanying stories on environmental issues remained a surprisingly small part of the cartographic output in the press. Although there was a rise from 3.9% in 1999 to 5.9% in 2009, this remains a small proportion given the importance of global climate change, biodiversity loss and environmental degradation. A decade ago this seemed to represent an inherent conservatism, with a single paper, The Guardian, producing almost half (47.7%) of all the maps on this topic. In 2009, the spread was more even, with The Guardian producing the highest number of maps on this theme (28.4%) and The Guardian in second place, followed by The Sunday Times and the FT.

Where in the World? Geographical coverage

Understanding geographical relationships is important to contemporary geopolitics. The World regions (see fig 1 and 2) used to classify the maps were adapted from Saul Cohen’s “geopolitical realms.” Cohen’s realms were based on the bi-polar geopolitics of the Cold War, but his basic regional framework remains effective. In 1999 ‘Maritime Europe’ and the ‘Eastern European Gateway’ (EEG) were the most mapped regions, with 36.3% and 27.7% of all maps respectively. The result for Maritime Europe is consistent with UK stories representing 61.9% of the maps. The EEG was heavily represented due to the Kosovo crisis - 91.3% of all maps for the region (fig. 1). The EEG represents a zone of economic transition and political tension between Maritime Europe and Russia, so conflict in the region is likely to attract considerable news interest. Other regions of geopolitical instability were well represented, with the ‘Middle East’ (7.7%) the next highest scoring region.

2009 shows a similar result for Maritime Europe (37.3%) with UK again representing a high proportion of the total for that region (66.7%). The significant difference is the low figure for the ‘EEG’, only 4.3% of all maps. During 2009, this region was reasonably quiescent in geopolitical terms. In 2009 the “Middle East” (15.1%) and ‘South Asia’ (12.5%) dominated the results (fig. 2) due to conflicts in Israel-Palestine, Iraq, Afghanistan, Pakistan, and Sri Lanka. World map was the second most highly deployed (9.8%) due in part to the worldwide swine flu pandemic and the global economic down-turn. World maps were also an important source of geopolitical information related to missile defense issues in both 1999 and 2009 (see Mapslines, Winter 2009), Ocean and polar regions represented only 1.8% of the total in 2009 but covered important territorial and resource issues, for example Russian claims in the Arctic, and disputes over sovereignty in the Antarctic region.

This short article has been able to do little more than describe the basic findings of the survey. These do, however, provide some evidence of the role of maps in propagating information and how they influence both decision makers and the public about geopolitical issues.
I imagine that a young lad arrives from Mars. He has never seen a flat world map. He has no preconceptions: names such as Mercator or Peters mean nothing to him and the conflicts over different types of world map are totally unknown. Furthermore, this Martian has no distant memories of complex courses on ‘Map Projections’ – in fact the very word ‘projection’ means nothing to him. Nor is he aware that people possess complex wisdom over the mathematics of globes, or that cosines and spherical geometry even exist.

On his journey to Earth, he sees our planet from space and soon after he arrives he sees a globe. He recognises it as ‘truth’. In miniature, a representation of Planet Earth in space. Now imagine that the skin of the globe falls apart at 30° intervals of latitude and longitude, into 72 separate pieces. Fascinated by this, he starts to try to make a World map by reassembling the 72 pieces. Each piece is slightly curved but each is flat enough to lie on a table.

First our Martian collects the 36 pieces of the northern hemisphere and sorts them into three groups of 12 pieces. There are 12 ‘almost square’ pieces for the ‘hot’ areas, the tropics and sub-tropics (0° – 30° N). There are 12 pieces which resemble a troposphere which are the temperate areas (30° – 60° N) and finally, 12 small ‘triangles’ for the cold areas (60° – 90° N).

Using the lines of longitude he starts placing the biggest pieces. It only takes a few minutes to get the hot areas in the correct order. He notices that each of these 12 ‘nearly square’ pieces is slightly shorter along the 30° N line than the 0° line. On measuring them, he finds to his surprise that they are only one-eighth shorter at 30° N than at the Equator. Once joined together, the pieces form an arc-shape. However, on the globe the Equator is not shaped, so he decides to try to keep the Equator as a straight line. He achieves this by allowing ‘gaps’ to appear in sea areas, and allowing small amounts of ‘slanting’ of some of the ‘hot’ pieces which show land areas.

The [W]Right Map

This is a new equal-area World map, with extra ‘cuts’: the result is that land areas have smaller distortions of shape. The [W]RIGHT WORLD MAP is copyright, but may be freely reproduced by schools and churches, for use within these institutions. For other uses, please make prior contact via this website: www.dandwright.co.uk © David R Wright, 2007 Cartography by Cox Cartographic Ltd.

Brilliant! Our Martian, without reducing the size of areas, has created a very good map of tropical and subtropical areas, with remarkably little distortion of shape and at true scale.

The problems are bigger when he tries to attach the temperate lands to the tropics but he overcomes this by adopting the principle of bigger gaps in the oceans. He slopes the edges of the land areas in North America to keep them joined together and he solves the problem of Eurasia by allowing some gaps in remote parts of Asia. Problem solved!

He then tries to add the areas north of 60° N. Our map-maker is unaware of the big problems these areas have caused to cartographers and of the exaggerations in scale that have been perpetrated by Mercator, Miller, Robinson, et al. He never even considered that the scale that would be too unfair. He soon realises that there is a lot of ocean and that very few people live on the land areas. This is by far the smallest, and least inhabited part of the hemisphere and so he leaves big gaps in the oceans and some gaps in Siberia and with that he finds problems solved. His hemisphere map is complete!

Finally, our map-maker tackles the Southern Hemisphere, working from Equator to Pole once again. Problems seem fewer because there is so little land and so much sea. South America and Africa fit in with virtually no problems as does Australia. Antarctica is severely split in several places but it is all there and all at the correct scale. He doesn’t know that many world maps omit Antarctica completely or show Antarctica as if it is as long as the Equator.

The map is finished! Our Martian has created a World map which has true scale and very nearly true shapes for the land, the two ideals that are so often compromised on other maps. Without the use of mathematics or knowledge of the accumulated cartographic wisdom of the centuries and without the use of a computer he has created an excellent world map by using a practical ‘hands-on’ approach. Furthermore, the method of construction can make sense to everyone and the globe belongs to everyone. Everyone deserves access to a World map which is clearly based on the truth of the globe, rather than on the whim of a cartographer.

Of course, a computer literate cartographer and some tidying up will be needed. For example, Greenland needs ‘reuniting’ and dozens of other details need adjusting but the basic concept of the map remains sound.

Let’s now return to the real World and evaluate our Martian’s map. How does this new map compare with other World maps? The numerous non-equal-area maps can be rejected on the grounds that they are ‘not fair’. Equal-area maps with huge distortions of shape, such as Peters, can be rejected as soon as people realise that there are other equal-area maps available. In fact ALL uninterrupted equal-area World maps have quite serious shape-distortion in parts or all of the map. So we can commend the new map in terms of shapes of land. Our map-maker is unaware of the competition but we could tell him that the best comparison to his new map would be the Interrupted Mollweide, the Interrupted Sanson-Flamsteed and Goode. But those three have quite severe shape-distorions in two crucial highly-populated areas namely western Europe and eastern Asia.

Furthermore, the new map recognises that tropical and subtropical lands should be the starting-point for creating a new World map. There are two good reasons for this. Firstly, these areas can be mapped with few problems and little distortion because the 30° N line is fully seven-eighths of the length of the Equator. Secondly, these areas occupy full other parts of the surface of the globe (a vital yet little known fact) so they deserve as much attention as the remainder.

You too can build your own World map!

Take a good-quality inflatable globe and cut it at 30° intervals of latitude and longitude to get 72 separate pieces. Reassemble following the ‘map-maker’ in this article – or design your own World map.

Almost all other World maps are designed by people who lived in temperate lands. Many of these maps enlarge cool lands and print tropical areas at reduced size. The new map should commend itself to tropical countries and also to those who are keen on development education, even if they live in temperate countries. It is ideal for showing world distributions of any product from asbestos to zinc and retirement in 1994 thereafter working as a consultant, inspector and author. Being a geographical polymath his interests and writings extended to climate change, Christmas hymns, railway journeys, most recently the use of Rail Rover tickets, steam trains, and stamp collecting, particularly on their geographical and cartographical contents.

David’s last articles were written whilst in hospital undergoing treatments. To Jill and the two children, we extend our sympathies.

David Cooper
Talking With Maps

Serving as a tasty appetiser for the other big event in June, the FIFA World Cup, the BCS Annual Symposium was held from 9th – 12th June in Nottingham. Once again delegate numbers rose as a full programme of lectures, workshops, networking opportunities and some new and fun activities relating to the theme of Talking With Maps got underway. With all the recent media coverage of maps and cartography on both television and radio, we came to the Symposium with the topic very much in the forefront of our minds.

This year we opened with a new venture for the BCS: a free to attend workshop for Year 10 secondary school students. The ‘Restless Earth’ workshop, entitled to fit in with the National Curriculum theme and kindly sponsored by ESRI and Global Mapping, was aimed at communicating the importance of maps. Based on a scenario of providing support to the Haiti earthquake disaster relief, each student was given a specific role to play:

• the Military
• Search and Rescue
• Humanitarian aid
• Medical care
• Coordination team.

Through consultation and compromise between the students, each school produced a briefing map that combined as many roles as possible by guessing the other teams’ works of art. As one student commented, ‘overall I thought the day was very useful indeed and that maps are more than just a pretty drawing, they have meaning and useful qualities’. Special mention goes to Parkside Community School who have placed an excellent summary of the session on their school website www.parkside.derbyshire.sch.uk.

The afternoon was dedicated to the Special Interest Groups. This year the Design Group and GIS Group joined forces to provide a session focussed on the new datasets available to forces to provide a session focussed on the new datasets available to forces to produce a briefing map that combined as many roles as possible by guessing the other teams’ works of art. As one student commented, ‘overall I thought the day was very useful indeed and that maps are more than just a pretty drawing, they have meaning and useful qualities’. Special mention goes to Parkside Community School who have placed an excellent summary of the session on their school website www.parkside.derbyshire.sch.uk.

The afternoon session of talks, this time under the theme of cartographic representation, investigated a number of different and innovative ways of portraying cartographic data.

This year’s outgoing President’s Address from Bob Lilley, proved to be a tour de force of his career at Ordnance Survey and some of the major changes he has seen over the years. It proved to be a fascinating insight into how OS has operated over the years, particularly pertinent given the recent changes to access to OS mapping.

Through this year’s Awards, the BCS recognised excellence in cartography; congratulations go to all this year’s Awards winners. The Society also conferred Honorary Fellowship on Ken Atkerton, recognising many years of devoted service to the Society, fulfilling many roles; he remains heavily involved with the Symposium as a key member of the Programme Committee.

Our last full day opened with a fascinating session on maps in the media covering how the UK quality press uses and misuses maps to get points across and the latest phenomenon of “Cartoblography” a term coined for the spatial context of internet blog sites. The second workshop session consisted of practical sessions, for the first time introducing a discussion session “engaging the new cartographers”.

Friday afternoon’s session built on a theme from last year’s AGI conference, the visualisation of space. Here we discussed a variety of high profile topics within the industry including 3D modeling, maps in motion and the role of the cartographer in the mash up age. The Symposium closed with a “Cartographic Surgery” aiming to provide positive critique of styles and design in a number of examples of

Continued on page 18...

BCS Award Winners 2010

• The BCS Award and The Ordnance Survey MasterMap Award for Better Mapping – Inverness City Main Developments 2010, The Highland Council
• The Stanfords Awards for Printed Mapping Products – XYZ’s Postcode Sector Map – Sheet 22
• The Avenza Award for Electronic Mapping Products – Polaris – Antarctic Node by the British Antarctic Survey
• The John C. Bartholomew Award for Small Scale Mapping - Geo-Geology Irish Surnames Map, Dr Kenneth Field and Dr Linda Beale, Kingston University, London.
• The Henry Johns Award, presented to the author of the best article published in The Cartographic Journal during the year – Stylistic Diversity in European 1:50 000 State Topographic Maps by Alexander Kent of Southampton University and Peter Vujakovic of Canterbury Christ Church University.
Observations of a Carto Guru...

This was the third year that I was asked to present workshops at the BCS Symposium. Twice before, Mary Spence and I have presented a workshop designed to look at (or look again at) some of the basic aspects of successful map design. Part of the BCS’s aim is to communicate the message about good map design to the growing number of mapmakers who have been given the remit to produce maps, but have no formal training in cartography. Workshops such as this year’s Better Mapping for the Terrified are aimed at just such an audience and it has been a pleasure to see conference delegates from local and central government at the Symposium and attending the workshops. But we’ve also had several practising cartographers coming along, and their input and sharing of experience, has been highly welcomed.

The highlight of each workshop has been Mary’s practical session when she takes delegates through a range of real-world examples of maps which pose design challenges. Looking at examples of maps before and after improvement, it’s gratifying to hear perceptive observations on the problems of designing good maps; it’s easy to identify a map with poor design, but much harder to identify what to do to put it right. It’s really by looking at different approaches to design that you can tease out ways to present geographical data well and aim for the best map possible. And, as Mary’s fond of pointing out, there’s no such thing as a finished map, only an improved one.

This year, as well as looking at basic design, I was asked to lead a new workshop on approaches to good statistical maps. It’s an area that’s long been of interest to me, not as a statistician (which I’m definitely not!) but as a geographer seeing misleading statistical maps frequently published. I gave a short talk on statistical maps at the BCS’s Better Mapping seminars, last October and I based this workshop on that. My aim was to look at the variety of different forms of statistical mapping, choropleth, dot maps and the like, but more importantly to illustrate that the way in which you classify and divide a set of data fundamentally affects the map that’s produced and the message conveyed. In statistical mapping, perhaps more so than in any other area of cartography, the honesty and integrity of the cartographer is of fundamental importance. Most of the time statistical maps don’t intend to mislead, and if they do, it may be for understandable reasons. As with choosing the wrong projection, it’s usually done out of ignorance, but the consequences can be considerable. But if misleading an audience is the result of not knowing about techniques of data division, then it’s a situation which ought to be remedied. Ideally, everyone looking at a statistical map should have some training in how to read it, but that’s unlikely to happen!

For a workshop on stats mapping, it’s a good idea to illustrate your presentation with real data, and indeed to use real data for the delegates to have a go at producing a statistical map. Here lies a difficulty: have you ever tried to find sets of data which are realistic, mappable and usable by a group of willing volunteers in a workshop session? We know that we’re drowning in data, but you’d be surprised what a challenge it is to find statistics that are typical, mappable and meaningful.

I hit upon two sets of appropriate data: consumption of coffee per capita, per annum, and the number of MacDonald’s restaurants in 39 countries of the World! The task was to work out the method of dividing and grouping the data which both reflected the data and then devising a scheme to map it. This involved a lot of experimentation on my part to give the participants some guidance. In the event, the six people at the workshop came up with very good schemes, some using more scientific methods and others adopting a ‘suck it and see’ approach!

Attending a Symposium and hearing a range of presentations is always a good time to reflect on how different approaches to mapping and presenting data can work, but it also reinforces my belief that mapped information should be meaningful information. Cartography is the business of presenting spatial information in a graphic way, and at its heart is useful geographical information. I was struck by the fact that some of the contemporary research in cartography seems to be dealing with mapping information (especially multivariate data) which is so complex that it becomes impossible to map in a meaningful way. The fact that it is possible to map multivariate information does not mean to say that it should be mapped, if the graphic that results does not clarify the data. I also noted that some of the techniques of smoothing data to make them look more ‘natural’ may at heart be dishonest, since you’re not enhancing the quality of the data, only the method of presenting it. Since we all agree whether it’s right or not, judge the quality of mapped data by the quality of the presentation, it is perhaps of dubious value to present a set of data as if it had been gathered on a smaller areal basis than is the reality.

I tend to judge the success of a presentation by the amount of discussion it sparks off, and specifically by the number of questions asked. It was interesting to see that the best discussions this year followed presentations on areas of mapping which are perhaps more meaningful to fellow cartographers, and I suspect to the wider world.

Giles Darke

Streetmuseum of London

A groundbreaking iPhone app, launched by the Museum of London, brings the museum’s extensive art and photographic collections to the streets of the capital. Streetmuseum, developed with creative agency Brothers and Sisters, guides users to sites across London, where hidden histories of the city dramatically appear.

Over 200 sites have been picked where users can look through their iPhones and see the past emerge, locked as an overlay across the present scene. These can be viewed as ghostly alignments, or the archive images can be brought up and explored in detail, along with information about Streetmuseum photographs and paintings.

The museum recently opened spectacular new Galleries of Modern London on 28 May. The galleries transport visitors through London’s tumultuous history from 1666 to the present day, a story alive with drama, triumph and near disaster. Over 7,000 objects together with interactive exhibits, film and changing displays capture the ever-changing life of London and its people.

Professor Jack Lohman, Director of the Museum of London, said: ‘The launch of the Streetmuseum app is an exciting development for the Museum of London, opening our unique collections to new audiences in a thought provoking and creative manner. London’s stories are varied and manyvoiced. This app allows the present and the past to collide and share their secrets. Streetmuseum opens up the city in new and exciting ways.’

Streetmuseum is free to download for 3G and 3G+ iPhones and is available on iTunes now. Visit: www.museumoflondon.org.uk/streetmuseum for more info.

New Collins Geo Quiz Apps

Collins Geo has just launched its first two apps, Collins Quiz Zone World and Collins Quiz Zone Europe. These geographical quizzes are easy to use, entertaining but also educational. They have been produced in conjunction with Avenir Education.

Collins Quiz Zone helps young geographers explore the world in an educational yet fun way, whether it’s to test themselves, revise or just for fun.

Collins Quiz Zone World Categories: • Cities • Countries and Boundaries • Landscapes • Rivers and Lakes • Pot Luck

These quizzes are ideal for children 7 years old and upwards. Compatible with iPhone, iPod touch and iPad.

See iTunes to get more details, buy and download these apps, price: £1.79.

Collins Quiz Zone World http://itunes.apple.com/gb/app/collins-quiz-zone-world/id3722708477?mt=8
Collins Quiz Zone Europe http://itunes.apple.com/gb/app/collins-quiz-zone-europe/id372274376?mt=8

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The 2010 Annual BCS Symposium was a great success with over 100 attendees and 15 of our Corporate Members taking advantage of the opportunity to have a free exhibition space. As always, our thanks must go to our Symposium sponsors this year: ESRI(UK), Ordnance Survey, Star-Apic, Victoria Litho, PV Publications and Global Mapping for their continued, valuable support.

Prior to the main event, the GIS SIG had an afternoon session during which there were presentations on OS VectorMap Local, UK Map, How to Produce High Quality Mapping from such Datasets and Applying Cartographic Design using GIS. There were 39 attendees at the session of which 22 were from the Corporate Members Group which emphasises how important the GIS SIG is becoming to the Corporate Membership.

Recently Lovell Johns have been in the news for their mapping of the London Elephant Parade and now they feature as the first Corporate Member In-Focus. The Editors of Maplines would like to invite Corporate Members to highlight your interesting and unusual projects for this new Corporate Page feature. This is another opportunity for us all to advertise the work we are doing at no cost other than the time spent writing the article, so please get in touch and show the rest of us what you’re involved in!

The Elephant Parade turns London into Urban Jungle

This Summer, Elephant Family, the only charity solely dedicated to ensuring the survival of the Asian elephant, teamed up with Britain’s leading art and design luminaries to launch London’s biggest ever public art event – The Elephant Parade.

In London’s streets for their first time in May, this innovative fundraising campaign saw the capital taken over by beautifully hand painted life-size baby elephants, creating a dazzling and unique urban savannah. Previous Elephant Parades have already been held in Holland and Belgium, raising more than £1,600,000 towards the cause.

The London parade featured 250 life-size baby elephants, all hand-painted by an assortment of established and emerging talent from the art and design world. Each elephant proudly bearing a creative or fun name such as Cubelephant, Ladybird, Tigerphant, Spotty or simply Frank, who was appropriately covered in postage stamps! Artists include Marc Quinn, Diane Von Furstenberg, Alice Temperley, Lulu Guinness, Julien Macdonald, Issa, John Rocha, Alberta Ferretti, Jonathan Yeo, Jack Vettriano, Nina Campbell and Nicky Haslam. Artists involved in the Parade were able to paint their elephants courtesy of eco friendly paint manufacturers and official Elephant Parade paint partner, Farrow and Ball, www.farrow-ball.com. A studio was set up in the Elephant & Castle Shopping Centre, courtesy of St. Modwen, where artists worked on their designs. Haulage Partner, Eco Movers, a specialist removals company committed to caring for the environment, have been delivering elephants to artists across London, on a completely sustainable and carbon neutral basis. Driven by eco-friendly ideals, Eco Movers invest in an eco charity and their own Eco forest to offset the few unavoidable carbon generating aspects of their operations. See www.ecomovers.co.uk.

The display was followed by an auction by Henry Wyndham of Sotheby’s at a glittering event in July. Attracting a host of VIP supporters including Elephant Family founder Mark Shand, patron Tanja Oezdij, Goldie Hawn, the Duchess of York and Joanna Lumley, this event was the party of the summer season. The whole parade raised over £4 million, benefiting more than 15 UK conservation charities working in Asia.

As the project began, Mayor of London Boris Johnson said, “Elephant Parade is a brilliantly innovative way of using public art to benefit conservation. Not only will the parade brighten London’s streets and enhance our public spaces, it will play a vital role in building a new generation of conservationists.”

Working with the Wildlife Trust of India, funds raised by the Elephant Parade will be used to buy and manage vital wildlife habitat across Asia, giving Asian elephants a safer and more sustainable future. Elephant Family will also invest funds in community education projects across Asia, highlighting the commercial, cultural and ecological significance of Asian elephants. In just 100 years the elephant population has shrunk by over 80%, dropping from 250,000 to an estimated 25,000, placing this valuable species dangerously close to extinction. If current trends continue the Asian elephant will cease to exist in the wild by 2050.

For more information and the chance to sign the online petition which aims to lobby the government to support the cause of the endangered Asian elephant, please visit: www.elephantfamily.org.
Notes from the Carto-Guru

Choosing the right colours

Good use of colour on maps can really aid the communication of mapped detail, and enhance legibility and contrast. Colour can make the important elements of the map stand out from background material.

Choosing colours depends on convention and context.

• Important features need to stand out from the background and colour choices can help (especially using more saturated colours, not garish colours).
• Where appropriate, use conventional colours (e.g. green for vegetation) and associative colours (e.g. blue for cool, red for warm).
• Colours look different depending on their backgrounds, so don’t choose them in isolation. You may have to experiment to find out what works best for your particular map.
• Good maps often use subtle, balanced colours, and bold colours usually look inappropriate. However, a flat range of colours can also look bland.

When it comes to using small symbols or coloured type, it’s worth taking into account the following:

• Small symbols and small letters need more intense colours to show up.
• The most legible colour combinations are black, dark brown or blue on white.
• The greatest contrast is between yellow and black.
• Background colour affects the legibility of coloured type.

Medals awarded

The National Geographic Society has awarded two Alexander Graham Bell Medals to Dr. Roger Tomlinson and Jack Dangermond for their extraordinary achievement in geographic research. The medals were presented by National Geographic Society Chairman Gilbert M. Grosvenor at the ESRI International User Conference.

National Geographic’s Bell Medal has only been awarded once before. Bradford and Barbara Washburn, renowned explorers, mountaineers and mapmakers, received it in 1980 for their contributions to geography and cartography.

Dr Roger Tomlinson

OS OpenData

Following the recent announcement by the former Prime Minister Gordon Brown, and the publication of the government’s response to the public consultation by the Department of Communities and Local Government (DCLG), The OS announced the launch of OS OpenData. The new online service allows users to view, develop, download and order selected Ordnance Survey mapping datasets with no restrictions on re-use.

OS OpenData releases Ordnance Survey data as part of the drive to increase innovation across businesses, government, communities and individuals. The service supports the Making Public Data Public initiative.

The following Ordnance Survey mapping datasets have been made available:

• OS Street View®
• Code-Point®Open
• Meridian™ 2
• Strategi®
• Boundary-Line™
• LandForm PANORAMA®
• 1:50 000 Scale Gazetteer
• 1:250 000 Scale Colour Raster
• Miniscale®
• OS Locatorm™
• OS VectorMap District

If you hold a contract in regards to any of these OS OpenData products, you will be receiving written confirmation of how this launch affects contracts.

OS OpenData will continue to harness the world-class expertise that Ordnance Survey has in the production, maintenance and application of high-quality geospatial information. We will continue to collect and maintain the most accurate mapping data of Great Britain.

The service also supports further innovative use of public data enabling developers the opportunity to connect and link datasets, for example data.gov.uk, with geo spatial data from Ordnance Survey.

Further Ordnance Survey mapping datasets will be made available and the OS will announce when these will be released.

Any questions regarding OS OpenData, should first be referred to the Frequently Asked Questions section of the OS web site, www.ordnancesurvey.co.uk. If you can’t find the answer you are looking for, contact our customer services team via email or telephone 0845 4081895 (lines are open Monday – Friday: 8.30am to 5.30pm).

James Brayshaw
Director
Roman Mapping and Surveying

That the Roman Army and Administration produced and used maps, not just itineraries, is now clearly understood. We know how they went about obtaining the information and can we in the 21st century establish the facts is the challenge.

The Roman Empire was a growing organism, ever expanding from its origins. The final flowering of the Empire was made possible by the invasion of most of Great Britain, Britannia.

Recorded on each of the Eboster, Hereford and Cornwall Mappae Mundi, is a fascinating glimpse into map making history. Before his demise in 44BCE, Julius Caesar issued instructions for a ‘World Survey’. This was no doubt the Roman World and its peripheral countries. The Eboster Mappa Mundi, three metres square, contains a poignant vignette of Julius Caesar issuing those instructions to the four surveyors, who were in all probability Greek specialists. The map is thus a history of the world in pictures for the illiterate masses to learn by. The four surveyors would have had teams of Roman Agrimensors or Geometres to assist them. But even so this survey took some 32 years to complete by 188BCE. The resulting map was displayed in Rome.

However, Britannia was not part of the Roman Empire until after the Claudian invasion of 44ECE. In c150BCE, Claudius Ptolemy, working in Alexandria, drew his map of Britannia including a large number of data regarding the new Civitates, Roman Legionary Forts and geographical features is obtained in a similar manner. By studying the location of the ordinary Roman forts built sequentially to a timescale, that of the Claudian invasion and particularly the final phase to subjugate what is now northern England, we can indicate the survey work required for the local geographical details to be appended to the map.

From Deva/Chester and Eboracum/York the next conquest took place. In the landscape there are precisely located forts, forming a straight alignment along a river valley and across moorland. From Newton Kyme to Ilkley, 23RM: from Ilkley to Eilsack, 13RM: from Eilsack to Bainsbridge, 27.53RM: from Eilsack to Overborough, 27.42RM: from Overborough to Ribechester, 27.54RM. This placement is across the Pennines from Yorkshire to Lancashire and could not have been so precisely established if prior geographical knowledge was not out to repetitive distances in sequential construction dating, the basic parameters for the construction of a map becomes available. Therefore we see an internal skeleton appearing for the map. That is the macro detail, the map skeleton, but the devil is in the micro detail.

The micro detail necessary to establish the accurate positions of rivers, mountains, valleys and other geographical features is obtained in a similar manner. By studying the location of the ordinary Roman forts built sequentially to a timescale, that of the Claudian invasion and particularly the final phase to subjugate what is now northern England, we can indicate the survey work required for the local geographical details to be appended to the map.

From Deva/Chester and Eboracum/York the next conquest took place. In the landscape there are precisely located forts, forming a straight alignment along a river valley and across moorland. From Newton Kyme to Ilkley, 23RM: from Ilkley to Eilsack, 13RM: from Eilsack to Bainsbridge, 27.53RM: from Eilsack to Overborough, 27.42RM: from Overborough to Ribechester, 27.54RM. This placement is across the Pennines from Yorkshire to Lancashire and could not have been so precisely established if prior geographical knowledge was not available. Thus it is fair to assume, as history tends to confirm, that a rather good preparatory survey and incursion took place prior to the final two Legion march northwards.

Proceeding north towards Lugulavium/Carlisle, we can establish the next survey, another tour de force. From North Yorkshire the Roman Road, now the A66, is to BROUGH, near the head of the River Eden. From Brough Fort a 45 degree or 1:1 ratio alignment has been set out to WREAF Fort, based upon the side length of a triangle formed with 24 Roman miles. This is part of the basic surveying system of the Agrimensors or Geometres. The Roman Land division system is based upon a square, the Act Quadrat of 120 x 120 Pedes (feet). The simplest pseudo Pythagorean triangle to use for such measures is 12:12:17, i.e. 2 x 12 x12 = 288 and 17 x 17 = 289. Thus the Brough to Wreay line is 34 RM.

The actual alignment is meant to locate Lugulavium/Carlisle, 39RM from Brough. A simple extension of the hypotenuse line, the survey line achieves that. The proof of this hypothesis is so very simple. The route from Brough to Carlisle is marked by four forts, namely, Kirkby Thore, Brougham, Old Penrith/Voreda and Wreay. From Brough to Kirkby Thore on the survey line or design alignment at 45 degrees it is 13 Roman Miles, i.e. one third of 39RM. From Kirkby Thore to Voreda is 13.3 RM and from Voreda to Carlisle it is 13RM. Brougham situated between Kirkby Thore and Voreda is precisely set at the mid point of the alignment, at 19.5 RM. In final confirmation of this survey, perpendicular to the line at Voreda is the fort at Troutbeck, distance 13 Roman Miles.

Then, from Carlisle westerly around the Cumbrian coast-line and into the hinterland, The Lakes, we find the same repetitive distances to forts established sequentially in the period following the Claudian invasion. The detailed position of these forts, if plotted on plain parchment, provides for the skeleton framework onto which the coastline and geographical detail can be appended. History tells us that the Roman Navy followed the Legions up the coast from the Severn Estuary and Glevum/ Gloucester to Chester and then to Carlisle. It takes little imagination to see that this combination would give more than adequate information to the Roman map maker, be he Greek or Roman, and indicates the transference of that data could take place in both written and map form to both Rome and Alexandria.

Marinus the Tyrian and Claudius Ptolemy worked in Alexandria from c100CE to c170CE, and within the text of Ptolemy’s ‘Geographia’ he acknowledges that he is using the work of Marinus the Tyrian. In fact in Book One, Chapter XV entitled, ‘Concerning discrepancies in some of the explanations of Marinus’, there is one rather telling sentence. I quote, ‘From London in Britannia he puts to Noviomagus (Chichester), 59 (Roman) Miles south, in a some what westerly direction.’

A study of the Roman survey works reveals the real picture. From London Bridge to certain point on the North Sea coast, the design line for the road, Stane Street, is a precise 3:5 tangent ratio to north and as such it is parallel to the Foss Way alignment. And yes, Marinus has the correct distance. The data for the Roman map construction is set in the landscape.

The World survey commissioned by Julius Caesar and the World map which was completed before the beginning of our current era is the only tangible evidence of a proper Roman map. It is possible that a Roman map of Britannia was extant until the sacking of the monasteries took place. It was probably used as a guide for such maps as the enigmatic ‘Gough Map’ and the basis for early geographers work in England. The Romans by their careful placement of forts and the road alignments have bequeathed to us a valuable survey asset which has hitherto been ignored in the cartographical and historical literature.

That a survey of Britannia took place is evidenced by the data which is recorded in the text of Claudius Ptolemy’s ‘Geographia’ and that self same data must have enabled him to ‘tum’ Scotland and maintain the Geography.

Michael Ferrar

This essay is based on articles from www.cartographyunchained.com
The diagrams are all by the author.
BCS Administration Report

New Members: The Society has pleasure in welcoming the following new members who have joined the Society since publication of the Spring 2010 edition of Maplines.

Corporate Member: Environment Systems Ltd

UK Members:
- Mr T. Barnett, Mr D. Bennett, Miss C. Dobbin, Mr C.J. Going, Mr C. Gornn, Mr D. Gorse
- Mr G. Gurney, Dr M. Hakiay, Mr A James, Mrs M. Kanjiilat, Mr P.L. Kohler, Miss N. MacInish, Mr J. Pepper, Mr S. Stephens, Mr J. Wood.

Overseas Member: Miss S. Bleisch (Switzerland)

UK Associate Members:
- Mr C. Bulletl, Ms A.M. Clare, Miss L.J. Francis, Mr H. Grothuis, Mr J. Merrills, Mr P. Sugden

Administrators Plea
Again my regular plea – email addresses. Prior to the BCS Symposium I had sent out quite a lot of emails to members informing them of the event etc – unfortunately a number of them were bounced back as ‘address not found’ so if you have changed or are about to change your email address please let your Administrator know at admin@cartography.org.uk with a few kind words.

And finally...
It has been a busy time since my last report with chasing up membership renewals and preparing for the Annual Symposium. I attended my first BCS Symposium in June at Nottingham, having to travel the enormous distance of some 10 miles (no I did not use my SatNav). I really enjoyed my time there, the organisation was excellent the accommodation and food very good but, best of all was meeting members and putting faces to some of those people I had been in contact with over the previous 8 months. The hardest part of the Symposium was keeping my mentor Ken Altherston from accidentally finding out that he was about to be made an Honorary Fellow of the Society not only for his outstanding work as Administrator but also for the hard work he had done in the 25+ years he has spent as a member of Council. I had to hide his framed certificate in the boot of my car until the actual awards ceremony itself as we were both involved in the presentation side of it – the look on his face when the citation was read out and he realised that it was him is something that I shall never forget. Ken, there is a new manipulator on the block.

As I come to the end of this report the sun is shining, the BBQ is set to be lit, the beer is cooling in the fridge and rumour has it that there could be some football on the TV for a change! My regards to you all.

Roger Hore
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Tel/Fax +44 (0)115 9329684
Email: admin@cartography.org.uk

BCS Council
The BCS Council elections this year will be rather unique in that members will be asked to cast their votes for a new President, Vice-President and members of Council and I am not sure if this is a first. In the Spring edition of Maplines I asked that nomination forms be returned to BCS Administration by 1 July 2010 – this was an error and should have read 1 August 2010. My apologies.

...continued from page 8 cartographic products offered by the delegates. Those that stayed on Friday evening had the opportunity to catch the opening games of the World Cup, with the piercing of the cacophony, and wind down to the sounds of Abba, with a tribute band playing in the hotel.

On Saturday, the hardy few who had braved all four days, visited the British Geographical Society, Keyworth where we were treated to a fascinating two hours. From the visually stunning artworks of some of the original hand coloured maps to the technically awe-inspiring 3D visualisation of the whole of Great Britain it was a fascinating morning.

So to the end of another very successful Symposium with some very positive feedback from delegates. We would like to take this opportunity to thank our sponsors, ESRI UK, Ordnance Survey, Star-Apic, Victoria Litho, PV Publications and Global Mapping, without whose generous support we would not be able to offer all the additional activities at the Symposium.

We would also like to thank all those who presented and also to make a call to others to consider presenting their work next year.

Until then, so long.

Chair, Programme Committee

Peter Jones

Calendar

30 April – 19 September 2010
Magnificent Maps: Power, Propaganda and Art
British Library, London, UK
For further info visit www.bl.uk/magnificentmaps

1 – 3 September 2010
Governance and the Geoweb
Royal Geographical Society Annual International Conference, London
For further info and bookings see www.rgs.ac/AC2010

8 – 10 September 2010
Beyond the Next Line: BCS Map Curators’ Group Workshop 2010
Workshop covering topics such as marginalia, metadata, production methods and helping users access maps via new technologies.
Cambridge University, Cambridge, UK
For further info contact Anne Taylor, annet2@cam.ac.uk

Become a Fellow of the British Cartographic Society, Contact BCS Administration for further information

Until 17 October 2010
Mapping Portsmouth’s Tudor Past
Mary Rose Museum, Portsmouth Historic Dockyard
Admission times:
April-October 10am – 4.30pm;
November-March 10am – 4.00pm;
Mary Rose Museum is open all the year round except for Christmas eve, Christmas day and Boxing day.

BCS website: www.cartography.org.uk

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Visit the BCS website at www.cartography.org.uk
Quiz

SPOT THE DIFFERENCE
sponsored by Lovell Johns

There are 10 differences between these two otherwise identical pictures. There are three ‘Huge World Wall Maps’ produced by Lovell Jones to be won. So, don’t hold back, get looking and send us your entries.

Postal entries must be sent before 22 October 2010 to:
BCS Administration, 15 The Crescent, Stanley Common, Ilkeston, Derbyshire, DE7 6GL, England, UK

Entries by email must be sent to: lynda.bailey2@virgin.net

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