



## Introduction to the Journal of Maps Student Edition

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(Received 11<sup>th</sup> March 2007; Accepted 11<sup>th</sup> March 2007)

**Abstract:** This editorial introduces material for the launch edition of the Journal of Maps Student Edition. The Journal of Maps seeks to create greater exposure, and provide publishing opportunities, for researchers that have produced map content that would otherwise remain unpublished. To this end the journal is open access and, due to the all-encompassing inter-disciplinary nature of “maps”, publishes on a wide-range of topics. The Student Edition is targeted at supporting students in furthering their research careers. The quantity and quality of journal citations is one of the primary measures of academic success, yet few research programmes actively teach their students about academic publishing. With maps often one of the first outputs of research, the Student Edition can leverage its’ unique position across disciplines to offer a “first publishing opportunity”, thereby providing students with an environment through which they can learn from their experiences. All peer-reviews are completed internally with a focus upon positive outcomes and actionable points that can significantly improve the quality of the submission. The material presented in this issue all resulted from the British Geomorphological Research Group’s Postgraduate Spring Symposium in March 2006 hosted at the University of Ulster.



## 1. Introduction

The Journal of Maps (JoM) was established to address deficiencies in the publication of maps, specifically, the ability for (research) authors to publish in colour, at any size, without excessive page charges. JoM has also mandated open-access for all its' content, with publication funded through a nominal submission fee. In order to maximise distribution and minimise cost, the journal is published electronically through its' website.

With this issue, JoM launches a Student Edition of the journal aimed at student research and offering students the ability to publish research work at an early stage in their career. This constitutes an excellent opportunity in understanding, and learning from, the publishing process, as well as making high quality material that may otherwise remain unpublished, available to the wider scientific community. This editorial describes the key underpinnings to the establishment of the Student Edition, presents details of the operation of the Student Edition and introduces the papers in the first issue.

## 2. Foundations of the Student Edition

The following section outlines the rationale for the Student Edition and is based upon an email correspondence during February 2007 between Mike Smith (Kingston University and Editor of the Journal of Maps), Randall Orndorff (United States Geological Survey and Acting Program Coordinator for the EDMAP Program) and Dick Berg (Principal Geologist, Illinois State Geological Survey). This email exchange is presented as a metalogue ([Tobin and Roth, 2002](#)) and is a transcription of the correspondence presented as a "conversation". The metalogue details the discussions that have formulated the specific production ideals of the Student Edition. Dick Berg and Randall Orndorff are members of the editorial board at JoM and have been involved in the promotion of the journal's activities. This original email exchange was intended to discuss the potential involvement of the EDMAP ([EDMAP, 2007](#)) program in encouraging young researchers to publish at an early stage in their career. EDMAP provides funding for geological field mapping to universities in the United States, with maps often forming the primary project outputs.

Speakers are identified at the beginning of each section (MS: Mike Smith, DB: Dick Berg and RO: Randall Orndorff), with italicised text in curly braces indicating subsequent editing.

**MS:** Dick Berg and I have been preparing the first Student Edition of JoM and have been trialling a few ideas. EDMAP clearly sprang to mind as an interested party and I wondered if you think it might be of interest. The Natural Environment Research Council in the UK has indicated they will publicise the student edition as part of the PhD training process, with the intention of demonstrating the peer review process and, where appropriate, progressing good material onto full publication. Would this interest the USGS?

**RO:** You really hit a cord with me and our Program on this one. The main focus of EDMAP is to train the next generation of geologic mappers and financially support fieldwork. We have greatly encouraged State geological surveys and USGS projects that support EDMAP training to publish these maps if they meet their standards. However, most maps do not see the light of day in the published world. I feel strongly that our students should understand the peer review and publication process. Our program is designing a website where EDMAP principal investigators can place their geologic maps as deliverables (with disclaimers since they will not be “published”), but these will not be peer reviewed. Basically, if I find that all of the pieces are there and the mapping looks complete, it will go to the website. I look at this as a fall back to get the mapping out there. As I have visited universities, I have informed them about JoM as an option for publishing their maps, but I do not know that any have come your way. The National Cooperative Geologic Mapping Program {(NCGMP, 2007)} would be interested in supporting your endeavour on a student issue. Just let me know what you would need. We can put a call out to recent EDMAP awardees to see if they would like to contribute, and of course I will be happy to review maps.

**MS:** Thanks for the positive response and that you share much of my frustration. Dick and I have been “feeling our way” a little with this student edition to try to get the balance right. In particular a learning experience (so constructive comments), in most instances a publication (the supervisor must approve the submission), not too onerous a work load for JoM and flagging those of real excellence that can go for full peer review with the intention that they are published.

Clearly having the website that will make material available is far better than having none available, however as you note the true value-added and learning experience comes from peer-review and dissemination.

So JoM would be very pleased to work with the National Cooperative Geologic Mapping Program further. In terms of the current issue we are working on, I set a deadline for the students that was practical given their work programme. They were reviewed internally by JoM, initially with a “light touch” which is what we are aiming for, but subsequently I decided to give slightly fuller reviews because this is where the students can really learn. I think we achieved this. The normal turn around time of 3 months applies and then they are typeset and published as PDFs. There is a separate “Student Edition” menu on the website that will handle all these publications.

**DB:** The exchange between you two has been energizing and I applaud efforts to improve mapping outlets for students. About 2 years ago, one of Illinois’ EDMAP participants asked us (ISGS) if we could “publish” EDMAPs from the State. He said that it would be great for the students, as well as their sponsoring professors, to get at least some credit for their efforts. In response to that, we created an EDMAP series and have offered an online map that can be downloaded and referenced ([ISGS, 2007](#)).

The hardest part of this has been getting the professors to “let go” of their maps. We have even offered to scan them (if they weren’t digital), and do whatever it takes to make them available. Even as part of an EDMAP series, these maps are still viewed as pretty “gray literature”. However, it is better than nothing and it certainly gives the student some experience and something to aim for. We realize that student maps often are not as high quality as those done professionally, for obvious reasons. However, in some areas, these EDMAP maps are the ONLY maps available, and they are in demand by users. Therefore, we have an obligation to make them available.

Anything that you can think to encourage EDMAP or other programs to be more active in making their products available, the better. One thing that might help would be to encourage more rigorous reviews and make these student maps more like “real” publications. I think if that happened, it would encourage more professors to participate. These are just a few thoughts.

**RO:** You are right on, Dick. Most EDMAP maps are gray literature, but

like you say, they may be the only map available for a particular area. We really appreciate ISGS having set up a system to distribute the maps and NCGMP is encouraging other states to do the same. I believe that the more outlets the better and each would serve its own purpose. On the low end is the upcoming USGS website of EDMAP deliverables...basically only roughly reviewed. On the high end are peer reviewed and highly edited state and USGS maps at organization standards. The JoM SE issue offers something like the latter with even international exposure. What we can do is encourage the PIs and students to the best of our ability. The road to publication is an important step for the students to prepare them.

**MS:** My idea for JoM came out of many of the issues that have been batted backwards and forwards and it is refreshing to know that (many) others support the general aims of furthering science and distributing their work as general principles.

As an example I mentioned in one of my editorials, maps accompanying geological journal articles of the late 1800s very much survive today, yet work (much of it digital) from the 1980s onwards will be (has already been) lost. Some is under excessive copyright restrictions and some, as you say, is grey.

Its worth noting that things are starting to swing the other way now with digital preservation programs such as NDIIPP *{(NDIIPP, 2007)}* and requirements in the UK for deposition of all outputs from funded research. Does EDMAP require the deposition of products at all? It seems some funding agencies are moving in this direction. PIs do also need encouragement, and peer review is the next stage in the process as it enhances the authors' careers. Its important that JoM is open access; we mirror all our content to the UK Mirror Service *{(UK Mirror Service, 2007)}* and are hoping to be an early adopter of the British Library's new mandate for digital materials. My intention is that the preservation of materials in JoM should be very long lived (which is also the reason for PDF distribution).

One of my ideas at the moment is the preservation/deposition of data. NDIIPP (amongst others) takes deposition seriously, however the real power of the journals of the late 1800s was the immediacy of the data itself (maps, tables, figures) which accompanied the article. They were published together and remain together. At JoM we have published original data with some of the articles (embedded within the PDF) and I am keen to extend

this further where possible. I've given a lot of thought to file formats and simplicity to enable preservation, however nothing is perfect. Not least because we will never be able to offer huge datasets in this manner. It is a start though! EDMAP faces many (if not all) of these problems, yet the tightly focussed group form an excellent opportunity to encourage further preservation.

### **3. Student Edition Operation**

Our hope is that the metalogue presented here provides some background to our inspiration for the foundation of the Student Edition and hopes for its' future development. In essence our intention is that, in the same way you learn any skill by practice, so with writing papers, the best way to learn is through practice. Many students are unaware of the entire publication process and "practice" at this early stage in their career is important. As JoM accepts (spatial) material from all disciplines and, as students are usually able to present "data" early in their research careers, the Student Edition affords an opportunity for them to not only "learn" about the publication process, but also be able to (potentially) list a publication. Many academics find it hard to receive criticism for papers submitted to full journals (and it can often be inconsistent, unfair or derogatory!!), so it is particularly hard for students. Whilst students usually receive training in writing a PhD dissertation, there appears to be little formal support for writing papers. This is a strange situation in a profession where citable research outputs form the primary measure of accomplishment.

For the Student Edition all papers are anonymously reviewed by two internal editors, with comments sent out to the students for actioning. The intention is to focus upon positive aspects and suggest a reasonable number of actionable items to raise the standard of the paper to a satisfactory level. This process also enables JoM to flag any papers that are particularly good and that could potentially be published in the full journal. Submission requirements are the same as for the full edition of the Journal of Maps, with students additionally requiring a signed letter of recommendation from their supervisor/project PI.

## 4. Special Issue Content

The annual British Geomorphological Research Group's (BGRG) Postgraduate Spring Symposium was hosted by the University of Ulster over two days in March 2006. The meeting brought together students from both Britain and Ireland, as well as farther a field - Siberia, Finland, Romania, Hungary, Portugal, France and Spain. With only their student peers in attendance, the participants presented research in a relaxed and informal atmosphere. Discussion generated by the presentations, and a number of social events, contributed greatly to the exchange of ideas and experiences at an early stage in research careers.

A wide variety of topics were covered, including talks on riparian vegetation dynamics, barrier island evolution, the impact of climate change on catchment hydrology and the use of cosmogenic isotopes to estimate bedrock erosion rates. As with many geomorphological investigations mapping proved to be a central tool in much of the research. A special issue of the Journal of Maps is therefore a particularly suitable output for the symposium. This special issue contains five papers submitted after the meeting and illustrates the range of topics covered.

[Backstrom \(2007\)](#) utilised single-beam echo-sounding surveys to map the shoreface morphodynamic behaviour of Portstewart Strand, Northern Ireland. The study demonstrates a relatively fast and easy method to determine coastal areas that might be susceptible to sea-level rise, storm events or anthropogenic pressures. Coastal dynamics on the high-energy northern Irish coast is also the subject of the paper presented by [Pintado \(2007\)](#). In this study the spatial distribution of radial stresses exerted on West Strand Portrush by wave energy was investigated. A wave propagation model was used to compare storm and modal wave conditions.

[Blackett \(2007\)](#) deals with a high-energy environment of a different nature - Mount Etna. A mapping procedure was applied to ASTER thermal and short-wave infrared satellite images of the volcano. This produced surface imagery showing the radiance emitted from the summit craters of the volcano, allowing individual craters to be discerned and thereby providing information on the activity of each crater. Satellite images are also a central part of the work presented by [Burberry et al. \(2007\)](#). In addition to the satellite images, digital elevation models, contour maps and artificially generated stream networks were utilised to differentiate and map fold types

in the Zagros Simply Folded Belt, Iran. The location of one of these fold types (fault-bend folds) is a crucial indicator of the presence of major thrust faults, highlighting the value of this remote-sensing technique.

A multidisciplinary study is presented by [Nyári et al. \(2007\)](#) Geomorphological mapping, archaeological evidence and sedimentological dating techniques were utilised to assess aeolian sediment activity during historical times. The spatial distribution of the findings enabled the reconstruction of the type, intensity and the results of human impact on the palaeo-environment.

The symposium organising committee would like to thank the BGRG (now the British Society for Geomorphology) and the School for Environmental Sciences (University of Ulster) for funding this meeting. We thank everyone who attended the meeting, particularly those who have contributed to this special issue, and are indebted to the anonymous referees who provided feedback for the papers presented here.

## 5. Conclusions

The publication of research outputs has become a significant part of academic research, such that individuals are assessed, at least in part, upon the quantity and quality of these outputs. It is therefore important that research students understand the process involved in journal publication, journal styles, article submission, the peer-review system and re-submission of corrections. Whilst “good research” remains a pre-requisite for achieving publication, following individual journal guidelines and meeting the expectations of both reviewers and editors are important aspects of the publishing process. And as with many “skills”, the writing and submission of journal articles can be improved through practise.

The Journal of Maps Student Edition supports the training of contemporary research students through journal publication. JoM is uniquely able to provide a publishing environment early in a student’s career and, as students often collect “data” at the beginning of their research programme, provides an opportunity for them to experience a complete publishing cycle. This not only allows them to “learn” the publication process, but also provides a tangible research output. The

Student Edition is therefore not intended to be as rigorous as the Journal of Maps and this is the reason that papers are reviewed internally. However it also allows a rapid turn around time and our experiences with the production of this first issue is that there is significant improvement in the papers. Ultimately this is the goal we are seeking to achieve; namely the production of a quality journal article suitable for publication in which the student has actively participated and learnt through the experience.

This issue therefore presents the fruits of these first labours, with a diverse range of topics authored by students (either solely or with co-authors) from several different nations. This last point is important because “English” journals are generally held in high regard and it is essential that research from many countries is made available to an international audience.

## Acknowledgements

We would like to thank Randall Orndorff and Dick Berg for agreeing to the reproduction of email correspondences concerning the early development of the Student Edition.

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