



# eNetwork

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The Journal of The Australian Institute of Medical & Biological Illustration  
Co-edited by Julie Murray and Madeleine Kersting

March 2011

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# President's Message



Welcome to the new improved eNetwork edited by Julie Murray & Mimi Kersting.

The "Recent Advances in Medical Photography" Sydney 2010 AIMBI conference was a great success. This conference provided participants with an opportunity to exchange ideas, experiences, techniques and solutions with other Medical Illustrators and Clinical Practitioners. The program offered high-quality presentations by specialists from all around Australia covering a wide range of medical, photographic and digital topics. I would like to extend my congratulations to the conference committee; John Yates, Paul de Sensi, Philip Williams and Caren Pogson, who did an exceptional job.

In the next 6 months we will anticipate to see the completion of two important projects that have been running for some time; our pending Incorporation and the development of the new improved AIMBI website.

I hope your local group meetings have been going well and would like to encourage members to contact your National Council representatives with any ideas for future meetings.

I look forward to seeing you in QLD at the AIMBI biennial conference "Evolving Bioscience Imaging", August 2011!

I hope you all had a safe and festive Christmas & New Year break, and wish you all a healthy successful year ahead.

Amanda Rebbechi BA, BApp Sci, AAIMBI, RBI, MIMI, RMIP  
**AIMBI National President**

## Masterpieces in metal: the anatomical jewellery of Beth Croce (NSW)



As a biological and medical illustrator, I've been creating medical illustration and animations for publication and presentation from my Melbourne studio for more than 15 years. About 10 years ago, I brought to life an idea that had been percolating in the back of my mind for some time... there are aspects of human anatomy so beautiful they really should be represented in fine jewelry. I set to work learning methods of sculpting in wax using the traditional technique of fine instruments heated on an alcohol burner, casting in precious metals, soldering and smithing.

Soon I'd created the first of the Bioperspective jewelry line - the Anatomical Heart Locket that opens revealing stylized atria and ventricles. More than a dozen designs have followed, from cranium cufflinks to a pendant based on the Circle of Willis arteries.



Many of my pieces were initially commissioned works, like the Tympanic Membrane cufflinks created for a doctor at Boston's Massachusetts Eye and Ear Infirmary. I researched the subject as I would for an illustration using photographs, drawings and written descriptions as reference. I then applied some artistic license to come up with a design that was reasonably accurate, mechanically practical and above all, beautiful.

After the Brain cufflinks, the most popular design is probably the Uterus Pendant with Pearl Ovaries. The idea to make this piece first came to me while looking at the zodiac symbol for Aries the Ram. As a medical artist, of course I saw a uterus with fallopian tubes! But above all, I saw an aesthetically pleasing shape. My goal for all the anatomical pieces is that they are quality jewellery in their own right, apart from being eye-catching conversation starters.

This year I've had the good fortune to be a studio artist-in-residence at the St Vincent's Hospital (Melbourne) and have been taking the anatomical jewellery to a new level. I'm using the goldsmithing techniques to make lockets, pendants and other items that include watch movements, semiprecious stones and other inclusions to reinterpret subjects of actual medical illustration assignments I've had over the years. More information on the anatomical jewellery and my blog can be found at [www.bioperspective.com](http://www.bioperspective.com).

# New Imaging system at University of Adelaide: a report by Geoff Thomson (QLD)

Atlas of Living Australia (AofALA) is a Federal Government project in partnership with museums and herbaria throughout Australia to improve access to biological data. They have developed infrastructure to get the data onto the web (<http://www.ala.org.au>), are also prepared to provide funds for partner institutions to purchase equipment that makes the creation and dissemination of data and images more efficient.

Supported AofALAI flew to Adelaide University to assess the Visionary Digital system in John Jennings' lab at Adelaide University, during its installation and training phase. I had met Roy Larimer, the inventor and supplier of the system, on my Queensland-Smithsonian Fellowship in 2005 and once again in 2008, when he installed a system for Gerry Cassis at University of New South Wales (UNSW).

In 2009 I was also able to use the UNSW system to take a number of photographs while working for Gerry for three months.

Since I first used one of Roy's systems at the Smithsonian's National Museum of Natural History I have admired them. I consider the systems the best and fastest for producing high-depth-of-field images of insects and other small specimens. Each system Roy builds is different to the last and this latest version is a fabulous machine.

The system uses fibre-optic flash for smaller specimens and reflected flash from studio flash heads for larger ones. The core of the system is a patented, motorised lift, which carries a Canon EOS 7D with an inline microscope attached or a Canon EOS 5D with a Canon macro lens. Both these camera setups have a quick-release back plate for easy interchange. The inline microscope has a number of lenses available for different magnifications, down to metallurgical microscope objectives. The flash power pack delivers flash through four fibre-optic tubes. Each is supported by an adjustable goose-neck stand mounted on a magnetic base. A small lever on each base raises a magnet far enough from the steel base plate to allow it to be easily repositioned. A similar lever on the goose-neck support de-tensions a central cable so it can be moved in space and then locked in position. Each fibre-optic tube has an iris diaphragm on the end to allow adjustment of light and Roy has developed various clever gizmos to give even, adjustable background light. He has also calibrated every lens, including the Canon zoom lenses, for scale and focus overlap.



The system utilises shareware montage software, Helicon Focus and Zerene Stacker to take the sharply focused elements out of a series of photographs and combine them into one sharp image. As the lift moves the camera to change focus, rather than utilise the auto-focus control of the lens, there are no problems with change of scale and the calculated scale lines are accurate.

Each system has a computer built from scratch with the latest components selected for the fastest possible image processing, often using technology developed for gaming machines. The latest computer opens in 14 seconds using Windows 7 and opens Photoshop CS5 in a second. It can also process an 18 megapixel image in Helicon Focus in less than a second.

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The lenses are calibrated for the minimum number of exposures needed to achieve focus overlap, fewer photographs are taken than with a manual system. This indicates that the system can take and process a montage image in less than two minutes, a task that would take my current system about 30 minutes, with a smaller and optically poorer final result.

The combination of incredibly-flexible lighting adjustment; flash through fibre optics and studio systems; high-quality in-line optics with a great range of magnifications; replaceable standard cameras; automated shooting and fast montage make this system a joy to use.

In the USA the system is utilised by various clients from museums to the FBI. Currently, I know of three in Australia and I hope we see more installed in this country.



## Coming Soon! AIMBI New Look Web Site: report by Peter Merry (QLD)

AIMBI "Website Coordinator" Peter Merry has been researching and developing a demonstration for our coming new look Content Management Software (CMS) website that we intend to launch in 2011. We are entering an exciting new stage in our organisation's online presence and it will give a platform that members can interact and participate, so providing added value to being an AIMBI member.

Peter after lots of research and live testing recommends that we replace the existing tired 10 year old look HTML site with an Open Source platform called Joomla which offer all the functions and more that we have been seeking for the last 4-5 years. The advantage of CMS is that members (registered users) can be contributing to the content changes and updates right from within their web browser and any computer with internet access.

Joomla is very modular and there hundreds of free components or plugins that add great features to the website for example a multi topic "Discussion Forum". Also the visual style is easily and quickly change by using templates which you can apply stock templates or we will design our own. It has been proposed that National Council may run a competition for members to come up with a design mock-up that we can develop with our look and feel template.

We have a live trial site which NC are reviewing and in the near future we will advise you of the link so you can test it out and feedback to us improvements, additional features/functions and corrections.

Note: We will not be promoting this site's existence outside initially of AIMBI National Council and then the AIMBI membership as it is really a work in progress and not the official site so not meant for promotion to the general public or for wide spread viewing.

Peter Merry  
AIMBI Website Coordinator

The screenshot shows a Joomla! CMS website for AIMBI. The header is blue with a camera icon and the text "New Look Demo AIMBI Site". The main content area has a central article titled "Demo of the Coming AIMBI New Look Web Site" dated Tuesday, 26 October 2010 09:28. The article text describes the transition to Joomla! CMS and includes a "Login Form" section with fields for username and password. The left sidebar has a "Main Menu" with links like Home, About AIMBI, and a "Resources" section with links to Joomla! Overview, Home, Forums, etc. The right sidebar shows "Who's Online" (2 guests), "AIMBI Archive", and "Polls". The footer features the AIMBI logo and the text "The Australian Institute of Medical and Biological Illustration".



## Book Review by John Baird (NSW)

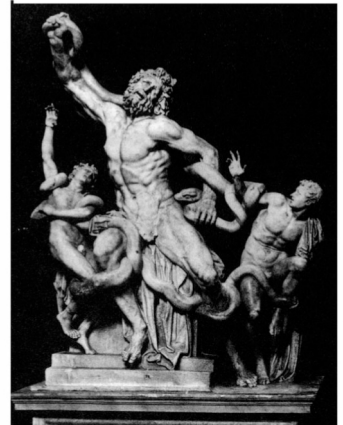
### Mirrors of Memory: Freud, Photography and the History of Art by Mary Bergstein

Nothing can be more revealing of a person's intellectual life than what he/she reads. *Mirrors of Memory* is a scholarly review not merely of the books in Freud's library but has a specific focus on the photographic illustrations therein. Photographs were so frequently perceived as mirrors of memory around the turn of the 20th century, and they have a special relevance to the imaginative vision of Freud.

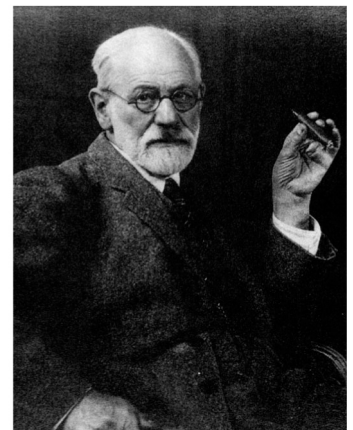
Bergstein argues that for Freud, "photography's influence was "involuntary, even unconscious" and analogised modes of seeing, (photographs) as objects to be analysed, also as phantasm, as evocations of dream spectatorship and memory". Reproducible images, like memories and dreams are eminently portable, mutable and bound up with desire. Goethe stated in 1789 that all the dreams of his youth came to life when he finally went to Rome and saw in reality what he had seen for so long in the engravings in his childhood home: everything was just as he had imagined it, yet everything was different.

As light impressions, photographs seem to mimic at least in a metaphoric sense the mental phenomena of memories and dreams. The constructing language of photography was more of less invisible (compared to paintings for example) and photographs were considered as powerful documents of factual truth\*, their expressive content could operate in the minds of beholders without conscious critique.

Laocoon, (attributed by Pliny the Elder to the Rhodian sculptors Agesander, Athenodoros and Polydorus), much admired, and debated as to its veracity by none other than Duchenne. Duchenne, from his much photographed research, regarded by many as the author of the first series of Medical Photographs published to support research, felt that the muscle definition shown in (Laocoon) was but a illustrative "composite" illustrating the pain of Laocoon. Bergstein observes that "Freud required a strong glass of red wine to revive his strength after his first encounter of the Laocoon-first encounters with great works-like Freuds with the Laocoon in Rome were invested with a kind of rare, numinous energy in their telling, the many hours spent pondering photographs were equally vital in the process of visualization. The thrill of Déjà vu, after all, can provoke feelings as strong as those of its uncanny opposite, derealisation.



*Laocoon*



*Sigmund Freud*

## Submit for the May 2011 issue of eNetwork

eNetwork would like to hear from you! What makes us interesting is our members. We need to hear what you've been doing - whether it's a conference review, a new piece of equipment you've acquired, or a new addition to your family.

You can send submissions to Julie Murray at [juliemurray@medicigraphics.com](mailto:juliemurray@medicigraphics.com).

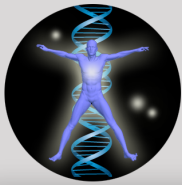
Please send all material by April 31st, 2011.

We look forward to producing the next issue of eNetwork, filled with your interesting articles and reviews. Let's make 2011 our year to really showcase what we've got!

Mimi Kersting and Julie Murray  
Co-editors, eNetwork

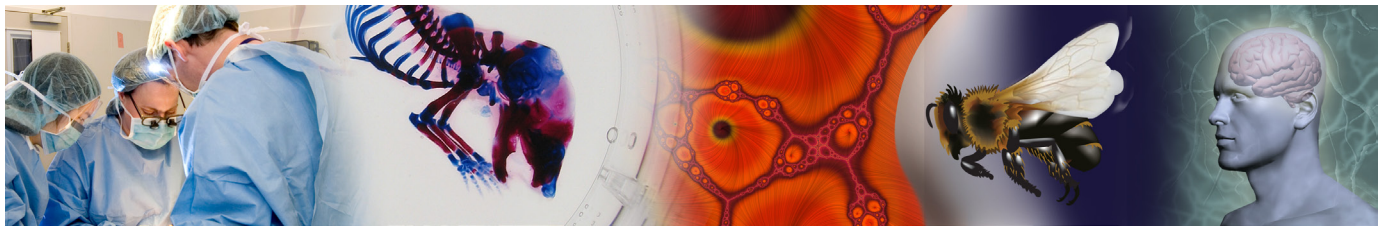
Coming soon: the 2011 AIMBI Website Graphics Competition.  
Watch your email for the official announcement!





# Evolving Bioscience Imaging

Biennial AIMBI Conference 2011 Coolangatta, Australia



The Australian Institute of Medical and Biological Illustration presents the

## Evolving Bioscience Imaging Conference

August 18-21, 2011

**Skill building and professional networking**

This conference will bring together photographers, illustrators, videographers, 3D artists and web designers who work in the biomedical arena.

The focus will be not only on the traditional tools of our trade, but also on innovative new approaches to visualising science and medicine.

There will also be sessions on work flows that deliver more efficient and secure services to our clients.

The conference will bring together AIMBI members from all over Australia, with international speakers presenting in an exciting forum the exchange of ideas and expertise.

The venue for the meeting is the Greenmount Beach Researot, Coolangatta, Gold Coast. Greenmount Resort is right on the beautiful, safe Coolangatta Beach.

Interstate and international travellers will be delighted to discover that the Coolangatta Airport offers very affordable airfares from all major Australian cities and many international airports.

Join us for invigorating lectures, great networking environment and some fun in the sun!

**[www.AIMBI2011.net](http://www.AIMBI2011.net)**

### Registration

Delegate registration includes

Welcome drinks and snacks

Morning tea, lunch afternoon tea, dinner on Friday

Morning tea, lunch, and conference dinner on Saturday

Morning tea and lunch on Sunday

Entrance to all lecture sessions  
Entrance to the image competition

### Call for papers

Presenting at the AIMBI conference may help you with funding.

Please view the Call for Papers submission form at [www.aimbi2011.net](http://www.aimbi2011.net)

We are also accepting submissions for computer workshops.

You can find more information at: [www.aimbi.2011.net/computerworkshops.html](http://www.aimbi.2011.net/computerworkshops.html)

Evolving Bioscience Imaging

AIMBI Conference 2011 Coolangatta, Australia

August 18 -21, 2011



## 2010-11 AIMBI National Council Committee

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