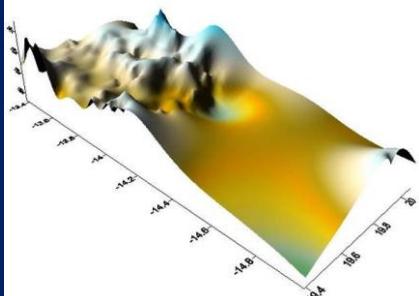


**CORNWALL COLLEGE**  
**SCHOLARSHIP REPORT**  
**2010 - 2011**



*Cornwall College has an excellent record for supporting staff in Higher Education studies and also in their research activities. This ethos is vital for enabling staff to achieve their potential and contribute to the provision of excellent teaching and scholarly activities at Cornwall College.*

*High quality research and high quality teaching are mutually sustaining, ultimately we depend on skilled employees at all levels for our continual growth and innovation.*

*The research and scholarly activities detailed in this publication demonstrate the wide variety and high quality of the work currently undertaken by Cornwall College staff.*

*Much of the research detailed in this publication also incorporates student participation. This engagement with staff provides students with a valuable contribution to their educational experience.*

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## **Animals and Land Use**

Over the last 10 years Duchy College has developed a reputation for providing technical information and practical advice to the rural and related industries, based on the College's staff expertise and research and development activities. In recent years it has become increasingly important that the College seeks to focus its research activities towards offering opportunities that will allow new skills to be developed amongst its staff. Development of the research profile across the College has great benefit, an increase in academic credibility and esteem for the College with the consequential reward of attracting high quality students. A developing research profile is required to enable appropriate academic underpinning of the delivery of higher educational courses and the provision of relevant training and technical knowledge to support the local and national land-based industries. In an era of considerable change in rural economies and environmental pressures, the College aims to become a recognised provider of the skills and expertise that will enable the industries it serves to succeed into the future.

### **Andrew Counsell, Principal**

Duchy College has systematically invested in staff and collaborations to build a research and technology transfer capacity in the land-based disciplines. This capacity is now housed and managed under the Rural Business School. Duchy College and its partners have also made significant investment in Food and Drink processing and Manufacturing Technology. Commercial Consultancy and Innovation is managed by our Food Innovation Service. We are also very proud to be active members and founding partners of the Peninsula Partnership for the Rural Environment (PPRE). Additionally the College now offers postgraduate research degrees related to the land-based sector.

**Rural Business School (RBS):** [www.duchy.ac.uk/rbs](http://www.duchy.ac.uk/rbs) – in a very short space of time the RBS has become a respected and renowned 'brand' within the region and is now seen as a model of good practise nationally. The School acts a hub bringing together a wide variety of expertise for the benefit of the regions agricultural and food industries. The RBS undertakes a large variety of funded projects working with a number of partners (both academic and business) across the south west region; these include the Farm Business Survey, Skills Programme (replacing Vocational Training Scheme), South West Healthy Livestock Initiative (SWHLI), South West Agricultural Resource Management (SWARM) Knowledge Exchange Hub and Clear About Carbon. In total the school is currently engaged in over £14million of contracted business.

**Peninsula Partnership for the Rural Environment (PPRE):** [www.ppre.ac.uk](http://www.ppre.ac.uk). PPRE was founded to bring together Duchy College, the University of Exeter, North Wyke Research and the University of Plymouth to re-assert the strength and depth of agricultural, environmental and rural research, skills and knowledge in the far South West. Current projects (under negotiation) include South West Rural Resource Management Innovation Fund.

**Food Innovation Service (FIS):** <http://www.foodinnovation.co.uk>. The food innovation service provides commercial consultancy in new product development, process and product improvement and provision of specialist facilities. For further information please refer to the report in Hospitality & Tourism on pages 55 to 57.

**Postgraduate Provision:** [www.duchy.ac.uk](http://www.duchy.ac.uk) In 2010 Duchy College was given postgraduate node status by Plymouth University. The College awards three Research Masters (ResM) titles; Agriculture and Food, Biological Sciences and Equitation Science. Currently the College has 13 students engaged on research degrees. This number will rise to over twenty by the end of 2012.

## **Alison Abbey: Equestrian Centre Manager, Duchy Stoke – BA (Hons) in Education & Training; Integrated Masters Programme**

In September 2010 Alison was awarded her BA (Hons) at Plymouth University.

During the course of her BA studies Alison was made to question not only current practices in education, in particular her own, but also the corporate and political pressures on an individual's practice as a professional facilitator in education.

Her dissertation title: Out with the Old and in with the New - A change of system for a change in praxis

The abstract:

This research has been undertaken from a critically reflective angle, it analyses the systems and structures supporting the practical learning aspect of further education learners on a large equestrian centre within a college. Experience has shown that learners fall short in the areas of individual confidence, responsibility for actions, initiative and learning from experience; it asks why? Action research was the research method used as it provided a variety of data to inform any suggested systemic changes to improve praxis. The aim of the study was to challenge existing and traditional structures and to ascertain if systemic changes were sustainable within the current curricula. The role of the experiential learning cycle and reflective practicum are examined regarding the level of influence they have within the traditional behaviouristic theories historically supporting current practices. The research has highlighted areas of congruence and of dissimilarity between learners, teaching staff and college management. Overall this study supports the suggested system changes to be made as a result of this research and makes suggestions for further improvements in the future.

Following the success of her BA(Hons), Alison enrolled on an Integrated Masters Programme at Plymouth in the autumn of 2010. As she says: "I am already involved in HE, albeit on a practical level at the moment, and am very interested in how writing and narrative could be utilised in both the quantitative and qualitative research within the current equine programmes. I would like to think that this research may inform future developments within HE. Who knows?"



## **Alistair Rivers: Lecturer, Horticulture, Duchy College Rosewarne - MA Garden Design and Garden History, University of Greenwich**

Alistair chose this course as it is his specialist area for teaching and research. The research Alistair undertook to write a guidebook for Trewithen Gardens (<http://www.trewithengardens.co.uk/home>) proved very useful in helping with his studies, but more importantly with the support he has been able to give students in their research for both the FdSc Horticulture and the BSc Horticulture Top Up delivered at Duchy College Rosewarne.

Alistair had also chosen the course as it offered the choice of distance learning in the first year. At present Duchy College is developing a distance learning CPD award and the experience he is gaining on the course is helping the Horticulture department to formulate ideas and methodologies for the delivery of the new award.

Alistair's studies are widening his knowledge about the history and origins of Horticulture, the Science behind the subject and the important people and countries that have been responsible for bringing science and art to Western Civilisation. Further, the course is enabling him to gain a greater understanding of the philosophy behind design principles and how these can be used in current design and teaching situations. The impact of these studies on Alistair's delivery and teaching is being seen already by students and staff in the Higher Education [HE] faculty at Rosewarne; this will be even more apparent after the course is completed.



The use of the virtual learning environment [VLE] is now widespread in both the Horticulture and Education industries; this will enable many more students to study at both FE and HE levels. Having undertaken the college's certificate in Moodle Delivery, Alistair had the knowledge and experience to deliver a paper at a Conference in September 2010 at the Eden Project. The audience comprised of

members of Plant Network and staff from the Eden Project. This paper covered the use of the VLE as a learning tool and a method for working, professional horticulturalists to update their skills and maintain professional competence in their specialist areas. The paper was well received and, as a result, Duchy College gained a list of people interested in both the new CPD award and studying individual HE modules via a VLE distance learning mode.



### **Phil Pengelly: Course Manager, Agricultural Studies, Duchy Rosewarne - Integrated Masters Programme**

Phil's third assignment was a study into the effectiveness of the tutorial system in FE colleges. In this study he looked at how the H.M. Government under Tony Blair in particular has been used as a policy instrument in delivering social justice. In particular, the increasing participation of students in the post compulsory sector, which has gone hand in hand with the dismantling of barriers to learning such as the attitude of the learner, negative perceptions of learning, low expectations, and emotional damage created by previous educational experiences and outcomes. Phil also looked at the influence of 'managerialism' on the professionalism of lecturers in FE colleges. The role of the personal tutor has now become central to increasing the retention, achievement and success rates of students through a process of target setting and periodic review throughout the academic year. This has been linked with creating a positive learner experience, wherein writers such as Martinez (1995) believe that:

- 1) Students value the close and detailed monitoring of their progress
- 2) Such monitoring helps foster a particular (good) staff-student relationship and ensures that remedial action is identified when progress is shown to be falling below target
- 3) Target grades motivate students
- 4) Teachers feel that the target setting and review process gives a focussed and increased degree of rigour to tutoring
- 5) This type of formative approach helps to improve attendance, retention and achievement.

Personal tutors undertake a wide range of roles with their students. This will depend upon the differing needs of the students, the requirements of the institution and the experience of the member of staff. Wheeler and Birtle (1993) highlight a number of these functions:

- Listener
- Confidante
- Advocate
- Disciplinarian
- Counsellor
- Careers Advisor
- Teacher
- Mentor
- Assessor
- Advisor
- Referee

In conclusion I feel that providing both academic and pastoral support makes it 'difficult to define where tutoring and lecturing end and where counselling start' (Lago & Shipton, 1994). In summing up the two sides of the argument surrounding social and emotional education we need to concentrate on the ideas put forward by Goleman (1995) and Ecclestone & Hayes (2009). There is an old-fashioned word for the body of skills that intelligence represents: character. If character development is a foundation of democratic societies, consider some of the ways emotional intelligence buttresses this foundation. The bedrock of character is self-discipline: the virtuous life, as philosophers since Aristotle have observed, is based on self-control. This element of his study has helped Phil to see that, as a Personal Tutor, it is important for him to seek to model the basic emotional intelligence of self-control, and thus give students an example of how they should develop their behaviour in readiness for the workplace.

In Phil's fourth assignment he chose to look at the effects of ICT on the interactivity of classroom teaching. He carried out a wide ranging literature survey to discover the views of a number of writers with regards to the most popular ICT applications, which turned out to be the interactive whiteboard. It was also the policy of the previous Labour government to invest heavily in this type of hardware. Phil's research question led him to carry out a series of semi-structured interviews amongst his colleagues to discover their views on the usage of ICT. The findings of his latest study are as follows:

1. Teachers in the FE sector are increasingly likely to use some kind of ICT application in their lessons, for instance interactive whiteboards, YouTube clips, and PowerPoint presentations. There is an increasing interest in new applications such as Optivote.
2. Lecturers felt ICT has an important part to play in the supporting of students with special needs in the classroom.
3. Lecturers need to increase their engagement with ICT, as students from secondary schools, who have been used to ICT being in frequent use in lessons, now expect the same in tertiary colleges.
4. After asking his colleagues about the other advantages of ICT in the classroom they suggested that they were enabled to show their learners the latest up to date information and images connected with their subject.
5. Some of the disadvantages of the use of ICT included the need for more time to produce lessons using ICT and the need for a backup plan in case of systems failure.
6. Teachers were asked about their feelings on how the use of ICT affected their observation grade. Some said that the use of ICT made no difference to their grade, whilst others felt the increased use of ICT would have improved their observation grade.

Phil's findings have made him aware of the need to be ready to make more use of ICT in the classroom in a bid to increase the amount of interactivity that occurs there. The following writer encapsulates the way forward for FE teachers (Smith et al. 2007 p99) where he says that in the hands of a teacher who is interested in developing the independent, creative, thinking skills of their students (the interactive whiteboard) will be used to further these purposes.

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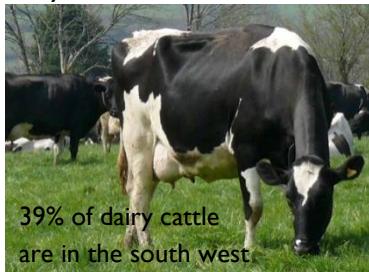




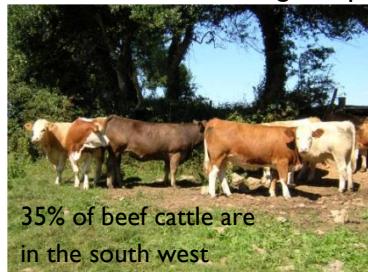
### **Healthy Livestock**

*Working together to improve the disease status and profitability of South West farms*

Healthy Livestock was launched in September 2010 to work with dairy, beef and sheep farmers throughout the South West of England to improve the health of their herds and flocks, and so improve their profitability. The project focuses on controlling the incidence of mastitis, lameness, BVD, Johne's and respiratory diseases in cattle and lameness, nutrition, breeding and parasite control in sheep.



39% of dairy cattle  
are in the south west



35% of beef cattle are  
in the south west



23% of sheep are  
in the south west

The total grant for the project is £5.24 m to target 8,500 participants across the south west (1,700 of those in Cornwall). The project provides up to 70%-funding towards designated training, discussion groups, vet and adviser mentoring and diagnostic testing; the exact mix of these supported elements will vary according to the priority disease in question.

Over 70 veterinary practices and consultants have been briefed to participate and some 3,200 livestock producers are already involved. The most popular work strand has been the implementation of the Johne's disease control programme with the major milk processors Arla, MilkLink and Wisemans and local vets; already 35% of all milk producers in the south west are involved in this one work strand. This has led to enquiries from other English regions as well as Wales and Northern Ireland.

The sheep elements of the project involve a series of training events held on 18 monitored focus farms across the region. These are supported by a specialist sheep veterinarian with the University of Bristol's Veterinary School, and are aimed at reconnecting sheep farming with the veterinary profession.

The dedicated team which has been expanded to nine full-time and six part-time staff, supported by the RBS administration team, has worked hard with the external partners to deliver the project. A key objective of the project is to provide evidence of the benefits of reducing disease in terms of profitability of livestock farmers and there is an obvious opportunity for HE students to utilise 'real' data from cutting edge knowledge transfer work for their dissertations. B Sc Rural Business Management 'top-up' students used the data being generated from the mastitis and BVD strands in 2010-11 and more at both Fd Sc and B Sc level are planned for 2011-12. Three of the project team have had their proposals accepted to enrol on the College's Research Masters programmes with bursaries through the ESF/CUC research theme 1 programme. This work will benefit from the epidemiological support of Bristol University's Veterinary School at Langford, established through the SWHLI-KE hub project.

Interest within the livestock sector has been extremely high, leading to coverage in the Farmers Weekly and on the BBC and a visit from Defra's Chief Veterinary Officer. Because of the success, Defra is keen for the project's activities to be expanded.

Healthy Livestock is a Rural Development Programme for England (RDPE)-funded project, developed by a range of organisations and led by the Rural Business School as part of the South West Healthy Livestock Initiative (SWHLI). The priorities outlined above were set following a consultation exercise carried out by the SWHLI Regional Advisory Panel.



## **Ros Smith: Horticulture Research Assistant, Micropropagation Laboratory, Duchy College Rosewarne - The Conservation of Rare Plant Species**

This research project was started in 2005 as a response to the possible destruction of a number of historic and rare Rhododendrons growing in some of Cornwall's oldest gardens. The threat was a disease new to the UK and named Sudden Oak Death (*Phytophthora ramorum*) after its original Californian host plant. Conventional propagation methods such as cuttings were deemed unsuitable because of the age and lack of vigour in these ancient plants; there was also the possibility of transferring hidden disease with the rooted material. The use of a propagation technique called micropropagation, or tissue culture, was used to overcome these hurdles and produce vigorous, disease free plantlets. In addition, many hundreds of identical plantlets (clones) were also produced from a small quantity of plant material.

The micropropagation laboratory initially worked with one garden to conserve historically important Rhododendrons identified as original introductions by Joseph Hooker, one of the early plant hunters of the mid nineteenth century. Small pieces of the early spring vegetative growth were surface sterilized and placed in containers of nutrient jelly in a controlled environment. High rates of contamination in the cultures required further research as to the possibility of using other plant parts which would provide greater success rates. Floral tissue from dormant winter buds was used; this was rigorously surface sterilized and after removing the outer protective scales the sterile florets were dissected out and grown on successfully in nutrient jelly to yield many new shoots. This technique has been developed to use dormant vegetative buds, producing the same result.



Important Rhododendrons from 19 Cornish gardens have been micropropagated, with further accessions received from private and National Trust gardens throughout the UK.

Following the spread of the disease to other plant species, micropropagation has successfully been used to produce disease free material of *Viburnum betulifolium*, *Magnolia* and *Camellia* amongst others.

The micropropagation laboratory facilities have been used to propagate wild collected rhododendron seed from the Himalayas, and local wild orchid seed, both for conservation purposes.

Each year a number of Degree level students research micropropagation projects for their dissertations.



## **Sarah Chafer: Course manager & lecturer in Horticulture, Duchy Rosewarne – Integrated Masters Programme, University of Plymouth**

Sarah is currently in the process of writing her dissertation methodology, with a view to collecting data during 2011-12; this will then enable her to complete her dissertation in 2012-13.

Her working title is: Are 16-19 learners, studying at level 1, advantaged or disadvantaged by the use of multiple choice exams?

Many awarding bodies are introducing these tests to a range of courses at a range of levels. Sarah is particularly interested in the use of these tests at level 1 within practical subjects, such as horticulture. She believes the increased use of multiple choice tests is a response to the reduced levels of Government

funding, and provide an easy and cheap method of providing external assessment to such courses. However, having sampled some of these tests to understand what her own learners will need to achieve, Sarah found them unnecessarily challenging from a literacy point of view, which made her wonder whether they are either a necessary or an appropriate form of assessing knowledge at this level and whether their use could limit achievement for some learners.

We wish Sarah good luck, and look forward to reading her findings, which should prove interesting.



**Dr Stephen Roderick: Organic Project Leader, Organic Studies Centre, Duchy College, Rosewarne - Automated Weather Station**

**Background**

An automated weather station was installed at Duchy College, Rosewarne during May 2009, with the objective of providing enhanced opportunities for academic staff and HE students at Duchy College Rosewarne to develop new skills concerned with the operation of an automated meteorological station and the analysis, interpretation and application of the resulting climatic data.

Whilst climate data has always been recorded at the Rosewarne site, particularly during the period when the site was a horticultural research station, over recent years the scope of the facility at Rosewarne has diminished to a point where only key parameters were being recorded daily and manually. The introduction of automated equipment enhances the teaching, research and industry opportunities.

The equipment was part-funded via Duchy College's Defra LegumeLINK project and partly via the College's HE funds.

**The equipment**

A WS-GPI Weather Station was purchased from Delta-T Devices Ltd and was calibrated and installed with the assistance of Keith Dingley from the Science department at Cornwall College. The appropriate DeltaLINK software was installed on a dedicated laptop computer and recording started during May 2009.

Figure 1 The Rosewarne Weather Station in situ



**Provision of enhanced Higher Education opportunities**

Given the influence of climate on most land-based activities, it is expected that the project will be relevant to most HE teaching staff and students based at Rosewarne.

The project enables staff to develop new skills concerning:

- the operation of automated data collection equipment under field conditions;
- downloading and storage of automatically collected data;
- analysis of large data sets reflecting local weather conditions;
- interpretation of climate data as it relates to commercial, research and teaching activities at Rosewarne;
- development of new and innovative teaching materials.

The purchase and installation of a weather station provides students with:

- a demonstration and practical teaching resource;
- access to datasets that would enhance their understanding of data analysis techniques;
- a source of data that would enable demonstration of the relationship between climatic factors, plant production and other land-based activities.

Currently, weather data are being used as part of an FdSc Horticulture student research project. Climate data have also been used as teaching material on the FdSc Horticulture Data Analysis module.

All teaching staff at Rosewarne have been informed of the availability of the weather station as a teaching tool. Climate data are available to all Rosewarne staff and students at J:\Rosewarne weather\Rosewarne Weather 2009\AutomatedData2009.

Regular weather reports are published in the weekly Duchy College Rosewarne staff newsletter. Examples are provided in Appendix 1 and 2.

### **Industry engagement**

Dissemination of climate information to the local agricultural community contributes significantly to the College's role in industry engagement. A report is currently being prepared for the benefit of West Cornwall brassica growers summarising climate data at Rosewarne which will accompany regular brassica trial results prepared by Bill Herring at Duchy College.

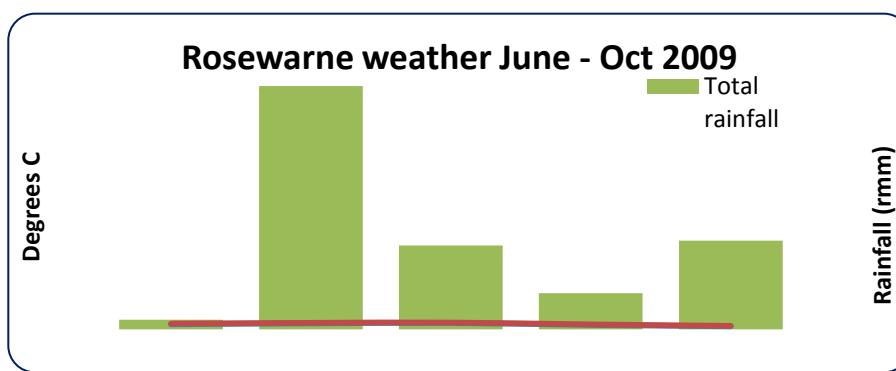
### **Use in research**

The provision of a meteorological station at Rosewarne further enhances the college's ability to participate in local and national research activities, which in turn will add to the College's academic profile and learning environment as well as the College's ability to attract external research funding.

Duchy College currently has a research contract to run controlled trials examining the role of legume mixtures as a means of more efficiently utilising nitrogen fixing during the soil fertility building phase of crop rotations. Climate data recorded at Rosewarne will be used as part of the computer modelling element of this project, environmental factors to be included alongside data collected on legume species characterisation.

### **APPENDIX I Copy of report published in Rosewarne weekly staff newsletter November 27<sup>th</sup>, 2009.**

#### **The weather report!**



Some of you may be aware that we now have an automated weather station on site capable of recording detailed climate data on a continuous basis. The equipment was bought partly to provide data for The Organic Studies Centre research trials but also as a student and staff resource. It

was purchased in part from Cornwall College HE funds with the objective of "providing enhanced opportunities for academic staff and HE students to develop new skills concerned with the operation of an automated meteorological station and the analysis, interpretation and application of the resulting climatic data".

So, if any of you would like to know more about the weather station, and the data it is producing, come and see Steve or Jane at the Organic Studies Centre. It is currently set up to record every hour maximum and minimum temperature, wind speed and direction, rainfall, solar radiation and relative humidity. Here's a summary of some of the data from May to October this year. The data is downloaded monthly to the Rosewarne weather data folder on the J drive.

## The Organic Studies Centre

Organic farming has formed an important part of Duchy College's research and development programme since the late 90s. The Rural Business School's Organic Studies Centre ([www.organicstudiescornwall.co.uk](http://www.organicstudiescornwall.co.uk)) was established in 2001 to deliver a programme of support to farmers in Cornwall under the then EAGGF/Defra funded Objective One programme. Since that time the Centre, currently led by **Dr Stephen Roderick**, has been conducting a wide range of local, regional, national and international studies, including testing novel crops and varieties, promotion of animal welfare, understanding nitrogen fixing crops and evaluating environmental impact.

### **Improved fixation of atmospheric N**

The current Defra/LINK funded **LegumeLINK** project involves collaboration between a number of UK-based research institutes exploring the **potential of legume mixtures as a means of improving the residual nitrogen** available to crops in an organic crop rotation, whilst at the same time enhancing farm biodiversity. Research hubs around the country have been growing controlled trials of legume and grass species, including a site based at the College's Rosewarne farm. Mixtures of these species have also been grown on commercial farms with the aim of selecting compatible mixtures suitable for commercial conditions. Climate monitoring at the Rosewarne site has been aided by the purchase of a mobile climate station funded via Cornwall College Research Fund. Other partners include The Organic Research Centre at Elm Farm, Scottish Agricultural Colleges (SAC), Rothamsted Research and the Institute of Biological, Environmental and Rural Sciences (IBERS), Aberystwyth University. The project will be completed at the end of 2011 with the results due to be published in 2012.



At the stage of plant establishment, it is often difficult to distinguish the desired plants from germinating weeds, and so the various legume species were grown in pots in a greenhouse, as well as in situ, in order to aid identification. Examples of some of the species pots are shown in the photographs above.

### **Enhancing animal and human welfare**

A long term association with a group of organic livestock research scientists from across the European Union led to the Rural Business School's involvement in the **AniPlan project**, part-funded by Defra, which, over a period of three years, explored how **animal-based welfare assessments** can aid farmers in the process of dairy cow health planning. This project, led by Stephen Roderick, involved an adaptation of the Farmer Field School approach based on an underlying concept of empowering farmers in their decision making through active involvement in very focused discussions with other farmers. Participation in such a group enabled farmers to utilise the results of independent herd assessments and to discuss with their peers possible management strategies aimed at improving animal health. This concept is now being practiced commercially.



Typical scenes from some of the farms participating in the AniPlan project. Photos were used in the project to illustrate farm features associated with cow welfare.

## Crops for the future?

Cornwall has a unique climate ideal for growing a range of commonly eaten vegetables. In an effort to provide diversification opportunities for local farmers, and to explore the horticultural potential in the region, the RBS organic team has been funded to trial a number of novel vegetable crops not normally grown in the UK, including duhdi, karella, sweet potatoes and various squashes and pumpkins. Results of this initial investigation will be used to select for further testing those species showing exceptional potential.

## Knowledge co-ordination

The Rural Business School plays an active part in delivering and managing a number of programmes funded by the Rural Development Programme for England (RDPE). Most of these involve direct knowledge transfer to the rural industries in south west of England via seminars, lectures, workshops and one-to-one tuition. Uniquely, sitting across these programmes are two innovative “**knowledge umbrella**” projects: the SWARM Hub and SWHLI Knowledge Exchange projects.



The screenshot shows the homepage of the SWARM Hub. At the top, there's a banner featuring a red tractor with a large white cylindrical tank and a network of white pipes attached to its rear, likely for nutrient application. Below the banner, the header includes the text "SOUTH WEST AGRICULTURAL RESOURCE MANAGEMENT Knowledge Hub" and navigation links for "Home", "About Us", "SWARM Initiative", "Hub Projects", and "Contact Us". On the left side, there's a sidebar with the logo for "Duchy College Peninsula Partnership for the RURAL BUSINESS SCHOOL Rural Environment" and a vertical menu with links to "Soils", "Energy Efficiency", "Renewables", "Nutrients & Manures" (which is highlighted in orange), "Water", "Farmer Profiles", and "Web Resources". The main content area has several sections: "NUTRIENTS AND MANURES" with a sub-section "NVZs - KEY DATES AND FIGURES" containing links to "Record requirements", "Dates you need to know", "Organic manure N field limit", "Livestock manure N farm limit", "Storage and spreading", "Closed periods for spreading", and "N Max limits". It also mentions "Developed by the Environment Agency in association with Greedy Associates, correct as of April 2012.". There are three smaller image boxes: "Nutrient Management Planning" (showing a field with green crops), "Fertiliser Use Efficiency" (showing a red spreader), and "Manure Use Efficiency" (showing a pink spreader). At the bottom left, there's a "LATEST NEWS" section with a link to "New farmer guides launched". On the right, there's a "USEFUL TOOLS" section with a link to "NVZs".

Screen shot of the SWARM Hub webpage designed to communicate the latest research on resource management to farmers

## Understanding animal disease

A similar knowledge sharing concept exists for animal health, in the form of the RBS SWHLI Knowledge Exchange (KE) project ([www.swhli.co.uk](http://www.swhli.co.uk)), funded via the same route, and very much focused on utilising data generated from publicly funded animal disease control planning programmes. Using RBS project management and knowledge dissemination skills, coupled with veterinary expertise from Bristol University vet school, this new project is expected to provide new insights into the patterns of livestock diseases as well as measures of their control impact.

For more information on all of these projects, contact Dr Stephen Roderick [s.roderick@cornwall.ac.uk](mailto:s.roderick@cornwall.ac.uk)





**Duchy College Equine Research 2011, Duchy College Stoke Climsland**  
**The team: Hayley Randle; Tim Whitaker; Alison Abbey; Lorna Button**

Our staff at Duchy College has been undertaking research into the equine for a number of years. They have built a reputation for near market industry relevant high quality research. A fundamental consideration within the work we undertake is its role in curriculum development and enhancement. Consequently our students experience the very latest research. We provide numerous opportunities for students to complete assignments, case studies and dissertations that link to our ongoing research activity.

Our work encompasses many aspects of the study of the equine; such as behaviour, husbandry, performance analysis, reproduction and breeding, and health and welfare. A particular focus of the research is within the new emergent discipline of equitation science. The work involves developing and building our understanding of the performance equine and the complex interactions between horse and rider.

Our staff regularly present and publish peer reviewed scientific work, contributing to the development of equitation science knowledge at both national and international forums. The research team is lead by Dr Hayley Randle, whose work focuses on behaviour aspects of training the equine and the application of technology, and Dr Tim Whitaker who has undertaken work looking at subjectivity and gender issues in equestrian sport. The team is supported by a variety of other staff at Duchy as well as via collaborations with a variety of partner universities. Additionally the team currently has eight Research Masters students undertaking original research projects.

We work with, and closely adhere to, the mission of the International Society of Equitation Science - to 'promote and encourage the application of objective research and advanced practice which will ultimately improve the welfare of horses in their associations with humans'.

The research recently undertaken by the team, which has been presented and reported as peer reviewed published work in journals and at conferences, is reported below.



**International Journal of Applied Research in Veterinary Medicine (9), 1, 6-14.**

**Evaluation and Comparison Under Field Conditions of the Stress Response Induced in Horses When Administered Endoparasiticides in Tablet or Paste Formulations\***

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**KEY WORDS:** Equine, parasites, stress, endoparasiticide, paste, tablet.

### **Clinical relevance**

Administering equine anthelmintics in paste formulations has been integral to the management of equine parasites. The objective of this clinical trial was to assess whether a new palatable tablet presentation reduces stress in the horse when administering an anthelmintic. Horses (n=122) were randomly allocated into three homogenous groups: Group 1: tablets (Equimax®Tabs: Virbac); Group 2: paste A (Equimax•Gel: Virbac); and Group 3: paste B (Equest•Pramox: Fort Dodge). Stress response to deworming was assessed by monitoring heart rates (Horse Heart Rate Monitors, Polar Equine) before, during and after the administration of the allocated anthelmintic. In addition, eight scored behavioural reactions indicative of stress were assessed. The increase in heart rate was significantly less ( $p<0.0001$ ) in Group 1 in comparison to Groups 2 and 3. Approximately 40% of Group 1 presented no behavioural reaction. More than 70% and 90% of the horses showed at least one reaction in Groups 2 and 3 respectively. Flehmen and pinning ears back reactions were significantly less frequent in Group 1 than in the paste groups ( $p=0.0013$  and  $p=0.0277$  respectively). According to the parameters monitored this study demonstrates that the administration of an equine endoparasiticide in palatable tablet formulation induces less stress compared to a paste formulation.

### **Introduction**

Management and control of internal parasites is an integral part of equine care and is responsible for the overall health of the horse. The timing, rotation and product selection of an anthelmintic contribute to the frequency and effectiveness of a deworming program. The choice of an equine de-wormer is generally based on its spectrum of activity and its safety. However, its formulation is another important parameter which should also be taken into account. Indeed, different formulations are currently available. The pastes are the most commonly used in the field. Nevertheless it is a well recognised fact that de-worming with certain pastes can be difficult and not well accepted by some horses. Furthermore, the horse may spit out some of the paste administered. Pellets, granules and some liquid suspensions are designed to be fed mixed with grain. However, some horses will not eat grain with the presence of a de-wormer product in it, or will not ingest the entire dose at once. Powder formulations are usually available only to veterinarians and are designed to be reconstituted and used as a liquid.

The possibility of horses not taking the entire dose of an anthelmintic at once can lead to a problem of under-dosing and the emergence of resistance. The resistance of Cyathostominae spp. to benzimidazoles and pyrantel is well recognised and has recently been suspected with regards to macrocyclic lactones..... **full article available online: <http://www.jarvm.com/>**



**British Association of Sport and Exercise Scientists Conference 2011, University of Essex, 6-8 September 2011  
'Fatigue: An Interdisciplinary Approach'**

### **I. Non-completion in equestrian eventing competitions: the effect of competitor gender.**

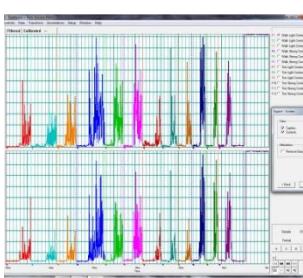
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Eventing is a three phased equestrian sport. In the 'one day' form of the sport, horse and rider combinations have to complete phases of competition in the sequential order of dressage, show jumping and then cross country. The competitor with the lowest overall penalty score is declared the winner. Male and female competitors compete against each other in a non handicapped manner, offering the sports

scientist some interesting opportunities for comparative studies. This study investigated the rates of non-completion in advanced level competition and possible effects of rider gender.



Data was collected from all eleven advanced level 'one day' eventing competitions run in the UK during 2010. In total 967 competitors of which 647 completed competitions. Competitors failed to complete competition for one of three reasons. These are categorised as withdrawal, retirement or eliminations. Withdrawal is a voluntary decision taken by the competitor before starting a phase, retirement is a decision taken after starting a phase; elimination is forced exclusion. Elimination can be for a variety of reason including, failure to complete or attempt an obstacle or incurring a penalty score that breaches a ceiling.

Of the 320 non completers, 66 competitors withdrew before the dressage (first phase) of competition, 243 competitors commenced the dressage phase and subsequently failed to complete either the show jumping or cross country phase. Of the remaining 11 non-completers four competed 'hors concour', six were 'no-shows' at the event and one rider was excluded their horse having failed a veterinary examination. Analysis was performed on the 243 competitors who having commenced competition failed to complete.

The cross country phase was the largest phase contributor to non-completion for the sample population, 36.21% (n=88) withdrawals, 23.05% (n=56) elimination, 19.34% (n=47) retirements; for the show jumping phase 15.23% (n=37) withdrew, 3.7% (n=9) eliminated and 2.47% (n=6). Within the sample population 56.79% (n=138) of non completers were female, 43.21% (n=105) males. Sex was observed to have an effect on non completion ( $df = 5, \chi^2 = 13.752, P<0.05$ ). The largest variations from expected residual values were observed in the cross country phase for males over females -9.198 for eliminations and +6.975 for withdrawals. Of the competitors commencing competition over 75% were either eliminated, withdrew or retired in the cross country phase. Within the studied population male competitors were more likely to withdraw and less likely to be eliminated within the cross country phase of competition when compared to their female counterparts. No differences of significance were observed in the show jumping phase. The reasons behind these differences are likely to be multi-dimensional and require further investigation.



## **2. A comparative study of penalty score distribution between individual competitions for the equestrian sport of eventing.**

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Eventing is a three phased equestrian sport that both men and women compete in a non-handicapped manner. Competition at international level is structured progressively the lowest level of competition being CCI\* (Novice) the highest being CCI\*\*\*\* (Championship). Comparative parity in terms of complexity and difficulty should exist between competitions at the same level. Horse and rider combinations compete in sequential phase's dressage, cross country and show jumping. This study investigated scoring variability at individual CCI\* events in the UK during 2011.

A total of eight CCI\* events were held, in total 836 competitors, of which 78.8% (n=659) completed the three phases of competition. Mean phase penalty scores for the population were recorded; dressage penalties  $54.767 \pm 7.104$ , show jumping penalties  $9.408 \pm 15.096$ , and cross country penalties  $7.877 \pm 10.518$ . Data distribution was skewed within the show jumping and cross country phases, transformation using Log+1 was applied to all phases for analysis. Penalty score variability of significance was observed between events for all phases of competition. Dressage ( $df = 658, F=2.63, P<0.05$ ), Show jumping ( $df = 658, F = 4.06, P<0.001$ ), Cross country ( $df = 658, F = 8.40, P<0.001$ ) and overall final penalty score ( $df = 658, F = 13$

5.33, P<0.001). Table one indicates where specific differences were observed between events within each phase and for overall penalties

Table 1 Analysis of phase differences by event, post hoc analysis – Tukey HSD (P<0.05).

Dressage Phase				Show Jumping Phase			
Event	N	Mean	Grouping	Event	N	Mean	Grouping
2	40	1.77447	A	5	64	1.0814	A
7	69	1.74766	A B	2	40	1.0698	A
4	82	1.74671	A B	7	69	0.8590	A B
8	106	1.74136	B	3	72	0.7463	A B
1	124	1.74126	B	6	102	0.7375	A B
5	64	1.73993	B	8	106	0.6785	A B
6	102	1.73666	B	4	82	0.6653	A B
3	72	1.73294	B	1	124	0.4946	B
Cross Country Phase				Final Penalty Score			
Event	N	Mean	Grouping	Event	N	Mean	Grouping
6	102	1.2413	A	2	40	1.8901	A
7	69	1.0306	A B	6	102	1.8784	A
8	106	0.8121	B	5	64	1.8714	A B
4	82	0.7755	B C	7	69	1.8708	A B
5	64	0.7642	B C	8	106	1.8362	A B C
2	40	0.7412	B C	4	82	1.8350	A B C
1	124	0.4930	C	3	72	1.8178	B C
3	72	0.4499	C	1	124	1.8076	C

Means that do not share a letter are significantly different.

The study demonstrates that differences of significant are apparent between events. In the final judgment of performance – total penalty score, this difference amounts to over 15 penalty points between event one ( $65.51 \pm 20.09$ ) and event two ( $80.80 \pm 28.36$ ). These differences have implications for competitors, selectors and those responsible for designing individual competitions, further investigation is required.



### Work presented at:

**International Society of Equitation Science; 2011 Conference**

**The Netherlands, 26 – 29 October, 2011**

**‘Equitation science: Principles and Practices - science at work’**



### Start time and order effect in the dressage phase of affiliated British Eventing (BE100 Level) competition

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The dressage phase of competition is the first element of affiliated British Eventing competitions. Debate has taken place regarding possible biasing effects on scoring that may be occurring within dressage competitions. Horses and rider combinations are judged in a sequential order with up to 45 combinations (for British Eventing competition) being scored in one section. This study investigated the effect of start time of dressage sections (morning or afternoon) and the order a horse and rider combination was judged within a section. Data were collated from eighteen BE100 level affiliated eventing sections completed in March 2011. Penalty score achieved was used as the dependant variable (where lower score indicates

better performance). All data were normally distributed. The overall mean penalty score for the sample population was  $35.47 \pm 5.35$  ( $n=566$ ). Significant differences ( $df=17,548$ ,  $f=4.44$ ,  $P<0.001$ ) were observed between sections with the lowest mean section score being  $31.86 \pm 6.02$  ( $n=25$ ) and highest at  $38.92 \pm 5.83$  ( $n=32$ ). Eleven of the seventeen sections showed differences of significance ( $P<0.05$ ), overall 9.37% of the total variance in scores was effected by section. Significant differences ( $d = 563$ ,  $t=3.06$ ,  $P<0.05$ ) were observed between morning  $34.8 \pm 5.54$  ( $n=289$ ) and afternoon  $36.16 \pm 5.09$  ( $n=277$ ) performances. An  $r = -0.108$  ( $P<0.01$ ) value was returned for the population with 1.2% of the scoring variability related to order ( $y=36.5-0.530x$ ), with  $n=26$  having a residual value  $\pm 10$ . Analysis demonstrated that 15 sections had a negative collatory effect; as order preceded scores reduced. In 15 sections the order accounted for less than 4% of the score variability however in two sections it accounted for over 13%.

**LP (Lay Person):** When the population is considered in totality it is suggested order is of limited effect on score. However, there appears to be a difference of significance between morning (lower mean score) and afternoon (higher mean score) judged dressage sections. It would appear that there may be rogue sections that could challenge this assertion.



### **Retrospective Study of non-completion rates for the show jumping and cross country phases of one day British Eventing competitions (2007).**

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Non-completion rates in eventing competition have been reported up to 25% of competitors in some studies. Differences in non-completion rates are likely to vary between levels on completion. A greater understanding of non-completion rates is useful in developing methodologies that will help both horse welfare as well as the approach riders may use preparing for and within competition. This study conducted a preliminary investigation into the reasons for non-completion by level of competition. Data from 120 one-day eventing competitions were collected and non-completion in the show jumping and cross country phase was assessed. Data were discriminated by level of competition. Reasons for non-completion were categorised as elimination, withdrawal or retirement. Withdrawal is a voluntary decision taken by the rider before starting the phase, whilst retirement is a decision taken after starting the phase; elimination is forced exclusion this can be for a variety of reason includin g, failure to complete or attempt an obstacle or incurring a penalty score that breaches a ceiling. . 42,180 entries started competition, the overall non-completion rate from starters was 18.91% ( $n=7978$ ). Non-completion as a proportion of total starters was determined by level; Intro 28.52% ( $n=2,303$ ), Pre-Novice 13.61% ( $n=2,519$ ), Novice 18.40% ( $n=2,215$ ), Intermediate 24.97% ( $n=782$ ) and Advanced 37.32% ( $n=159$ ). The percentage of eliminations fell as the level of complexity of competition rose from 70.1% at Intro to 17.0% at Advanced. The proportion of withdrawals rose consistently from 14.3% at Intro level to 69.5% at Advanced level 59.5%. The proportion of retirements rose with level; from 15.6% at Intro, 31.0% at Intermediate and 23.5% at Advanced.

**LP:** Eliminations are the most common reason for non-completion in lower levels of competition. At lower levels riders may continue to compete after accruing high penalty scores, potentially leading to a higher proportion eliminations or retirements. The lower proportion of eliminations in advanced levels of competition is likely to reflect the increased skill and better judgement of riders.



### **Comparison of behaviours exhibited by horses ridden in bitted and bitless bridles**

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The use of bitless bridles has been advocated as an alternative to traditional bitted bridles in many equestrian disciplines in order to avoid the bit injury and distress that has been reported in previous

research. Anecdotal observations and lay publications suggest that the bitless bridle has become very popular amongst riders and horse owners in the United Kingdom. The bitless bridle has been compared favourably to the use of the bit in foundation training with improved performance reported for some horses in the bitless sample group. Similarly, improved dressage test scores have been attributed to the bitless bridle in schooling. However objective data do not exist on the use of bitless bridles for the majority of horses in the UK, which are owned by mainly leisure riders primarily for hacking, local shows and riding club purposes. The aim of this study was to compare the behaviours exhibited by horses whilst wearing the bitless bridle with those shown when ridden in the usual bridle. Twenty subjects selected from a population of privately- and college- owned horses were ridden by a single qualified rider in the Preliminary 4 British Dressage test in their usual bitted bridle and bit and in the Dr Cook brand Beta Bitless Bridle bitless bridle. All tests were videoed continuously allowing the instantaneous recording of behaviour. An ethogram developed specifically for the study was used to collate the conflict behaviours exhibited by the horse. Assessment of pilot data ( $n=2$  horses) demonstrated that 6 different conflict behaviours occur with both types of bridle (tail swish, open mouth, cow kick, hollow, fall out and pull down). The frequency of occurrence of each behaviour was recorded, along with the total number of behaviours exhibited (Behavioural Intensity) for both conditions. The most frequent behaviours observed were tail swishing ( $14.5\pm12$  for bitted;  $23\pm19.8$  for bitless), pulling down ( $3.5\pm3.5$  for bitted;  $5.5\pm2.12$  for bitless) and hollowing ( $4\pm4.2$  for bit;  $3\pm4.2$  for bitless). No significant differences were found for any behaviour or for behavioural intensity (all Wilcoxon paired t tests;  $P>0.05$ ). Preliminary analyses of objective data suggest that the occurrence of conflict behaviour with the bitless bridle is similar to that observed with traditional bitted bridles. Further analysis of objective data will enable the determination of the impact of the bitless bridle on horse-human contact.

**LP:** The use of bitless bridles has increased in the leisure horse population alongside interest in alternative training methods. Despite bitless bridles being marketed as a 'welfare friendly' alternative to traditional bitted bridles analysis of pilot data suggest that this may not be the case.



### The horse and rider bodyweight relationship within the UK horse riding population

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Equine sports involve two athletes, the horse and rider. Riders can directly affect the horse-rider performance; rider bodyweight (BW) tends to be ignored (horse racing being the exception with its strict rules regarding riding weight). Traditional methods of determining whether a horse can withstand the weight of a rider are not based on scientific principles. An industry practitioner proposes a 10% rider to horse BW ratio for optimum performance, 15% as satisfactory and 20% to be a welfare issue. The study objective is to measure the relationship between horse & rider BW within the general UK horse riding population. Data obtained are intended to be used in future studies to assist in the identification of rider to horse BW ratios to optimise ridden performance and welfare. The bodyweight (kg) of 50 horse-rider combinations (where all riders were  $\geq 18$  years) were recorded. Horse BW was measured using an Equest weightape, a cheap and practical alternative to scales, so laypersons can replicate methodology. Height (ground to point of wither, cm) was measured using a measuring stick. Rider BW (kg) was measured using calibrated EKS digital scales and height (cm) with measuring stick. Three BW measures were obtained per rider: W1 wearing breeches and a top (no footwear); W2=W1 plus footwear and hat, and W3=W2 plus saddle. Rider to horse BW ratio percentages was derived. Demographic data including age and gender for both horse and rider were also collected, along with riders opinion on their suitability in terms of their BW and height for the horse (using a 5-point Likert scale). Riders ( $n=14$ ) were of a healthy Body Mass Index (BMI) ( $23.32\pm0.71\text{kg/m}^2$ ) compared to NHS guidelines. Rider horse BW ratio for each rider weight category was: W1  $14.2\pm0.83\%$ ; W2  $14.63\pm0.85\%$  and W3  $16.59\pm0.94\%$ . Typical rider height was  $178\pm1.04\text{cm}$ , and horse height  $164.71\pm4.88\text{cm}$ . In this study riders possessed a healthy BMI. Since observed rider to horse BW ratios varied between 14.2 and 16.6%, the suggested 10% guideline appears unrealistic within the general riding population. These data form the basis of assessment of the effect of rider physical measures on horse performance which will allow the development of a scientifically based guideline allowing informed decisions to be made on horse-rider suitability.

**LP:** There are currently no industry-wide guidelines for the suitability of rider weight to horse size. Simple measures of rider weight can be used effectively to develop sensible rules upon which decisions about rider suitability for a particular horse can be made.



### The effect of noseband tightness on rein tension in the ridden horse

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Many horses wear nosebands designed to restrict jaw movement, an attractive outcome in competitions where resistance is penalised. It has been suggested that a restrictive noseband may increase sensitivity to the bit. Despite the growing popularity of restrictive nosebands, no objective data are available on their effects, if any, on apparent bit sensitivity. This study aimed to determine if noseband tightness influences rein tension. A cross-over design determined the rein tension applied by a single rider to achieve a medium contact with the noseband fitted in the normal, looser (one hole down from normal) and tighter (one hole up from normal) position. All horses were tested wearing their regular tack with a cavesson noseband and a simple snaffle bit. A nose net was used to screen the horse's muzzle and effectively blind the rider from the changes being made to noseband fitting. Six geldings aged 9-18 years were ridden through a standardised route around a 20x40m indoor school. The route comprised 7 phases, including 4 transitions (halt-to-walk, walking, walk-to-trot, trotting, trot-to-walk, walking and walk-to-halt). There were 3 replicates per rein. The Rein Check™ was used to continuously record rein tension (N) during all observation periods. All periods were simultaneously videoed. Noseband hole number, distance between the holes (mm), length (mm) and taper angle (°) (as a physical indicator of tightness on the horse's face) were recorded. Data collated using SignalScribe™ were statistically analysed. Rein tension ( $n=17832$ ) was non-parametrically distributed with a median rein tension applied of 2.56N. Equal tensions were applied to the left and right rein throughout the study (left = 2.55N, right = 2.57N;  $H_1=0.67$ ;  $P>0.05$ ). Rein tension (N) was significantly affected by noseband tightness ( $H_2=16.7$ ;  $P<0.0001$ ). Although less tension was applied when the noseband was tightened by one hole (median=2.52N) the difference failed to reach significance (Mann-Whitney;  $P>0.05$ ). However, significantly more tension was applied when the noseband was loosened by one hole (median = 2.63N;  $W=36102618$ ;  $P<0.005$ ). The use of equitation science and technology has demonstrated using objective data that there is some truth in the statement that noseband tightness may influence sensitivity to the bit.

**LP:** This study demonstrated that noseband tightness has an effect on rein tensions applied to a ridden horse in order to achieve a medium contact. Careful consideration must be given to the fitting of nosebands to horses and in particular riders' use of noseband tightness as a means to achieve a required outcome in equitation.



### Rider perception of the severity of different types of bits and the bitless bridle using rein tensionometry

H. Randle and H. Wright

While it has been well established that the bit can cause pain, and therefore behavioural problems, in the ridden horse, no studies have explored riders' perceptions of the severity of the bit in terms of the tension that they should be applied with. This study investigated riders' perceptions of the tension required to execute a standard movement namely a transition from walk to halt using bits belonging to different families. A ReinCheck™ was attached to a static box fitted with standard leather reins. 10 subjects, all experienced riders who were familiar with horsemanship but naïve to the bitless bridle, were shown four different types of bit (jointed eggbutt snaffle, french link snaffle, pelham and a three ring continental gag with the rein on the bottom ring) and a Cross-Under Bitless Bridle based on the Dr Cook design. On taking up

the reins (baseline) each subject was asked to imagine that they were riding a horse in a particular bit type and then to apply tension to the reins in order to halt. There were 3 replications per bit type per subject. Rein tensions (N) were extracted for (1) the baseline tension and (2) the increase in tension to halt from walk. No significant differences were observed in either the baseline and maximum tension applied with the right and left reins (both  $P>0.05$ ). However, the type of bit ‘used’ significantly effects both the baseline tension applied ( $F_{4,200}=61.30$ ;  $P<0.001$ ) and the tension applied to halt ( $F_{4,200}=158.51$ ;  $P<0.0001$ ). Significantly less tension was applied with the gag, pelham and bitless bridle ( $1.98\pm0.52$ ;  $2.04\pm0.64$  and  $1.92\pm0.22$  N respectively) than with either of the snaffles ( $2.29\pm1.11$  and  $2.34\pm1.09$  N). A similar pattern was observed when exerting the perceived tension needed to achieve a halt from walk with very similar tensions being applied to the bitless bridle ( $2.94\pm1.00$ ) as to the gag ( $2.76\pm1.18$ ) and the Pelham ( $2.9\pm1.23$ ). Again significantly greater tension was applied to the snaffles ( $3.32\pm1.52$  &  $3.45\pm1.44$  N). Through the collection of objective data this study has demonstrated that riders have clear perceptions of the severity of different bit types. Clearly the action and severity of bitless bridles is perceived as similar to that of the Pelham and the gag, despite them being marketed as a kind alternative to bits in general.

**LP:** Riders perceive that more tension is needed to achieve the walk to halt transition with snaffle bits than with more severe bits. Furthermore the tension required to achieve walk to halt with bitless bridles is similar to that of the more severe bits.



### Influences on the pressure exerted on the back of the driving horse

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Equipment placed on the equine back in ridden equestrian activities has been found to impact negatively on spinal pathology, soundness, performance and consequently welfare. The centre of pressure, distribution of forces, velocity and forward acceleration are influenced by poorly fitting tack. A correctly fitted carriage should be equally balanced on both sides of the vehicle regardless of the weight of the driver and groom(s) and result in an even distribution of pressure under the saddle pad. Objective data on the distribution of pressure under the saddle pad are currently not available. The effect of horse/pony, carriage type (two- or four-wheeled) and the presence of a passenger on the distribution of pressure under the saddle pad was investigated. Six horses and 6 ponies of various breeds, heights, ages and sexes were examined whilst engaging in their usual warm-up regime prior to a British Driving Society class in the Wales and West region, UK, 3 of each pulling 2 wheeled vehicles and 3 of each pulling 4 wheeled vehicles. All subjects wore their usual competition equipment and were driven by their usual driver. Port Lewis Impression Pads™ (PLIP) were rolled to a uniform depth and positioned securely under the saddle pad. Subjects were driven for 20 min then halted and the PLIP removed and placed on a flat surface. The depth(mm) of the indentations at 8 pre-defined equi-distant points were measured immediately using a digital depth meter on the left and right sides. Greater pressure was observed on the pad with horses ( $14.05\pm1.63$ ) than with ponies ( $11.7\pm3.15$ ;  $F_{1,125}=10.5$ ;  $P<0.01$ ). The presence of a passenger did not have an impact on the pressure on the saddle pad. Significantly greater pressure on the driving pad was evident with 4 wheeled ( $14.35\pm1.64$ ) than 2 wheeled vehicles ( $11.39\pm2.87$ ;  $F_{1,125}=43.4$ ;  $P<0.01$ ). The distribution of the pressure varied significantly ( $F_{1,125}=13.8$ ;  $P<0.01$ ) with greater pressure exerted near to the withers and at the bottom of the saddle pad on both sides. Using objectively measured data this study demonstrated that although no bilateral imbalances were observed, significantly greater pressure was exerted at all points on the saddle pad by 4-wheeled vehicles than 2-wheeled vehicles. The application of emerging equitation science could assist the assurance of the welfare of driven horses/ponies.

**LP:** The use of simple technology such as the inexpensive Port Lewis Impression Pad™ which allows a visual examination of the fit of the saddle pad is helpful for assessing the fit of equipment worn by driving horses and ponies. The presence of pressure on the pad demonstrated that there may be difficulties with the correct fitting of tack to horses driven with 4-wheeled vehicles.



## **Investigation of the effect of balancing aids on the skin temperature of the ridden horse**

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Neck straps and saddle handles are used to aid rider balance and may have a negative impact on the tissue that they are in direct contact with, however objective data on the physical effect of balancing aids on the ridden horse are not available. This study aimed to identify skin temperature deviations using Infrared Thermal Imaging (ITI). Research has shown that temperature deviations, both increases and decreases, can be indicative of tissue damage. Four ponies (2 mares, 2 geldings), aged 9-15 years who regularly engage in Pony Club activities were assessed. All were tested wearing their usual bridle, the same girth, neck strap and saddle with integrated saddle handle and were ridden by a competent 12 year old male. A FLIR P620 thermal imaging camera was used to generate thermographic maps for each pony. The temperature (°C) for specific anatomical locations (for neck strap - withers, both shoulders and neck base; for saddle handles – girth, cantle, under the saddle and under the both saddle ring points) was then determined following warm up, post exercise (without balancing aids) and post-use of the balancing aid phases. Each phase followed a set route, with walk and trot and lasted for 10 minutes. Skin temperatures were not affected by the phase of the study for either neck straps or saddle handles. However skin temperature varied significantly between measurement positions ( $F_{3,132}=3.83$ ;  $p<0.01$ ), with significantly higher temperatures observed at the neck base ( $24.4\pm3.06^\circ\text{C}$ ) than at the shoulders and withers (Tukeys  $P<0.05$ ) when neck straps were used to assist balance. In addition skin temperatures observed at the withers were significantly lower ( $22.15\pm3.09^\circ\text{C}$ ;  $P<0.05$ ) than those evidence in all other positions when a neck strap was used. The skin temperatures observed following the use of a saddle handle also varied between measurement positions ( $F_{4,165}=46.91$ ;  $P<0.001$ ). Skin temperature was significantly lower ( $P<0.05$ ) at the under saddle position ( $13.9\pm1.88^\circ\text{C}$ ) than at the cantle, girth, and either of the ring point positions ( $21.9\pm3.3^\circ\text{C}$ ;  $22.6\pm4.21^\circ\text{C}$ ;  $21.2\pm3.05^\circ\text{C}$  and  $21.4\pm2.93^\circ\text{C}$  respectively when a saddle handle was used. ITI has demonstrated that the use of balancing aids can have a physical effect on the horse/pony with irregular temperatures observed where the balancing aids interface with the horse.

**LP:** Those responsible for the welfare of the ridden equid should be aware of the physical impact that the use of balancing aids may have. Dependency on balancing aids could be avoided by training novice riders balance techniques prior to riding.



## **Problem solving in the horse (*Equus caballus*) using a detour task**

Hannah Savin and Hayley Randle

Duchy College, Stoke Climsland, Callington, Cornwall, PL17 8PB, UK

The importance of understanding equine cognitive abilities has become widely recognised, not least because they can be used as an indicator for welfare. Detour tasks are often used to assess spatial problem solving abilities and in horse studies have focussed on the attaining of a goal, often based on the horses well developed spatial awareness. The aim of this study was to investigate detour abilities in horses and to determine the extent of the effort made to obtain a goal that had been obstructed. 4 horses (of various ages, breeds and sexes) were required to reach a goal, a piece of carrot placed in a food bucket located behind a 1m x 1m x 12mm plywood barrier. Horses were positioned 3 metres from the goal. Each horse was released immediately after observing the carrot being placed in the bucket. The time (s) taken from release to reach the goal was recorded where the subject was considered to have attained the goal once it touched the carrot. A maximum time of 180 s was allowed to achieve the goal. Successful trials were followed by expansion of the barrier until a maximum length of 5m was reached. If a horse failed to complete a trial successfully within 180 seconds the trial was terminated. Preliminary results show that the average time to reach the 3m goal was 61s ( $61\pm80.5$ ), 4m was 74s ( $74\pm74.5$ ) and 49s ( $49\pm13.2$ ). Analysis also demonstrated that there was no significant effect of detour task difficulty on solving time ( $F_{2,7}=0.11$ ;  $p>0.05$ ). There was also no significant effect of subject on solving time ( $F_{3,9}=266$ ;  $p>0.05$ ). The method

used in this detour-study allows the examination of the complex cognitive abilities of horses. Specific tasks, such as the detour ability assessment, used in this task together with the correct application of learning theory has the potential to advance equine welfare as equine behavioural science knowledge expands.

**LP:** This pilot study has demonstrated that horses possess the abilities required to solve problems, in particular those that involve negotiating obstacles in order to achieve a preferred item (in this case a food treat). This assessment has been used to assess spatial awareness, rate of learning and lateralisation preference in multi species. Humans associated with horses and ponies should take such cognitive abilities into account when interacting with the individuals in their care.



## **Business Enterprise and IT**

### **Dr Bryan Mills: CDL for HE Business, Enterprise and IT**

*Business Enterprise and IT welcomes this opportunity to celebrate the wealth of experience and knowledge which the staff possess and acknowledge the valuable contribution that research, scholarship, and personal development activities make in maintaining the achievement of high academic standards.*

*Giving staff support to enable them to explore and develop their practices through consultancy, training events, conferences or by undertaking personal research has challenging and inspiring outcomes. Staff have reported that not only has their teaching benefited from these experiences but also that their working relationships have developed through sharing what they have learned with fellow practitioners and also that their personal awareness of their areas of expertise has been enriched. Certainly it is very true that the students themselves have benefited from the engagement of their lecturers and mentors with new and challenging ideas.*

*Those staff who are working towards higher level qualifications are demonstrating their commitment towards continuing professional development and to the ethos of the BEIT: to provide a first class education and training for all its students.*

## **Adele Oakes: Programme Leader and Access Coordinator - MA in Personnel & Development**

### **Progress Overview**

I undertook this course to enable the College to widen the provision we offer in this area and to gain the knowledge needed to teach on a wider variety of modules within the BEIT faculty. I was also keen to undertake the course for my own personal development as it is a subject that I have always been interested in and an area where I have some work experience. I am now also teaching a number of Personnel related units on the Access to HE – Business Studies Pathway.

I have now completed my first year of this three year part-time MA in Personnel Development at the University of Plymouth. The modules I studied this year were: Managing for Results; Managing and Leading People; Managing in a Strategic Context; and Managing Information for Competitive Advantage. I enjoyed my first year and achieved good results and have now progressed onto year two.

This year I will be studying the following modules: People Management and Development, Employment Law and Research Methods.

### **Benefits to myself and the College:**

#### **Materials and ideas**

As per last year I intend to continue collating the materials provided during my MA so that I can draw upon them as a resource for my own teaching. All the modules I am studying this year are directly applicable to subjects I teach so I am hoping that they will provide me with a wider understand and lots of ideas for my teaching.

#### **Personal knowledge**

This experience has helped me build upon and expand my existing knowledge. It has also strengthened my academic skills and understanding. Coming from an industry background, not having studied in University for ten years and being new to teaching in HE, I realise I did not have a full understanding of academia.

Next year I will be required to write a 20,000 word dissertation, I have chosen to study how to develop employability skills within undergraduates whilst they are in education. This directly supports the PESD module and will help me to develop a method for measuring the success of this module. Together with Kathleen Pope, who runs the module with me, I then intend to develop this further into a research paper.

#### **Knowledge transfer with fellow students**

There are approximately 20 students on the MA course, the majority of which are HR Managers and Officers from companies within Cornwall and Devon. The course involves a great deal of group discussion and knowledge sharing. I am gaining an invaluable insight into each individual's HR function as well as their business as a whole. Businesses represented include; private businesses such as hotels, charitable trusts, other education providers and public sector businesses such as the Post Office and NHS.

Gaining an understanding of how HR works differently in different sectors and different sizes of organisation is very useful for my teaching.



## **Caroline Cripps: Lecturer, BEIT, Camborne - MSc Computing & ICT**

In September 2008 I began an MSc in Computing and ICT through distance learning with Liverpool John Moore University. To date I have now completed the eight modules required and am now completing the dissertation.

To complete the Database Systems module, I had to critically examine selected techniques for modelling the data requirements of database applications at the conceptual level. For this I needed to develop an understanding of crucial, advanced issues of relational database design and develop and informed appreciation of significant, current issues and trends in database architecture. Recent developments and current trends in databases from both the application and the technology view points had to be examined to be able to complete the module. The module consisted of 50% coursework and 50% exam. To complete the coursework a range of conceptual data modelling techniques for the specification of data requirements had to be applied. This was then followed by applying an advanced understanding of the

principles of relational database models, data integrity and functional dependencies. The exam was undertaken on 5<sup>th</sup> January 2009, for this I had to travel to Liverpool. The overall result for the module was 73%.

The second module, Research Methods, provided me with generic and specific research method skills. The module gave grounding in research methodologies that apply to research in computing and information systems. The module consisted of two assignments which involved critically evaluating the empirical logical character of science, the role and utility of theory and the ways in which hypotheses are developed and tested. A personal model of inductive/deductive scientific endeavour was produced to allow the assignments to be undertaken. Skills in analysing research papers and gaining a familiarity with research areas and approaches was crucial to obtain good marks for the module. Research into Kevin Warwick's future plan regarding Cyborgs was the main research area for this module. For this module I obtained 90%. In January 2009, two new modules for the MSc Computing & ICT began. These were Software Engineering Technology, a core module, and Software Development Java, an option module.

To complete the Software Engineering Technology module a critical examination of the software development process through a study of a range of representative and emergent life cycle models and their associated tools and techniques was undertaken. The requirements of a software system using the appropriate software development methodologies was critically analysed and project management techniques were employed to the development of quality software. A mastery of appropriate CASE tools for software development life cycle support had to be demonstrated, and methods and techniques that promoted the effective development of quality software were used. There was one piece of coursework and a mark of 90% was achieved for the module. This module has greatly increased the depth of knowledge on the subject, this has been incorporated into different modules including Systems Analysis and Design, studied by FdSc IT, and Programming for the Internet studied by the FdSc IT and FdSc Computer Networking students.

The next module was Software Development Java. This module developed the necessary skills for the development of object-oriented applications using the Java programming language. Skills required to engineer Java based software applications, from the initial specification through to implementation, testing and documentation, were demonstrated, and Object oriented principles to produce UML specifications of software applications were explored and then applied. The module consisted of two assignments and a mark of 83% was achieved for the module. The knowledge gained on this module was invaluable and this knowledge was incorporated into the module Programming for the Internet, which is studied by the FdSc students.

In September 2009 another module was studied, Human Computer Interaction. The module covered how to design and implement interfaces between the computing system and its users. An understanding of HCI as a multi-disciplinary subject with a special focus on interactivity and usability in computer systems and software development was developed together with a user-centred approach to computer systems design. The nature of HCI and the support from its constituent disciplines had to be explained and human physical and cognitive abilities to system design had to be related. Development methods to a significant case study were applied and the interactive development life cycle for a significant case study was followed. A systematic and critical approach to the design, development and evaluation of interactive systems was demonstrated in relation to cognitive and social psychology and their impact on HCI. There was a substantial piece of coursework for the module and a mark of 74% was achieved. The knowledge gained on this module has greatly increased the depth of knowledge on the subject, this has been incorporated into the module HCI studied by FdSc IT students.

Entrepreneurship and E-Business started in January 2010. This module required self-directed study to prepare for e-business venture by giving guidance through the process of formulating an e-business plan. Considerations regarding the operational aspects of business and the technological viewpoint had to be taken into consideration. Appropriate technology components that are essential to the successful operation of an e-business were investigated and described. There was a substantial piece of coursework for the module and a mark of 78% was achieved. The knowledge gained on this module has greatly increased the depth of knowledge on the subject, which has been incorporated into the module "Application of E-Business Technologies" studied by FdSc IT students.

Computer Networks started September 2010: this module covered recent developments in the area of computer networks, digital communications protocols and distributed applications. The structure of computer networks, architectures and their protocols had to be critically evaluated and advanced knowledge of the up to date techniques, methods and architectures to specify, design, and implement communications based solutions was applied. The module consisted of two assignments and a mark of 71% was achieved for the module. The knowledge gained on this module was invaluable and this knowledge will be used in assisting the FdSc students.

Computer security started in January 2011 and consisted of the Fundamentals of computer security - Security concepts: confidentiality, integrity, availability and security policies; Security problems: security breaches and vulnerabilities; Information encryption and decryption: terminology, systems and applications, risk analysis; and, Security management: principles, techniques, processes and standards. There were two assignments related to everyday problems including how to make sure a hot spot could be made secure. The information gained through this module has enhanced the security topic included in the module website development.

The dissertation module has now been started and involves research into different systems and analysis methodologies. It is expected that approximately 800 hours are spent on this module. Case studies must be critically evaluated together with any methodologies they use. After research into the many different methodologies that are available it will be decided which one or combination of one will be used to analysis and design a prototype system for the project. Different research methods will be used including action research and qualitative to gather the required information. Users' needs will be analysed, not just for the new system requirements, but also for ergonomic and HCI factors. The interface of the prototype will have to be of a user centered design and self-explanatory; to ensure this happens HCI aspects will be researched in more depth. All documentation must be completed and time management adhered to. The main emphasis of the dissertation is on the research into the different methodologies and which are suitable for different types of investigation. The knowledge gained on this module has greatly increased the depth of knowledge on the subject, which has been incorporated into the module "Systems Analysis and Design" studied by FdSc IT students.

We wish Caroline the best of luck with her dissertation!



**Colin Milroy: Business Development Manager, Camborne - MA in Management (by distance learning)**

### **Learning Support**

The course has run three residential sessions, the third of which was vital and provided the much needed support to complete the research part of the programme, as well as the opportunity to discuss with other students the pros and cons of different methodologies. ALS sessions after this event are important as during the intervening period there is time to reflect upon discussions at the 3<sup>rd</sup> residential.

The Action Learning Sets (ALS) have proved to be most beneficial towards the end of the course. The ALS constitution meant minutes were taken by a volunteer or nominated learner and each learner given 30 minutes to discuss progress, content and issues to then receive feedback from the group. With regards my own experience, I found reflective practice a vital component of learning at this academic level without which research project parameters of time and quality would ultimately be compromised. Although often disheartening, the self-reflection and the critical reflection of others provided the basis to challenge learning throughout the MA study from project proposal, aim and objectives, research design, methodology, analysis through to conclusions and recommendations.

### **Completed assignments**

#### **#1: the project proposal.**

Here a template is provided and the project proposal is written in the given fields which include personal details, project title - eg "How can Cornwall College enable and facilitate a low carbon behavioural change community-led project within the Pool area which surrounds Heartlands?" - timescales, personal context,

background, short critical review, research aim and objectives, research methodologies, resources and impact of independent study.

**#2:** a formative assignment.

The aim was to critique three academic papers downloaded via the Coventry University e-journal library. Although not marked as part of the course, it is vital to allow tutors to make sure students understand how to read and critique academic papers.

**#3:** the literature review/independent study.

This assignment should provide the reader with an introduction and background as to why the project is taking place, and provides an insight to and an evaluation of previous research carried out in the subject close to the proposed project.

**4<sup>th</sup> and final:** the project dissertation.

This is the culmination and most vital part of the course. The dissertation needs to make sure it satisfies the requirements of the assessed components together with satisfying both sponsor requirements and own personal satisfaction and learning outcomes.

**Appraisal of the Course**

Having studied with the Open University where I had an excellent experience, this distance learning course had a lot to live up to. In comparison to the Open University, this course has similar features including on-line forums and resources, residential and tutorial sessions. Apart from the on-line forums and materials available where the OU tutors appear to have more time and the resources are easier to access and download, overall my experience has been good.

However, although I am extremely lucky to receive funding for this course I would expect some course books to be provided as standard issue rather than left to the individual student to obtain. The course books provided by the OU on a standard degree level course are excellent and are part of the overall course fee which is also very competitive.

As the course has progressed through to the dissertation production, I have found the real strength of the style to be with the peer assessment and collaboration via the ALS's and on-line (Moodle) discussions to be very powerful.

**Impacting my role**

My current role at Unlocking Cornish Potential includes engaging with all environmental sector businesses including Low Carbon Cornwall. This course will enable me to become more 'carbon literate' and able to understand the discourse associated with current agencies such as Low Carbon Cornwall in trying to provide a low carbon economy within Cornwall itself. This study has also enabled a more critical approach to thinking and understanding business needs and identifying solutions to problems both internally within my department and also externally within the businesses with which I deal.



**Jeremy Robson: Course Manager for Peter Jones Enterprise Academy, Cornwall College Group – MA in Management**

In September 2010, having successfully completed the Diploma in Management level 7, Jeremy enrolled on the MA Management programme delivered through Cornwall College. Jeremy's intention was that, together with other programme managers, his experiences and knowledge would help develop a strategic programme of retention specific to the Duchy Stoke Climsland site.

This research has been undertaken to better understand the various issues and achievements of a case study Higher Education Institution (HEI) and the 'best practice' it demonstrates in the area of student retention. The personal justification for such research is based on the author's desire to achieve a qualification (MA Management), and to inform colleagues of the corporation, where Duchy College, the case study, forms a part.

The management of any organisation requires a level of measurement to assess the effectiveness of the organisation. This performance is measured as Key Performance Indicators (KPI) of which retention is just one of many in education. Currently retention is used to ensure the state sponsorship, via the funding offered by Higher Education Funding Council for England or HEFCE (Higher Education Funding Council for England 2010), is being claimed for correctly. It is this funding issue, the need to retain students to stabilise budgets within an HEI, and the desire to meet the governments 'widening' agenda (House of Commons 2009, Lyons 2006, Walker and Zho 2003) which has resulted in a number of initiatives and an increasingly rich body of evidence focusing on retention.

There exists a great deal of literature on this subject which follows a similar theme, 'What has gone wrong?' (Tinto 2008, 2006, Tinto and Pusser 2006, Martinez 2001, Berge and Huang 2004, Hammer 2003, Attwood 2008, and others) This research approaches the topic from a different angle, 'What is being done right that allows for greater retention success?' Fundamentally this research is based on the positives of these experiences.

The results were interesting and varied. The difference in perceptions, opinions and feelings from students and staff was marked, but maybe not as marked as pre-supposed by the researcher. There was also a slight difference in results between levels of management, which was unsurprising due to the differing nature of the managerial roles.

It is intended that the final report can be used to inform and develop HE provision, management techniques, and progress the systems by which HE function for the benefit of Students, staff and strengthen Duchy College as a HEI of choice. Jeremy successfully completed his MA in 2011, and is working towards implementing his report.



### **Josie Scobling: Press & PR Executive, Corporate - Public Relations Postgraduate Diploma**

In July 2010 I completed the Chartered Institute of Public Relations Postgraduate Diploma through Cambridge Marketing College, for which I was awarded an overall merit grade. The course spanned nine months with qualifications being awarded in October 2010, and consisted of eight taught sessions in Bristol alongside self-study. It is aimed at practitioners who want to develop their strategic PR management skills and takes an in-depth look at PR as an integral part of successful business practice.

Module one focused on developing the ability to analyse and critique a range of public relations concepts, models and theories and apply them to public relations practice. One of my reasons for wanting to apply for this course was to give myself an understanding of the theory which underpins the work I am doing on a daily basis. I now find myself considering the theoretical aspects of public relations in my normal working practices. I will often think about how theory has been applied to tasks I have already carried out, and how it could be used to improve a similar task in the future.

The second module developed my ability to define, critique, and apply a range of theories to strategic public relations planning and management. I was assessed on my ability to restructure the PR function for an international organisation and present my recommendations for a new internal and external communications plan, backed up by a rationale for my decisions. The assignment was realistic of a strategic PR role, by the end of which I certainly felt better placed to consider strategic techniques within my PR practice and now regularly plan PR campaigns using all the elements which I have become accustomed to using during the course. The international element of the module also took into account multi-cultural issues, which reflects well on the equality and diversity strategy within the College.

As part of the qualification, I completed a research project focused on 'The role of Public Relations for promoting Higher Education in a mixed-economy educational organisation – A Relational Approach'. The research looked at whether a strong relationship between PR and HE staff can raise levels of promotion for HE in colleges in England. Staff from Cornwall College, and from other colleges across the country, were questioned. Initial results indicated that internal relationships are important in achieving good external

promotion, although further research would need to be done by individual colleges to draw stronger conclusions and be truly beneficial to each institution.

I feel that my studies progressed well throughout the course. I was able to commit time to my coursework outside of the working day and completed work to a high standard before the deadline. The structure of the course suited my learning style, being able to share best practice with other delegates, but also working at my own pace over a period of time. I started to see the benefits of the course while still completing work and have seen countless more benefits since, in both my day-to-day working practices and in the results that the College has seen as an outcome of my heightened understanding of public relations theory and practice.



### **Kate Poole: Widening Participation Manager, HEDT, Camborne – MA in Management**

#### **Investigating what factors shape the career development plans of Health and Social Care Apprentices and Advanced Apprentices in Cornwall**

Recent Government papers (*Higher Ambitions and Skills for Growth*) have put the strengthening and sustaining of work based routes into HE at the centre of its Higher Skills policy. However, progression into Higher Education remains ‘stubbornly blocked’ at 4% (fdf 2008). Is there a mismatch between Government policy and Advance Apprentices’ potential to progress? On the demand side, anecdotal evidence within Devon and Cornwall (AdvANCE 2009) suggests that there is a strong aspiration to progress higher - 68% of Apprentices when asked said that they wish to train at a higher level within 3 years of completing their framework. On the supply side, there is evidence that many Apprentices progress into HE on a part time route - data which is not included in the UVAC statistics (UCAS as cited in The Skills Commission 2008 :38).

The task set by this research is to tease out the story behind the apparent high level of aspiration concurrent with low levels of actual progression. The research aims to identify what factors support and what factors limit the career development plans of these learners.

#### **Objective one**

To review current literature to inform and shape the research content and process

#### **Objective two**

Identify perceptions and practice related to the career development plans of Apprentices, Advanced Apprentices and their key influencers in Cornwall.

#### **Objective three**

Review current legislative requirements and identify current higher learning opportunities for Health and Social Care Apprentices and Advanced apprentices.

#### **Findings revealed that**

- Each of the Apprentices entered Health with limited knowledge of the job requirements, the training they would receive or awareness of progression routes through to higher levels.
- Low expectations and self-confidence levels of Care staff is raised primarily by a supportive manager and positive staff team dynamics but can also be increased through stimulating learning pedagogy and rewarding work experience.
- Limitations placed upon personal career plans included funding for training and lack of future work opportunities. Examples of a restricted pedagogy had the effect of frustrating and de-motivating the Apprentices.
- Funding is a strong disincentive for the Apprentices but its power to limit aspiration depended on how much it interplayed with individual factors such as available learning and career opportunities, timing and intrinsic motivation to progress and move forward.
- The lack of clear progression routes to the professions and higher skills has the effect of limiting the aspirations of new staff and discouraging others who are highly suited to the work.

## **Recommendations**

- Firstly, there needs to be a stronger partnership between Funding Agencies, Training Providers, HE providers and Employers to ensure that higher skills needs are matched closely to available opportunities. Secondly, the take up of these higher learning opportunities needs to be encouraged and supported by the Apprentice's employer.
- Progression resources and information need to be embedded within both the induction and appraisal process. Good practice deployed elsewhere in the country, which stretches the Apprenticeships to higher levels, need to be adapted for the local market; such as linking the framework to Health and Social Care Foundation degree or running NVQs alongside HE modules. Additionally, the use of case studies and Care Ambassadors would not only raise awareness of progression routes, it would prove to the unconvinced that progression can happen and does benefit the individual.
- Expanding the learning experience in the work place and the embedding of good practice will require Employers to recognise and endorse the benefits of learning within their workplace. Simple changes such as building in time for reflection and providing quality time with different Health professionals may have management and resource implications, but the return will be heightened motivation and a lower staff turnover.

Department of Business, Innovation and Skills. *Higher Ambitions: The Future of Universities in a Knowledge Economy Executive Summary.*

Department of Business, Innovation and Skills. *Skills for Growth – Executive Summary*

*fdf (2008) 'Features of apprenticeship programmes that supports progression to higher education.'*

The Skills Commission (2008) *Progression through apprenticeship* [online] available from:

[<http://www.actiononaccess.org/resources/files/resourcesApprenticeshipprogression\\_report\\_09.pdf.>](http://www.actiononaccess.org/resources/files/resourcesApprenticeshipprogression_report_09.pdf)



## **CCB Research Units, Camborne**

Within Cornwall College there are two research units based at the Camborne campus: the Air Quality Unit, and Cool Earth. Their reports follow:

### **Barbara Parsons: Manager, Air Quality Unit, Camborne**

The Air Quality Unit (AQU) is a self-supporting environmental research consultancy, funded by public and private sector consultancy and research grants. Although primarily concerned with air quality issues, the AQU has interests in other environmental sectors.

Current work includes:

- monitoring of nitrogen dioxide concentrations at towns across Cornwall
- the production of an Air Quality Management Area Action Plan for Cornwall
- pre-development Air Quality Assessments (AQAs)
- monitoring of fugitive dust from a local coal merchants.

The Unit also works with Cornwall Council to develop actions to reduce pollution at previously identified 'hotspot' sites. The use of Geographic Information System (GIS) mapping capabilities allows the AQU to spatially display and analyse air quality data, providing an excellent visual tool for clients' reports.

The AQU teaches six sessions in Environmental Pollution (Air, Soil and Water) on the BSc Environmental Resource Management (ERM) course, and directly supervises FE and HE Students' environmental projects. This current academic year sees one BSc ERM student examining traffic-related nitrogen dioxide concentrations along the A3047 in Camborne, and another monitoring the generation of different size fractions of airborne particulate cement dust in the construction workshop and assessing the health impacts

of breathing in this dust. These projects are providing the students with vital work-based learning. Researchers within the AQU are often drawn upon to offer scientific and environmental advice to both students and staff alike.



Researchers also teach air quality lessons in schools on behalf of Cornwall College's STEM project and the Royal Society of Chemistry, as well as being involved in the RSC's Environment, Sustainability and Energy division.

Ben Harris, AQU researcher, with Year 10 students at Hayle Community School at the RSC Chemistry in Action day.



### **Cornwall College Research Department: head of department - Matthew Owen; team members – Jemma Woodman, Kitty Jenkin and Lauren Faulkner**

The international rainforest charity Cool Earth is based at Cornwall College Camborne in the Opie Building. The charity has been running for four and a half years and has amassed over 140, 000 supporters from across the globe.

Cool Earth has a unique approach to rainforest conservation believing that conservation can only work when local people manage and benefit from environmental protection. Cool Earth forms community-led projects with rainforest communities to halt deforestation one village at a time. This has seen the protection of over 215,000 acres of at risk rainforest across South America. This has prevented over 55.9 million tonnes of CO<sub>2</sub> from being emitted.



In November Cool Earth and the fashion designer Dame Vivienne Westwood launched the campaign No Fun Being Extinct. The campaign was launched in response to the World's Bank's failure to spend \$600 million of funds that have been dedicated to tackling climate change. Cool Earth aimed to show that an immediate and simple solution to halt deforestation is already in motion and that individuals do not have to wait for governments to take action. By protecting endangered rainforest trees everyone is able to make a real difference. One rainforest tree can halt up to 30 tonnes of CO<sub>2</sub> emissions, which is three times what the average UK household emits in a year. The campaign aims to raise funds to protect three key rainforests by 2020 and has been supported by Stephen Fry, Lily Cole and Kate Moss.



Cool Earth has also launched Cool Earth Coffee. The 100% Rainforest Alliance certified coffee is the most powerful environmental product around as each jar protects an endangered rainforest tree in Peru. In its first year Cool Earth Coffee has kept over 163, 000 rainforest trees standing as well as becoming the coffee supplier to Britain's armed forces. The coffee is available at Tesco and from the Cool Earth website.

Cool Earth also went on its first field trip with Cornwall College students in July 2011 to the rainforest of Malaysian Borneo. Cool Earth's Jemma Woodman, Head of Communications and

Fundraising, and Lauren Faulkner, Cool Earth's Business Development Officer went on the field trip with Zoology students from Cornwall College. The field trip shared the research expertise of the staff and students with Cool Earth's expertise in rainforest conservation in this biodiversity hotspot.

Since their return, Jemma and Lauren have joined up with the students and staff from the trip to talk with school children at Constantine Primary School who were studying rainforest protection. The pupils contacted the College to learn more after reading about the trip in the West Briton. This coincides with Cool Earth's continued work to be a resource for staff and students at Cornwall College in matters of conservation, which includes various talks and lectures across the campuses.

You can get involved with Cool Earth at their website [www.coolearth.org](http://www.coolearth.org); email [info@coolearth.org](mailto:info@coolearth.org); facebook [www.facebook.com/coolearth](http://www.facebook.com/coolearth) and twitter [www.twitter.com/coolearth](http://www.twitter.com/coolearth)



## Creative Arts and Media

### **Jack Price: Head of Creative Arts & Media**

*I am delighted to be once again writing an introduction to the HE Scholarship Report for Creative Arts and Media. During a period where funding for all aspects of education and CPD is particularly tight, I am very grateful for the continuing support of the college to its staff. This represents a real commitment to the on-going development of the most important resource the college has.*

*The work undertaken by staff from the Creative and Media area is once again inspiring and demonstrates the dedication of the staff team to improve their own knowledge, skills and practice and thereby to have more to offer their students.*

*The breadth of work represented in this report is testament to the wide range of interests of our staff and of the wide range of courses on which they teach. A journey through these pages gives an insight into the varied nature of the creative sector. The links to the professional world of the arts comes through very strongly and is encouraging at a time when the arts are once more under threat, yet still making a hugely important contribution both economically and culturally. I thank the staff for their continued efforts and am proud to introduce their work to you.*

## Davina Kirkpatrick: Lecturer, Ceramics, Camborne – MA in Multi-disciplinary Printmaking



In the final two modules of MA Multi-disciplinary print Davina is trying to draw together the threads of the learning, both theoretical and practical, she has undertaken whilst studying as well as building on the work she created in previous modules. Her stated intent at the start of the MA was to play purposefully and this underpins everything.

She is producing a new body of work that links to the themes of bereavement and loss, fairytales and dreamscapes that she has been exploring since the second semester, and the death of her mum, to expand the visual vocabulary available to her.

Fig 1 'Letting go'

Figs 2 '21grams series'



She had previously been playing with visual representations of presence and absence using images/objects and the impression of images and objects related to her mum's possessions, as well as such notions as 21 grams (the supposed weight of the soul) and with imagery directly related to the bodily movements she made, whilst her mum was dying, to break the umbilical bond that she

Fig 3 '21grams series'



felt was stopping both of them letting go and felt that enabled the death to occur.



The new work focuses on The Glory Woods. The greatest area of fascination for her is how the paths remain unchanged – they are the same ones her parents walked as they courted, and she wasn't even a twinkle in her father's eye, the same ones she walked on to get to grandma's house as a child, and the same ones that figured through her dream landscapes of the last 26 years.



She is interested in the impressions this place has indented on her and how, in casting the paths, she is not really recreating marks that were made by her mum or by her child self, yet paradoxically they are an accumulation of all the feet, paws and hooves that walked those paths.

The final installation will enfold and surround the viewer, as that is how grief has felt to her, that presents impressions of presence and absence, tactile responses to the paths.

Paul Ricoeur says in *Memory, History, Forgetting* “*The work of mourning is the cost of remembering, but the work of remembering is the benefit of the work of mourning*”

There is a therapeutic benefit for her in exploring loss and grief as it enables her to both keep the feelings close and look at them in terms of visual representations with more distance and objectivity. Returning to the wood feels like an act of remembrance and also a moving on, bringing the past and the present together.



Davina has also taken part in a number of group exhibitions with fellow postgraduate students.

The Mud reading group has changed into a postgraduate reading group, still presided over by Dr. Iain Biggs, and this has allowed a deepening of Davina's understanding of cultural geography, philosophy and landscape/place/space based research. She has attended a number of land2 organised events/conferences.

She is also embarking on a collaborative paper with cultural geographer Dr. Owain Jones.



### **Cecil du Valle: Course Manager, Performing Arts, CC St Austell – “Music Makes Me Tick”**



Music Makes Me Tick is a film documenting life for a young man who suffers from Tourette syndrome. Permission has been granted by Rob to make this report and to be named.

My involvement consisted of 20 one-hour music sessions, which used music as therapy to help Rob cope with his tics. Before I agreed to do this work, I spent a few weeks researching tics and reading case studies that have been written concerning music as an intervention for the syndrome. With medical problems related to the brain and emotions, I feel music seems to sometimes relieve and improve the situation rather than to completely cure.

I approached the work as a case study to show results from a short-term intervention and to hopefully discover a helpful pathway for Rob to follow and help with his condition.

The first few sessions developed in bonding as well as in understanding the process that we were going to follow with using music as the method of intervention. Rob had been a performing arts drama student at Cornwall College St. Austell. He was familiar and comfortable with the environment of the room that we used at the college for our sessions.

Rob often stated in the first few sessions that he aspired to have similar experiences as I have had in the music business. Some of his heroes are people that I have been associated with during my performing years. I felt during the early sessions that this type of relationship could be detrimental to Rob's own positive progress. Fortunately, as time passed, he was able to look inward and value the sessions as personal and a pathway to find a possible relief from tics. It seemed as if I began to be perceived by Rob as a person who was willing to give time to explore his feelings rather than being perceived as a pop music person.

The documentary explains and shows the process that was used in the sessions. Film of actual sessions was included. Not all sessions were filmed. A professional did the filming. At times I felt that the cameraman's presence interfered with concentration and communication between Rob and me. We were both able to adapt to this unusual type of session.

I value filming within sessions as it helps me to recap moments where I could possibly improve my work. I feel that filming is less intrusive when done with a camera set in a fixed place without someone operating it.

It is easier for all involved to forget that there is a camera recording if it is placed in an unobtrusive place within the room. My feeling is that the most engaging sessions were without the cameraman's presence.

There was noticeable relief while music was shared. Tics were not evident during playing but gradually appeared after talking began. At times Rob arrived very distressed and anxious. It quite often seemed as if Rob arrived to the session disturbed and looking forward to the playing for relief. I feel that we were successful in attaining temporary relief. My difficulty during supervision was in accepting that temporary relief may only be the end result. I've gradually introduced meditation into the musical intervention process and am finding the results extremely exciting. The playing seems to introduce relaxation and the meditation process seems to extend the relaxation deeper and for longer. There is a noticeable facial change, which I was unable to see during the music process. The face seems completely relaxed and unaffected by any of the tourette symptoms. This has developed within the last 3 sessions so we are exploring this at present. Both Rob and I hope to continue the sessions during the winter.



**Jacqui Knight: Lecturer, Arts & Media, Camborne - Development of new film work for exhibition in artist led initiative**



Development of new film work *Vulpes Vulpes*

My research interests centre around the way natural phenomena publicly comes to presentation, particularly objects of knowledge within the natural sciences that have a claim to a certain objectivity through rigid methodological systems of classification. Collecting, arranging, organising, archiving, naming, all belong to a hermeneutic act as a procession towards possible understandings, of the world and oneself. Understanding as such that begins as a sensory apprehension towards something, is made explicit through language and given form, only to re-enter the subjective domain in its re-application to the world.

My new film work, *Vulpes Vulpes* seeks to describe how the museological device of the museum diorama simultaneously transports us into a fictitious world that is more selectively real than the real, whilst remaining aware of the contrivance and unreality of the witnessed scene. Its interesting to me, why we continue to find rudimentary visual illusions, such as dioramas, fascinating at a time when far more elaborate and apparently compelling effects can be created in modern media. There is a sense in which we gain huge pleasure from the athletic exercise of our senses in collaborating with an illusion when the mechanism of illusion, in this case the wooden plinth and the glass case, remain apparent. We gain a special frisson from the interplay of perceptual and cognitive worlds that are irredeemably separate, whilst tweaking the very same visual mechanisms that we have evolved to navigate the awesome complexity of our seen world.

This film work was developed with the help of the natural history curators at the Horniman Museum in London. Their interest and support in my research project has led to a firm future relationship with the museum who are keen to document and save these displays from being withdrawn from public viewing in favour of interactive screen based exhibits.

With the proposed new Creative Practice degree in sight, I see my activity as a practicing artist as one essential contributory element for the Camborne faculty to successfully deliver and attract prospective students to the BA. An active artist/educator undoubtedly helps to raise the visibility and exhibiting profile of the staff within our expanding department.

As my practice and research interests are not confined by traditional disciplinary boundaries, this sits in sync with the new mode of learning being facilitated with the launch of the new Creative Practice Degree. The new Creative Practice course being theme led and issue based rather than a discipline specific module based curriculum, seeks to encourage conceptual and interdisciplinary thinking and practice. This method sits comfortably with the way I approach my own art practice and one I feel wholly familiar with to facilitate in my teaching.

Just as my work seeks to obtain a critical self-awareness of how one understands the process of learning and what is learnt, this self-awareness and reflexivity is also a teaching and learning strategy that is facilitated in the teaching of Fine Art. The ability to step outside yourself and reflect critically not just on your work but also the process of learning is a transferable skill invaluable for progression and creating autonomy for life-long learning.



#### **Linda Styles: Former lecturer, Arts & Media, Camborne**

#### **“Mark of the Hand” Exhibition - Treloowarren Gallery July – September 2009**

Ceramicist, Linda Styles, embarked on an exciting project which reflected upon and celebrated the history and the tradition of specialist vocational study of Ceramics in Cornwall, highlighting the need for continued support, fresh input and future growth of ‘the Ceramics Department’ at Cornwall College, the focal point being to promote the uniqueness of ‘clay’.

Seventeen craftsmen and women were invited to exhibit a mixed and exciting array of contemporary ceramics, the more established makers were invited to also show key examples of early career work, for example Jenny Beavan, who taught on the early Diploma in the 1980s, to show her wonderful single and double tea pots on stands, and Nic Harrison, who studied at Cornwall College (Camborne Tech) in the mid to late 1970s, to show early pottery inspired by the teaching of Bill Marshall. Travelling back in time even further, Marjorie Hall and Barbara Hill provided a fascinating insight into their teaching and learning experiences at Redruth School of Art, which was made available as a written archive document. Barbara also showed a selection of her ceramic practice that spans six decades!

Examples of relevant mid-20<sup>th</sup> century modernist studio pottery (Janet Leach, William Marshall, Harry and May Davis) were kindly loaned by private collectors to provide a very special and fascinating showcase of historically important work

In addition to this there was a myriad of subjective memories and fond reflections, original course publicity material and photographs that were collated to add two-dimensional historical depth and interest to the show. The makers of tomorrow were represented by our most recent graduates who were represented by a limited selection taken from the final 2009 HND show.

The show was purposely timed to mark the closure of the long running Higher National Diploma which has been replaced by an FdA in Contemporary Ceramics Practice (written and managed by Wendy Wilbraham), which commenced in Autumn 2010, continuing to be based in the same annexe that has been ‘The Ceramics Department’ since the early 1970s.

This celebratory show was incredibly well supported by all sectors of the ceramic industry, with particular thanks to Rod Shaw-Sands and members of Cornwall Crafts Association who kindly gave the gallery space at Treloowarren to commemorate the rich and vivid history of vocational ceramics education in Cornwall, a history that is intrinsically linked to the inception of The Cornwall Crafts Association. Cornwall College research fund provided the full funding for the design and production of a show catalogue.

Linda had based the core research for this project on subjective recollections, factual reference, images and examples of work and thoughts connected to the 'studio pottery' tradition, taking into account the transitional backlash 'fine art principled' freeform ceramics and evolution of modernist design principles that have led us to where we stand today.

In the picture, from L to R:  
Back row – Seth Cardew, David Metcalfe  
Middle row – Simon Thompson, Jenny Beaven, Peter Smith,  
Binny Mathews, Mike Stead  
Front row – Clive Guy



### **Mat Osmond: former Lecturer, Arts & Media, Camborne**

During 2011 Mat used Cornwall College research funding to develop and submit a proposal for PhD research, to begin in October 2011, as well associated research in relation to both teaching/learning at CC, and the practical studio work which remains the core of his own research practice.

The development of the proposal has arisen in tandem with a sifting and clarification of ideas towards a series of six lectures, seminars and discussion assignments that Mat will use within the delivery of FdA Fine Art Module FIAR 251: *Negotiated Studio Practice Project*. The focus of these sessions will be on situating contemporary understandings of art, imagination and creativity within broader cultural/ historical contexts than contemporary Fine Art, on looking at common ground existing across different creative disciplines, and on encouraging students' engagement with direct personal experience in the development of their visual language.

Due to time and financial constraints, Mat was unable to complete the third proposed outcome – an exhibition. However, his studio practice remains an intrinsic aspect of the PhD proposal, and work produced over this period has been selected for a leading artists' book publication (IRIS) in 2011, and for a follow-up artists' book exhibition in 2012.

*The Sea Hare* – A reworking of the Sumerian myth of *The Descent of Inanna*.

This is an image and text narrative engaging with one of civilisation's earliest written stories, exploring its central metaphors of descent, darkness, empathy and renewal. This would form the core of a broader body of work, including drawings/prints, writing, and artist's books, which would contribute to an ongoing process of reflective engagement with the issues above, within a series of specific contexts.

An example of Mat's work produced during this period:



Hands resting lightly on the page, hare tries to remember.  
Something long forgotten has stirred in the room.  
Staring at the paper, it comes to her: an invisible wave,  
thickening the air.  
A metallic sweetness, and behind that, something else. Black.

Hare feels her nostrils flare, her mouth water.

There is something hare cannot see, tugging on the page.  
She can hear the paper ripping, she can even feel it now,  
pulling at her fingers.  
Hare shuts her eyes and listens, and there it is. Eating.



### **Patrick Lowry: Lecturer in Fine Arts' Practice, Camborne - Leeds Metropolitan Exhibition**

#### **2010**

Two independent projects were undertaken during the year. The first was a work developed in response to a request from the curator of Leeds Metropolitan Gallery, a gallery space associated with Led Metropolitan University. The second work was developed for an exhibition at the Newlyn Gallery of work from selected Newly Society of Artists.

Although the works, *Cash Machine* (below, left) and *Lifts* (below, right) were developed separately and exhibited independently, both were conceived largely as a comment on consumerism and the illusory, constructed and monetary facade that supports this. The pieces, as with the majority of my work, also examine my interest in our relationship with places and particularly our engagement with the built environment – the urban, man-made, and unnoticed. Again, as in other of my works, *Cash Machine* and *Lifts* are intended to have a direct dialogue with the particular space in which they are presented, using processes of replication and displacement as the vehicle for audience engagement. Whilst this engagement might initially relate to the physicality of the work itself, it would, hopefully, develop to consideration of the subject that is being represented, and how this subject and/or its relationship to both its physical and wider social environment might be interpreted and what it might imply.



Throughout the development of both pieces, students on the FdA Fine Art Practice course were able to follow the research and realisation of the work and, in the case of *Lifts*, were also able to see the work installed in the gallery. The development of these projects was directly linked to two first year modules,



Introduction to 3D, and Site Specific Practice, and along with other examples of artists' works usefully opened up dialogues, in addition to the practicalities of making this sort of work, around the role of artists as social commentators.

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## 2011

During this academic year Patrick Lowry has, with the support of research funding, developed and realised three site based projects. The first of these in the context of 'Happidrome' an artist led initiative.

### HAPPIDROME<sup>4</sup>

#### **Lizard National Nature Reserve, Lizard Peninsula, Cornwall, 11-12 September 2010**

Happidrome Four was presented at the former WW2 RAF Dry Tree radar station on the Lizard peninsula in Cornwall. It involved five artists creating and presenting new work in response to the site over the weekend of 11-12 September 2010. Delivered in partnership with Natural England, (who manage the area as part of the 5,000 acre Lizard National Nature Reserve), the project attracted support from Arts Council England, Cornwall Council, Feast touring arts programme and in-kind support from a local renewables company, Kraft Maus, who generated green energy for the event using wind and solar power. Organised by artist, Sara Bowler, Happidrome Four was the fourth manifestation at the site since 2007.

<http://happidrome.wordpress.com/>

#### **Patrick Lowry Hidden Agenda, 2010**

MDF, Wood, Light fitting, Acrylic paint

'Happidrome' is an installation in a derelict World War 2 radar base at Goonhilly Downs, Cornwall. The Happidrome's particular site, and its history of a second world war radar base, in many ways represents a particular aspect of military activity both contemporary and historic, which has by its nature been cloaked with secrecy. Hidden Agenda is comment on this, a construction that is visually integrated into the fabric of the existing receiver block and appears as an entrance to a fictitious 'other' space. The doorway, a lift door, giving the illusion that it was part of the building but, unlike the defunct areas of the site, continues to offer access to a still used, but secret space, where unknown activities take place



#### **24 Hour Cash, 2011** Selected for the Open West, and installed in the entrance foyer to Pitfield Studios, University of Gloucestershire



This work was conceived largely as a comment on consumerism and the illusory, constructed and monetary facade that supports this. The piece, as with the majority of Lowry's work, also examines an interest in our relationship with places, and particularly our engagement with the built environment – the urban, man-made, and unnoticed. Again, as in other works, this piece is intended to have a direct dialogue with the particular space in which it is presented, using processes of replication and displacement as the vehicle for audience engagement. Whilst this engagement might initially relate to the physicality of the work itself, it would, hopefully, develop to consideration of the subject that is being represented, and how this subject and/or its relationship to both its

physical and wider social environment might be interpreted and what it might imply.

# the open west

An annual open competition and exhibition inviting submissions from national and international artists practising contemporary and conceptual art, inclusive of painting, installation, film, photography, ceramics, print and sculpture 2011 judging panel - Richard Billingham, Matthew Raw, Lyn Cluer Coleman and Sarah Goodwin. 45 artists were selected. 4 award winners were announced on Friday 11 February at the private view. The exhibition ran from 9 February to 5 March at Summerfield Gallery, Pittville Studios, University of Gloucestershire.

<http://www.theopenwest.org.uk/>

Replica of cash dispenser: 105cm x 68cm x 30cm; GRP, MDF, perspex, light fittings



## Travelodge, 2011

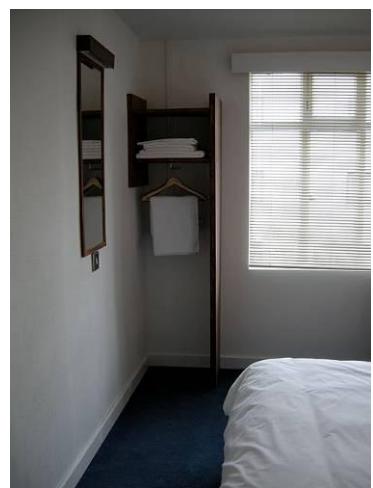
Travelodge is a work developed during a three week residency at MEANTIME project space Cheltenham.

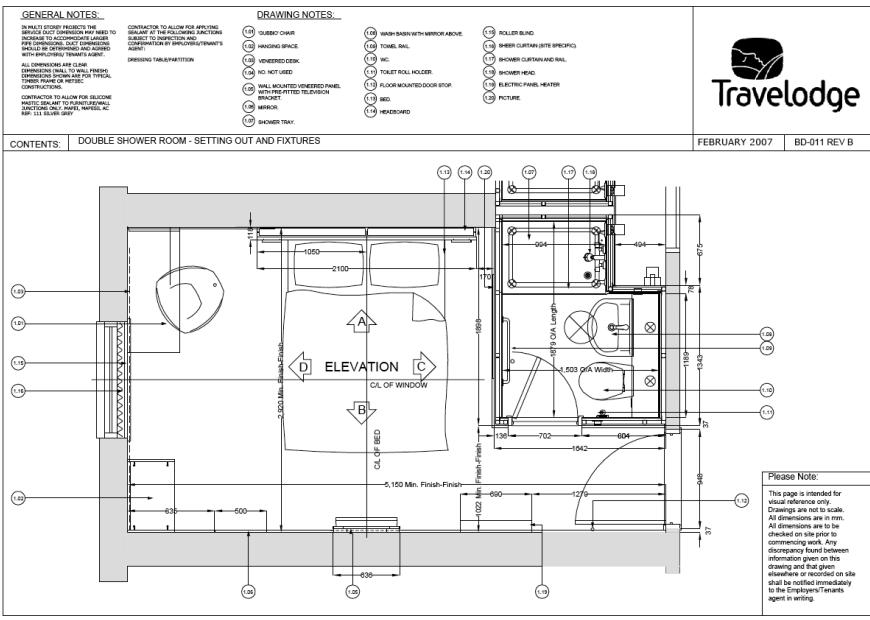
### Residency: 9th March - 2nd April

Selected from the 2011 OPEN WEST shortlist, MEANTIME welcomed back artist Patrick Lowry. Patrick was the first MEANTIME/OPEN WEST resident in 2009 when he constructed a life-size reproduction of the basement stairwell at The Exchange, Newlyn in the upper space at MEANTIME. Patrick Lowry's new work for MEANTIME, the construction of replicated accommodation offered by international budget-hotels, based on research and recollection, provides an opportunity to consider the concepts surrounding such places - travel and temporality, distance and proximity, architecture and design, collisions of domestic/personal and public/impersonal space and suggests how form can come to displace the ideas they purport to represent.



<https://picasaweb.google.com/meantime.space/PatrickLowryMarch2011#>





<http://www.meantime.org.uk/>

## Travelodge

Replica hotel room, installed  
in MEANTIME project space in  
Cheltenham  
243cm x 292cm x 480cm  
Plywood, wood, fabric, light  
fittings

+ meantime  
project – space

MEANTIME is an independent, artist-led project-space located in central Cheltenham presenting a monthly programme of artists' residencies, film screenings, live music, workshops and public events, providing a platform for active engagement, dialogue and exchange in current art practice.

MEANTIME provides a practical and critical environment for artists to realise new work, supporting enquiry and experimentation over commodity and market-driven production, and activity and discussion over the routine display and consumption of art.

Artists, groups and curators are invited to submit speculative proposals for temporary projects and month-long residencies to develop and produce new work.



**Phil Whitfeld: Programme Manager, FdA Furniture - Design & Make, Camborne**

### “In the Shadows of Artists”

#### 2010

This is an ongoing project where the initial research into the St Ives Craft Community formed the basis of a paper which was delivered at the Design History Society annual conference in September 2008 – it was also trialled at Cornwall College research day earlier that year. Having mostly exhausted local sources of information I intend to broaden the research and have identified several sources of archival material that may help: Blythe House, part of the V&A archive, and the London Museum, for example.

This trail has now led to the Leonard Elmhirst Archive at Dartington and further research at the V & A.

The University for the Creative Arts in Farnham also houses a substantial Arts and Crafts archive which I have yet to access.

The aim of the project proposal is to re-establish the reputations of those forgotten crafts people who were written out of the history by the advent of the Modern Art community in St Ives. Most had national reputations and many international standing, and research into Shows and Exhibitions will help to establish this. Anecdotal evidence places most of these artisans at the Festival of Britain in 1951 and also with the

Red Rose Guild, a prominent Arts and Craft society that held exhibitions regularly throughout the mid 20<sup>th</sup> century.

Update was presented at the Cornwall College Research Day 2010.

Research has recently been published in an e-book:-

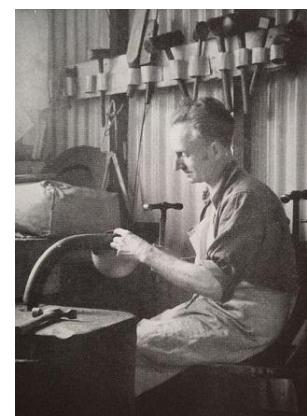
<http://www.universal-publishers.com/book.php?method=ISBN&book=1599429063>

## 2011

This year I have been widening the search in regard to the St Ives craft project that I have been pursuing over the last few years.

One trail of the research led me to the Guildhall in London, who I discovered own several artefacts made from beaten copper by Cornish metalworker, Francis Cargeeg. Unfortunately, while I was at the guild there was no-one available to discuss this with me and the pieces were not at that time on display. However, having opened up this line of enquiry, the guild is interested in my research and is keen to help. They are in the process of gathering the relevant information for me and I hope to receive this in the near future.

A previous line of enquiry had been following Cornish Craftsmen to the Festival of Britain in 1951, and while I had discovered that several local artisans had displayed there, information about them was scant. Having visited the V&A archive last year they put me in touch with the Leonard Elmhirst Archive at Dartington, but there was little information pertinent to my research.



At this point I feel that I have exhausted most lines of enquiry, but what has been of interest is having placed a request for information on

<http://west-penwith.org.uk/home.htm>

I have been contacted by several people who either own pieces of Robin Nance furniture or believe them to be so. I have been able to identify several pieces much to the pleasure of the owners. I will keep this portal open as it may throw up more interesting information.



My research trip to the Guildhall in London also enabled me to spend time following up some leads I had obtained regarding a project I started this year, “The Subversive Cabinet Maker”, concerning two Cornish cabinet makers, Richard Spurr and William Lovett, who were very active in the Chartist movement in the 19<sup>th</sup> century. I have been able to trace Spurr to Bethnal Green where he was arrested and sent to Newgate jail. Later, while many Chartists were hunted down by the authorities, he took the opportunity to migrate to Australia (before he was transported) where he became very much involved in activities leading up to the Eureka Stockade.

His descendant, Noel Spurr, has written much about his ancestor Richard in his book, “Spurr of the Moment, the Story of Noel Spurr”.

Finding information about William Lovett has been more difficult, even though he was a much more prominent member of the Chartist Movement. I hope to continue with this piece of research next year.



## **Sophia Fiol: Course Manager, Performing Arts, Camborne – MA in Education**

Sophia began her MA in Education (IMP) at Cornwall College Business School in 2008. Her aim was to develop a deeper understanding of education and the individual learner in relation to her main subject area: Performing Arts.

Sophia is currently Course Manager for the BTEC National Diploma Performing Arts; AS/A Level Drama & Theatre Studies and Access to HE (Performing Arts (acting). Although the general age of learners across the first two programmes is 16-19 the courses increasingly vary in terms of age, gender, entry requirements and experience.

Within her practice in Further Education Sophia has noticed an alarming number of teenage boys, coming onto the BTEC National Diploma in Performing Arts programme, suffering from low self-esteem and depression, often leading to suicidal thoughts. Their ability to motivate themselves is often thwarted by, at best, severe inhibition and at worst, a deep sense of self loathing.

This observation led Sophia's enquiry for Module 1: 14-19 Work Related Learning in which she explored the adolescent male's search for identity in a post modern era and his poor academic achievement in relation to girls. The paper highlighted society's responsibility in conjunction with education to present a more positive outlook for these youngsters. Performing arts was presented as a powerful tool in re-defining the 'self' and helping boys find a voice. It concluded that even at a basic level, it can help individuals explore and understand their feelings more and in turn develop their confidence through learning how to communicate with others, whilst working towards vocational success.

Having successfully completed Module 1 Sophia embarked on her second: The Adult Learner. With the New Access course in its first year and her teaching experience pre-dominantly lying with the younger learner until now, Sophia valued the opportunity to explore some of the issues that face the adult learner and in turn become more effective in meeting their needs.

Experience immediately became the crucial element to the adult environment along with a strong desire for a personalised learning experience. Being only a one year course and with the demand of a career pathway looming, Sophia became concerned that whilst the learning experience may be valuable the learner may not develop the ability to cope with the hugely demanding industry. Sophia's second paper is titled: *The ambiguity of Truth within a Personalised learning culture: How far do we move the goal posts?* The paper looks at the concept of 'knowledge' and the paradox between the adult learner's relentless search for truth, meaning and outcome in relation to existing practices/industries such as the Performing Arts- whilst requiring a personalised learning experience based on their real-life situations.

For Sophia's third paper she chose the Independent Module. This provided her with an exciting opportunity to develop cultural diversity within the department through a link with the drama department at Harbor College, Los Angeles. Over the past two years the Performing Arts, Media and more recently World Studies programme, have worked collaboratively on an exciting project called the 'Global Classroom'. This is the creative idea of Larry Heimgartner, a professor of Drama at Harbor College. Many years ago his vision was to bring young students together from around the globe through the medium of drama, live media projects and video link ups. Today there are participating colleges from the United States, Cornwall, London, Barnsley, Denmark, Balise and Zanzibar.

Throughout this time Sophia has trained drama students in preparation to deliver powerful performances dealing with issues such as HIV/Aids and social ills often affecting young people today. She has been part of a successful exchange project in which students/ teachers from Cornwall College and LA have visited each other's countries, working closely through performance and forming strong friendships with each other.

These experiences have already changed the lives of some students by providing them with wider opportunities and prospects. As discussed in paper one, many students suffer from low self-esteem and depression and by forming new bonds and working with such impactful material they have found new hope and ambition.

Furthermore, staff have become inspired, developing a new found energy and passion which can then be brought back to their own departments. This could then potentially impact on shaping projects in the future.

In May 2009 all the participating colleges were invited to Los Angeles for a celebratory week of performances and cultural exchange. To develop this paper further Sophia took three students to participate in the week. Throughout this time she observed communication between students and staff, interviewed people from each college and witnessed the effects of such a project on all involved. Ultimately determining how far this type of cultural exchange impacts on students, staff and the wider college.

Overall, the flexible approach to the IMP is impacting on Sophia's role by providing her with the opportunity to explore and challenge both current attitudes in education in line with her own practice and the value system of the college as a whole.



### **Sovay Berriman: former Lecturer, Fine Art, Camborne - Symbol Archive development and revision**

#### **Background to project:**

My research project for 2009/10 is part of an ongoing project that began in January 2008 and is projected to end by 2012. The project, which I have called Symbol Archive, considers the contextual reference points of my practice, creating a framework that allows me to re-visit them through the production of artworks. Throughout 2009/10 I have furthered ideas that developed from this research in 2008/09 (see *Fred Astaire & Ginger Rogers: Back to Back and Ghosts, Landscape, Literature: A walk with Dr. Shelley Trower* research project 08/09), looking at architecture and social control in relation to formalised entertainment spaces such as cruise liners, shopping centres and holiday parks. Along with this I bring my ongoing consideration of the role of escapism and fantasy in providing a framework for the exploration and understanding of these ideas.

#### **2009/10 Symbol Archive Activities:**

My research activities this year saw me make an extended research trip to Rome with the specific purpose of visiting the site of Campus Martius and the Forum, and learning more about the purpose, planning and development of these sites. I also visited the remains of Minoan cities on Crete, again with the hope of learning more about the social aspects of the cities and the planning of purposeful spaces for social activities. I again hoped to carry out my plan from last academic year to meet with Iain M Banks and/or his publishers to discuss the possibility of his taking part in a conversation with an anthropologist regarding his creation of The Culture. However, yet again this has not been possible.



Whilst in Rome I spent much time in the Forum Romanum as this was my main focus of attention. I'm interested in the developing layers of the site over different periods of time, and emperors' rules. Before visiting Rome I was unaware of the Palatine Hill complex adjacent to the Forum Romanum, this combined with the extent of the Forum Romanum itself required a lot of time and much exploration. I spent three days in total within the bounds of the Forum and Palatine complex itself. However, pre-tourist payment booths, in/out stiles and modern road systems the site extended much more freely across what is now the modern city.

#### **View over the Forum Romanum toward the Palatine Hill from the Millareum Aureum**

As such my explorations extended to the Circo Maximo, Terme Di Caracalla, Colosseum and the Foro Di Traiano. The Campus Martius was once low-lying marshland outside of the city walls used for the training of the military; it later developed as a place for civic meetings, chariot races and gave site to temples of foreign cults. It slowly became more urbanised, and now is covered by a fashionable shopping district of the city, amongst other things. For some historical information re the development of this site I visited the Crypta Balbi, and later the Pantheon which was originally built on the site by Marcus Agrippa and later rebuilt by Hadrian.

Whilst in Rome, I also visited the Keats Shelley Memorial House, where I met with curator Catherine Payling. I hoped to discover more of the potential links between the ancient history of Rome and romanticism and also of the intentions and responses of the ancient city on the romantic poets. Keats himself saw little of Rome as he was in the very final stages of his life whilst there, and was physically not strong enough to explore. Shelley did have much more time in the city and Catherine was able to point me in the direction of further research material that could aid my understanding of the effect of the ruins of the city on the poet's philosophies.

Once in Crete I visited the Minoan cities of Zakros, Phaistos and Knossos, the Roman cities of Gyrtos and Lappa, and the once Venetian stronghold and latterly a leper colony of Spinalonga. What became apparent once in Crete was the importance of the geographical location of this island, and with that the power it gave to each controller of it. As with my piecing together of the physical breadth of the sites of the Forum in Rome, so my tour of Crete enhanced, to some extent, my understanding of the dynamic of the ancient Mediterranean.



[Magazines \(storage\) at Phaistos, Crete](#)

Literature has played an important part in the development of my work, *Ghosts Landscape Literature* considered the gothic, I have since then been considering utopian/distopian literature of the late C19th and early C20th and the fantastical (although maybe not quite so fantastical) aspirations within them. I initially looked at *The Time Machine* by H.G.Wells, *News From Nowhere* by William Morris and *Herland* by Charlotte Perkins Gilman; whilst these consider the future, I felt myself being drawn to the references and influences of the past on these imaginings. Whether considered as utopian or distopian I can't help but see an element of the romantic in these ideas; either as a softer hopeful romantic idea or as the fearful beyond human understanding romanticism, such as found in Edmund Burke's *Philosophical Enquiry*.

During my visits to both the Roman and Minoan sites throughout this research trip I experienced much awe at the enormity of what was represented by the remains – whole civilizations that lasted over millennia, the layering of the subtleties of millions of lives alongside world changing philosophical and technological developments. I find that to process these ideas/this information, to interpret it for my own comprehension, I use my own layering of various external references. Thus the first in the series of readings that are now commencing as part of *Symbol Archive* began with *The Eve of St Agnes at the Forum Romanum*. An advert for this first reading was placed in Art Monthly to coincide with my time in Rome; the work itself is more of a conceptual piece layering the ideas of the cold January evening of the Keats' poem with the hot dusty atmosphere of mid-summer Rome.



The second reading in the series will be T.S.Elliot's *The Wasteland* to take place in a World War II bunker on the Lizard; this piece will be read by an actor, and an audience will be expected. The series of readings will continue over the following six months, each to take place in a different location.



### **Stephen Howard: Course Manager, Animation & Multimedia, Camborne – MA in Digital Media and Technology**

Over the past year I completed three further modules, including my final project with thesis. The first module was Synthesis which facilitated the developing of ideas for the final project. These were explored before focussing on a single complex idea. A blog was created to display my progress. Cogitative maps, hardcopy and interactive (Flash), were produced to aid in the research process, to develop ideas and to focus attention on specific areas of interest. This in turn lead to an in depth literature search before a proposal for the final project was written.

History of Design and Visual Culture/Contextual Studies are modules taken from my Foundation Degree courses. Both have proven very unpopular with the students and as a result levels of achievement have been low. Students from non-art backgrounds do not see relevance to their chosen career paths, so as a consequence deadlines for assignments are not met or work is of a low standard. This also affects retention so finding a solution is one of my top priorities.

My proposal was to make use of the immersive environment Second Life (SL) to improve student understanding of the contextual role of art in the design workplace. Students on both courses have an interest in games and the virtual, so making use of this environment seemed an ideal solution. Using SL will allow students to visualise imagery in a different way to which it can be perceived in reality. The 3d space is navigable in a variety of ways from flying to even teleporting. This will give the students a different perspective on how to approach difficult conceptual and contextual theories, hopefully making the contentious modules more interesting and fun.

In conjunction with this module I was also taking Adaptive Play. This module provided an experimental framework for the design and prototyping of collaborative environments using principles of game-play; structured interactions and/or mediated behaviour. A flexible approach was used to facilitate innovative development for collaborative play using the virtual world Second Life. Students at Cornwall College struggle with critical studies, specifically within Animation and Multimedia. My students especially find History of Design and Contextual Studies difficult to comprehend. My idea was to try and make the modules more interesting and perceived as more relevant in their chosen areas of study, by using adaptive play scenarios in SL.

I wanted to provide a space for students to develop and practice their understanding of semiotics, whilst developing their low polygon modelling skills. I created several prototype tests for the students to practice their deconstructions of artwork. Adaptive play was seen throughout the tests with students adapting to the constantly changing environment around them. They learnt from each other and from the imagery and meshes interpreting the artwork.

For the final project I decided to construct a resource centre in SL to aid the students in their critical studies modules. This building is now part of Cornwall College Island, which is already a location within SL. Within the resource centre I placed many interactive whiteboards to facilitate interest in the modules. These also provide help and aid understanding of some of the more complex issues and concepts being investigated within the modules. The research for this task and that of the earlier modules, aided in the reasoning for the question to be asked within my Thesis:

“Can Second Life be used successfully to improve delivery and relevance of critical studies (History of Design and Visual Culture, Contextual Studies) for students studying Animation and Multimedia?”

I have really enjoyed improving my knowledge of virtual environments and experimenting with ways to improve delivery of the mentioned modules. What I have learnt will filter down to the students and strengthen my courses.



### **Wendy Wilbraham: Programme Manager, Ceramics, Camborne - MA in Contemporary Designer Maker**

#### **2010**

The intention of the course is to provide the opportunity to engage in critical Contemporary Designer Maker issues and to develop design/craft ideas through an intimate knowledge of material and making processes with the potential to support new applications for established methods or exploit the opportunities that new technologies make available.

So far this year I have been engaged in 1 of 2 taught modules designed to further my individual practice with a critical and theoretical understanding.

Creative Design Processes was delivered by a short series of fast-paced mini projects which allowed exploration of a comprehensive design cycle, from inspiration to innovation; thus introducing an appreciation of creative design processes that puts 'users' at the centre of design. A series of lectures, seminars and tutorials directed the three areas to be explored within this framework; empathy with people, with spaces and with materials, for me it provided insights into theoretical design practices which has had direct effect in my consideration of the 'everyday' placing the user at the centre of the process, alongside the activity of making things and a broader range of reading and research areas.

My impression of this deceptively simple thought is to ensure that as makers the students are fully aware of their commitment not only towards their creativity but the audience as viewer, participant and user. The direction towards an increased range of reading and research areas has expanded the possibilities for modules which focus on the areas of design and contextualising ceramic practice, so my overall conclusion for the first module is that all of the module aims will be achieved.

The completion of this first module remains unresolved following a number of issues; part adjustment to timetabling by the faculty and part to do with my own altered timetabling due to necessary changes within the department in support of long term sick leave.

The 2nd module for this year Multiples and the Maker investigates the potentials & opportunities of batch/multiple production associated with designer maker/craft practice. It will allow me to explore how myself and other makers might consider producing multiples or 'families' of objects and develop a body of work with these issues as a primary focus.

The outcomes of this module will have direct effect upon the programme as it touches on all the relevancies which underpin ceramic practice; although batch production would suggest a semi industrialised or small pottery production, the production of 'families' of work may be adapted to suit a more empirical method of working, and thus addressing all practices explored within the programme.

The conclusion to the this first part of the course attended is positive for me as an independent learner, less so for me as participant of group activities, and I am hoping this position will be able to change in the near future.

## 2011

During this final year there are 3 modules to complete and a literary review, which feeds into Design Thinking, External Contexts and the Final Project.

A recent article in Ceramic Review written by Marina Vaizey on the potter Julian Stair prompted the central theme of the literary review.

The debate around whether craft is art, design, both or neither does enduringly continue, but the current climate is raising new issues for both contemporary craft and ceramics as a growing appetite for originality and authenticity creates new opportunities and energy.

Crafts or Applied Arts as this 'house of many mansions' is often referred comfortably occupy's a new order of exhibition space, background and language, as it emerges on to the broadening market place and one where the functional fabric of our everyday ritual gains importance as part of the developing 21<sup>st</sup> century social process.

Key questions have formed the basis of my enquiry, focusing research on current craft/design practices, legislation and the examination of the developing market arena.

- Does the traditional divide between art, craft and design still exist or has craft successfully crossed the divide and entered the mainstream of visual culture?
- Further, if and when does the work transcend the traditional craft boundaries, and how does the artist 'make the move' from the craft to the art market?

Further consideration for the theoretical intention of the work, which removes the audience from direct participation in domestic ritual, has provided the catalyst for the next stage of the programme.

Thus Ritual and the ‘Ordinary’ have formed the basis of the current module External Contexts. It is intended to be an opened ended negotiated studio based process and I have continued exploring themes touched on during the previous module; notions of haptic theory and the regulation of domestic ritual have been given new licence using ‘takeaway’ as the vehicle for a skill led enquiry.

I am currently working with a glass specialist making moulds with the intention of creating a series of high lead content artefacts; it is my intention that these artefacts will be placed within the context of a working industrial kitchen space to offset and exploit the possible tensions, between two methods of domestic ritual.

Each piece rests upon a series of drawings, which have been executed as a ‘visual diary’; these are now being translated into a calendar of drawn 2-dimensional images using fused glass with textiles and oxides.

What has been particularly valuable for me during this part of the programme is to be able to build on existing knowledge of processes and procedures associated with ceramics and extend these skills by the introduction of another medium, the transparency and brittle clarity of the glass is pertinent to the intended message and a beguiling medium to work with.

I am most grateful to both Cornwall College and Plymouth University for funding which has enabled me to pursue and enlarge upon exciting and interesting areas of my subject which not only informs the subject area of my teaching but allows me to contribute something to the industry I am engaged within.



## **Education – Teaching and Learning**

### **Steve Griffin: Head of the School of Education and Training**

*Much of our research into education and training is focused on our own practice, both as teachers and teaching managers. Consistently, researchers are engaging with practical questions about ‘what works best’ in classrooms, studios and workshops, in tutorials, placements and informal settings, and in the planning and management of learning. These concerns reflect individual and institutional commitments to the best possible outcomes for our students. Many of those involved in this research are also working towards higher level qualifications, reflecting similar commitments to the value of lifelong learning.*

**Alvinia Menary: Lead Teacher with the School of Education and Training, Camborne – PhD in Personal Tutoring**



**The role of the personal tutor in Further Education**

I have been studying the role of the personal tutor in the post-compulsory sector. It has proved fascinating and a rich seam for research. The personal tutor role in contemporary education practice is distinctive and is now underpinned by the political initiatives encapsulated in the Foster Report (2005). Several of the current debates in education permeate the role and with a focus on the emotional learning agenda, the positioning of emotions in the curriculum and the growth and expansion of therapy culture across all sectors (Ecclestone and Hayes 2009, Furedi 2003) personal tutors are now performing complex and demanding roles.

For the majority of those working within F. E as a personal tutor, this is a challenging and rewarding role. Participants in the research provided excellent examples of guidance and support for their learners. The research revealed that personal tutors invested time and energy in helping students achieve their goals. This often meant 'going the extra mile', doing everything possible to help students continue with their studies and be successful.



One of the key findings:  
Students view learning as a social activity which reinforces Vygotsky's approach and therefore support through the 'zones of proximal development' is vital. The personal tutor often provides this vital support.



**Bex Ferriday: VLE Technologist, School of Education and Training, St Austell**

Bex has successfully completed two MSc Modules at the University of Exeter, namely *Critical Review of a Body of Knowledge* and *Understanding the Use of Data* and has now transferred her studies to Integrated Masters Programme with the University of Plymouth. In undertaking her initial studies, she formed the hypothesis that teachers in training were more liable to pass the Diploma in Teaching in the Lifelong Learning sector (DTLLS) with higher percentage marks if they accessed supplementary course materials on the college's Virtual Learning Environment (VLE) *moodle*. Quantitative research proved this hypothesis to be true, as well as highlighting some other interesting patterns, namely that students over the age of 35 were more likely to access moodle, and that women were also more likely to access the VLE than men.

Bex is now looking at *Developing Practice through a Project*, and to this end is involved in two areas of research: the use of Problem Based Learning in Teacher Education and the use of Second Life and web 2.0 applications to deliver introductory teacher training courses at a distance. She will be delivering a paper at the annual e-learning conference held by the University of Plymouth looking at whether real world transferable teaching skills can be taught in a virtual world then practiced in a real life classroom, and, as part of her ongoing work with the ICE House Project, will be reporting to colleagues about her

involvement with a pilot that looks at using a Problem Based Learning approach to delivery in order to satisfy the assessed learning outcomes of a module at HE level.

Outside of this research, Bex is managing the college's island on Second Life where a variety of departments are now delivering online sessions to their learners, and is in the process of securing funding for a project in partnership with the University of Glamorgan. This project looks at producing academic study aids in the guise of graphic novels to assist visual and vocational learners with areas such as academic writing, using the Harvard Referencing System and research and study skills.



**Jennie Balmer: CAM in the School of Education and Training, Camborne – Integrated Masters Programme, Plymouth University**  
**Thinking Classrooms: Learning Through Philosophical Enquiry**

I have recently participated in a taught module delivered by the University of Plymouth where I have investigated philosophical enquiry, for all ages, as a means of developing skills based on questioning, critical thinking, reasoning, discussion and dialogue. The focus of the taught sessions has been the consideration of how teaching philosophy with children and young people raises questions about the purpose of education and values promoted. I have had the opportunity to observe philosophy sessions in the Primary classroom which demonstrated the intellectual, social and moral dimensions of working as a community of philosophical enquiry. Philosophers have developed tools of logic and argument that are necessary for critical thinking, promoting questioning, open-mindedness, clarity in language and precision in thinking. Philosophy has developed the practice of dialogue as a method of inquiry that sharpens thinking and social skills, draws on diverse perspectives, and makes individual thinking accountable to a community of peers. Many of these skills seem to be absent from the FE classroom with a focus on objectives too often set by the teacher in isolation.

I have been investigating a Socratic approach where a state of 'inner perplexity' together with the anxiety and unease that these feelings create can be a starting point for critical reflection. Socrates felt that education cannot be just transferred but needs to be experienced through critical enquiry and personal involvement. He encouraged students to move from what they believe they knew to a state of uncertainty and the desire to investigate and find out; to engage in collaboration and 'reflective curiosity'.

In my current research I am making an argument that the thinking skills needed to be entrepreneurial and employable should not be taught discretely but embedded in curriculum and pedagogy. For learning to be led by the student there needs to be a paradigm shift where learners are empowered to co-construct curriculum. This links directly to my involvement in the facilitation of CPD events designed to encourage a more learner led approach to curriculum development. We are in the process of monitoring and following up developments in practice through individual feedback from teachers, contributions to the Moodle forum and events where teachers are invited to share their experiences and provide examples from their practice.

Early indications from a small sample of 89 (less than 14%) of Cornwall College teaching staff would suggest a predicted 195% increase from good to outstanding learning and teaching where teachers have engaged in developing Learning Led pedagogy.



**Mark Delf: Curriculum Area Manager, School of Education and Training, Saltash and Duchy Stoke Climsland – PhD in Social Science (social policy), Bristol University**

**"What are the principal factors (determinants) shaping the provision of HE in FECs in England?"**

As part of my role as Higher Education manager up to level 7 it is essential to undertake scholarly activity and research, I have chosen the Doctor of Social Science (Social Policy) programme at Bristol University as it provides me the opportunity to deepen my research skills and increase my depth of knowledge in my

specialist area of practice, teaching and learning; I am able to research in depth the policies and decisions underpinning the past and present education practice and ethos, which in so doing gives a richer and more in-depth experience to my learners. Developing, and updating, my research and writing skills to a higher level, has improved my support of my learners.

The course is a taught doctorate with the first 40% covered by eight assessed modules that are completed at Bristol University followed by a piece of independent research and a viva. The research gives you the opportunity to focus your research onto an areas of specific interest and I have chosen the development of HE within FE, which is of both personal interest as I work on these programmes but also of corporate importance as with funding, accreditation and vocational focus issues this is a volatile area that could have significant impact on the future strategic strategy of FE Colleges.

The development of HE is an area identified in both the Browne and Wolfe Reports published by the new coalition government and re-enforced by the June 2011 White Paper, 'Students at the Heart of the System'. This is a key development with particular focus on the growth of industry and business responsive courses that FECs have traditionally supplied, making the future of HE in FE an important area.

However as identified in previous research by Parry (2008):

"dual sector arrangements have made it difficult for any one body or sector to take a strategic responsibility for the development and wellbeing of college-based higher education. Structurally, such provision is betwixt and between; a minority activity in both sectors and owned and managed by either."

Therefore dual sector, or mixed provision is existing in a policy and structural vacuum, with a purpose to expand and develop widening participation, whilst up-skilling the work force in vocationally related skills to meet the new economic demands with no clear model of how this should be organised or structured. It is therefore important that some work is carried out to give some information on how this sector can develop, form and work in the future. Also, if the mixed or dual provision model is manageable, how will this look?

The FE sector is also currently coming under increased government scrutiny, particularly within the context of the skills' agenda, and is being asked to contribute to the significant development in this area, whilst the focus of this is currently on the 16-19 group, it is clearly stated that FE has a role in HE as demonstrated by the success of Foundation Degree provision at present. In their recent briefing guide to paper, 'Unleashing Aspiration' (2010), the Learning and Skills Improvement Service re-stressed the importance of FE in helping the widening participation agenda: "Universities and colleges, working with the government, should make the concept of 'Higher Education within Further Education' one that is universal across the country, so that many more mature students, in particular, are able to study for a degree".

It is therefore important to explore how FECs can best develop their provision to meet government objectives and strengthen their provision of HE in an economically challenging environment; to not only develop skills of the population but to help secure the future of the FE sector in unstable times.

In consideration of the recent changes and foci of government policy it is important to review the HE provision offered within the FE system to ensure it responds effectively to the new education market place; and makes appropriate strategic decisions to benefit learners, designs appropriate curriculum to meet learner and social needs, and builds appropriate relationships with partners to maximise the potential for educational growth.



#### **Tia Hind: Lecturer in Sociology and World Development, Cornwall College Camborne – MSc in Social Research Methods**

During 2010-2011 Tia completed the dissertation module of an MSc in Social Research Methods with the Open University.

## **Dissertation theme**

The title of the dissertation is:

"Motivated to study? A qualitative exploration of student motivation in further education."

## **Aims & Methods**

The aim of the dissertation was to examine understandings of student motivation in Further Education, using Cornwall College Camborne's A Level Centre as a case study. Qualitative methodology was used, which represents a break from common methodology in research on student motivation. Through utilising semi-structured interviews with students and a group interview with staff, the aim was to examine perceptions of motivation with participants' perspectives as the key focus, rather than by using questionnaires prepared by the researcher which limit participants' responses, as is common in the quantitative literature.

The Further Education sector is under-researched in terms of student motivation, therefore it was an opportunity to consider the extent to which current research on student motivation is applicable to this setting.

Due to the limited scope of the study and the length of time taken to carry out qualitative research, only a small sample of participants were included – seven students who had recently completed their A Levels at Cornwall College Camborne, and five members of teaching staff. As such, the results of the study are not representative.

## **Findings**

The study found that motivation can be conceptualised as an umbrella term referring to a process of complex interactions between cognitions, behaviours, and responses. This contrasts with research that posits motivation as a phenomenon that has an objective, tangible existence and which is seen as residing to different extents within individuals. Five 'core motivator' categories emerged, that were seen to be foundational for, and corresponded with, greater intensity of student motivation: career goals, parental support, achieving good grades, interest in subject, self-worth and self-efficacy.

A range of additional influences on motivation were identified, yet they did not correlate as strongly with students' motivation. Motivation was found to be highly variable according to time and context, and experienced as fragmented in terms of intensity.

It is argued that future research could benefit from taking a wider lens to examine student motivation, especially in early, exploratory research, in order to account for the range of factors influencing motivation, and recognise motivational variability experienced by individual students.

## **Policy implications**

The following policy implications emerged from the study:

- Strategies to increase student motivation should be multi-dimensional, acknowledging the broad range of contributing factors.
- Careers advice to help students acquire goals relating to their studies is key. Participants suggested having former students who are at university or in employment regularly speaking with current students, to inspire and provide examples of different career routes – in addition to support from tutors.
- Finding ways for individual students to explore their interests within a broader subject context might help more students to achieve 'optimal motivation'.
- The variability of motivation should be acknowledged. Some student participants felt the expectation was that they should always be highly motivated, and the unrealistic pressure of this became a barrier. Similarly, members of staff expressed feeling that they were falling short of their duties if all students were not highly motivated at all times. Recognition of motivational variability, alongside strategies to increase motivation, could help establish realistic expectations regarding student motivation.

- Increased cross-referencing between teaching staff regarding strategies for motivating students – in particular individuals who are considerably more motivated in one subject than another – could facilitate greater sustainability and intensity of motivation.
- Establishing a learning environment in which students feel safe and supported, with an approachable teacher, is key to building students' self-worth and self-efficacy perceptions, as well as maximising the contribution of student-teacher relations to students' motivation.
- Issues surrounding paid work could be discussed more thoroughly during tutorials, including dealing with pressure from employers. Links could be created between colleges and local companies who commit to providing students with fair contracts. This is a particularly important issue in low-income areas where many students rely on paid work to continue studying.

## **Outcomes**

The dissertation achieved a 'Pass' leading to a 'Distinction' overall in the MSc in Social Research Methods.

Tia is grateful to Cornwall College for funding and supporting the dissertation, enabling her to: build her skills in social research which relates directly to her teaching practice; increase her own knowledge and understanding of issues surrounding student motivation; and achieve a Masters level qualification.



## **Health and Social Services**

### **Anthea Rowley: Head of Health and Social Care**

*Health and Social Care, Childcare and Social Care has a wide range of qualifications in Social Science, Social Work, Health and Social Care, Healthcare Practice, Working with Older Persons, Complementary Health Therapies, Counselling, Early Childhood studies and Children and Young Peoples Workforce.*

*The programmes are written to provide good employment links and opportunities to work with local organisations. Courses are currently being updated with a new module being proposed on social enterprise, to support the changes occurring nationally and locally, to be responsive to our students' future career opportunities.*

*Research interests are wide: international links with a conference in Disability Awareness; Social Work; Children's Workforce; plus Complementary Health Therapies hold a yearly network event evening open to employers and students, where they invite someone from industry to talk about their specialism and it is an opportunity to share good practice. Programme leaders are working on a student conference for July 2012. Healthcare Practice has a well-supported end of year conference that all students and employers from industry attend. Specialists from all areas of the health sector make presentations and share their experiences and knowledge.*

**David Retford: Course Manager & Lecturer in Complementary Health Therapies with Health, Social Care and Public Services, Camborne until September 2011 - MSc Homeopathy**

**2010**

The qualification undertaken in 2009-10 was the continuation of my Masters programme from last year. Unfortunately the Masters in 'Integrated Healthcare' at the Peninsular Medical School (PMS) with Plymouth and Exeter Universities was cancelled and the course has stopped; which has prevented me from completing the M level qualification there. However, the External Examiner for our Foundation Degree suggested that I could gain Accredited Prior Learning (APL) for my modules onto an MSc in 'Homoeopathy' at the University of Central Lancashire (UCLan). I was able to successfully APL 80 of the 90 credits I sat at the PMS and entered the MSc in Homoeopathy in the second year. I have to complete 60 credits plus my 60 credit dissertation to finish the MSc.

I started two new modules: the first being a 20 credit module in 'Therapeutic Relationship' in September 2009; the second module this year has been another 20 credits in 'Supervision', with the deadline for this assignment looming in April 2010. The course at UCLan is very different to the Masters at PMS as there are no formal lessons and the whole programme is delivered by distance learning and web-based resources; a lot more motivation and time management was needed to complete the assignment.

The last 20 credit module I need to pass is 'Inspiring Homoeopathic Education' which will start in September 2010 along with my 60 credit dissertation. I am hopeful that the work I've carried out researching the 'possible therapeutic effects of homoeopathy on weaver fish stings' will still be acceptable to submit for this dissertation, as the results from the last two years of research are still blind to me.

The course has been extremely useful to me and to the position of Course Manager in the Foundation Degree in Complementary Health Therapies at Cornwall College, as it has helped me to advance my current knowledge of various therapies, gain a deeper understanding of their place in the global and national healthcare systems, it has improved my understanding of the skills needed to become a good professional practitioner and most importantly has helped to advance my knowledge of current policy and research in this field of study. Both courses have served to give a good underpinning to the academic content of lessons on the Foundation Degree and will help establish the validation of a third year top-up Degree in this field of study for Cornwall College.

Although it has been frustrating having to change colleges and courses half-way through, I feel this new MSc will have a greater longer term value for myself as it will improve my professional skills as a practicing homoeopath as well as underpinning academic knowledge to impart to my students.

**2011**

After successfully completing the two 20 credit modules in 'Therapeutic Relationship' and 'Supervision' last year (2009-10) I have finally moved into the last year of my MSc. This year, (2010-11) I need to complete my last 20 credit module 'Developing Practice' and my 60 credit 'Dissertation'. The dissertation started in September 2010 and the module Developing Practice started in February 2011.

For the module in developing practice I am researching 'miasms'; a theory explaining the cause of all chronic diseases, which was developed by Samuel Hahnemann the founder of homoeopathy. Hahnemann's theory incorporates four possible main causes, but they centre on the suppression of past diseases into the system that go on to cause symptoms in the person and their offspring. However this was proposed at a time before the discovery of genes and DNA which has shed new light on the causes of many diseases.

For the dissertation I am using the homoeopathy and weaver fish research that I conducted with the RNLI in the summer of 2008 and 2009. The results from this randomized double blind clinical trial were still blind until March 2011 and I am only now breaking the coding to see which participants received the remedy and which ones received the placebo pills. If the figures represent a normal distribution curve then I will analyze the results from the two groups using a standard T-test; but if the results do not follow a normal distribution I will employ a Mann-Whitney test to compare the results.

As a practicing homoeopath I'm obviously biased towards a positive result for the homoeopathic remedy, and hope that it will show that the remedy and hot water treatment for weaver fish stings was significantly

more effective than the hot water and placebo effect; but the figures will reveal their own truth later this year and I can't let my bias influence the outcome from the trial. There are not many good quality randomized blind placebo controlled trials for homoeopathy or other complementary therapies and if this one proves a positive result I'm sure it will cause much controversy.

The RNLI are very keen to get the results completed and published in their journal and I hope to also publish the results in the journals of homoeopathy.

It has been a long process completing this Masters on top of my teaching, practice and family commitments; the early part at Exeter was a lot of work having to drive up to Exeter for two day sessions every month and the MSc at UCLan has been challenging because a lot more personal motivation was needed as there are no formal lessons, and it is all done on line in tutorial groups; but the new information and skills I have learnt have been worth the effort and I can pass on the research skills to students here at Cornwall College.



### **Emma Clifton: Programme Lead for Social Science, Camborne – Integrated Masters' Programme, University of Plymouth**

Emma Clifton is taking the Integrated Masters Programme through the University of Plymouth. This course consists of a taught component and a research component and is based on achieving 180 credits at Masters' level. 120 credits are based on successful completion of module coursework and 60 credits from the dissertation.

Emma's most recent module undertaken has been Social and Emotional Aspects of Learning. This was of particular interest to Emma as there has been a social policy emphasis on developing people's emotional well-being and emotional engagement since the late 1990s. These have included educational institutions as being integral in supporting and developing social and emotional wellbeing. Emma's assignment explores the conflicts between individualistic and regulatory approaches and more social and personal approaches to pedagogic communities. This broad cultural, political and moral discourse is the backdrop to Emma's modular and curricula development project which incorporates student feedback and reactions to equality and diversity strategies, promoting both a critical exploration of inclusion, vulnerability, self, identity, power and emotional wellbeing and a module design which responds to these issues.

Emma explores previous and current policies and research regarding SEAL with specific focus on its implications and permutations concerning equality and diversity in HE. Emma has chosen the equality and diversity aspects of SEAL as they involve the self, (Ecclestone 2007) vulnerability, classification, labelling and therapy, (Furedi 2004), inclusion, the medicalisation of social behaviour, emotional wellbeing, (McLaughlin 2008) and the politics of recognition and identity (Lewis 2009), and issues of power and status, (Foucault 1977). These are relevant to the project aims as Emma explores how these issues can be embedded into teaching, awareness and culture. A strong theme throughout is that tokenistic inclusion can actually exclude more.

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## **Liz Ellis: Lecturer, Social Services, Camborne**

### **2011**

In the past year, although I have regrettably had to withdraw from PhD study, I have had the opportunity to disseminate findings from the CETL funded participatory research project. The first opportunity outside of a College seminar, was at last year's International Disability Research Studies Conference at Lancaster in September. As we were still working on the analysis, Dr Deborah Phillips, Lucy Jones (a BA Social Work Student, then just moving into her second year of study) and I focused on the unique methodology of the research project.

A further dissemination which focused more on the analysis of the findings was given at the international disability conference in Oslo last April. This co-presentation with Dr Phillips attracted widespread interest not least from Professor Rob Imrie of Kings College London, who is perhaps one of the pre-eminent academics in the field of disability and environment.

My final dissemination of the research was at the recent "Theorising Normalcy" International Conference hosted by Manchester Metropolitan University where I also acted as chair. Again, the presentation received excellent feedback from Prof Dan Goodley and Dr Donna Reeve amongst others.

One of the outcomes from last year's Lancaster conference was a collaborative project called Simple Theory. This is a web-based, open-source, Multi-media resource aimed at making social theory and research accessible to non-professional researchers, including people with learning difficulties and providing resources and support for people involved in Participatory/Emancipatory Action Research (P/EAR). It also provides a platform for the dissemination of P/EAR which might otherwise be excluded from more traditional journal dissemination. It is currently in its early stages but we (Mike Glennon from the University of Omaha in Nebraska and I) have been getting a lot of support and encouragement and hope to be able to devote more time to developing it in the coming months. The website is: <http://simpletheory.org>.

This September saw social work graduate Lisa Beresford and I visit Harstad University College in Northern Norway as part of the return leg of the ERASMUS exchange initiates by Professors Bente and Kwesi Kassah. We gave a series of lectures and seminars to undergraduate, post-graduate and faculty staff members on topics ranging from the history of disability, direct payments and the personalization agenda and tourism. The visit also resulted in a collaboration between myself and Dr Bjorn-Eirik Jonsen on a paper which explores the lives of 'inmates' from what is now a thankfully closed down institution for people with learning difficulties. The news report of our visit is linked below.

<http://www.hih.no/nor/sok/?&displayitem=671&module=news>

Finally, I have been organizing this year's Cornwall Disability Research Conference to be held at The Keay Theatre in St Austell. The conference this year is bringing together both disability academics and Disability Arts practitioners and promises to be an exciting and informative event.



## **Hospitality & Tourism – now Retail & Service Industries**

### **Simon Cook: Corporate Curriculum Lead for Retail and Service Industries**

The Faculty of Retail and Service Industries (Hospitality and Tourism) has a long history of delivering Higher Education spanning two decades, and, in the process, has built a team of staff with both a wealth of experience and knowledge of the hospitality and tourism sectors. Their expertise in academic delivery of Higher Education as well as their unquestionable knowledge of the local, national and international industry in Hospitality & Tourism is well known.

Our qualifications have been designed to develop both individuals and industry professionals with a broad overview of the sector that helps them to apply their learning to the workplace and to develop their individual knowledge in the industry as well as specialise in areas such as Cruise Ship Operations and Heritage and Culture.

All staff recognise the contribution that research, scholarship, and personal development activities make in maintaining the achievement of high academic standards and to this aim are involved in a number of activities each year. Maintaining industry links is a vital component of our educational ethos and many of the team are engaged in industry related projects and business ventures alongside their lecturing. The relationships that we have established with leading stakeholders ensures that our learners stay at the forefront of industry standards and many of the team are involved in sector developments at a national level, and influence the local industry in the form of consultants to a number of key projects in the South West. A long term liaison with similar educational establishments in Europe ensures that staff can keep abreast of international concepts and practices in vocational education.

The Faculty is committed to developing a more sustainable tourism industry and have led the way in developing bespoke training courses in sustainable tourism for over 300 businesses in the South West, as academic representatives on the South West Climate Change Impact Partnership we take this role very seriously underpinning our qualifications with sustainable practice.

Research activities and international partnerships ensure that the faculty maintains a global perspective befitting the nature of this dynamic and inspiring industry.

Examples of research undertaken by the students and staff in the department include:

- Investigating the social, economic and environmental impacts of St Ives Festival and preparing a report of their findings for the festival committee they will also be repeating the activity for the Padstow Christmas Festival in December.
- Research into the motivations of tourists visiting “dark” tourism sites.
- Research into the economic value of educational workshops for schools delivered by tourism sites
- A comparative study of World Heritage Site Management Plans and recommendations for implementation to the Cornish World Heritage Site.
- An investigation of the benefits of work-related activities and placements to the learner and the employer

## **Sciences, including Marine Studies**

**Andrew Smart: Corporate Curriculum Lead, Maths and Science; Head of Cornwall College Newquay**

The research opportunities available to staff and students in maths and science are diverse and challenging. Global warming, sustainability and the conservation of biodiversity remain issues which need to be approached at a local, national and global level and Cornwall College is now having at input into research that influences policy at many levels.

Staff and students have taken on both local and global projects ranging from the impact of invasive species and the husbandry of marine species in Cornwall to the conservation of biodiversity in Borneo. The development of research in this area has taken a huge step forward in the last two years with projects linking within particular areas and strengthening research opportunities and the value of results. The projects by staff from Newquay on the voluntary marine conservation area in north Cornwall and by staff from Falmouth Marine School with Falmouth Harbour commission have a greater value because of the links between them and this approach is being employed by staff at Cornwall College Camborne in the development of research projects based around renewable energy and sustainability. As well as these projects the maths and science area has been awarded a number of research grants and staff have been employed in a research capacity on a grant from DEFRA investigating invasive species, expanding the opportunity for work related delivery on science programmes.

These research opportunities are undertaken by staff and students in addition to their normal teaching roles and study and they should be applauded for their commitment. The value to the students at Cornwall College is substantial; working on long-term projects within their classes and 'research active' staff guiding them through their own research projects and discussing research in seminars and lectures is a key to their development as graduates who can apply theory to these very relevant fields of investigation.

**Andrew Smart: Head of Centre, Cornwall College Newquay - Field project in Lower Kinabatangan, Sabah, Borneo.**



Fig. 1 Kinabatangan River d/s of Danau Girang

## 1.0 Introduction

The project was undertaken by two staff and six students (two staff members from other parts of the College, two year 2 students and 2 year 1 students).

CC Newquay staff: A.C.Smart, H.Selly; CC Newquay students: P.Davies, S.Dyer, L.Hatt, A.B.T.Solman

CC Camborne staff: R. Humpreys, R. Allen

Equipment was shipped by air when the field course travelled to ensure its safe arrival.

## 2.0 Freshwater projects funded by this research grant.

### 2.1 Crustacea survey of freshwater systems.

On arrival at the field centre on 27/7/10 it was clear that water levels were low with very little water in the forest and levels dropping despite an increase in depth of the river. Streams and pools from 2009 visit were dry or nearly empty of water. The crayfish traps were placed in the oxbow lake and one trap in a small pool remaining in the dry tributary to the oxbow.

Traps were baited with small fish (day 1) or with cut up (100 mm-150 mm)*Danigila sabana*, a fish species from the river. Traps were left over 24 hours in approximately 0.5 m of water. A total of 37 trap nights were employed with 2 nights while the oxbow was falling and 2 nights while levels were rising. Results produced five successful captures, 2 of fish, *Puntius bulu* and a snakehead, *Ophiocelphalus striatus*. and 2 of prawns, (figs 2 & 3, species to be confirmed). One freshwater crab (species to be confirmed) was captured in the tributary pool. Success rate of 13.8% was low but in most cases bait pots were cleared, presumably by juvenile prawns. A fine mesh bag around the bait pots will be employed in the future (data in Appendix I).



Fig. 2 & 3 Crustacean species captured in traps

### 2.2 Evaluation of species diversity in forest pools and streams.

Due to the low water levels it was not possible to undertake this project. Equipment (sample net) was left at Danau Girang for future use.

#### 2.3 *Evaluation of species diversity in the river benthos.*

Samples were taken from the boat using the dredge. The sampling process was difficult because of river flows and a better strategy needs to be employed in future. Samples on the meander found nothing, with only leaf material being found in the dredge. A deliberate grounding on a mud bank enabled a mud sample to be taken. The sample was sieved on the boat using a 25mm Endecott sieve. No animals were present in the silt. Future work will continue to investigate the silt with samples taken and investigated with a finer sieve. Estimates of particulate organic matter in the silt will be undertaken.

Sweep samples of the river edge are of the mudflats captured small shrimps 30-50mm carapace length and a number of small fish *Rasbora* sp (70-90mm).

#### 2.4 *Evaluation of species diversity in river/lake plankton.*

No attempt was made to sample within the river because of the high flows and sediment content which led to the bursting of the plankton net last year. The plan to sample the tributaries and oxbow lake did not materialize but other work in these areas led inadvertently to a collection of plankton from beneath *Salvinia molesta* plant within a tributary of the Kinabatangan. Further plankton samples were removed from individuals of different size classes of *Dangila sabana*. These samples will be examined further to identify food species.

Future work will involve sampling the oxbow lake and tributaries to assess species and numbers. Work in other oxbows will also be of value to establish their value as feeding areas for some fish species.

#### 2.5 *River Profile*

The depth sounder was used to measure levels upstream and downstream of the field station for a distance of three meanders. The levels recorded established that in some locations the river depth is over 20m.

Mapping of the river channel will be taken using software purchased for studies on the sea bed at Cornwall College Newquay from a previous research application. The mapping of the river relative to aerial photographs will also be possible from the GPS readings. Figs 5 & 6 overleaf show clear pattern of runs and meanders upstream and downstream from field centre.



Fig 4 Students undertaking depth sounding survey

Fig. 5 Danau Girang -  
u/s Kinabatangan

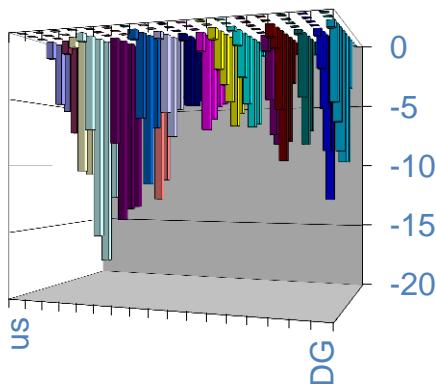
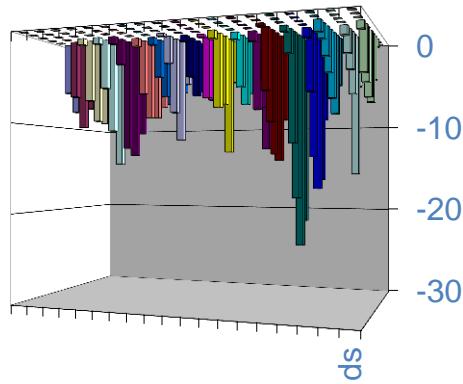


Fig 6 Danau Girang - ds Kinabatangan



## 2.6 Fish Species

The seine net proved unusable because of the presence of crocodile in the river and the difficulty of using two boats during periods of high flows. Future projects will investigate further use of the boats to work with this net in tributary 'mouths' and in the oxbow.

The cast net was used with success, capturing approximately 10 different species of fish from various families. Approximately 30 of these were subjected to gut analysis and the results will be used to start to establish a more detailed food web for the river. Future methods of analysis have also been discussed. Species list and analysis details attached as Appendix II.

Fig.7 Archer fish and snakehead captured during surveys



## 2.7 Investigation of the invasive plant species.

The presence in the river of invasive South American plants *Salvinia molesta* and *Eichornia crassipes* suggested an increase in the amount on the river. A project was set up to investigate the number of plants moving down the river upstream and downstream of Danau Girang. The number of plants on the river relative to the flow rate was used to set up baselines at two locations near tributaries flowing out of/into oxbows. Whether the river was rising or falling needs to be taken into account for comparison in the future. *Eichornia crassipes* is present from Sukau downstream and will be mapped accurately in the future to establish its development along the main river margins. A visit to the oxbow at Sukau established that both *Salvinia* and *Eichornia* are present along native floating plant species. Future work to assess the relative importance of these plants as microhabitats within the freshwater ecosystem will be undertaken at Sukau oxbow.



Fig 8 floating plants in Sukau oxbow with water hyacinth in the foreground

## 3.0 Other Projects undertaken

### 3.1 Bird Survey of River corridor.

A detailed survey of birds within the river corridor was undertaken both upstream and downstream of Danau Girang field centre. Records were made at different times of day to establish the best time of day for surveys of the riparian avifauna. A further survey of the river downstream to Kampon Biliet was undertaken on the 31/8 and a record of numbers of great egret was taken as far as Kampon Mubai. The great egret and stork-billed kingfisher were identified as probable ‘indicator species’ and detailed records of their locations upstream and downstream of the field centre were made using GPS with an aim to establish territories and density of these species in the immediate vicinity. These densities will be recorded on a regular basis to provide an indication of prey availability (small fish species) in the river. Incidental bird records were made throughout all other work on the river and in the forest and this list will be added to the existing Danau Girang species list.



Fig. 9 Great egret on the Kinabatangan River

### 3.2 Recording of canopy avifauna

A series of recordings were made to follow up work undertaken in 2009 to establish the species present at and around the field centre based on song recordings. This work is ongoing and more recordings will be made on future visits to be used once an expert system is established to analyse the data.

### 3.3 Use of camera traps to assess mammal diversity in the forest

As in 2009, three camera traps were taken into the forest and set in different locations next to mammal trails to investigate nocturnal mammal fauna. A total of 15 trap nights led to 5 images of bearded pig in two locations on two different nights. Success rate of 40% was more successful than previous year with 9 trap nights related to traps set by students as part of training process.



Fig 10 Bearded pig on main trail camera trap

### 3.3 Investigation of molluscs in riparian and semi-inundated forest

Four 20m x 20m quadrats were established in the forest following a methodology used in Danum Valley, to assess the mollusc diversity and density within the forest. Few individuals were recorded within the quadrats and an estimated five species were collected with 11 individuals in total.



Fig 11 & 12 mollusc species seen during night surveys

This is substantially fewer than recorded at Danum Valley and suggests that the forest types around Danau Girang are mollusc poor. However, the recent flooding may have had a significant impact on the mollusc fauna and future work on larger number of quadrats will help establish the mollusc fauna in more detail. Night visits to the quadrats will also be undertaken in the future.

### 3.4 Investigation of timed species counts as a means of assessing frog species

The value of timed species counts (normally used for birds) to rapidly assess the prominence of different frog species within the amphibian fauna in forest sites was assessed by comparing timed

species counts with counts of relative density on transects through semi-inundated forest. Initial assessment suggest that there is some correlation between species grading from timed species counts and species numbers recorded on the transects.

		rank	total
<i>Rana glandulosa</i>	rough sided frog	3.5	11
<i>Occidozyga laevis</i>	yellow bellied puddle frog	2.5	12
<i>Rhacophorus appendiculatus</i>	frilled tree frog	3.8	69
<i>Rana chalconota</i>	white-lipped tree frog	4.7	45
<i>Limnonectes ingeri</i>	great swamp frog	1.0	3
<i>Rhacophorus pardalis</i>	harlequin frog	1.7	3
<i>Fejervarya limnocharis</i>	grass frog	0.2	1
	bornean narrow mouth		
<i>Microhyla borneensis</i>	frog	1.7	4
<i>Limnoectes finchi</i>	rough guardian frog	0.2	1
<i>Polypedates macrotis</i>	dark-eared tree frog	2.5	10

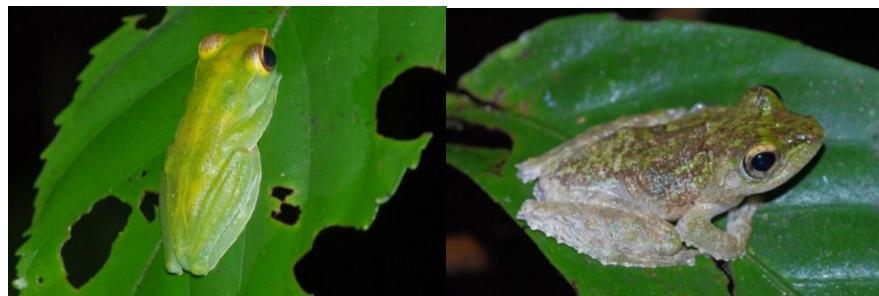


Fig 13 & 14 Jade treefrog and frilled tree frog

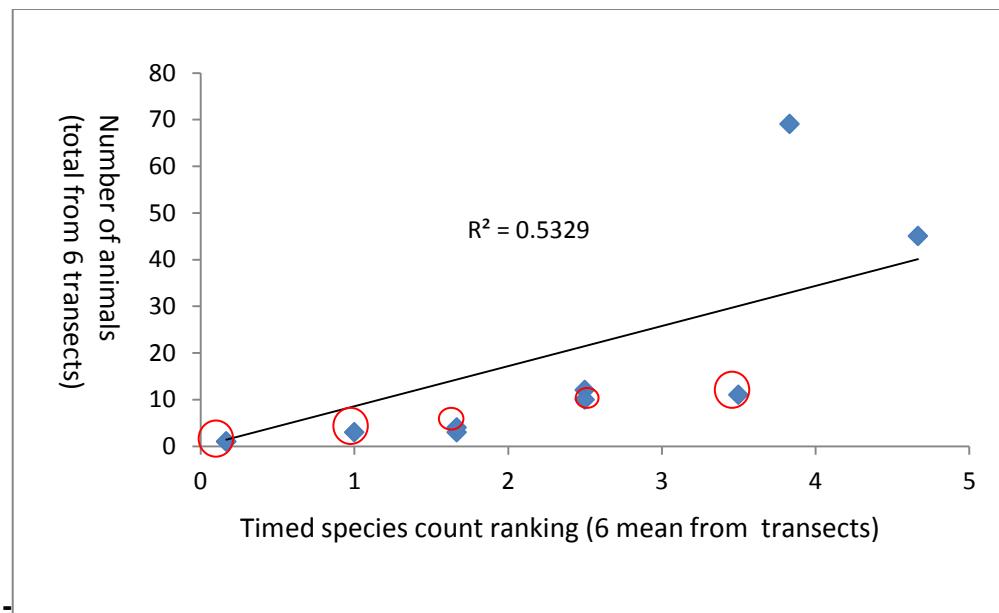


Fig 15 Correlation between timed species count rank and numbers recorded

## 4.0 Conclusion

The purchase of equipment for the project was of great significance, establishing some clear direction for future work by Cornwall College Newquay at Danau Girang. The ability to operate alongside existing projects enhancing the understanding of the Kinabatangan catchment is of great value as the importance of this area to the wildlife of Sabah becomes of more significance. The additional projects undertaken while on site will be continued along with the freshwater projects to establish a first set of true baseline information next year. Once established regular monitoring can be supplemented by work in the fixed width corridors alongside oil palm plantations and in oil palm plantations themselves to assist with long-term management of the area for conservation.



### **Nicola Morris, Paul Smith & Andrew Smart, Cornwall College Newquay: How far have they spread? A preliminary survey of aquatic invasive plants in natural ponds in North Cornwall**

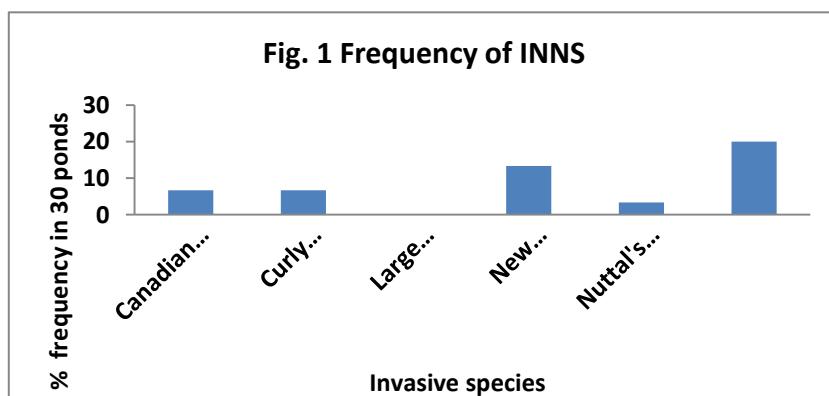
#### **Introduction**

Invasive non-native species are a cause of some concern and the UK has a framework strategy for invasive non-native species (INNS) launched in 2008 supported by a Programme Board and Secretariat. Approx 3000 non native species have been recorded in the UK (DEFRA, NNSS website 2011). García-Berthou et al (2005) suggest that aquatic species are often effective colonists, with 63% of 123 aquatic species becoming established in 6 European Countries. The expansion of aquatic weeds can have a significant ecological and economic impact. Pimentel et al (2005) found that clearance of one species, 'hydrilla', in Florida costs \$14.5 million and in 1993 the USA invested over \$100 million in control of aquatic weeds. Rahel & Olden (2008) investigated the impact of climate change on fish species in the US and suggest that reduction in the amount of ice cover, warmer water temperatures and increased demand for water storage will lead to an increase in invasives and a shift of some non-invasive non-native species to problem species. The potential for aquatic plants to mirror this is high and this study aims to follow up on work undertaken by the Cornwall Wildlife Trust & Environmental Records Centre of Cornwall & Isles of Scilly (ERCCIS) (Rennocks, unpub. data) gathering data on the extent of INNS within garden ponds in Cornwall. The aim of this study is to look at a small sample of 'natural' ponds on farms and nature reserves in North Cornwall and investigate the extent to which non natives are already present and whether any relations may exist with other known records of invasives.

#### **Methods**

Thirty ponds were identified based on responses to a press release, known ponds within the North Cornwall area and 'cold-calling' following reference from OS map data and GIS data held by ERCCIS. Two recorders visited each pond during late August 2011 and completed a visual survey of the pond margins. Any aquatic plant species present were recorded and data input onto a record sheet and then entered into a database. Final analysis is underway using MINITAB 15 and the following are to be tested:

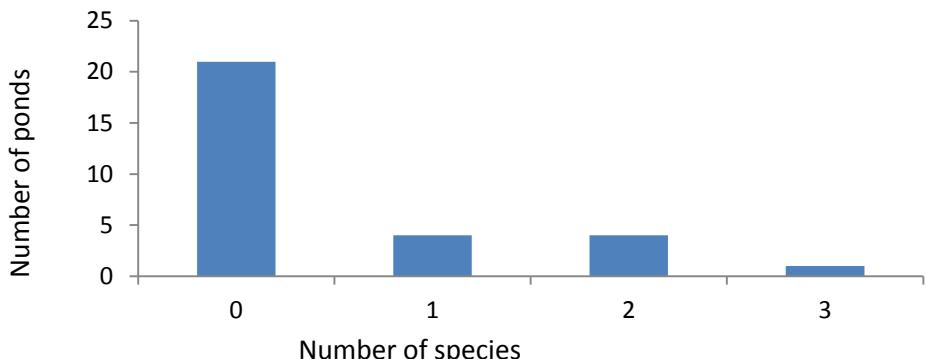
- Distance between ponds and number of invasives recorded
- Distance to nearest known pond with invasive and presence of invasives.
- Distance to nearest urban settlement and presence of invasive species



## Results & Discussion

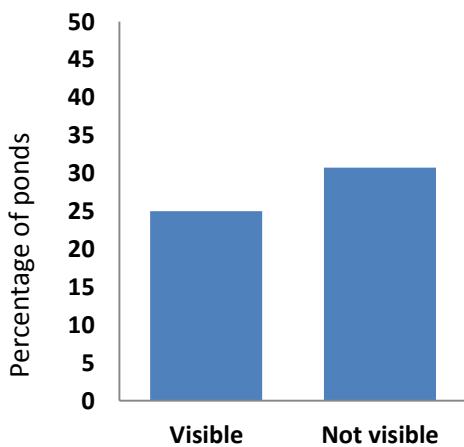
Preliminary results show that 9 (30%) of the 30 ponds examined had invasive species present. Of the species expected, the most frequent was parrots feather (Fig. 1) present in 20% of ponds.

**Fig. 2 Number of species per pond**

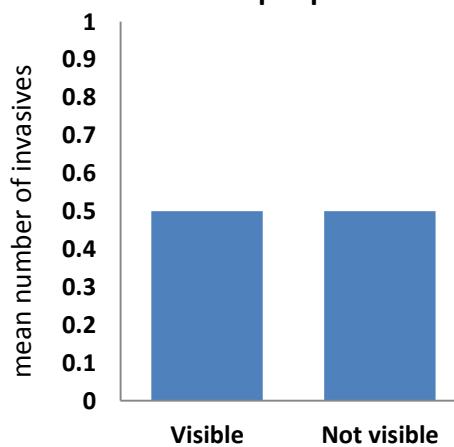


There was no obvious variation in the number of species per pond (Fig. 2), and whether the pond was visible from the nearest road had no difference on the frequency or mean number of ponds with invasive species present (Figs. 3 and 4).

**Fig. 3 Percentage of ponds with invasives**



**Fig. 4 Mean number of invasives per pond**

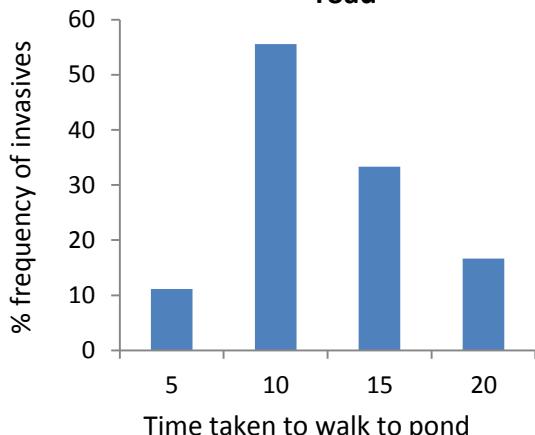


Interestingly there was some degree of variation in the frequency of ponds with invasive species (Fig. 5) and the mean number of species per pond (Fig. 6) as one moved further from the road. There were more ponds colonized in the 5-10 minutes' walk from road category than the 0-5 minutes from the road category and the number of species and frequency of colonization declined as one moved further away from the road.

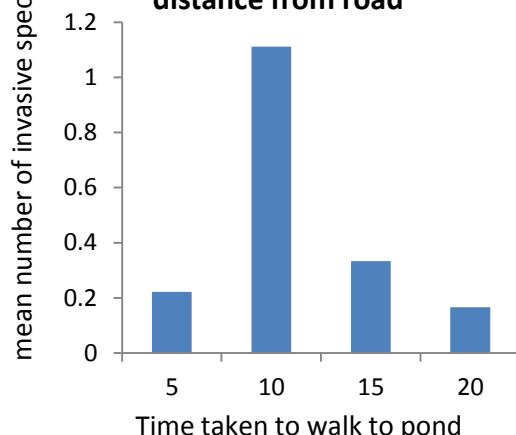
As a preliminary study this short survey has established some evidence that the colonization rate in Cornwall is relatively high in 'wild' ponds and that some species, notably parrot's feather, dominate within the area surveyed. The ability to see ponds from the road does not affect the colonization rate but the distance from the road does, with ponds 5-10 minutes away from the road showing a high rate of colonization but ponds further from roads showing lower rates.

The analysis of data will continue with an investigation of other factors such as nearest known source population. This simple survey has demonstrated how basic data may indicate the influence of humans on colonization of invasive species. A further study is planned as a student project to expand the data set across Cornwall and grant applications will be made to NGOs involved in invasive species research.

**Fig. 5 Variation of invasive colonisation with distance from road**



**Fig. 6 Variation in mean number of invasives with distance from road**



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## Brender Willmott: Programme Manager Surf Science and Technology, CC Newquay – Integrated Masters Programme, University of Plymouth

To date I have completed 4 modules on the International Masters Programme at UoP.

Teaching HE in and FE context

Mentoring and Coaching

Understanding Classroom Learning

Social and Emotional Aspects of Learning

These have been delivered at a variety of locations by various different lecturers, all with their own very individual delivery styles, some of which I found more engaging than others as would be expected.

I have found all the modules challenging and interesting and there have been aspects of all of the different modules that I have found highly applicable in my own teaching context. It has been particularly interesting to be doing this at the same time as engaging in the concepts, training and practicalities of Learner Led Learning (LLL) and delivery and trying to assimilate and utilise the information from both the theory of education and the practical and applied aspects of LLL.

It has been time consuming and required some effort to stay motivated as it has required me to travel after work to a variety of locations and I have been required to pay for some modules myself with no support in terms of time from college. Having said that the actual experience of studying at this level has more than compensated for the efforts I have need to make and time I have dedicated to it.

I found the Social and Emotional Aspects of learning particularly interesting, both because of the delivery and the content which I was able to relate to my own experiences with my children. I feel that I gained an

insight into their own development that I perhaps did not have when they were actually growing up. It has also made me look at some of my own students in a different and perhaps more sympathetic way.

The first module – Teaching HE in an FE Context – was extremely interesting as I was at that stage based at Lusty Glaze where the context was as far removed from a university level educational base as could be imagined and was actually extremely challenging in that the very nature of the place was concerned with leisure and relaxation which made the atmosphere not particularly conducive to developing a work ethic with the students.

Mentoring and coaching came at an appropriate time as I had a PGCE student working with me and this module highlighted for me issues that arise both for the mentee and the mentor in terms of training and again lack of time to fulfil the role to the best possible level.

Finally the Classroom Learning module highlighted for me some innovative and interesting teaching styles and issues that might arise with barriers to learning in different students. The mix of students in this group helped to raise a number of issues and interesting points and ideas for overcoming problems in a creative and flexible way.

Overall I feel I have gained a far deeper insight into some of the key issues confronting education currently, as I have had to consider areas of interest both personally and professionally. I feel that my empathy for students has developed considerably as I am now more aware of some of the problems that arise during the educational process that leads them to study at HE level with us. Personally it has made me examine more closely, my own teaching style and without doubt this and the LLL training, has had a significant impact on my own delivery style and approach to students.

My interest now is in relating my own subject more closely to the student experience and I intend for my dissertation to investigate the use of a sport specific theme in an academic context.



### **Dr Hazel Selley: Lecturer in Zoology, Newquay - Baseline environmental assessment of a potential future Voluntary Marine Conservation Area (VMCA) off the North coast of Cornwall**

#### **Aims:**

1. To assess the baseline health of the benthic marine environment at St. Agnes VMCA.
2. To assess the intertidal biodiversity & current environmental health for longer-term monitoring at the VMCA site.

#### **Objectives:**

1. Measure DNA damage in marine mussels as an indicator of pollution and environmental stress at the selected site – if possible mussels near the local CSO will be selected to compare with those away from the CSO to assess potential sewage effects.  
This objective is ongoing. Equipment has been purchased; however, refinements need to be made before the equipment (electrophoresis tank + Power pack) is operational.
2. Collate and input previous biological data on the site at St. Agnes into a database which can be used to provide access to the data which currently exists on paper records spanning a period of 15 years. This will allow comparisons with more recent data to distinguish any potential changes over time. A student will be employed part-time to enter & analyse this data which will provide the student with work experience and links with the wildlife Trust and ERCCIS (Cornwall Environmental Records Centre).  
Elaine Roll, a part-time student studying for the BSc in Applied Zoology, has been employed to collate previous survey data. She will also be compiling a brief report on the biodiversity of the site, and any changes over time, based on the previous data. Due to the nature of the previous studies (species present recorded only) it was not possible to statistically analyse this data. However, the Jaccard Index was used to assess similarities in the data sets. Figure 1 below shows a summary of the number of species present in the surveys each year.

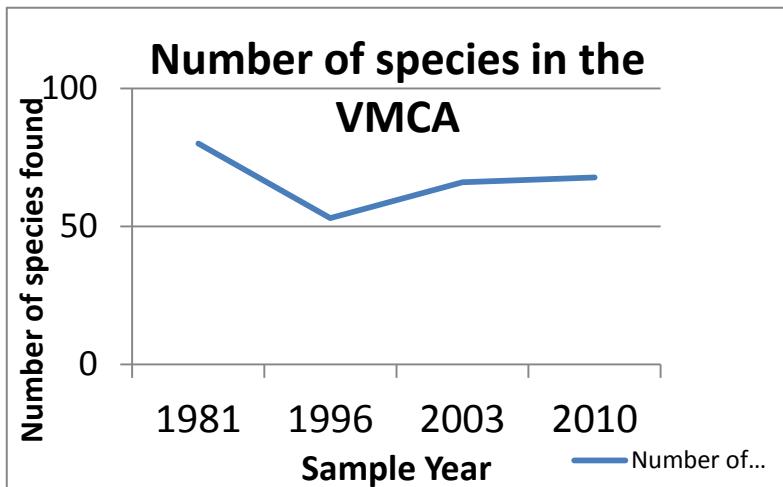


Figure 1: graph showing number of species observed in each survey.

3. Measure faecal bacterial growth where appropriate to establish a baseline monitoring program at the site. This could be correlated with nutrient data from a project conducted by Jason Birt. One student opted to complete this project as part of their FdSc, however they were unable to complete this due to unforeseen circumstances. Elaine Roll is intending to complete this project for her BSc Honours project during the academic year 2011/12; she will be taking samples from the beach during the Summer of 2011 as well.
4. Assess Biodiversity and the presence of invasive species and BAP species to establish a long-term monitoring program at the selected site. This objective will be carried out via a student project and / or weekend student survey activity, including intertidal "ShoreThing" surveys and diving surveys, which may be both shore-based and boat-based.

A planned survey this year was not completed due to poor student attendance, as student projects were shortly due to be completed.

Staff and keen students did participate in local survey training and advanced rocky-shore training at the Marine Biological Association in Plymouth, as well as attending a rock pool ramble and survey at St. Agnes itself. Two second year FdSc students ran a rockpool ramble for the VMCA which was very successful. This was less scientific in its aim, and was to help encourage public engagement in the VMCA. Second year students will complete a full scientific biodiversity study of the site during induction week of 2011 academic year. Figure 2 below shows young people observing species found at St. Agnes during the rock pool ramble.

Figure 2: young people observing marine wildlife as part of a rockpool ramble. © Jane Alcock

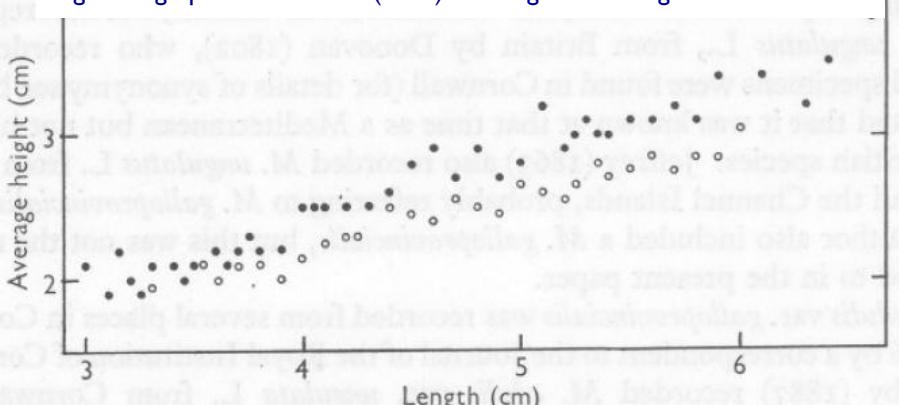


First year FdSc Marine Conservation students also carried out a study on the mussels found at St. Agnes as part of their module Genetics and Reproduction in Aquatic Organisms. This involved measuring the length and width of mussel shells to determine whether shell shape could be used to conclude whether the mussels were *Mytilus edulis* or *Mytilus galloprovincialis*.

Figure 3 from Hepper (1957) shows that the length / width ratio differs in the 2 species. Figure 4 shows a plot of the student data. The mussels were quite small at St. Agnes, and it was concluded that shell length / width ratio was not a reliable indicator, however mantle edge colour may be. Genetic studies appear to confirm that mussels on the St. Agnes coastline are *M. galloprovincialis* previous known as "Spanish" mussels

due to their prevalence on the Mediterranean. Mussels from N. Cornwall are genetically like *M. galloprovincialis* (Hilbush et al. 2002; Bierne et al. 2003), and using different genes / methods — and one of them even sampled mussels from Trevaunance Cove (Hilbush et al. 2002).

Figure 3: graph from Hepper (1957) showing mussel length / width ratio



Text-fig. 1. Comparison of mean values of height with length for *Mytilus galloprovincialis* (●) and *M. edulis* (○).

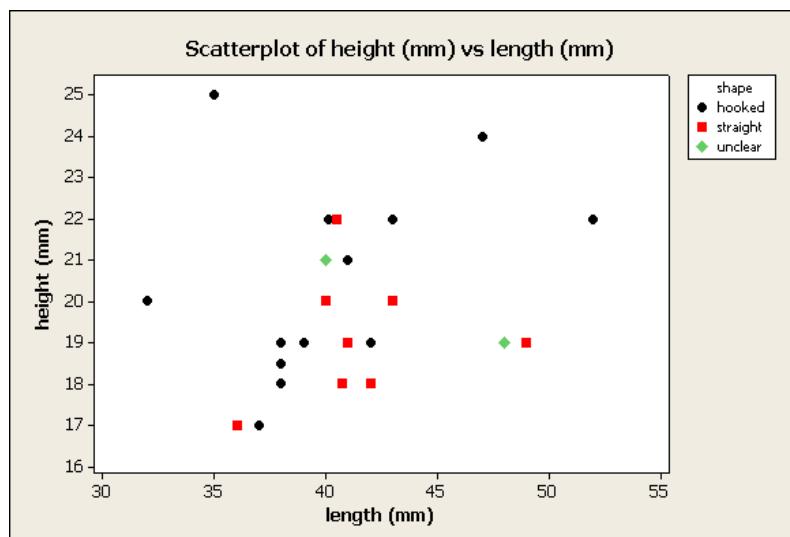


Figure 4 – graph plotting length / width of mussels from St. Agnes measured by students

Two diving surveys took place in August 2011 as part of the Seasearch assessment of the VMCA. Angie Gall, the Seasearch co-ordinator from Cornwall Wildlife Trust, reports the following:

"We were able to survey sites that had received little or no previous survey work, such as areas of Bawden Rock and Carter's Rock. This enabled us to classify these north coast biotopes about which we previously had so little understanding. The data from within the VMCA has been shared with the VMCA group to add to their species lists for the area. All of the data will go onto Marine Recorder at ERCCIS and subsequently it will be shared with the National Biodiversity Network."

The Divers included Keith Hiscock from the MBA & Sally Sharrock, both marine experts who were able to survey the site as a result of the College's involvement with the project.



Figure 5 – Pink Sea fans – a biodiversity Action Plan species – visible at Bawden Rocks © Keith Hiscock

5. Assist with the seasonal zooplankton survey in conjunction with Jason Birt through assisting with training students in identification of zooplankton species.

This project was successfully completed by Lisa Rossbach under the supervision of Jason Birt with identification assistance provided by me when needed.

Dr Selley worked with Jason Birt and Dr Kelly Haynes on this project. Their reports are on pp 73 – 82.



## Freshwater Research in the Kinabatangan River

July 2010; Sabah, Malaysia (Borneo)

The trip to Borneo was aimed at providing Foundation Degree students with an opportunity to actively engage in conservation research in Borneo (Sabah, Malaysia). The students gained experience of mammal trapping, primate observations, bird surveys on the Kinabatangan River as well as night time surveys for frogs and mammals (which also featured many large spiders).

Students identifying mammals in the small mammal traps



I attended the project to gain the experience of observing the wildlife of Borneo and taking part in surveys on invasive species. Students and staff initially observed current surveys and research being undertaken at the Danau Girang Field Centre, with sightings of Orangutans and Bornean Pygmy Elephants.

After the initial induction to the centre and its work, I led half of the students on river based surveys on the Kinabatangan River. This involved catching and identifying the fish species in the river using a cast net. The species found were accurately identified using a key on Bornean

freshwater fish (from the 1950s) and the Malaysian government database on fish species. This was useful as many of the fishermen in Sabah have common names that reflect groups of fish, rather than names for individual fish species. Fish were measured accurately and gut analysis was carried out to determine if fish were detritivores, omnivores or piscivores. Some of the larger fish even had prey such as a grasshopper or smaller fish inside their stomachs. This study will be continued in the long-term to give an indication of species diversity and abundance to monitor any temporal changes.



an Archer fish, which catches insects by squirting them with jets of water

In addition, we carried out surveys on the abundance of an invasive floating fern *Salvinia molesta* in two tributaries. This fern is native to South America but has been used in ornamental ponds around the world, and has escaped into lakes and river systems. It can form dense mats, particularly in oxbow lakes and smaller rivers, reducing native vegetation, affecting riparian birds and fish in the river. We carried out 10 minute counts for the fern, which ranged from 12 to 600 clearly demonstrating that the distribution of the *Salvinia* was patchy, with one tributary having a high density, whilst the other tributary studied had much lower density. We hope to continue these surveys long term to gain a greater understanding of the



spread of the floating fern which could suggest locations to focus on to reduce the spread of this invasive aquatic species.

A net was used to sample floating pieces of *Salvinia* to calculate the average size of floating *Salvinia* pieces.

We also used a floating technique to examine any freshwater zooplankton that may have been living in the root system of the *Salvinia* including small copepods. This showed that potentially the *Salvinia* is creating a new micro habitat for some species.

The trip helped me to gain a much greater understanding of tropical forest habitats and tropical freshwater habitats and species, in particular I have great knowledge on invasive freshwater species, which relates to my third year / level 6 module in Zoology & Conservation in Aquatic Ecosystems.

We hope to continue the river studies on fish diversity and *Salvinia* in the long term through training other staff and students to carry out the identification.



**Jason Birt: Lecturer, Marine Aquaculture and Marine Conservation, CC Newquay - Characterisation of the near-shore zone of a proposed educational Voluntary Marine Conservation Area (VMCA) for purposes of base-line data gathering and sustainable aquaculture**

The purpose of this project was to provide the scientific baseline data for a proposed new Voluntary Marine Conservation Association in proximity to Newquay. This baseline study was to provide data to the new VMCA, to be published via a website and display boards, with the data shared with other organisations including Cornwall Wildlife Trust. Website and display board production was under the aegis of Dr Kelly Haynes's project, covering the educational aspects of the VMCA. This baseline characterisation project was also complementary to Dr Hazel Selley's project using techniques to assess the environmental health of the proposed VMCA and therefore provide a baseline with regard to pollution, in advance of future studies.

VMCAs are not statutory designations. They are areas where volunteers can come together to highlight a marine area local to them and attempt to protect it, either by persuading those exploiting the natural resources or damaging the area to reduce or desist voluntarily or maintaining vigilance of illegal activities and reporting them to the police and gaining prosecutions under existing legislation. Additionally, VMCAs promote remediation of an area and promotion of its benefits. If an activity is exploitative and damaging but not illegal, VMCAs and the volunteers that staff them cannot stop that activity, merely advertise its presence (truthfully) and hope public opinion gets the operators to reduce the damage or exploitation.

After receiving advice on the state of marine conservation areas and proposals to set them up from outside organisations, we decided to adopt an existing VMCA. After much deliberation, we adopted St Agnes. This had been running at a low level for a number of years and was part of a re-launch of VMCAs to be undertaken by Cornwall Wildlife Trust (CWT) under a project called *Your Shore*.

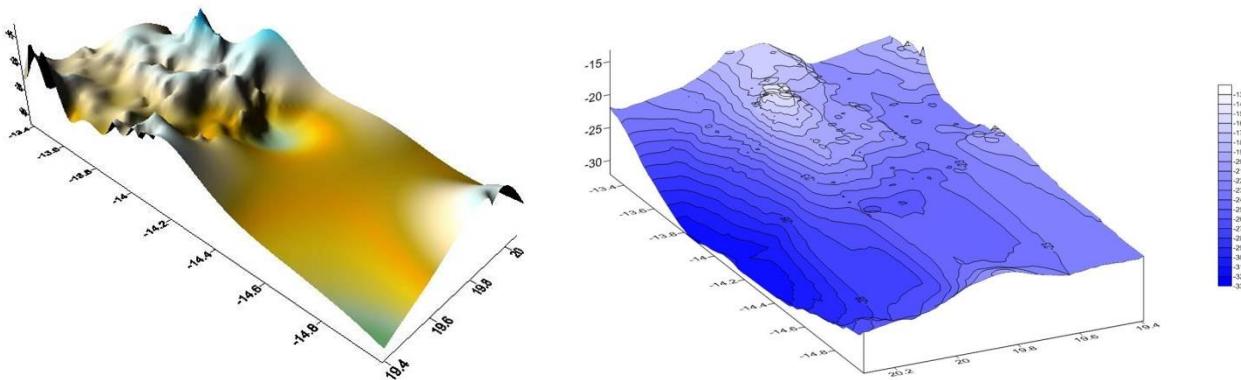
We met up with St Agnes organising volunteers and CWT staff to clarify our intentions and involvement and were met with enthusiasm from them. However, mention of sustainable aquaculture in the characterisation study proposal caused considerable concern so I had to agree to abandon that part of the proposal and promise never to consider it. Subsequent meetings have been cordial and productive.

The characterisation study had the following aims:

3. To determine the topographical features of a selected near-shore zone with suitable access to facilitate aquaculture and recreational operations.
4. To determine the surface distribution of nutrients at a selected near-shore zone.
5. To assess seasonal variations in plankton populations of a selected near-shore zone with regard to number and species composition.

The first of these aims has been achieved in three sectors of the VMCA around Bawden Rocks. Michelle Gurney took over 600 screen grabs of the echo-sounder and inputted the depths and XY co-ordinates into Microsoft Excel. These were subsequently transferred to Golden Software Surfer 9 to produce 3D bathymetry of the areas (figures 1 and 2). Recordings of the acoustic determination of seabed substrate and habitat were also made and whilst proportions of the area have been calculated according to substrate/habitat type, these have yet to be mapped. It is hoped to produce habitat overlays on the 3D topographic maps to give a model of the seabed. The mapping has produced areas of interest for dive operations, previously not dived (or not previously recorded). These areas of interest will be dived using money from Dr Haynes's project to produce imagery for the website and to start ground-truthing the sonar research. This is also a feature of the continuation funding. The habitat would also be suitable for sustainable aquaculture in the lee of Bawden Rocks, although this activity would be deemed unacceptable by our project partners.

The second aim has not been achieved yet and there were no interested students (although an ex-student was interested in undertaking the work). However, the equipment has been bought using another budget and there remains one more boat trip in the existing budget (to be undertaken in the first week of August) to undertake a preliminary investigation and orientate the nutrient study towards sites indicated in the continuation study relating to the input of a stream at Trevaunance Cove. The data will from this and the subsequent study will be made available for the educational outreach project (Dr Haynes's study).



**Figure 1 Left.** Site 1, to the south-south-west of Bawden Rocks in St Agnes VMCA. Bawden Rocks would be located in the top-left of this image. Note the rocky area heading bottom-right before becoming smoother (sandy bottom). This image was generated by Michelle Gurney, a second year FdSc Marine Conservation student for her individual project under the auspices of the funded research. Screen shots of an echo-sounder were captured and the data entered into MS Excel before import into Golden Software Surfer 9. This method is called pseudo-bathymetry.

**Figure 2 Right.** A combined generation of the three sites surveyed. Bawden Rocks would be located in the top-left. Refinements to the model are required to generate an image that accurately represents the wedge-shaped area that was actually surveyed. However, it still shows the rocky area to the south of Bawden Rocks.

As a result of the late start of the project (due to required deliberations with outside bodies), a seasonal study to meet the third aim could not be achieved. However, a student – Toni Cassidy (figure 3) – undertook samplings through March and April and studied two sites, one in the middle of the VMCA and another next to Bawden Rocks. She was assisted in this by first year FdSc Marine Conservation students (figure 4). The purpose was to establish quantitative and species differences between the two sites. She established no differences in species composition or population size but the study was by no means exhaustive. On one occasion we were joined by a pod of eight common dolphins (figure 5)! The study did help to refine methods and these refinements will be employed in the continuation study. The plankton levels would be suitable for rope culture of molluscan species; however, this activity would not be deemed

acceptable in this VMCA. Part of the third aim was to use plankton as a proxy for the health of the benthic environment.

This part of the study needs further refinement and we have been unable to use this proxy measure as yet. However, the continuation study aims to concentrate on developing this strategy of health determination around Bawden Rocks.

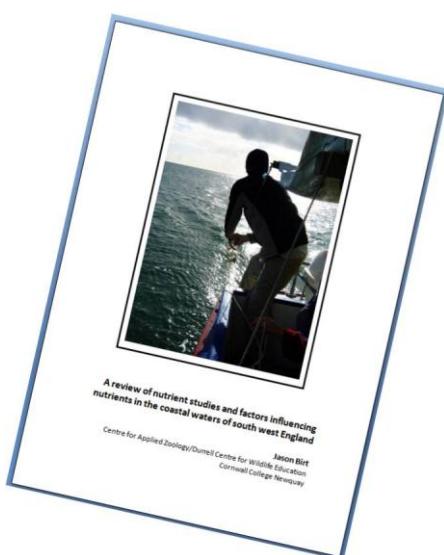


**Figure 3.** Toni Cassidy pouring her zooplankton sample into jars. Her study showed an increase in *Oikopleura* spp. numbers over a two-month period, although there was no difference between her two sites. *Oikopleura* are zooplankton not so distantly related to us, because of the presence of a notochord, a structure analogous to our spinal cord.

**Figure 4.** FdSc Marine Conservation first year students collecting plankton for Toni Cassidy's project (she was present!). Her project served as a preliminary study to refine the method before its full implementation next year in the continuation study.



**Figure 5.** A common dolphin bow-riding our research boat after collecting plankton samples in March. A pod of eight dolphins joined us for 15 minutes just off Newquay. More interesting to look at than a graph of plankton numbers!



**Figure 6.** Front cover of the literature review of nutrient chemistry research around SW England.

Practical activity was not the only focus of the project. In accordance with the first caveat imposed on the study, a literature review of research conducted on assessing nutrient concentrations around the south west was conducted. Whilst

limited to 5000 words, review of the literature revealed that this was a far bigger subject because just concentrating on the nutrients was too limiting if the report was to be of use to other staff and primarily students. It was decided to include factors that influence those nutrient concentrations and distributions, such as chlorophyll *a* (as a proxy for primary production, the main user of nutrients) and mixing forces. A review of research in the western approaches of the English Channel, Celtic Sea and the outer Bristol Channel, with case studies on the Fal/Helford complex and Tamar estuary, equipment available for use and future directions of study for Cornwall College, yielded a review of 10,000 words (figure 6). This is available to be printed out by Learning Centres across the corporation.

Overall, this has been an enjoyable project to undertake and has given the students involved much on-the-job experience. The award of continuation funding has meant that more can be found out about this wonderful area, particularly its sub-tidal environment, and this will be relayed via a new website to be developed shortly.



## Mapping the seabed, nutrients and marine biology of St Agnes VMCA

### Introduction

The St Agnes Voluntary Marine Conservation Area (VMCA) is a recently re-launched conservation zone that fully engages local stakeholders in Community-Based Conservation (CBC). VMCA's have no statutory protection mechanisms<sup>1</sup> but still provide an effective protective method by raising awareness<sup>2</sup>. A previous study funded by Cornwall College (2009-10) established methodologies for plankton collection and analysis, nutrient collection and measurement and seabed topographical measurement and assessment of biotope by acoustic means. This year's study aimed to continue the success of the earlier study and develop it further. It aimed to do so by involving the staff team, students (predominantly studying FdSc *Marine Conservation*) and local VMCA volunteers.



**Figure 6. Left:** Students en route to St Agnes to engage in group work for the *Marine Science* module. Data collected included plankton samples for Lisa Rossbach's second year research project. **Right:** Students undertaking a rocky shore survey for the module *Ecology of Aquatic Systems*. Whilst not part of the outcomes for this particular project, this activity exemplifies the college's involvement with the VMCA has led to a number of work-related opportunities.

The earlier (2009-10) study showed the importance of this funding for providing enrichment opportunities for students on the FdSc *Marine Conservation* course. First year students received first-hand opportunities to participate in data collection for the research. Second year students developed research projects that were work-related and a considerable improvement on previous projects, involving use of better facilities and software. This year's study continued to enrich the delivery of the FdSc *Marine Conservation* course by providing hands-on learning opportunities and problem-based learning (PBL) (through contextualised assignments for specific modules (e.g. *Marine Science* and *Ecology of Aquatic Systems* (see figure 1))), work-related learning (WRL) and PBL for second year students via *Individual Research Project* delivery and scholarly activity for the marine staff team. This study also supported the belief that HE in FE colleges could

<sup>1</sup> Heeps, C. & Davies, A.M.N. (1999) Voluntary Marine Conservation Areas: a review of funding and interpretive provision.

<sup>2</sup> *Ibid.*

engage in long-term, low-cost environmental data collection that can be used for tracking regional climate change and the incursion of invasive species. Furthermore, the development of scientifically accurate, low-cost methods could be used as a benchmark for environmental science in the corporation and the skills relayed to other staff across the corporation via training workshops.

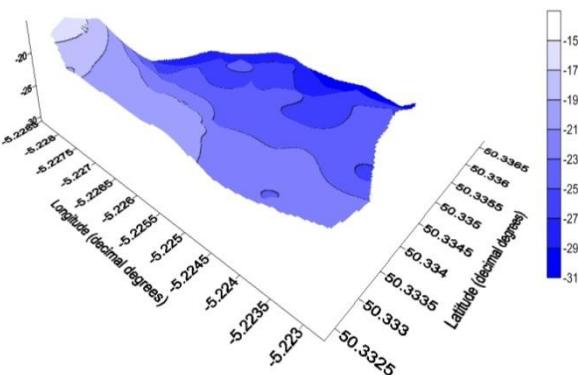
## Objectives

1. To map acoustically seabed topography and biotope types in areas of the VMCA not covered in the previous study.
2. To use acoustic methods to map fish populations and aggregation locations within the VMCA.
3. To undertake dive surveys of the VMCA to “ground truth” the findings of the earlier study and data collected from objectives 1 and 2.
4. To track plankton populations at Bawden Rocks over the year to assess larval influx from the sessile benthic population and identify the larvae as a proxy biodiversity measure of those benthic populations.
5. To map nutrient distributions and assess anthropogenic inputs via the stream entering Trevaunance Cove.
6. To relay gathered data and method developments to partner organisations, the St Agnes VMCA website and via corporate training.

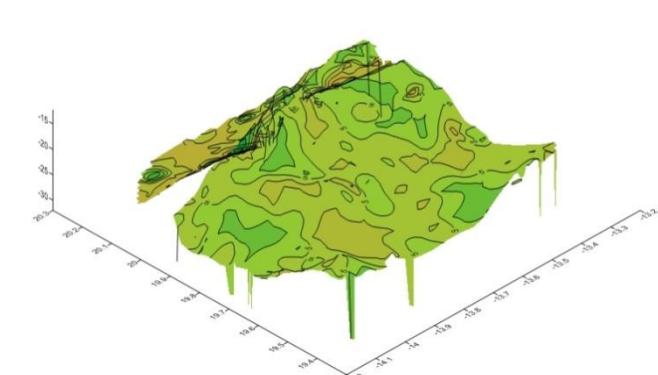
## Results

### Topography, fish aggregation and ground-truthing

A student project undertaken by Lorna Elliot-Campbell focussed on the eastern side of Bawden rocks, with topography and acoustic biotope mapping used to produce a map using Golden Software Surfer 9. This area was determined as rocky, with sporadic plant cover (see figure 2). Lorna also reinterpreted Michelle Gurney's earlier data, producing maps of biotope (see figure 3) and fish aggregation (see figure 4). New data is in the process of being collected and will be mapped over the next six months. Lorna established that fish were associated with topographic highs and areas of thicker macroalgal cover. This is to be expected but it is good to see data agreeing with assumptions.

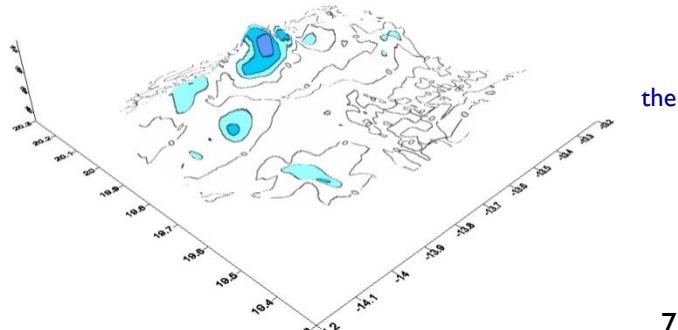


**Figure 7** East of Bawden Rocks - bathymetry of the seabed (Credit: Elliot-Campbell).



**Figure 8** Reinterpreted data showing macroalgal cover (darker green means thicker seaweed cover). Data collected by Gurney, mapped by Elliot-Campbell.

**Figure 9** Fish aggregations - the deeper the blue, more fish there are (Data: Gurney; interpretation: Elliot-Campbell).



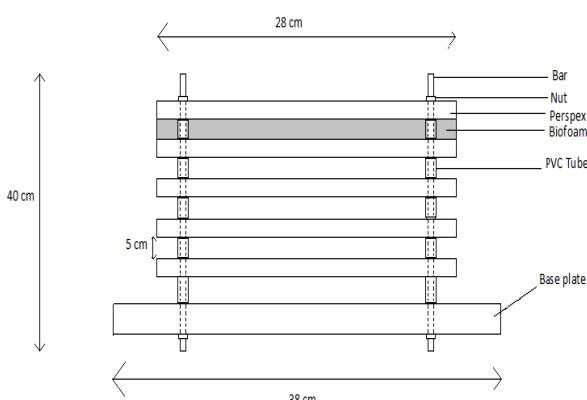
Due to poor weather and diver availability, dive surveys were unable to be undertaken using this year's budget. However, two boat dives purchased using Dr Haynes's budget remain to be used and Dr Selley's budget also provided for boat dives. It was decided instead to use the budget assigned for boat dives to buy materials for larval settlement rigs, nutrient test reagents, a digital camera and attachment for our microscopes with monitor for analysis of collected plankton and larvae and a Maplin underwater camera kit. This underwater camera kit allowed assessment of the biotope to 20 m depth. Provisional trials have been undertaken around Bawden Rocks and have revealed that the acoustic biotope assessments have been accurate at depths less than 20 m. Fish aggregation has also been observed on camera at locations determined using acoustic methods (see figure 5). The boat dives referred to above will be undertaken this summer to ground truth seabed deeper than 20 m.

**Figure 10** Fish caught on Maplin underwater camera kit.  
This was at one of the identified sites of aggregation.



### Plankton sampling and larval influx measurement

This objective was covered by a student project undertaken by Lisa Rossbach. Through the Spring, she assessed plankton populations at St Agnes and a comparative site off Towan Head, Newquay. She also deployed larval settlement rigs at these locations to link together plankton tows with actual settlement (see figure 6). Sadly, bad weather caused the Towan Head rig to be washed up, although that has been recovered undamaged. The St Agnes rig is missing in action and another search for this will be undertaken in forthcoming weeks. Plankton tows were much more successful and the use of Jaccard's similarity index revealed that the sites had very little similarity, either spatially or temporally. Early in the season, species identified tended to be holoplankton but from March there was a shift to meroplankton – in other words, an influx of larvae from species one would expect to see attached to the rocky substrate of St Agnes (see figure 7). The ground-truthing described above will also establish whether the species found in the plankton will be observed in adult form on the subtidal substrates.



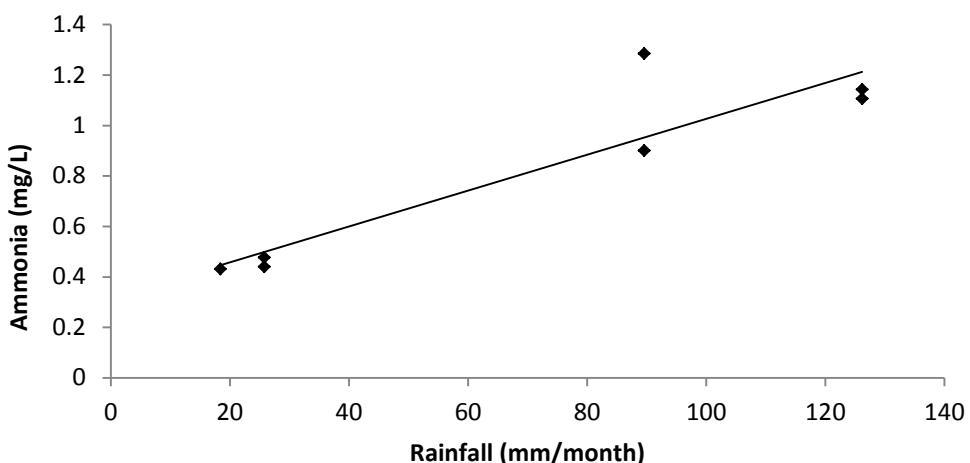
**Figure 11.** Settlement rig constructed by Rossbach.



**Figure 12.** Photomicrograph taken with the digital camera kit it is intended to be bought using the funding. This is a zoea larvae of *Piscidia longicornis*, or long-clawed porcelain crab (Credit: Rossbach).

## Nutrient studies

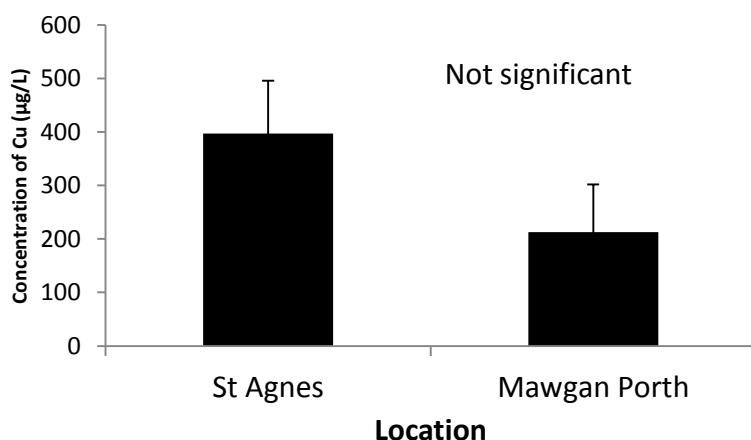
Peter Robinson, a second year student measured concentrations of ammonia, nitrate and phosphate from January to April at four locations on the stream and stream-beach interface. He correlated this to Meteorological Office rainfall data. There were some correlations that were significant, particularly south-west of the stream mouth (see figure 8), which indicate an alternate source for nutrients entering the bay as there was less correlation with rainfall within the stream itself. Now values remotely approached EU standards, which is encouraging, especially as the stream is also a CSO.



**Figure 13:** Ammonia concentration in mg/L against recorded rainfall in mm. This relationship is significant according to Pearson's Correlation (Credit: Robinson).

## Copper concentrations

An additional direction, not covered in the objectives, was to measure copper concentration in the stream flowing to Trevaunance Cove and compare this with another, non-mining north coast location. This work was undertaken by some first year FdSc *Marine Conservation* students using the photometer used for Peter Robinson's project above. They established that St Agnes's copper levels, whilst higher than at the comparative site, are not significantly higher (see figure 9).

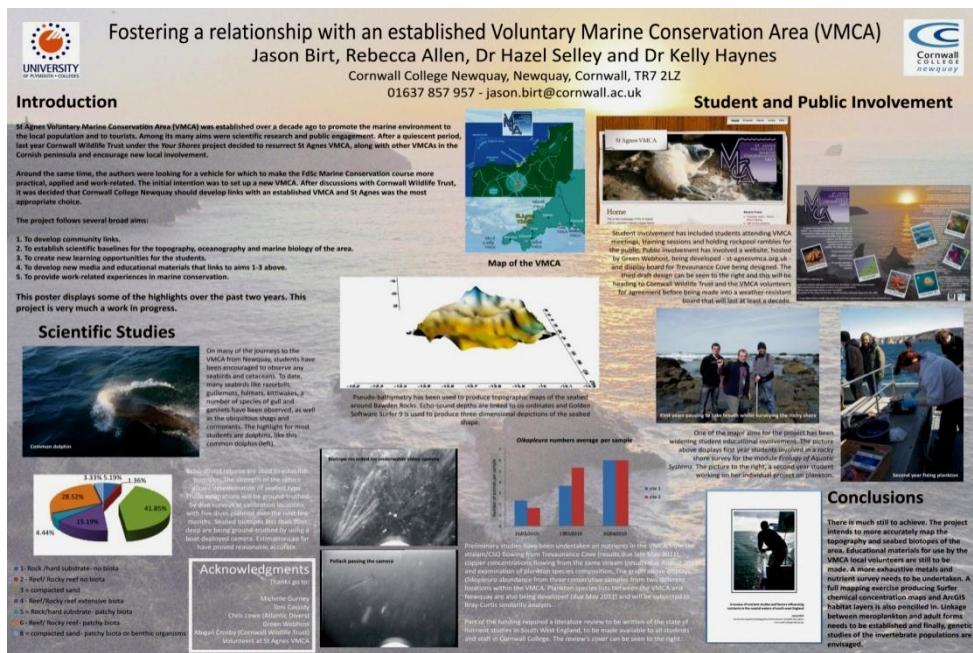


**Figure 14** Copper concentrations between St Agnes and Mawgan Porth for one day. This graph was produced by first year *Marine Conservation* students on the module *Marine Science*. (Credit: Alcock et al.)

## Data Sharing

Data has been presented at Newquay's research day, on a poster exhibited to University of Plymouth senior management and the same poster has been exhibited at Camborne's research day (see figure 10). A presentation will be made to St Agnes VMCA volunteers soon, a short article will be written for *The Bolster*, the local St Agnes magazine, the presentation will appear on the VMCA website, along with the

datasets and the data, after refinement and error-checking will be provided to Cornwall Wildlife Trust and ERCCIS. Staff have been trained in data collection processes as well.



**Figure 15** Poster designed to highlight the results of two years of student-led research at St Agnes, kindly funded by Cornwall College. This research boosts students Problem-Based Learning, Enquiry-Based Learning and Work-Related Learning. This makes them better prepared for the world of marine conservation and field-based science in general.

## Future directions

The St Agnes project is gaining pace, with the volunteers fully onboard with the college's intentions. It is the intention of the author to bid for new funding to buy a SeaViewer underwater camera system that will enable seabed habitats to be mapped to at least 50 m depth (camera is rated to 100 m). This camera has a GPS overlay that will allow the recorded substrate/biotic cover to be mapped to ArcView GIS. The intention of the new bid is to fully map St Agnes and then broaden the recordings to other North Cornish coast locations.

## Conclusions

The funding over the past two years has improved staff skills and developed links with a local community and Cornwall Wildlife Trust. It looks to develop links with SeaSearch and, in the future, the Marine Biological Association's different programmes. Most importantly, it has enriched the studies of select second year students with their projects, giving multiples uses for their findings and it has allowed first year students to develop their problem solving skills and develop their investigative/research abilities. This funding is vital for educational development and scholarly activity in Cornwall College. Hopefully it will continue.



## Dr Kelly Haynes: Lecturer in Biology, Newquay - Report on the Establishment of a Voluntary Marine Conservation Area in North Cornwall

### I. Introduction

The original intention of this project was to establish a new Voluntary Marine Conservation Area or VMCA on the north Cornish coast, for the purposes of acting as a training vehicle for FdSc Marine Conservation students at Cornwall College Newquay. This essential intention has been retained, however, as detailed below, the actuality has been the adoption of an existing but moribund VMCA. The original proposal had a budget plan that was designed to set up a new VMCA. However, the spending has had to be altered to take into account the adoption of a site and help its renaissance. Ultimately, this change in circumstances has

been for the better. Students have, for the future, a better vehicle for training and the college has, in effect, bought better advertising for its presence and for its potential for community outreach. Below can be found a précis of the reasons for the change in plan and how the original outcomes have still, in some form, been met.

## **2. Background to the development of VMCA involvement**

The start of this project was delayed for the first six months – and for very good reasons – by issues presented by Cornwall Wildlife Trust (CWT). Whilst the national organisation CoastNET was behind the idea, promising support for the instigation, CWT suggested that the initiation of a new VMCA would cause problems for marine conservation in the south west and set back their stakeholder negotiations. Our plan to start a new VMCA was at a time when Finding Sanctuary (the organisation tasked with establishing marine conservation zones (MCZs) under the Marine and Coastal Act in the south west) had successfully won over a number of fishermen to the concept of conservation areas (generally they are against marine conservation zones) only for Natural England to propose a number of Special Areas of Conservation (SACs) in potential fishing areas without consultation and under the EU Habitats Directive, a mechanism separate to the establishment of MCZs but a distinction not appreciated by fishermen. CWT were understandably jittery about a third party declaring a stretch of coast a VMCA, believing it would make relationships with fishermen even more precarious.

We took CWT's advice and decided not to set up our own VMCA. CWT also suggested that running a VMCA would be too much work for lecturers concerned with other tasks (a correct assumption, in retrospect) and that other VMCAAs had suffered from a lack of input. They suggested having input into an existing VMCA and proposed St Agnes and Polzeath as two moribund VMCAAs. We considered this a good idea (but would have to scale back the student involvement so as not to be seen as taking over from the local volunteers). We wanted to get involved straightaway but were told by CWT that all VMCAAs were to be re-launched as a project called *Your Shore* by CWT. However, funding had not been secured and therefore we were to wait for that outcome.

The *Your Shore* project received funding in December 2009. However, as it was funded by the Heritage Lottery Fund, the co-ordinator's position had to be advertised. Therefore, we had to wait until the position had been filled. This caused further delays and as the bulk of the data collection for this characterisation study was to be conducted by second year students for their Independent Research Project module, a decision had to be taken as to which VMCA to "adopt". We elected to take on St Agnes. We received the support from CWT for our adoption in early February when Abigail Crosby was appointed to post. However, there was still an embargo on officially announcing involvement until the *Your Shore* project was launched in March.

We met up with St Agnes organising volunteers and CWT staff to clarify our intentions and involvement and were met with enthusiasm from them. Subsequent meetings have been just as cordial and productive and we have taken part in a number of public meetings, presenting research data and initial poster designs.

For more information regarding the St Agnes VMCA, please follow this link:  
[http://www.cornwall.gov.uk/pdf/stagnesvmca\\_1\\_%201%20.pdf](http://www.cornwall.gov.uk/pdf/stagnesvmca_1_%201%20.pdf)

## **3. Project Achievements to date**

The project has taken a number of steps towards developing an educational strategy for the St Agnes VMCA. The first step has been to design an information board to be produced by CWT and to be placed at Trevaunance Cove. The second has been to set up a website - [www.st-agnesvmca.org.uk](http://www.st-agnesvmca.org.uk), which will have content generated by students and volunteers. The third has been to undertake research dives to produce educational images that can be used for education material, the website and St Agnes Museum. Efforts have also been made to engage students in acting as volunteers for the VMCA for the activities organised by CWT and in the future, educational programmes for the public will be designed with the students, potentially for them to deliver.

Below can be found a response to the original outcomes proposed for the original project:

- I. Enhance teaching delivery of Marine Conservation and Ecology of Aquatic Systems through experiential and problem based learning for the FdSc Marine Conservation and Marine Aquaculture students.*

Students have been involved from the outset in the design of an information board and have been present at the VMCA meetings, getting involved with activities and proposing ideas for consideration. Their involvement has been one large problem based learning exercise, which has largely satisfied their requirements for hours for the work based learning module. For this academic year (2010-11), students will have a number of activities in different modules that will be linked to St Agnes VMCA, with ultimate aim that the VMCA serves as a centrepiece for their education.

- 2. To promote conservation of the marine environment of the proposed site along the North Cornwall Coast through student production of educational resources based on survey data which will be made accessible to the public.*

This has been a work in progress, with the onset in the 2010-11 academic year of activities that will generate data that will be passed onto Cornwall Wildlife Trust, primarily through ERCCIS (Environmental Records Centre for Cornwall and the Isles of Scilly), through the website [www.st-agnesvmca.org.uk](http://www.st-agnesvmca.org.uk), a year's subscription to which has been purchased through Green Webhost (making the site carbon neutral) and to be passed to St Agnes Museum. The raw data will be used by ERCCIS to add to their existing datasets. Students will process the data into a more accessible form for the latter two information delivery platforms. This also supports the first outcome.

In addition, and as stated above, the funding has purchased a weather-resistant A1 information board that consists of a map and information about the VMCA. Students have been involved in the design and research for this board, which also educates the viewer on ethical observation of the species that can be found within the VMCA.

- 3. To record the species diversity and relative distribution within the tidal and intertidal zones of the proposed site.*

This has not been fully achieved yet but forms the basis of a student project for this academic year (2010-11), as well as material for the module *Ecology of Aquatic Systems*. Additionally, the volunteers are to hold a preliminary survey of the rocky shore this weekend. Preliminary dives have been undertaken with two more planned before the winter. The new funding awarded to Dr Hazel Selley and Jason Birt will also garner more underwater imagery for use through the delivery platforms established and can be used for marketing for the VMCA and the college as well.

- 4. To establish a VMCA steering group with members from Cornwall College Newquay, relevant stakeholders and members of the local community.*
- 5. Engage with stakeholders and local communities to encourage sustainable commercial and recreational use of the marine environment.*

These outcomes have not been required but have been addressed by becoming part of the steering group that meets regularly. Links have been strengthened with Cornwall Wildlife Trust and with the local community, through participation and the offering of boat dives for those who are well qualified divers.

#### **4. Conclusions**

There have been a number of barriers to the successful achievement of the outcomes of this project. The project was inherited by my colleagues Jason Birt, Dr Hazel Selley and Rebecca Allen. However, the groundwork has been put in place for the successful development and expansion of this idea to become a work based training vehicle for conservation students and a large scale experiential/problem based learning exercise that will properly prepare students for their future careers.

## **Peter McGregor: Project Development, Newquay - Choosing sustainability champions: assessing suitability by online questionnaire<sup>1</sup>.**

### **Summary**

The main aims of the project<sup>2</sup> were met:

- two part-time B.Sc. Applied Zoology students were employed for data collection/engagement and data collation using SurveyMonkey, the online questionnaire software
- the project student worked with CCg's Sustainability Champion (Amy Hurst) to assist with student engagement in the formation of CCN's Green Team. Subsequent support to CCN's Green Team leader (Imogen Ahern) helped maintain student involvement
- access to SurveyMonkey was purchased for a year, used in a staff development day and subsequently by other staff
- research collaboration on behaviour change was developed and will extend beyond the timescale of this project

### **Details**

The only significant variation from the project's original aims (see footnote) occurred in assisting in setting up sustainability champions at CCg's campuses. This could not be achieved because of the timescale (student champions had to be in place soon after start of academic year, i.e. before extensive surveying could be completed). However, the engagement model was established at CCN and has proved useful in creation and development of the Green Team.

Several resources have been collated to inform staff and students about questionnaire survey design (on-and off-line), implementation and analysis. These will be made available through Moodle and will form the basis of any course offered to industry partners. A model for such a course was used as the basis for a staff training session on Dec 18th. Over 30 staff attended in two sessions and progressed to the stage that they could design and implement an online questionnaire.

This was demonstrated by surveys used by academic and administration staff in the following few months: e.g. a travel survey (by admin team) and a survey of academic ethos (by a CAM) to inform a staff development day (7th July). In addition, an online survey of Duchy College staff awareness of the RSPB-Duchy Memorandum of Understanding was conducted by PKM as part of the MoU development plan. The experience of SurveyMonkey through this project was instrumental in the decision by Head of College to purchase an annual subscription to the software. This will allow staff to use online questionnaires for both administration and teaching feedback, student projects based on questionnaires, and ongoing involvement with research partners.

Research on behaviour change as part of the CoaST3 Ambassadors for Change project has continued, with initial student training provided by CoaST staff and subsequent meetings to develop research and an application in response to a Defra expressions of interest. A statement from CoaST on the usefulness of this joint research is available.

The database formed from the 750 responses gathered by the project students will be used as a baseline for applications of the nature relatedness scale<sup>4</sup> to subsequent CoaST projects. We are currently considering publishing a summary of responses for this purpose by other researchers.

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<sup>1</sup> SurveyMonkey <http://www.surveymonkey.com/Default.aspx>

<sup>2</sup> Outcomes listed in the project application were: 1) Help CCg's Sustainability Champion set up sustainability champions at campuses in order to

assist in embedding sustainability into HE programmes. 2) Outline course content for questionnaire survey design, implementation and analysis. 3)

Extend applicability of current work with CoaST ambassador businesses.

<sup>3</sup> Cornwall Sustainable Tourism Project <http://www.cstn.org.uk/Page3.asp?id=49&level=0>

<sup>4</sup> Nisbett, E. et al. 2008. The Nature Relatedness Scale: Linking individuals' connection with nature to environmental concern and behavior. *Environment and Behavior*, doi:10.1177/0013916508318748

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### **Effect of invasive non-native species (INNS) on perceived value of the Camel Trail experience**

**Summary:** The presence of a range of animal and plant species, including INNS, adds monetary value of  $\approx$ 8p per species to users' experience of the Camel Trail. Identifying INNS devalues their effect by  $\approx$ 10p per species to  $\approx$ -7p per species. Thus, invasive species degrade the ability of the public to enjoy the biodiversity of the Camel Trail by at least £50,000 per annum.

**Background:** An image-based questionnaire (appended) for cyclists and walkers was used to assess public perception of the monetary value (+ve or -ve) of seeing 8 species on the Camel Trail. This disused railway line runs from Padstow to Bodmin in North Cornwall. It is used by over  $\frac{1}{2}$  million people per year, who potentially experience similar wildlife due to its corridor nature.

This project was conducted in collaboration with Trevor Renals, Environment Agency (EA), National Advisor, Invasive Species; survey by CCN student, Nicola Morris.

**Methods:** 51 Camel Trail users completed the survey questionnaire in April and May 2011 on the trail. The questionnaire asked the respondent to indicate the effect on their Camel Trail experience of seeing a species, or knowing that the species was present even if it wasn't seen. Each person was asked to indicate a monetary value for 8 species on a scale beside each species' image. The images were of comparable size and quality. The monetary value scale ran from >10p through 0 to >-10p.

They were then shown images of 4 of the species, told that they were INNS with adverse impacts on native species (the estimated annual cost (from Defra 2010<sup>3</sup>) was also shown below each image), and asked to indicate a new value from the same range of values. The ratio of cyclists to walkers completing the survey (4:1) was similar to the overall pattern of use at this time of year.

**Results:** All 8 species had a positive effect on the Camel Trail experience, ranging from over 6p to over 10p (see Table 1). There were significant differences between species' values<sup>4</sup> and less consistent agreement on value for the 4 INNS<sup>5</sup>.

Table 1. Mean monetary value (pence)  $\pm$  se (n=51) of 8 species.

otter	swan	primrose	flag iris	rabbit	Canada goose	Rhododendron	Himalayan balsam
10.8 $\pm$ 0.3	8.65 $\pm$ 0.5	8.35 $\pm$ 0.6	7.92 $\pm$ 0.8	7.92 $\pm$ 0.7	6.75 $\pm$ 0.7	8.57 $\pm$ 0.6	6.88 $\pm$ 0.8

After the INNS were identified, people significantly<sup>6</sup> devalued their effect on the Camel Trail experience, with average values from -6p to -8p and changes in valuation of -9p to -12p (Table 2).

Table 2. Change in mean monetary value (pence)  $\pm$  se (n=51) of 4 INNS species.

rabbit	Canada goose	Rhododendron	Himalayan balsam
-9.0 $\pm$ 1.1	-9.0 $\pm$ 1.2	-12.0 $\pm$ 1.1	-12.0 $\pm$ 1.1

**Conclusion / Outcomes:** The questionnaire approach to public perception of species monetary value shows promise and matches national approaches<sup>7</sup>. This pilot has led to joint projects and funding applications<sup>8</sup>. Excellent contacts have been established with cycle hire outlets – where returning/collecting customers completed the questionnaire while waiting – setting up the conditions for a larger study to be carried out over the peak visitor season, funded by collaborators.

<sup>3</sup> Defra (2010) The Economic Cost of Invasive Non-Native Species.

<sup>4</sup> non-parametric repeated measures ANOVA, 7df, p<<0.0001

<sup>5</sup> Kendall's coefficient of concordance: natives p<0.05, INNS ns, indicating some public knowledge of adverse aspects of INNS.

<sup>6</sup> non-parametric repeated measures ANOVA, 3df, p<<0.0001

<sup>7</sup> Defra (2011) UK National Ecosystem Assessment - Understanding nature's value to society.

<sup>8</sup> Award of project grant (ongoing) from Volunteer Cornwall to PKM/CCN to address some of the volunteering and engagement issues. Several project funding options submitted with EA, including significant student involvement and training delivery roles regionally.

## Camel Trail Wildlife: what's it worth to you?

These species can all be seen from the Camel Trail.

How is your experience of the Trail affected by knowing they are present  
- even if you might not see them on the day?

Please indicate on the scales below the value (in pence) of their presence to you.

+10

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ARKIVE  
[www.arkive.org](http://www.arkive.org)



ARKIVE  
[www.arkive.org](http://www.arkive.org)



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Date: \_\_\_\_\_ time: \_\_\_\_\_ M / F / J cyclist walker other

## Camel Trail Wildlife: what's it worth to you?

The species shown on the right are not native to this country.

They are invasive and can disrupt wildlife through competition and spreading disease.

Has this information changed your experience of the Trail?

Please indicate on the scales below the value (in pence) of their presence to you.

+10

0

-10



+10

0

-10

£263,173,000 estimated annual cost

+10

0

-10



+10

0

-10

£1,600,000 estimated annual cost

+10

0

-10



+10

0

-10

£8,621,000 estimated annual cost

+10

0

-10



+10

0

-10

£1,000,000 estimated annual cost



## **Alex Whatley: CAM for Marine Technology, Falmouth Marine School - MSc Marine Technology (Small Craft Design)**

In May 2006 Cornwall College Corporation awarded me £8100 over three years towards the fees of the MSc in Marine Technology run by MTEC, the Marine Technology Education Consortium, which consists of the Universities of Glasgow, Heriot-Watt, Strathclyde, Newcastle-upon-Tyne, Southampton and University College London. The course consists of ten taught modules of ten credits each, plus an eighty credit design-based research project.

Each taught module comprises web-based reading material and directed study, based on which there is an assignment that comprises approximately 30% of the module assessment marks. This assignment has to be completed before attending an intensive 'school', which is run on campus at the institution responsible for that module. At the end of the school, there is an exam which accounts for approximately 50% of the module assessment marks. The remaining 20% of the assessment marks are obtained through the completion of a post-school assignment that is aimed at applying concepts learned to a case study or given scenario.

The benefit of this course is that the web-based part of the delivery and the flexible post-school assignment allow the study to be focussed on the students' own areas of interest and allow work to be done around the demands of full time employment. However, I am finding that having to be in a certain place at a certain time has severely restricted my ability to fit modules around my current heavy work load and I have only completed three modules to date, out of a target of six modules by this time. The college has extended the timings of the original financial support until 2011 to facilitate the study of the remaining 3 modules.

In summer 2009 I attended the Wolfson Unit for Marine Technology and Industrial Aerodynamics (WUMTIA) at the University of Southampton [<http://www.wumtia.soton.ac.uk>], to study the Recreational and High Speed module, which focussed on the design elements of planing powerboats, hydrofoils and air cushioned vessels (hovercraft and surface-effect ships).

The pre-school work concentrated on the basic calculations for lift and drag associated with hydrofoils; thrust, lift and drag resolution for high speed (70kn+) powerboats and the various ways of modelling lift and air flow in air cushioned vessels. The two hour exam followed a similar format to the pre-school assignment, but in a time constrained environment, whilst the post school assignment required a velocity prediction program (VPP) to be written for a sailing yacht. I have struggled slightly with the VPP and have been granted an extended hand-in on the basis that I am not familiar with computer programming, so have had to learn this from scratch before I am able to tackle the assignment.

I enjoyed the module and I am now in a better position to teach resistance and powering of high speed craft to my second year FdSc students and hence stretch some of the students to exceed the basic syllabus as laid down in the module descriptor.

My next MSc module was to have been Marine Project Management at the University of Newcastle, 21 to 25 June 2010. However, an opportunity arose for a secondment to the Marine Innovation Service. This consultancy service is aimed at supporting knowledge and technology transfer to Cornish marine composite materials' companies. I intend to resume and complete my MSc studies at the end of the secondment.



**Dr Claire Eatock, Course Manager FdSc Marine Science, Falmouth Marine School –  
2010-2011 Falmouth Habitat Project: Public engagement communication of student research projects**

**Introduction**

Falmouth Harbour Commission has liaised with Falmouth Marine School in order to sponsor a set of student projects. These projects are to give the Harbour Commission an overview of the environmental habitats in and around the Fal estuary. This area has enormous potential as a research site and for fieldwork trips, with a number of species and coastal processes students are unable to observe easily without professional links e.g. Harbour Pilot Boats, in the coastal zone surrounding Falmouth. The scope for these projects is large and has involved the Environment Agency/ Natural England/Pendennis Castle/ Pendennis Shipyard/Maritime Museum/MCA Coastguard/Fal and Helford SAC and St Mawes Ferries. The stakeholders wanted to make sure the research is suitable for their needs i.e. reports, posters, activities etc. This is a significant change from the standard dissertation format but was much more suitable for preparing them for the workplace and gave the students a range of unique opportunities for work placements and experience with employers/commissioners.

To support this we undertook a research programme to:

**Aims**

1. To undertake baseline littoral and sublittoral surveys around the Fal and Helford
2. To explore methods of communicating this information to the relevant stakeholders

**Objectives**

1. To survey the biodiversity and biomass of selected littoral and sublittoral locations, with focus on important rare and indicator species.
2. To develop a potential long term research project system and work placements for Falmouth Marine School staff and students.
3. To develop displays that can be exhibited in locations local to the selected coastline.
4. To develop stakeholder public engagement criteria

**Results and key outputs from 2010/11.**

This has been very successful in 2010/11 with a number of outputs such as:

- Matched funding from Falmouth Harbour Commissioners (FHC) to the value of £15,000
- Formal FdSc student sponsorship from the Falmouth Harbour Commissioners (FHC) – from all courses at FMS
- A dedicated member of their staff linked with us
- Potential for sponsoring Postgrad degrees based on our work as a case study
- An invitation for a Ports conference in Gdansk next year
- Pendennis Sustainable Ports seminar September 2010, FMS industry day 15<sup>th</sup> December, HEA conference May 2011, Maritime Museum exhibition on 16<sup>th</sup> June 2011
- A website designed and developed – [www.falmouthhabitatproject.com](http://www.falmouthhabitatproject.com)
- A brand new work related assessment programme for our students; the 10/11 Marine Science first years did their first “dragons den” in June, and were in the local news. The Marine Sports Science students are doing the same in October this year
- A series of consultants who are coming to train our students for cost price
- Cornwall College internal dissemination of good practice events - FMS Research Day 16<sup>th</sup> June, Camborne College Research Day 22<sup>nd</sup> June 2011
- Commissioned art work to engage the public with the projects and inspire the students from Falmouth Art College



Figures: a series of photos showing - “dragons’ den”, FHC buoy retrieval, underside of pontoon.

We are now looking to build on this initial test case in order to give our staff key links with industry, expand our research base and give our students genuine work related experience. We have taken a number of

learning points from the process last year and have changed our 2011/12 research bid to facilitate an expanded programme to include:

### Aims

1. To undertake a series of scientific surveys that are formally commissioned by FHC
2. To explore methods of communicating this information to the relevant stakeholders

### Objectives

- To survey the biodiversity and biomass of selected littoral and sublittoral locations, with focus on important rare and indicator species – Maerl and Eelgrass beds in particular.
- To continue to develop a potential long term work related research project system and work placements for Falmouth Marine School staff and students.
- To develop displays that can be exhibited in locations local to the selected coastline.
- To develop stakeholder public engagement criteria

### Method

1. Public engagement events – 6 planned throughout the year
2. Creation of materials with expert input – i.e. Web designers, educational materials experts, GIS training, art specialists, designers etc
3. Littoral and sublittoral surveys to industry standards



## **Craig Baldwin: Course Manager, Extended Studies in Marine Biology, Falmouth Falmouth Habitat Project: Rehabilitation and Husbandry of Local Aquatic Species**

### Introduction

The funding associated with this project was effectively divided in to two interrelated areas:

- 1) **Husbandry of local species:** The Fal and Helford Estuaries are internationally renowned for the diversity aquatic life associated with them. Within this project, FMS students have designed, installed and maintained a number of systems that have been used to hold, grow and reproduce a number of aquatic species that are commonly associated with these habitats. The students would then produce a series of ‘husbandry manual’ associated with local species that could then be used a guide for the rehabilitation and husbandry of many important local species



A sample of some of the species associated with the ‘manual of husbandry’ developed through this research project

- 2) **Filter design and maturation:** whilst the husbandry of many aquatic species is well documented, the husbandry requirements of many local species have yet to be verified. One of the most important elements of aquatic husbandry is associated with the maturation and maintenance of the biological filtration systems. Completion of this element of the project would provide a series of controlled and monitored case studies by which the maturation of a nitrifying filter may become more effectively managed.



sample of the filtration systems utilised within this research project

## Materials and Method

- 1) **Husbandry of local species:** The students have not only designed a large native marine aquarium that is intended to represent the features and species associated with the local marine habitat but they have installed a number of replicate aquaria in which the husbandry requirements of a range of species has been studied. These studies have led to all second year students completing a 'biological synopsis of the husbandry requirements' of a range of species that is beginning to form a detailed library of species information that is now proving to be an extremely valuable source of information for the aquaculture, public aquaria and fisheries industries.



Newly hatched fry

micro-organisms  
inhabiting a bio-filter

student undertaking  
filter maintenance

one of the more  
unusual species

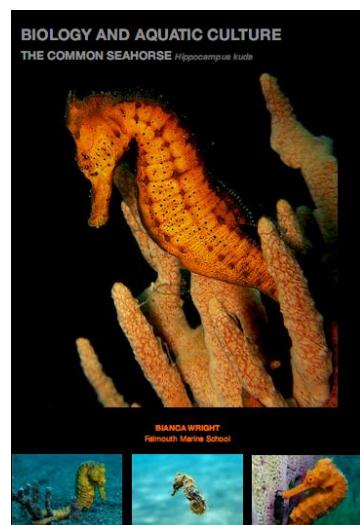
practical evaluation  
of health status

- 2) **Filter design and maturation:** the students utilised a range of filter media together with a range of water quality factors to assess the factors influencing the period of time over which a biofilter could be established or matured. This work involved the development of a series of pre-matured biofilters and then, using this pre-matured media to 'seed' a newly established filter system. Water quality was then carefully monitored over a period of time until the newly established filter was considered to be fully mature.

## Conclusions and recommendations:

**Husbandry:** twenty husbandry manuals have been developed and now form the basis of a valuable resource that may be utilised by the aquaculture, public aquaria and fisheries industries. Several public aquaria and two aquaculture firms have expressed an interest in obtaining this valuable information. The manual has now become an accepted as a standard training and research tool for the key providers of public aquaria. The development of these manuals was also accompanied by a series of donations to the marine schools from a range of companies and organisations who have expressed an interest in obtaining these manuals or commissioning similar manuals for a range of other aquatic species.

**Recommendations: development of further husbandry manuals relating to key or target species**

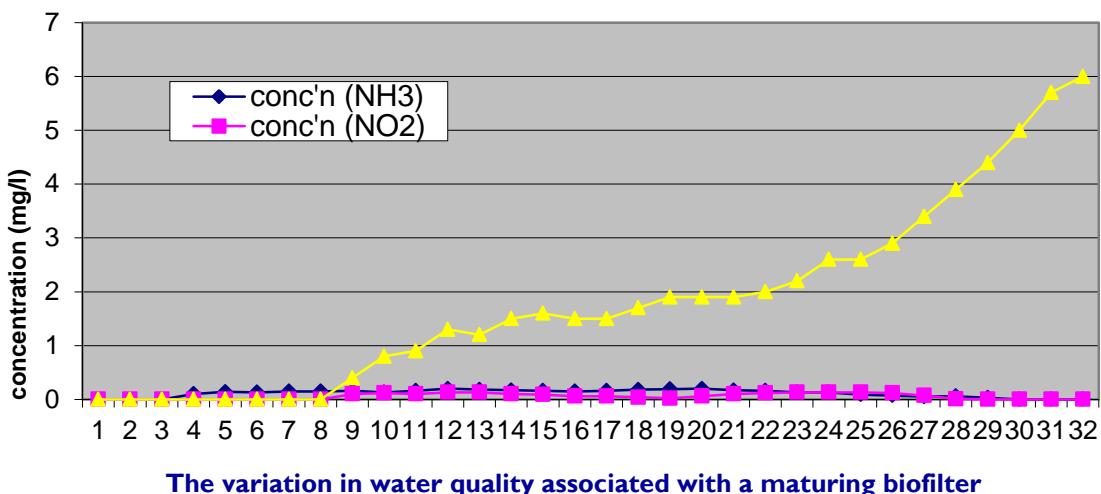


Husbandry manual for  
the Common Seahorse

**Filter maturation:** the results of these trials established the effectiveness of using pre-matured bio-media as a means of reducing maturation periods. Results from filter maturation projects have not only been

accepted by a number of national and international publications and have received a number of very positive comments from key members of the aquaculture, public aquaria and fisheries industries but they have formed an integral element within newly established units associated with Marine Science together with the 'certificate in aquatic husbandry'. The key public aquaria suppliers together with a number of commercial filtration design and installation companies has requested that the results be published through the associated industry based publications and conference within the next twelve months. An article based upon this research has already been published within two trade magazines and has resulted in a number of potentially lucrative and profile raising contacts. Two major commercial manufacturers have now expressed an interest in developing further trials regarding this subject with CC.

**Recommendations: continued study of the factors affecting the maturation rate of a biofilter**



**The variation in water quality associated with a maturing biofilter**

**References:**

- Tal V et al (2009). Environmentally sustainable land based recirculation. Aquaculture 286: 28-35
- Kropp et al (2009). Converting aqueous ammonia in to nitrogen gas. Aquacultural Engineering 41:28-34
- Singer A, et al (2008) Novel approach to denitrification in zero discharge recirculation systems. Aquacultural Engineering 39:72-77
- Baldwin C et al (2007) Welfare mgmt within recirculation system. Mitchellwing prodn



**Louise Hockley: Marine Science Lecturer, Falmouth Marine School until august 2011  
Review of quality and sustainability of sand dune habitat of Porthtowan**

**Introduction and Aim**

Research was undertaken on behalf of Cornwall Council to review the extent of exposed sand at the Porthtowan sand dune (near Redruth) to provide the scientific background to their long term strategic management plan. Cornwall Council has invested over many years in its management and commissioned a report in 2006 to assess the baseline in erosion to inform planning. This is a natural dune system which was rebuilt using sediment bags and replanting in 1980's. The area is valuable for tourism and is unique in its position as a natural flood defence. This research extended and updated the findings and examined the current sand geomorphology and stability based on plant coverage.

Expenditure from the Council involves periodic removal and relocating of sand from the surrounding road access routes, signage and historically fencing, installing/removing pathways and thatching. The success of these latter structures has not been monitored or reviewed. Porthtowan lies in a Site of Special Scientific Interest (SSSI) area as well as being an Area of Outstanding Natural Beauty (AONB) and is a World Heritage Site, therefore warrants monitoring and assessment. The Shoreline Management Plan 2010, states unclear recommendations for Porthtowan, 'to manage the frontage under a no active intervention policy. Local management of the dunes however is an important aspect of the future well-being of the frontage (and this could possibly be managed under a Managed Realignment (MR) policy)'.

## Method

This research involved student surveys of the geomorphology, fixed point photography at 3 sites and map analysis of the sand dunes across 3 transects over a period of 6 months. Students and staff liaised with various stakeholders, including Philippa Hoskin (Cornwall Council), Julian Payne (Environment Agency) and staff of the Blue Bar and some local residents.

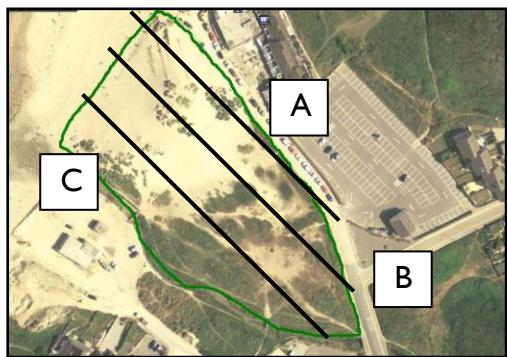


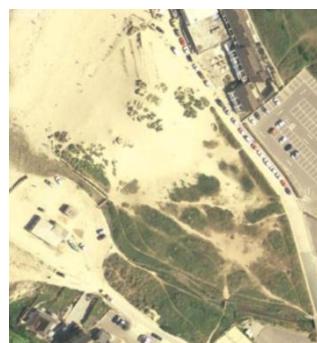
Figure 1. Aerial view of Porthtowan sand dune study site

## Results

A paired t-test analysed significant changes over the period of surveying from December 2010 and April 2011. The results showed that there were significant changes across the southwest of the dune area which is the most exposed site with least plant coverage (transect B and C). The fixed point photography over the 6 month period showed limited changes in level but significant changes in plant coverage. The results from map and photographic analysis since 2005, showed significant changes to both sand levels and plant coverage, decreasing over this time period.



Figures 2, 3. Fixed point photography of the sand dunes at Porthtowan from the Life guard hut (C)



Figures 4,5,6. Aerial photographs of the study site, from 2001, 2005, 2010, showing the significant changes in vegetation cover over this time period for A, B and C

## Conclusion, discussion and recommendations

This report highlights erosion of the sand dune has occurred at a significant rate since 2005. Plant coverage and sand level has reduced significantly on the southwest of the dunes over 6 months in the winter of 2010-2011. This report also shows a reduction in vegetation coverage since the last report by Cornwall Council in 2005. Management of a walkway through removal by a mechanical digger between 2007 – 2009 may have contributed to these changes, although it is hypothesised that human trampling is the significant contributor. However this needs further review. It is therefore recommended that active intervention is required and that the sand dunes and the current management techniques require monitoring and reviewing particularly of plant coverage and changes in sand level above and around the management structures. The area may need to be artificially replanted with pioneer species, in particular *Ammophila arenaria* for sand binding to reduce the rate of erosion of the sand dune and to maintain its role as a natural flood defence as sea levels rises. However this management will need to be in conjunction with preventing trampling, therefore the area will require stopping public access ie fencing and signage. However as the area

is a well-used recreation area, this will also require full consultation with the community, an economic, social and environmental cost benefit analysis and potentially further mathematical modeling of consequences of further erosion and sea level rise.

#### References:

- Cornwall Council, 2006, Sand dune report- Porthtowan, Royal Haskoning  
Shoreline Management Plan 2010, <http://www.ciscag.org/smp.html>, accessed: April 2011  
Williams, A. 1999, DUNES: Integrated management methods: Monitoring environmental change in coastal dune ecosystems  
Acknowledgments: Phillipa Hoskin, Cornwall Council, Daffyd PropertLewis, Max Adcock



#### **Trudy Russell: Lecturer in Marine Biology at Falmouth Marine School - Falmouth Habitat Project: Investigation into the biodiversity of the littoral and sublittoral habitats of the Fal Special Area of Conservation.**

The purpose of this project was to investigate the biodiversity of the littoral and sublittoral habitats in the area controlled by the Falmouth Harbour Commission (FHC) which includes a large section of the Fal and Helford Special Area of Conservation that is protected by European Legislation<sup>1</sup>. As a result of this legislation the Harbour Commission are obliged to ensure their activities within the area are not detrimental to the health of the listed habitats and species, to enable them to meet this requirement we have begun to conduct baseline surveys to assess the health and diversity of the habitats. Three habitats were of particular interest for this study; The Mearl (*Lithothamnion spp.* & *Phymatolitho sp.*) beds, the Eel Grass (*Zostera spp.*) beds (See Figure 1.) and the pontoon habitats. Research was also conducted into the Native oyster (*Ostrea edulis*) and invasive species including Slipper Limpet (*Crepidula fornicata*). The findings have been reported back to the various stakeholders to increase the depth of knowledge available for the management scheme which requires regular inputs to meet the legislative requirements<sup>2</sup>.



Figure 1. Seagrass (*Zostera spp.*) bed observed during Seasearch diver survey (Photo T. Russell)

#### Aims

3. To undertake baseline littoral and sublittoral surveys within the Fal SAC for use by the college and external organisations including FHC, Seasearch, MarLIN and the UK Biodiversity Network.
4. To instigate a long term monitoring plan for the Fal SAC to be conducted by FdSc Marine Science students.

#### Objectives

5. To survey the biodiversity of selected littoral and sublittoral locations within the Fal SAC, with focus on biodiversity action plan and non-native species.
6. To assess and monitor the health of key species within the SAC including Eel grass (*Zostera marina*), Native oyster (*Ostrea edulis*) and Common mussel (*Mytilus edulis*).
7. To develop a series of work related student research projects for 2<sup>nd</sup> year FdSc Marine Science students.
8. To develop a potential long term research project for Falmouth Marine School staff.
9. To produce a selection of eye catching images of marine life within the Fal SAC to be used in marine science teaching program and stakeholder/public engagement materials.



**Figure 2.** Mearl habitat photographed on Seasearch survey of Eastern Channel, Falmouth (Photo: T. Russell)

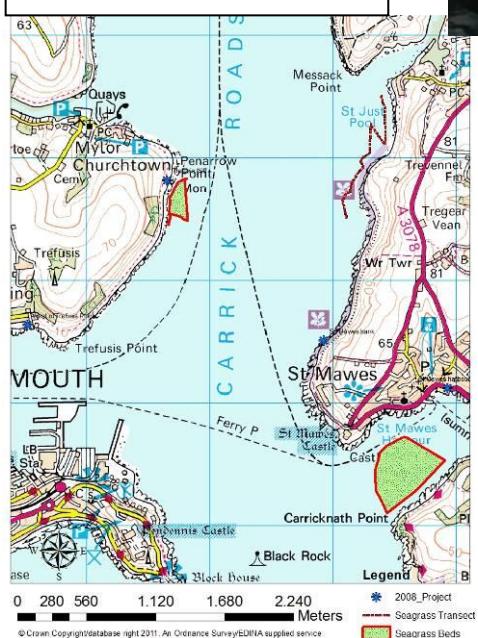
## Method & Findings

Relevant areas of habitat were identified through discussion with our key stake holder FHC looking at existing records for the habitats. Each of the key habitats and species had specific survey methods developed; the Mearl beds were the primary focus of the habitat survey. A detailed study into the best methods of sampling the Mearl beds was conducted, as well as a thorough literature study mapping using bathymetry, remotely operated Vehicle (ROV) and diver conducted surveys using the Seasearch method occurred. Mearl was recorded at a number of sites including within the shipping channel (See figure 2.) however our findings indicate that a much larger systematic survey of the whole area is required. “Seasearch data has been in high demand in 2010 for the three MCZ projects covering East and North East England (Net Gain), South and South East England (Balanced Seas) and South West England (Finding Sanctuary)”<sup>3</sup> Thus data collected during the project has been put forward to help with MCZ planning.

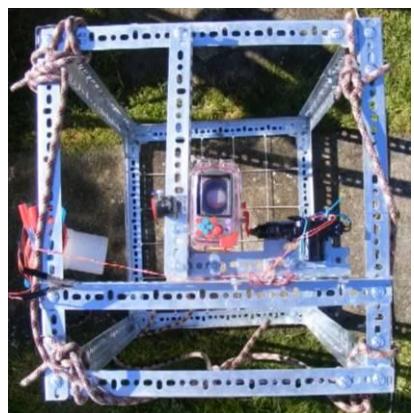
**Figure 3.** From left: photo quadrat and Aquascope attached to boat developed by Clive Pollitt for the Seagrass (*Zostera spp.*) mapping project. (Photo's Clive Pollitt)



**Figure 4. (Below)** Map of *Zostera* beds identified in Fal estuary and areas surveyed but no *Zostera* recorded.



The *Zostera* beds were the subject of two FdSc research projects, a range of practical low cost monitoring methods were developed and used to map the extent of the beds in the St Mawes region. Three items of equipment were developed – a photo quadrat, an Aquascope and a Delta Wing camera (See figure 3.) Using a combination of the three items of equipment transects were conducted in areas previously recorded as having a coverage and areas that based on physical features were likely to have eel grass present. Two seagrass beds were identified, one in St Mawes Harbour and one just south of Penarrow point (See Figure 4.) most surprisingly no evidence was found of Eel grass in the St Just Pool area, a site previously recorded as having an



**Figure 5.** Leather seasquirt (*Styela clava*) recorded within Falmouth Channel on Seasearch survey (Photo T. Russell)

extensive bed. Rocky shore, pontoon and mudflat surveys were conducted to monitor the spread of key invasive species, those recorded include Slipper Limpet (*Crepidula fornicata*), Wireweed (*Sargassum muticum*) and Leathery Seasquirt (*Styela clava*) (See Figure 5.). The pontoon surveys revealed a surprisingly large variety of species some of which are normally only recorded in significantly deeper areas, these include Jewel Anemone (*Corynactis viridis*), Plumose Anemone (*Metridium senile*), Star Ascidian (*Botrylloides schlosseri*) and the Solitary Sea Squirt (*Ciona intestinalis*) (See Figure 6.).



**Figure 6.** Variety of benthic species recorded on side of Pontoon in Falmouth Yacht Haven (Photo T. Russell)



**Figure 7.** Page from photo ID catalogue showing individual BRF8 which has been photographed on Black Rock Haul Out on three occasions.

Grey seal (*Halichoerus grypus*) numbers and behaviour were recorded on the haul out in the Fal estuary – Black Rock. Observations occurred for an hour before and after high tide throughout the period of a month to cover the full tidal cycle.

Seals were identified as male, female, Juvenile or unknown. The behaviours witnessed were recorded using protocol developed by Cornwall Seal Group<sup>4</sup>. A photo identification catalogue was set up using images collected (See figure 7.); photo ID in Pinnipeds including the Grey Seal is well documented and has been used to monitor many aspects of Grey seal biology including population size<sup>5</sup>, pup production<sup>5</sup> and site fidelity<sup>6</sup>. The catalogue will now be developed using images collected in the coming months and years to allow this level of research to be undertaken with the Falmouth seals.

To conclude there is a vast array of biodiversity within a range of important habitats in the Falmouth SAC, we have begun the process of mapping these species and have found evidence of changes (*Zostera* distribution) since the last published data. For the future successful management of this busy port and environment it is vital we continue to monitor the health and distribution of the species and habitats that make the Fal what it is.

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## Geoff Garbett – Science Department, Cornwall College Camborne PhD studies - Holocene vegetational history of the Lizard Peninsula

My studies are now reaching a crucial stage. I have exactly one year to complete, with the option of a further six months suspended study if I find the timescale too tight. I want to avoid taking this, nine and a half years seems ample!

I now have two very good pollen diagrams from the two most important sites, 'Croft Pascoe' atop Goonhilly Downs, and 'Hendra' about 2 km below the downs to the southwest. In addition I have a 'pilot' diagram from 'Erisey Barton', a silted up mill pond on the southern edge of the downs. Although it seems that one can never do enough counting I think I must confine myself to just a few more crucial levels before deciding that it is enough for the PhD thesis.

I have made two visits to Walton Hall, the Open University campus at Milton Keynes, this year where I have presented to my three supervisors and senior members of the department. The first visit on 7<sup>th</sup> February was very encouraging although I was sent off with a lot of further work to be done on the diagrams and a first thesis draft to write. This was then presented to the same learned group on 7<sup>th</sup> June. There was much constructive criticism and further suggestions as to what needed to be amended and what still needs to be done. I received a very positive comment from Professor Spicer of the OU but Professor Scourse of Bangor University was concerned that there may not be enough bulk to it just yet. He also suggested that it will not be worth applying for a NERC carbon dating grant as the work, though of great local significance, has no international significance. I will therefore be very dependent on the three carbon dates I have in the pipeline from the CC fund and will be applying for a final three more imminently.

Following the meeting I talked again to Professor Scourse and he agreed with my suggestion to expand the Erisey Barton pilot diagram to look at the recent fluctuations in the heather species. Erisey Barton has a basal date of about 800 years BP but as there is 130 cm of peat covering this relatively short time period (both the other sites have basal dates of thousands of years BP) it provides a very high resolution diagram. This work will have to be done on top of a little extra counting on the other two sites, the construction of influx diagrams for all three sites and the extending of the analysis. It's all rather daunting.



**Matt Richardson: Biology technician, Centre for Science, Camborne - OU BSc Honours - Life Science**

Matt is working towards gaining his BSc (Hons) in Life Sciences, which he is studying on a part-time basis.

Topics covered so far have included:

Darwin and Evolution

The Empire of Microbes

An Introduction to Planets

Forensic science looking into: the science and techniques of how crimes are analysed and solved; fingerprinting, examination of body fluids, analysis of DNA, toxicology, courtroom procedures and roles of the police and forensic teams

Science in Context

Matt is currently completing the topic on nanotechnology, which is still a new science. This looks at what it is like to work on a nanoscale and describes development in this field, how this technology could be used to interact with living tissue. Fascinating and amazing!

Matt completed his final year one module in November 2011.



## **Sport and Public Services**

### **Russell Lawrence: Director of Sport and Public Services**

*The Cornwall College Degree offers in Public Service are all based on the latest information and working practices in the public services sector. This ensures the degree programme complements student's work-based experience and delivers the knowledge and skills necessary to succeed in today's public services.*

*These could include experience in both uniformed & non-uniformed in roles such as:*

- Police Officer, Police Community Support Officers, civilian roles within the police
- Prison Officer, Probation Officers, related (non uniformed) crime and safety roles
- Fire-fighter, Ambulance Service roles, NHS & related health care roles
- Armed Forces: Royal Navy, RAF, British Army, Royal Marines
- Local government: education (teaching), social services, environmental health, youth and community, courts and justice organisations
- Central government: policy officers, political roles.

*The courses aim to develop and equip students with the knowledge, understanding and skills required in the public services. Various aspects of the public services, include learning skills and knowledge of Leadership and Outdoor Skills, Media and the Public Services, Managing Teams and Individuals, Diversity and Ethics in the Public Services, Justice and Punishment, Mentoring and Coaching, Rescue and Emergency and Disaster Management.*

## **Britta Maria Sorensen: CAM for Sport & Outdoor Education, Duchy Stoke - MA in Management (Education), Coventry University**

### **Study title:**

Capturing the perceptions of quality at an Intra and Inter-institutional level for two educational institutions: a Higher Education Institution and a Partner College

### **What is the purpose of the study?**

The aim of the research is to elicit perceptions from a representative sample of people with a range of engagements in quality assurance and/or involved in the delivery of higher education, within their own institution. Following the perceptual capture any similarities and/or differences will be discussed, with the aim of highlighting any management implications for future development strategies.

A qualitative approach to the study is planned via six semi-structured interviews for no longer than one hour, using a series of open diagnostic questions on themes based around 'quality' in Higher Education.

The reason for choosing this type of study is because there is limited research around perceptions of quality culture for higher education and as such, has not yet received a lot of attention from research or management literature. The implications of which will inform potential managerial strategies, if necessary, that will seek to address the implications of the findings.

### **Tasks to date:**

I have completed the proposal and had a green light, passed the Independent study (Literature Review) and now I am embarking on the final stage for the dissertation. I have finalised my methodology for the study and am currently working on the pilot interview questions.



## **Chris Wilson: Programme Manager for Outdoor Instructor Training, Duchy Stoke - BA (Hons) Education & Training, Greenwich University**

Despite a few logistical and support issues, overall Chris has found the course both interesting and informative. He is currently working on his dissertation.

### **Courses studied:**

#### **'Diversity & Differentiation'**

The selection of this course was primarily as a result of my course self-assessment report for the OITP course, which highlighted the inequality in the gender split of male female participation in Outdoor pursuits. My research and final submission explored why is there such gender disparity in both the provision and participation of outdoor education and adventurous activities from a sector which is often commended as a positive role model and actively used for its abilities to address diversity and differentiation and as a tool to address this very issue and this paper attempts to suggest whether the reasons for this are historical, cultural or physical.

#### **'Independent study' & 'Professional Practice Portfolio'**

For my independent study course subject I have to identify and investigate a new area of learning applicable to both my sector of education and delivery. At present I am outlining a proposal to research either self-efficacy in outdoor participants or the use of visualisation as an education development tool. My proposal will be submitted to my course tutor for final approval.

#### **'Working with people'**

This is the last of the core subject courses required and I chose this as I again felt that it was the course that most related to my subject sector at College (Outdoor Education). I started the course with the intention of researching leadership and teams in the outdoors, however became interested on the impact of cultures and sub-cultures in a team environment. In particular, asking the question whether it is possible for people from differing sub-cultures to integrate without direct leadership. My studies led me to use the sports department at Duchy College as the subject for my final assessment essay.

### 'Professional Practice Portfolio'

This element of the course is most problematic as the lack of tutorials and guidance from the University has left me unsure of the standards and content required. I have completed the reflective writing passages and am intending to liaise online with my tutor prior to submission. I should clarify that Greenwich does offer both tutorials and study days to all students. However, the distance, cost implications of travel and accommodation, and time off work required have not allowed me to access them.



### **Dan Brown: Lecturer in Public Services, Camborne - BA (Hons) Education and Training FD, University of Plymouth**

Dan completed the FdA Education and Training and as a part of this, completed a further two modules 'the adult learner' and 'research methods and teacher-as-researcher'. He also completed two portfolio modules 'contextualising theory in practice' and 'curriculum and resources'.

Dan really enjoyed the teaching and learning experiences he had during the course. The course was delivered in partnership with Truro College; Dan particularly enjoyed this aspect of the programme as it gave him the opportunity to use the facilities of both colleges.

Moving on to study for the BA, developed Dan in several areas. Dan is naturally a very reflective practitioner, linking readings and professional discussion with his current practice. Where angst, caused by differences in priorities between the managerial view of education and what he sees as his students' needs, has informed a reflective view in his past writing. He found that the critical analysis and research investigation, which was evident in his writing, had found a place in his teaching, as it had in the way he now communicates with other professionals. Frustrating as the idea is for Dan, he is clear that his students are benefiting from a greater awareness of his strengths and weaknesses, as well as from the skill he has developed in circumventing the seemingly trivial elements within his job role, which in the past would have had been a major issue for him.



### **John Seers: Programme and Resource Manager for Outdoor Pursuits, Duchy College - MA in Outdoor Learning, Buckinghamshire University**

My research has given me a greater understanding of Outdoor Learning and its benefits, and also has developed me as educator and manager in my field. I completed my dissertation around the Benefits of Outdoor Adventurous Learning Opportunities in Further Education, and succeeded in gaining my MA in 2011.

It is known that Outdoor Adventurous Activities provide various benefits to those who participate in them by using an informal but structured approach. It is very student-centred; builds on self-confidence, esteem, social skills; develops risk assessment skills; aids creativity; provides a sense of responsibility; develops exploration, and breaks down barriers within groups to help develop team work. It aids personal and social development; helps people reflect, and introduces people to experiences they may not encounter in everyday life which cannot be created or achieved in a classroom based educational setting.

Outdoor Adventurous Activities in Further Education is used predominantly to provide technical skills training for potential outdoor education instructors to prepare them for a career in the outdoor industry. It also supports other related subject areas of Leisure, Sport, Recreation and Public Services to help students achieve adventurous activity modules which are incorporated into their course. In Further Education there is no real emphasis on how this powerful educational tool, Outdoor Adventurous Learning, can be used to help develop a student and meet various personal and professional outcomes of their educational studies.

My rationale for undertaking this research was to highlight the benefits of, and make recommendations for greater access to, Outdoor Learning Adventurous Activities within Cornwall College for all students.



## **Mark Ambrose: Lecturer / Instructor in Outdoor Education, Duchy Stoke - MA in Professional Development in Outdoor Learning**

I started the Master's Degree in Professional Development in Outdoor Learning in September of 2008, and in July 2010 I finally completed the twenty thousand word dissertation resulting in a September graduation in Buckinghamshire.

My final paper was based upon the 'The Approach to Risk Management on Outdoor Instructor Training Programmes'. The research was based around 2<sup>nd</sup> year Outdoor Students based at Duchy College, where I completed my action research after a controlled yet dynamically staged set of incidents on Welsh rivers during expeditions.

The action research highlighted several concerns that the students had, relating to their perception of risk management and also prompted suggestions on how they could possibly gain more experience from a different approach to learning aspects of risk.

Theorists such as Frank Furedi and Marcus Bailey, who are two main leading researchers in risk and outdoor education, backed up evidence raised throughout the research. Strategies such as learner led and experiential learning were proved to be an important and integral part of instructor training; alongside the incorporation of monitored trial & error of discipline specific skills & techniques.

From completing the MA, the above methodology has been an important part of my teaching and delivery, and at the forefront of planning for students' progression. I have monitored students on various training packages and core areas, and after post reviews, all have retained and suggested ideas for aspects of instructor training and coaching.

I do look forward to progressing onto delivering Higher Education, which will not only enhance my personal researching skills; but also those of the students who will gain a more varied delivery style.



## **Phillip Toy: Programme Manager for Sport, Camborne - MA Applied Coaching and Sport Development**

Phil is now in the second year of his MA. During the first year he studied various processes and practices in Sport Development and Coaching. Studying the most recent evidence in Sport Development and Coaching Processes has been directly relevant to delivery of FdSc Sports Coaching, Development, and Inclusion for Sport modules.

During the second year of the programme he has further developed a critical outlook of research methods within sport-based research; this has made a clear impact on the Special Study module, as students have been able to create a variety of study designs in current Sports Science/Development. The MA has also allowed Phil to become a support tutor for the dissertation module on the BSc Sport Performance and Coaching programme, allowing students with an interest in Coaching, Psychology and Sport Development to carry out current research within their field of interest. Through carrying out his MA students will gain more support options to gain the applied Coaching and Sport Development within the research studies.



## **Samantha West: Lecturer in Sport, St Austell – Integrated Masters Programme, Plymouth University**

### **Why the IMP, rather than an MA or MSc?**

I chose the IMP for its choice of modules and the location of the lectures. As I work full time the ease of being able to drive after work to a set of structured lectures was easier than me having to arrange cover to travel to Plymouth or Exeter each week. I found this to be a benefit, meeting each week and discussing the module content and building relationships with other participants.

I also wanted to learn and gain knowledge in the Education field to enable me to take this back into my practice. I have my subject specialism but a more thorough knowledge of Mentoring and Coaching in a Professional context, Adult Literacy (my Independent Study Module) and my next module for this Spring term is Understanding Classroom Learning are all relevant to my every day work.

### **What have I gained from it so far? How has it helped my teaching?**

The research from my first module – Mentoring and Coaching - enabled me to realise that there is not a lot of research around the Further Education mentoring schemes and those students on the DTLLS programmes.

The models of Mentoring I have researched have allowed me to be more focused on my Mentees needs and support mechanisms this year. I have two completely different Mentees this year, both at different stages and both at completely opposite ends of the spectrum with regards to confidence, knowledge of the curriculum, teaching practice, academic ability and the understanding of learning strategies, resources and classroom management.

I have used a number of the different models researched and this is working really well for both myself and my mentees.

My second module was a topic that I feel strongly about – Adult Literacy. I completed the - Teaching English (Literacy CPD) in the Lifelong Learning Sector UOP Diploma Level 5 - last year and have been implementing my learning from this into my every day work. I have designed workbooks that enable those students with Literacy difficulties, reading, writing and speaking to understand the tasks and feel more comfortable knowing that they are able to achieve. I have used different strategies to help students overcome their barriers and the feeling of seeing those students achieve is wonderful. I am researching the current policies and strategies that are in place that are supposed to be helping and reducing the number of adults that have Literacy difficulties. Most of the research policies and strategies are primarily based at Primary and Secondary education level and there doesn't seem to be much research, funding or provision for the Further Education sector - my research is still on-going at this time.

### **Looking forward**

I am beginning my third module this spring, 2012 – Understanding Classroom Learning: Learning about Learning.

I am looking forward to researching the different strategies and theories, discussing and comparing and then being able to take these and encompass them into my own practice.



### **Tony Chamberlain: Curriculum Area Manager, Public Services, Duchy Stoke – PhD in Naval History, University of Exeter**

Tony is currently undertaking a part time PhD in Naval History at the University of Exeter. The aim of his research is to explore the social conditions and status of stokers in the Royal Navy during the period 1850-1950, in order to explain why they attracted a reputation for poor discipline and behaviour in comparison to other men of the lower deck. This reputation ultimately led to stokers being placed at the bottom of the naval social hierarchy from where successive naval historians have continued to promote stokers as the dregs of the lower-deck.

While the social conditions of officers and men during the sailing era have been extensively researched, there has been little research of the social conditions of the lower-deck during the more modern steam era and no research has yet been undertaken on a single branch of the lower-deck such as the stoker's branch.

Tony is due to enrol for his sixth and final year in late September 2011 and is on track to submit his thesis by Easter 2012. After submission, he can expect to undergo a viva within three months. Research for his thesis has taken Tony to the Royal Navy Museum and Admiralty Archives in Portsmouth, the Royal Navy Submarine Museum Archives Portsmouth, the National Archives and Imperial War Museum Sound Archives in London, and the University of Leeds Brotherton (Liddle Collection) Library. Plans are in hand to visit the National Maritime Museum Archives London and the University of Cambridge Library during 2011/12 with return visits to the Portsmouth Archives when able. Apart from researching official Admiralty primary source documents, Tony has amassed an extensive collection of personal diaries, oral

recordings and transcripts of recordings taken from men who served in the Royal Navy in the first two decades of the 20<sup>th</sup> century. These personal recollections will be used in the thesis to compare and contrast the official Admiralty view of the social position and standing of stokers with the personal experiences of the men themselves in order to reappraise the social status and worth of stokers.

Tony has presented papers on his research to the 36<sup>th</sup> Annual Maritime History Symposium at the Bath Maritime History Museum in Maine, USA (2008) and at the annual South West Maritime History Association conference at the University of Exeter (2010). In March 2011 Tony presented a paper to the New Researchers in Maritime History Conference hosted by the British Commission for Maritime History at the University of Hull, and in September 2011 presented a paper at the annual University of Exeter Maritime History Conference.



## **Student Support Services**

### **Peter Sampson - Corporate Head of Student Services**

*Student Support Services provide a broad range of functions and facilities designed to support students in accessing and gaining the most from their College course. The Student Services arm of the provision focuses on providing key elements of practical support such as finance, accommodation and transport and on personal support such as tutoring, counselling and support for students with disabilities. In addition, there is a strong emphasis on assisting students in planning their progression and on promoting the learner voice. The Learning Services arm, operating through the Learning Centres, works to promote scholarship and support students in using learning resources effectively and in developing transferable study skills.*

*Staff across the Support Services team possess valuable specialisms and are encouraged to develop these as part of the process of continual quality improvement. Direct personal research anchored to the service that the individual provides daily can contribute much to this dynamic. The research process can be personally enriching but also, importantly, it can provide outcomes that can help us shape a service which needs to be both innovative and responsive.*

## **Dawn Hastings: Senior Counsellor, Student Services, Camborne - MA in Counselling Consultative Supervision**

Although I began the research and dissertation module of the MA in June '09, due to extensive work commitments it was not possible to complete the final dissertation by due date so I decided to defer study. I am due to recommence in May 2012.

I will be undertaking a small, focused piece of research into key element of effective supervision for treatment teams working in the field of Equine Assisted Therapy (EAP). The focus of my original Proposal questioned whether or not supervisors need to have equine knowledge, but over the past 18 months as I have honed my practice in this therapeutic field, new questions have formed; specifically around individual versus group supervision, when the Equine Specialist is not a trained therapist and therefore not ethically required to participate in Consultative Supervision. I still intend to explore the question whether or not existing supervision models are sufficient for this new area of work, but I am looking forward to broadening my research a little from that envisaged in 2009. Depending on findings, a good practice model may emerge which will be for personal use, but also open for others working in the area to access.

The project will be an empirical study using a predominately qualitative approach to data gathering. To allow participants' emergent thoughts and feelings to surface an open ended questionnaire will be used and circulated to treatment teams already working in EAP and registered with either of the two main training bodies – EAGALA and Epona. Themes and patterns arising from the questionnaire will be explored in more depth in 1:1 semi-structured interviews. Heuristic exploration of my own journal writings and experiences working within an EAP practice, (specifically how this is explored within my own supervision) will also be a key feature of the project.



## **Kathleen Pope: Careers and Progression Adviser, Camborne – MA Guidance (Vocational/Educational)**

### **Foundation degree students' perceptions of the personal development module and career development in a college of Further Education**

Personal development and career development are high on the agenda of government and careers professionals as government policy increasingly insists that students require good quality career programmes if they are to succeed in today's competitive graduate market (NCIHE 1997). Historically degrees were wholly academic and undergraduates requiring careers interventions would contact their careers service for help. More recently the government White Paper, The Future of Higher Education (DfES 2003), has given careers services a platform on which to develop closer links with academics in order to provide good quality careers programmes within the curriculum. These programmes aim to:

...empower individuals to identify, develop and articulate the skills, qualifications, experiences, attributes and knowledge that will enable them to make an effective transition into their chosen futures, and manage their careers as lifelong learners, with a realistic and positive attitude. (AGCAS 2005:2)

However, research evidence (predominantly based on degree students' views) shows that many students do not like personal development or engage fully in career development. This certainly appeared to be the case at one particular college of further education offering mainly foundation degrees. As there was a paucity of evidence based on the views of foundation degree students I wanted to undertake my own research at this institution with a view to identifying possible changes as a result.

The study was undertaken during 2009-10 as the college was reviewing current delivery of personal and career development within a 20 credit Personal Development Module (PDM); Data was generated from my four research questions:

1. What are students' perceptions of the Personal Development Module (PDM)?
2. What do they understand career development to be?
3. How important is it to them to develop career development skills?
4. What are the implications for future practice in relation to career development for foundation degree students?

Findings suggested that although there were elements of the PDM students did not like, there were elements they wanted more of. They tended to dislike reflecting on the self but wanted more career development in terms of how they understood it. They also felt the module was not explained to them properly and that they did not really understand the reason for doing it.

Career development was understood by most students in terms of gaining employability skills, job search and the job application process which is central to career development. However, they were not aware that part of the process included personal development, reflection on skills, abilities etc. and planning for their future. Neither was career development seen as an on-going process, therefore level of engagement with the process required to successfully manage their career was limited.

However, within their understanding of career development most students agreed it was important from the first year of study. Most students also had suggestions for additional input of careers, which mirrored their ideas for input into the PDM as a whole, giving added credence to the importance of career development. Suggestions for improvement included tasks more relevant to their subject, employer input, further developing job application and interview skills, more exploration of options with their degree and ideas on how to develop their skills practically.

In view of the findings some changes were made for September 2010. Students were to be taught a theory of reflection with better structured assignments and follow up sessions. Mindful of the problems associated with reflection (Johnston and Watson 2006; Moon 2004) links between each session were made explicit in response to the students in this study, and the research findings of Atlay et al. (u.d.) that a clear academic and vocational context helped students engage with career planning and reflection.

More applied activities in relation to employability were already planned by the module leader to allow time for students to develop their skills and relate practice to the development of their career (Yorke and Knight 2004). The PDM has been further revised for 2011 based on student and tutor feedback and on-going evaluation will inform future delivery in line with good practice.

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### **Kay Ecclestone: Learning Centre Manager, St Austell - MA Management (Education) by Work-Based Learning**

This Masters was part-time and delivered over one academic year via 3 residential weekends, regular Action Learning Set meetings and online via Moodle. The residential weekends covered the Project Proposal and the Independent Study/Critical Literature Review; the final weekend focussed on the dissertation, particularly research methodology. Moodle and the ALSs were crucial to the learning process ensuring that the project proposal and independent study were focused and on target. Each member of the ALS was from a different subject discipline, and had individual strengths which could be used to support the others in the group. The ALS meetings gave a structure and time-definition to the process that otherwise may have been missing without them.

#### **Research Details**

Management Information for Learning Centres: what should be measured, how can it be measured and how can this evidence base be used to improve the quality and effectiveness? – a case study of CC St Austell.

Against a background of constant, on-going change in both Further Education and in Information and Library Services, with budget savings being an annual element of the operational planning process, this project examines what information can be used to aid the management decision-making process in the Learning Centres of Cornwall College St Austell, which may then be shared with other centres.

Both primary and secondary research was used; the secondary research underpinning the investigation into what could be measured and how this could be used. Action research followed adapting an existing model for investigation into impact evaluation. The consultative approach identified potential impact objectives, success criteria and impact indicators. Existing measurements were examined and gaps identified where further information was required. A student survey was adapted and a staff survey created to provide additional data. Throughout the process, each stage was evaluated, reflected upon and re-designed in a continuous cycle to improve the quality of the evidence base.

The conclusions show that it is possible to identify areas where the Learning Centres make a positive impact to student learning. The research revealed concerns with the current student survey regarding the administration of this and, particularly, the data analysis. Unexpectedly, the process itself contributed, and continues to contribute, to Learning Centre staff awareness of the role that they play and this has been self-enhancing. The staff have a greater understanding of where their roles impact and how this can be improved to the benefit of learners. This increased consciousness has resulted in on-going suggestions for improvement to the service and to the management information available to the service.

The recommendations, in addition to ensuring that the findings from the surveys and any changes proposed are fed-back to the staff, students and management, are separated into site-specific and corporate. The site-specific recommendations include improving formal feedback by the inclusion of LC staff in the student review process and by the creation of workshop evaluation forms; developing an information-literacy scheme of work to assist in embedding these skills in the curriculum; and identified ways of improving stock, usage and accessibility. Corporate recommendations include replacing the current student survey with an online version, running the impact evaluation workshops with other Learning Centre staff and creating impact objectives for the service as a whole.



## **Stephanie Comley: Learning Centre Assistant, Duchy Rosewarne - MSc Econ Information & Library Studies until August 2011**

The second year of this course began with a study school in September. Here we were introduced to the next set of upcoming modules as well as attending lectures and a visit to the National Library of Wales. Since my last annual report I have completed the following modules:

### **Information Sources and Services**

Learning outcomes included:

- Summarise the specific characteristics of particular information sources studied (e.g. bibliographies, serials etc.)
- Analyse the value of information sources to users
- Define and describe the information services that keep people up-to-date
- Outline the main technologies which allow the provision of electronic information services
- Apply your learning to evaluate the performance of information services in the light of user needs

A particularly useful assignment within this module required me to propose an evaluation method to measure service performance in a Learning Centre. I needed to consider which part of the service to evaluate, methodologies, data analysis techniques and staff requirements.

### **Studies in Management**

Learning outcomes included:

- Summarise the main managerial roles and skills required at each level of management, e.g. operational, tactical and strategic
- Identify the main influences on management theory to date
- Understand the concepts involved in financial planning and budgeting
- Outline and comprehend the issues surrounding humans in the workplace such as leadership, decision-making, team working, motivation, performance appraisal and career training and development
- Understand the wider implications of delivering services such as project management, measuring performance, and the concepts of quality and change.

The assignments for this module included preparing a business plan for a service to introduce to a Learning Centre. In order to complete this I have learnt a great deal regarding financial administration including preparing cash flow forecasts, profit & loss statements, break-even analysis and balance sheets.

### **Information Organisation and Retrieval**

Learning outcomes include:

- Discuss the structure and function of IR systems
- Explain the role of index languages, indexing and searching in the retrieval process

The outcomes of this module are helping to improve my cataloguing skills when performing acquisitions tasks in the Learning Centre. I am also looking into the benefits of user-based tagging as metadata which raises exciting possibilities for the future of information retrieval.

### **Dissertation (working towards)**

The final study school of this course is purely concerned with preparing us for writing our dissertation, the major research component of the MSc.

Sessions consisted of advice on the following:

- Choosing a topic
- Evaluating research
- Ethical research
- Academic research writing
- Literature reviews
- Qualitative and quantitative research methods
- Electronic resources for research

As well as taught sessions we had an opportunity to meet our potential dissertation supervisor. As I already had a clear idea of my research topic this proved to be a very constructive 30 minute tutorial from which I have gained valuable advice on how to focus the direction of my research and get started.

Any free sessions we had were spent making full use of the university library with use of resources that would otherwise have been difficult if not impossible to access.

I found this study school to be the most beneficial study school of the course and am confident it will make a significant contribution to the quality of my research and the resulting dissertation.



## **Conferences and Events**

**Liz O'Keeffe: HE Support Administrator / HE Operations Team Coordinator**

*The HE Delegated Budget provided small amounts of funding to HE staff to support conference attendance, attendance at events (e.g. exhibitions) and for small projects; all of which have enriched and informed teaching practices.*

*Gathered together here is a selection of reports submitted by staff at Cornwall College with respect to their Delegated Budget awards.*

## **Reports from Conferences, Events and Exhibitions**

### **Business, IT and Research**

#### **Adele Oakes: Business Programme Development Manager, BEIT, Camborne**

#### **CIPD Regional Workshop**

9<sup>th</sup> October 2009

I attended the event to learn more about the new Level 5 modular programme and what opportunities it could offer the College. This was also a chance to meet other providers and gain their views and experiences.

The training provided me with a good understanding of the framework/ structure surrounding the new CIPD qualifications and levels of membership – specifically around the new QCF framework. It also highlighted the challenges associated with delivering these qualifications. However they were unable to detail the level 5 modules but promised this information would reach us by the end of October. They also outlined the process to go through should we wish to become/ remain a registered centre.

As a result of this training activity I will:

1. Review the new level 5 modules to see which ones are relevant to our market place
2. Investigate further the Centre requirements and requirements of teaching staff
3. Review the soon to be released guided learning hours to make sure the course is deliverable within the time frame (this was a concern highlighted by a number of providers present at the session)

#### **Council for Administrators (CFA) Conference**

27<sup>th</sup> November 2009

The conference was very interesting, providing an overview of changing employer needs within the sector and an opportunity to attend focused sessions on particular subjects.

Speakers included:

- **John Hayes MP**, Shadow Minister for Lifelong Learning, Further and Higher Education
- **John McNamara**, Chief Executive, Alliance of Sector Skills Councils
- **Paul Eeles**, Director of Sector Reforms & 14-19, Association of Learning Providers
- **Caroline Groom**, Improvement Director, JHP

The networking over dinner the night before was very valuable as I was able to discuss approaches and assessment methods with other institutions across the U.K. We also discussed how to flex the qualifications to better meet core business skills and how to encourage progression into higher education specifically Business Degrees and Foundation Degrees.

This is a route by which we can pick up individuals who have not taken the traditional educational route. Many of these individuals started from the bottom and have proven their capabilities and potential to work their way up. As NVQs prove learners capabilities the next logical step from an NVQ 3 / 4 would be to then build on those capabilities with a taught higher level course to prepare the individual for their next career step.



#### **Barbara Parsons: Head of the Air Quality Unit (AQU), Camborne**

#### **Environmental Protection UK: Delivering Cleaner Air**

21<sup>st</sup>-22<sup>nd</sup> April 2010: Dunchurch Park Hotel, Rugby

This two day conference brought together interested parties from a wide spectrum - Environmental Health Officers, Consultants, Government representatives and industry - to discuss the legislative, technical and environmental aspects of air quality in the UK.

The key message which emerged from the conference was that stronger links need to be in place between Planning Departments, Strategic Planners, Highways/Transport Departments and Environmental Health Departments, both nationally and in local government. The use of the Community Infrastructure Levy (CIL) was highlighted as an alternative to Section 106 Agreements. Various presentations raised other points which were of particular relevance to all aspects of AQU work, and to the ERM Degree sessions on Environmental Pollution.

### **Day 1. Session 1: National Action**

1. **Phillip Mulligan (EPUK)** spoke about the Environmental Audit Committees AQ report “*A changed landscape for air quality management*”. He raised the importance of ensuring integrating of documentation with regard to air quality, climate change and carbon issues, e.g. LTP3, LDF etc. In order to make this happen he stressed the importance of integrated working between council departments, i.e. planning, Environmental Health, Transportation, Highways, Carbon Working Groups etc.

Phillip also highlighted that green policies may have conflicting environmental impacts, e.g. wind turbines can cause noise problems, biomass burners can produce particulates, retro fitting of buses/HGVs may reduce some pollutants but increase others (e.g. PM<sub>2.5</sub>).

2. **Heather Barker from the Environment Agency** explained how air quality issues were addressed with regard to major incidents, e.g. the Buncefield oil storage depot disaster. The National Laboratories Service (NLS) at Starcross have developed a network of air quality monitoring teams which are based at sites around the UK. These teams have a 2-hour response time to any site in the UK where air quality pollutants may be released as the result of an incident. The NLS will act as a hub with regard to information dissemination. Pollutant capabilities to be emailed to participants.

3. **Mike Galey, Director of Marketing at Eminox**, spoke about the work of the Environmental Industries Commission of which he is a member. Mike sits on a sub-committee looking at the effectiveness of retro-fitting buses, HGVs etc., Eminox is a market leader in supplying retrofitting technology. He highlighted the importance of understanding the difference systems available in relation to the Euro standards, as different technology is targeted at different pollutants.

- The Diesel Particulate Filter (DPF) will only remove particulates (as the name suggests),
- Continuously Regenerating Trap (CRT) will eliminate over 90% of particulates
- A catalyst fuel additive based system, using ferrocene will reduce NO<sub>2</sub> by 50% but won't reduce NOx.
- A Selective Catalyst Reduction (SCR) system will reduce NOx by up to 70%
- A SCRT is a combination of the CRT and the SCR systems and eliminates 90% of particulates, HC, CO and 65 – 80% of NOx = Euro 4 and Euro 5 standards.

However, Mike did highlight that the use of some types of retrofitting can have drawbacks, for example by retrofitting to Euro 4 and 5 this can lead to greater emissions of ultrafine particulates (PM<sub>2.5</sub>) than if the Euro 3 technology is used. Also, the vehicles need to have engine tuning to ensure that maximum benefit is derived from the technology.

Q. does the use of retrofitting technology lead to apathy within the vehicle industry with regard to reducing emissions at source.

### **Session 2: Assessing the effectiveness of air quality management measures**

4. **Ben Barratt from the Environmental Research Group at King's College London** gave a presentation which illustrated the need for accountability in AQM. He made the following points;

- All stages of AQM need to be able to be held up to scrutiny with confidence,
- Evidence needs to be collected well in advance of any programme/development in order to establish a solid baseline
- Greater PM<sub>2.5</sub> = more carbon black and is related to HGV emissions
- Toxicity is more closely related to NOx values than to PM<sub>10</sub>

- The need for CO<sub>2</sub> monitoring
- Accountability studies should be funded at approximately 1% of the cost of the actions taken
- Most roadside PM<sub>10</sub> isn't vehicle-related but is resuspended/regional/brake or tyre wear etc. PM<sub>2.5</sub> is more related to emissions

5. **Ed Dearnley from EPUK** gave a presentation on “*Integrating air quality and climate change: How are we doing?*” He highlighted the new Renewable Heat Incentive which is due to come into operation in 2011 and will allow Households, communities, public services and business to generate their own renewable energy, and ‘Feed-In Tariffs’ to provide guaranteed payments for energy they produce. Ed said that standards for boilers are set too low, for what the boilers can do rather than what they should do. Future standards should be tighter. Biomass will need better filters which will increase the costs.

### **Session 3: Review of local air quality management**

6. **Robert Vaughan from DEFRA** gave a review of LAQM and spoke about DEFRA’s Atmosphere and Local Environment Programme and in particular the publication *Air Pollution: Action in a Changing Climate* which emphasises the importance of PM<sub>2.5</sub> with regard to health impacts. He stressed the point that health issues associated with poor air quality costs the NHS more than obesity in urban areas and that the introduction of technology such as solar panels to target climate change will not be beneficial to local air quality whereas reducing traffic-related pollution will target both. The £15 billion references quoted as the health costs of air pollution are derived from studies of PM<sub>2.5</sub> and not NOx etc.

He also focused on National Indicator 188: *Planning to Adapt to Climate Change*, which emphasises that synergies between climate change aims and air quality must be explored and exploited. The Indicator measures: progress on assessing and managing climate risks and opportunities, and incorporating appropriate action into local authority and partners’ strategic planning.

### **Discussion**

**Questions:** should LAs be more proactive? A: LAs have a role, but few statutory duties or powers, to impose further duties without the power to back them up would be counterproductive.

**Q:** Action plans rarely actually achieve any significant reduction. Is it possible to identify any actions which have been effective? A: no data as few post-AP action studies have been undertaken.

**Comment:** two-tier government systems often hamper progress, e.g. Cambridge City Council blocked implementation of tighter bus standards. Reasons stated included cost, loss of competition (smaller companies couldn’t compete), despite buses being identified as the problem. Same in Bristol where there is no control due to the bus monopoly. LAs don’t have powers to impose regulations on bus companies.

### **Session 4: Workshops**

- a. Working with the national and local media; **Simon Birkett**, Campaign for Clean Air in London
- b. Why the Local Development Framework is important: Developing policies and supplementary planning documents; and more: **Simon Newcombe**, Mid Devon District Council
- c. Small scale biomass: Encouraging ‘Clean Air Act’ compliance: **Dr. Ogo Osammor**, Sheffield City Council

### **Session 5: Discussion, Reporting on Workshops, Question time (Jack Pease)**

**Workshop attended: Simon Newcombe, Mid Devon Council. Why the LDF is important: Developing policies supplementary planning documents and more.** Very interesting as the workshop focused on the use of the **Community Infrastructure Levy (CIL)** as opposed to Section 106 agreements. CIL appears to be a way around all the planning/assessment hassles and hit and miss implementation associated with Section 106 and allows funding to be spent where you want rather than tied to the particular development. CIL is a graduated levy on all developments and apparently it is standard for supermarkets (e.g. Tesco, etc) to pay apx 1% of total costs to either Section 106 or CILs and

it is something they expect to have to do. Under CILs the money can be spent anywhere in the area for which a case can be made.

## Day 2: Session 6 Local Action

7. **John Copley and Steve Howell (Oxford City Council), Developing cleaner bus fleets:** John and Steve spoke about the LEZ in Oxford and their efforts to reduce bus emissions. 50% of people travel by bus in Oxford, some using the new hybrid buses which are the “greenest in Britain”. However, as Oxford is still failing to meet EU air quality targets the city is threatening to remove more polluting buses. Some buses have been retrofitted to Euro IV and V but this may be leading to greater levels of fine particulates (see Section 2).

8. **Tony Pettitt, Reading BC. Reading Transport Innovation Fund (TIF) bid and LEZ**  
Reading are applying to the Government for TIF funding of £300 million over 10 years for investment in transport-related schemes. The £300 million package which would see improvements to roads, public transport and park and ride schemes etc. Phase 1 is seeking £55 million over 3 years to fund initiatives including an LEZ. It is deemed that introducing such measures as hybrid vehicles would be too expensive without funding.

**Q.** if a LEZ is introduced is there some sort of standardisation which will ensure synchronicity for LEZs across the country. It may be too difficult to implement if there is a difference in standards.

**A.** no, there is no standardisation and there is some movement of vehicles across the country when higher standards are introduced. Older, more polluting buses may get moved to areas that don't have such strict standards.

## Speaker's Corner

**Hugh Datson** thanked the Royal Commission for the Exhibition of 1851 for funding his PhD studies.  
<http://www.royalcommission1851.org.uk/>

**Jo Barnes** (UWE) spoke about the new AQMRC training courses available from UWE.

Rob Gibson (Hounslow BC) commented on the “wonderful” change at Gatwick afforded by the flight ban. There was discussion on the data which would be available which would allow the input to air quality from air travel to be quantified.

## Session 7: Planning and Renewable Energy

9. **Ian Evans (W Sussex CC)** spoke about air quality and the LTP. With regard to the series of soft measures introduced so far, the following have had an effect: School TPs, MOVA/Scoot traffic signals, bus improvements, Green TPs and cycling initiatives. Future measures include; message signing, electric vehicle charging points, S106 funded highway improvements, Travelwise (Smarter choices) measures, P&R, bus priority, cycleway improvements etc. LTP3 doesn't require a separate report for AQ (as did LTP2) but covered under DaSTS (Delivering a Sustainable Transport System) which has 5 goals to feed into LTP:

- Reduce carbon emissions (climate change)
- Support economic growth (competitiveness and productivity)
- Promote equality of opportunity (social equity- accessibility)
- Better safety, security and health
- Improve quality of life and a healthy natural environment

WSCC are opting for two documents – A long-term strategy (2011 – 2026) and a short-term strategy (3-5 years) which will fit in with AQAP work). This will allow transport policy to align with Regional Spatial Strategy & WSCC Sustainable Community Strategy. AQ will run through the whole document at high and detailed levels. He emphasised the importance of linking AQ throughout policy documents, for example:

- LDF relies on broad policy statements in the Regional Plan
- LTP needs to include policy, mitigation/AQAP measures and monitoring of implementation
- SEA of LTP should include an AQ objective

- LDF needs to take account of LTP and have AQ “policy hooks” SEA/SA of this should have an AQ objective to measure impacts of other policies on AQ

Ian emphasised that LTP & LDF policy solutions are needed, for example AQMAs already declared could need enlargement if a number of smaller developments come forward which do not adequately deal with transport and other emissions. Without funding from development, which can only happen if clear policies are in place, that also ensures fair apportionment of contributions between developments, air quality is likely to suffer.

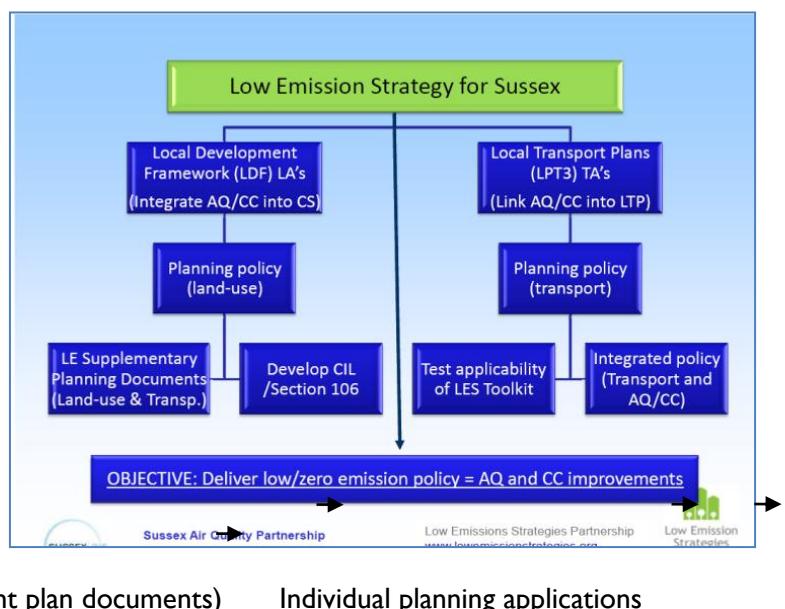
**10. Nigel Jenkins from EPUK:** *Integrating air quality into strategic policy through a Low Emission Strategy.* Nigel stated that LESs could provide a “package of measures which would mitigate the transport impacts of development” and promoted the use of the DEFRA **Low Emission Strategies (LES) Good Practice Guide 2010** which “is intended to help demonstrate how the planning system may be used to reduce air emissions from transport. In doing so, it encourages authorities to take a joined up approach, tackling toxic air pollutants and greenhouse gases together. The guidance explains the underlying principles of LES and outlines how they can be deployed. It also describes typical measures included in Low Emission Strategies and presents a number of current practice examples.

The guidance stresses the importance of Spatial Planning, Transport and Public Health departments working together and provides a “tool kit” of measures which can be implemented. Nigel gave some examples of Regional Group Initiatives (RGi) which already exist in Sussex, Liverpool and Leeds. As air quality is not a top planning priority, the question “Why get air quality into strategic planning policy” was asked. By having air quality and climate change included in the core statements of the LA’s LDF policy ensures that there is a hook to hang off other policies in strategic policies such as LTP3 and development control. In turn Supplementary Planning Documents and SI06/CIL guidance can be developed. Therefore AQAPs could be supported and new AQMAs avoided, CO<sub>2</sub> and climate change targets could be addressed and the cumulative effect of developments could be reduced.

The flow chart shows the way the LES would feed into Planning Policy and documentation.

The **LES Good Practice Guide 2010** illustrates how vital it is that the policy structure is fully understood and that Core Strategies are developed with strategic planners at an early stage, climate change (CC) issues are likely to be the “hook”.

Policy system: National Policy Guidance (PPS 1, 7, 9, 12, 23 PPG 15, 16)  
Regional Spatial Strategies  
LDF  
LTP3 (Core Strategies and other development plan documents)



**11.** The penultimate speaker was **Penny Wilson from Air Quality Consultants** whose presentation “Development Control; Planning for Air Quality , 2010 Update” gave details of changes to Legislation, Policy and Guidance with respect to air quality assessments for new developments, and, like other speakers, emphasised the need to forge strong links between Planning Department, Strategic Planners and Environmental Health Departments. Key sections of her presentation are given below.

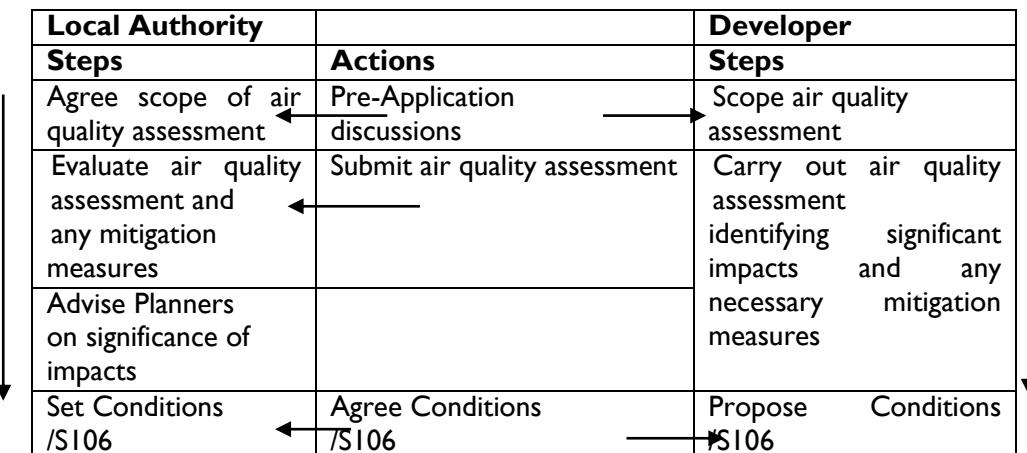
### Some documents with examples of changes are:

- Directive 2008/50/EC – gives a new regulatory framework for PM<sub>2.5</sub>
- The 2008 Planning Act which gives details of assessment requirements for major infrastructure projects and of the Community Infrastructure Levy (CIL)
- The Low Emissions Strategy Guidance - (using the planning system to reduce emissions)

The context of air quality and planning are shown below:

Level	Relevant Documents
National	Planning Policy Statement 23 (PPS23) (England), Air Quality Strategy 2007
Regional	Regional Spatial Strategy (RSS), Regional Air Quality Strategy
Local	Local Development Framework (LDF) Core Strategy, Supplementary Planning Documents (SPD) and Air Quality Action Plans

### Steps in the Planning Application Process



### The Need for AQ Assessment – some examples of changes

- Increase in congestion
- 5% (AQMA) or 10% (elsewhere) change in traffic, where AADT >10,000 (or 5,000 if narrow and congested)
- 200 vpd change in HDV
- Increase of 100 car parking spaces outside AQMA or 50 spaces inside AQMA
- Introduction of new exposure
- Biomass boilers or CHP
- Long-term construction sites that may affect AADT flows over a year or more

### Factors to be taken into account when determining significance:

- Number of properties affected
- The number of people being introduced into an area of poor air quality.
- Magnitudes of the changes and the descriptions of the impacts at the receptors.
- Whether or not an exceedence of an objective or limit value is predicted to arise in the study area where none existed before or an exceedence area is substantially increased.
- Whether or not the study area exceeds an objective or limit value and this exceedence is removed or the exceedence area substantially reduced.
- Uncertainty, including extent to which worst-case assumptions have been made.
- Extent to which an objective or limit value is exceeded, e.g. an annual mean NO<sub>2</sub> of 41 µg m<sup>-3</sup> should be attached less significance than an annual mean of 51 µg m<sup>-3</sup>.

### Key Messages for Local Authorities

- Ensure air quality is included in relevant local policies
- Have good communication with planning department
- Make relevant monitoring data (including site details) easily available to consultants
- Consider SPD or 'Developers Guide'
- Mitigation needs to be proportionate to the scale of the impact and the development

### Key Messages for Consultants

- Follow SPD/Developers Guide where available

- Agree approach with LA
- Provide relevant input data or sources, where appropriate
- Justify all assumptions and conclusions

## **Session 8: Institute of Air Quality Management Workshop**

**Krystal Godri, Kings College, London** gave a “Review of current research on mechanisms for damage caused by air pollution” The aim of Krystal’s review was to understand the oxidative nature of local traffic contributions to various airsheds (Roadside, Urban background, Rural)

Krystal concluded that a viable comparison of PM from roadside, urban background and rural airsheds using a metric designed to predict biological toxicity could be made and that:

- The oxidative potential of  $PM_{10}$  at a London roadside site is elevated compared to urban background and rural sites
  - Percent contribution of total roadside response:
    - 19% Traffic specific; 41% Urban; 40% Region
  - Traffic increment is significant and the trace metal determinants of this oxidative potential established human toxicity.
- Components of oxidative potential metric identified two sources of toxicity
  - Local: vehicular non-tail pipe emission
  - Regional: fuel oil combustion

## **Relevant Documents – available from the AQU**

- Development Control: Air Quality Guidance 2010 EPUK
- Environmental Audit Committee Report on Air Quality. House of Commons, 2010
- The Future of Urban Transport. DfT 2009
- Renewable Heat Incentive (est 2011) ([http://www.decc.gov.uk/en/content/cms/what\\_we\\_do/uk\\_supply/energy\\_mix/renewable/policy/renewable\\_heat/incentive/incentive.aspx](http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/policy/renewable_heat/incentive/incentive.aspx))
- Adapting to climate change: Published by the DEFRA, a guide for local councils
- National Indicators NI 188 – Planning to adapt to Climate Change. Local Economy and sustainability
- House of Commons, Environmental Audit Committee; Green Jobs and Skills. December 2009
- EPUK 2010 Development Control: Planning For Air Quality (2010 Update)
- Shaping our Future. HM Govt Task Force on Climate Change. 2010
- Defra January 2010: Low Emission Strategies Good Practice Guide 2010.
- Defra, March 2010: Air Pollution: Action in a Changing Climate.
- Defra: How is Defra Tackling Climate Change?
- Defra: Adapting to Climate Change: UK Climate Projections June 2009
- DIRECTIVE 2008/50/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 May 2008 on ambient air quality and cleaner air for Europe

## **All presentations are available from the AQU**

### **The EPUK “Clean air on a Shoe String” conference**

3<sup>rd</sup> November 2010: Aston University, Birmingham

The Conference was attended by approximately 80 delegates from industry, environmental consultancies, local government and Government bodies.

The conference aimed to examine how local authorities could deliver their statutory air quality duties in the current economic climate. To start the day off Cassandra Harrison (Local Government Regulation) spoke about the effects that “the deepest cuts to public spending since World War II” will have on local government’s statutory duties. Current spending by DEFRA is down by 29% and DfT current spending is down by 21% both of these will have a significant effect on funding for Air Quality grants. This along with a ~ 28% reduction in local authority (LA) budgets (over the next 4 years) will further exacerbate the

difficulty. Air quality funding will also suffer as existing grants (totalling £7 billion) have been freed from ring-fencing, this will invite a free-for-all in local government. To ease the burden on LAs, Government will reduce data collection and data reporting requirements. All the above must surely lead to a reduction in service and quality.

Ed Dearnley (EPUK) spoke next, saying that, through the integration of policies, (climate change, air quality, carbon reduction etc) LAs could streamline delivery and cut costs. He apologised for the delay in the production of the document "*Air Quality and Climate Change: Integrating Policy in Local Authorities*" which will now be released by Christmas. He proposed that the changes in data collection and reporting would give LAs an opportunity to review and streamline their operations, linking air quality and climate change together and he showed graphs giving projections to 2050 showing the advantages in costs and benefits of such integration. The question was asked as to whether air quality should sit with Transportation and Land Use Planning rather than Environmental Health. It was generally agreed that this would be a sensible option. It was also suggested that the cuts in air quality funding and reduced reporting requirements would make it essential that the link between poor air quality and health impacts did not get lost, it will be important to maintain public awareness of the health issues associated with poor air quality.

We next sat through a talk by Rob Bell (consultant editor – AQ Bulletin) who gave an extremely boring presentation which stated the obvious with regard to public bodies interfacing with journalists. Such nuggets as "return phone calls," "speak to journalists when it suits them, not you," etc - a total waste of time.

Next, Robert Vaughn gave DEFRA's Policy Update, headed "The Greenest Government Ever." He spoke about aims to make the transport sector greener and more sustainable, partly through the introduction of tougher emission standards and support for new transport technologies and the need to work towards full compliance with EU Air Quality Standards. As part of the Government's Big Society, through the "Natural Environment Discussion Document" the Government wants to initiate a fundamental shift of power away from Westminster to "the people," with "everyone" being asked to give their views on various subjects including songbirds, air quality, flooding, the fate of the countryside etc. This will result in a White Paper in the spring of 2011. He also spoke about the Local Sustainable Transport Fund which will ask LAs to develop packages of measures which will "*support economic growth and reduce carbon in their communities as well as delivering cleaner environments, improved safety and increased levels of physical activity*", a tall order, particularly when budgets have been severely cut.

Again, modelled projections showed air quality improving despite current data not providing any support for this view. This issue was highlighted "Trends in NO<sub>2</sub> not following projections" and "Variety of experience but cannot be certain projections are reliable" with "Similar experience across Europe". All pretty much gobble-de-gook but basically admitting that modelling is rubbish but the projections are what they are still going with. The need for LAs to streamline and integrate services was emphasised again but with no real difference to previous speakers.

Andrew Bean from the Highways Agency gave us an overview of what the HA is and what its responsibilities are. Working with DEFRA and DfT, they operate, maintain and improve over 7000km of England's strategic road network (the majority of England's motorways and major A roads). They undertake R&D projects which include air quality monitoring projects, and monitor air quality in over 72 AQMA areas. As part of this programme, the AQU currently manages a diffusion tube in Camborne. The HA is also currently updating the DMRB air quality model which will include NO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>.

Andrew Whittle (Cenax) and Simon Newcombe (Mid Devon District Council), both members of the Low Emission Strategies Programme Board spoke about some of the latest developments in LES' and detailed some of the new tools available from the LES Partnership (<http://www.lowemissionstrategies.org/>). The new LES 2010 Good Practice Guide offers advice for LAs with regard to undertaking their LAQM duties. They also spoke about green initiatives which various councils around the country, such as Sheffield City Council which is now running its council vehicles on biomethane and those undertaken at Greenwich council which is also a member of the LES Partnership. They also recommended Liverpool City Council LTP website as being a model site (<http://www.letstravelwise.org/ltp/>) which has links to all Merseyside transport policies and initiatives (electric buses, recharging networks etc). Many local authorities across the

UK are introducing varieties of initiatives such as using environmentally friendly fuel for their fleets and encouraging an increase in the use of environmentally friendly public transport.

The outstanding message from their presentation was that more integration is needed between Planning departments, Environmental Health, Transportation etc.

Duncan Laxen (Air Quality Consultants) again posed the question as to whether LAs could fulfil their statutory duties in the face of the funding cuts, specifically with regard to the monitoring of NO<sub>2</sub> and PM<sub>10</sub> and the differences in the measures for exceedences (NO<sub>2</sub> – annual mean and PM<sub>10</sub> – 24 hour). He spoke about addressing exceedences through either reducing the source of the emissions or through limiting the exposure of the recipient. He detailed several measures for reducing PM<sub>10</sub> such as power washing roads, spraying the roads with dust suppressants, traffic management etc, or of limiting exposure through the use of barriers and tunnels or vegetation all of these were to a greater or lesser degree either too expensive or impractical. He defined the sources of NO<sub>2</sub>, with the majority of emissions coming from LGV/HGVs and buses and coaches. His graphs did however attribute high (up to 40  $\mu\text{g m}^{-3}$ ) levels of NO<sub>2</sub> to "background". He also stressed that it is up to individuals to contribute towards improving air quality through measures such as switching off when waiting, "eco" driving, vehicle purchase, cycle use, bus use etc., and that perhaps the idea of personal responsibility wasn't sufficiently promoted as an alternative to government responsibility. Reports can be downloaded from (<http://www.aqconsultants.co.uk/download-reports.aspx>).

An insight into how the UK is coping with Air Quality legislation in comparison to the rest of Europe. The UK is apparently doing better than most other EU countries with regard to managing NO<sub>2</sub> but, in common with other European countries, is struggling with PM<sub>10</sub>. Measures in Berlin such as lowering speed limits have not only resulted in reductions in NO<sub>2</sub> levels but also CO<sub>2</sub>, noise and accidents. Other measures to improve air quality across Europe included NOx retrofitting of vehicles, banning of Lorries at specific times or locations, optimising traffic flow by traffic light synchronisation, speed limit enforcement, encouraging the use of sustainable domestic heating fuels, smoke control areas and the introduction of Low Emission Zones (LEZ). LEZs are mostly targeted at HGVs, except in Italy where all vehicles (inc. motorcycles) are targeted and are generally focused on inner city areas.

More information of LEZs can be obtained from [www.lowemissionzones.eu](http://www.lowemissionzones.eu) and the DfT report on LEZs in Europe is on <http://www.dft.gov.uk/pgr/scienceresearch/orresearch/lez/>.

The final presentation of the day was from Tristan Brightman from Transport & Travel Research who spoke about the beneficial impacts to air quality from buses switching off engines whilst they are waiting. He said that there were three major factors to be considered in persuading bus companies and drivers to adopt this policy; behavioural factors, network/infrastructure factors and technical factors. His study looked at bus routes in Manchester, Sheffield and Wolverhampton/Dudley and used three data sources; interviews, observations and GPS signals. Buses spent between 29.5% and 43.5% of their time "idling", this related to up to 25% of their NO<sub>2</sub> and PM<sub>10</sub> emissions. He emphasised the care taken with data management (cleaning up GPS readings and smoothing out speed and emission data). Not all drivers were keen to switch off when waiting, common fears were that the buses might not restart or might overheat, also many driver felt that they had no stake in driving efficiently "not my fuel". The importance of good management was highlighted. His research concluded that significant savings in fuel use and emissions could be made by relatively short periods of switching off and that not only should drivers be trained in eco driving but that managerial practices should be put in place to encourage (enforce) it. Changes were also recommended in Network management, e.g. vehicle recognition at junctions and improved communications with regard to road works and upgrading vehicles to higher EU standards.

All-in-all the conference was informative and interesting but as always one of the greatest benefits of attending was to be able to "network" with other attendees. Delegates were from local authority areas across the UK, consultancies, industry, government agencies, NGOs and educational establishments.

**Ben Harris: Research Associate, AQU, Camborne****EMAQ(Emission Monitoring, Air Quality and Contaminated Land) – Essentials of Local Air Quality Management (LAQM) Review and Assessment Conference**

This conference was a series of talks/lectures given by EMAQ regarding the essentials of Local Air Quality Management. Whilst being familiar with the subject through my work in air quality management in Cornwall Colleges' Air Quality Unit, the day introduced and re-introduced points and subject matter that is often overlooked when addressing Review and Assessment documents for local government.

Best practice was shared with consultants and local government officers discussing their own individual experiences of R&A and notes were taken on any situations that were relevant to sites within Cornwall where regulatory air quality limit values are being exceeded.

Whilst these meeting rarely uncover any “new” information or guidance, this event was essential due to the changing legislation of the review and assessment process.

The meeting was well attended; the content was useful and gave useful insight into what the reviewer of LAQM R&A documents is looking for.

The content was slightly boring in the manner of the presentations (all text and at a fast pace) but plenty of breaks ensured that concentration did not flag.

**Dr Bryan Mills: Curriculum Area Manager for Business and Admin (HE), Camborne****UPC Winter Conference – an abstract**

30<sup>th</sup> November 2010; Future Inn, Plymouth

Enterprise education has shared and unique challenges both in delivery and curriculum design. Key issues identified and proposed for discussion include developing more meaningful team working; enhancing students' ability to deal with ambiguity; encouraging risk taking amongst students and championing and embedding reflection.

Team work is not unique to enterprise education but within this context there exists the possibility for modes of working that can make team work a more rewarding and relevant experience. What is often missing in existing practice is a sense of realism and responsibility – through an enterprise approach we may be able to correct these omissions.

Ambiguity is part of business and an ability to develop schema and methods to cope with the imperfect nature or absence of information is essential for a successful career. However, our existing QA systems and the emphasis on clarity of task present a challenge when playing with ambiguity.

The classroom should be the place to practice with risk and yet we seldom seem to be able to develop models within which this can be auctioned. In addition we appear to be working with a generation of (academically) risk averse individuals. However, possibilities do exist and enterprise education represents a useful vehicle for exploring this attribute.

The reflective practitioner is now the emphasis of most CPD schemes and yet it would seem students would rather face an exam than a 500 word reflection. It is worth exploring the reasons behind this fear and methods and activities that can help students develop understanding of the real world relevance of reflective practice.

**Dave Ager: Programme Development leader, BEIT, Camborne****Report on Chartered Institute of Personnel and Development (CIPD) Teachers Conference**

October 9<sup>th</sup> 2009; London

I attended a one day Teachers Conference organised by the CIPD in the company of a colleague, Adele Oakes. The aim of the conference was to update and consult with teachers of CIPD courses on the changes in the curriculum and syllabus of the institute which are due to start next year. Essentially the changes allow for a greater flexibility in the delivery of the courses, with an additional level of qualification

now available between the existing certificate and professional development scheme (PDS). We are currently licensed to deliver the latter but this is a post graduate level course and is not suitable for all possible candidates. The certificate course is effectively an A level equivalent course which is already delivered at Truro College, whilst the nearest PDS course is at Plymouth.

The aim in us attending was firstly to gain some greater experience of where the CIPD is going and how the qualifications are changing, and, secondly, to see what possibilities there might be for us to offer CIPD badged courses at Cornwall.

The result was a useful update on what is happening at the CIPD, and a greater awareness of the concerns that many centres have about the transition. We came away with some worries about a degree of rift between the institute and the centres which have many concerns about the new qualifications. We acquired the latest information about their structure however, and Adele and I are looking at the possibilities for future development in this field. Helen Opie (CAM for this area) and Dave John (CCB) are also being kept in the loop on this issue as this has implications for them.

Whilst there are significant concerns over the staffing required for CIPD courses generally in the college, there may well be a possibility for development here, possibly in conjunction with Bitesize or as stand-alone CIPD units in their own right.

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**Hannah Joyce: Course Manager, CCB Professional, Camborne  
Chartered Institute of Tax (SW) CPD Event - Capital Gains Tax and Entrepreneurs Relief**  
24<sup>th</sup> March 2010; Sandy Park, Exeter

Speaker: Giles Mooney BSc (Hons) ACA CTA

The CGT and Entrepreneurs relief course attended on 24<sup>th</sup> March in the evening, directly ties to two of the units taught by this lecturer on the AAT NVQ 4 Technician course, namely the Business and Personal Tax options both of which contain a substantial element on CGT.

The speaker, Giles Mooney, has impeccable credentials as both a tax professional and consultant. He is a lynch pin in the provision of tax training programmes through PTP (the Professional Training Partnership) and has been integral in the development and launch of Absolute Accounting software which is XBRL and iXBRL compatible with companies house and HMRC. His presentation skills were considerable and his approach was to inflect humour into what is a technically demanding area of tax thereby ensuring the continued focus of his audience.

The background to this course stems from the sweeping changes in CGT that came into play in 2008 and that have been ongoing since then. The rate at which CGT was payable changed from the assessment based on the individuals' highest marginal rate of tax to a flat rate of 18% thereby proving to be of immense benefit to higher rate taxpayers. The most significant other change related to the abolition of indexation and taper relief for individuals and its replacement by Entrepreneurs relief providing certain criteria are met. These criteria have also been the subject of revision, notably in the 2010 budget announced on 24<sup>th</sup> March 2010 (the same day as the CPD session). The budget was itself the subject of an unscheduled but invaluable, introductory half hour assessment of the tax impact of proposed legislative changes.

The 3 hours session comprised briefly of the introductory half hour on the new budget followed by.....

- Capital allowances
- Entrepreneurs' relief
- Gift of business assets
- Replacement of business assets
- Incorporation: the pros, cons and hows
- The Finance Act 2009 and budget changes 2010
- Recent CGt cases
- Principle private residence

The range and scope of the course covered individuals, partnerships, corporations and trusts. This was set within a context of recent case-law that HMRC had both won and lost. In each instance the case was presented with humour and insight with guidelines indicating the direction to take to ensure best practice.

This course proved to be invaluable in terms of required knowledge to improve teaching content, particularly the more difficult tax planning aspects that are not often encountered in the working environment and poorly addressed in text books on the same.

### **The UK Annual Tax Conference**

22<sup>nd</sup> June 2011; Birmingham Motorcycle Museum

The Annual Tax Conference is the first of two annual conferences held at the Birmingham Motorcycle museum. The tax conference was held on 22<sup>nd</sup> June (all day) and is followed by the Annual Accountant's conference (not attended) on 23<sup>rd</sup> June. The Tax Conference was relevant as it directly ties to two of the units taught by this lecturer on the AAT L4 course, namely the Business and Personal Tax options both of which contain a substantial elements relating to IT, CT, and CGT.

The course was organised around two keynote speakers in the morning and 24 workshops in the afternoon (only 4 of which could be attended). Tim Good (Keynote speaker 1) has impeccable credentials as a tax professional and consultant. He is a founder of a tax training programme, PTP (the Professional Training Partnership) and has been integral in the development and launch of Absolute Accounting software. His presentation skills are considerable and the topic chosen highly contentious "The Office for Tax Simplification", an oxymoron exemplified in his humorous discourse on the subject.

Chris Jones (Keynote speaker 2) works for the tax publishers Lexis Nexis and focussed on describing the recent changes to both IT and CGT legislation. The texts published by Lexis Nexis are both comprehensive and weighty (literally). His knowledge of the minutiae of detail so recently enshrined in legislation was formidable and of great interest.

The 4 workshops attended related to the following topic areas

- Incorporation: the pros, cons and how's
- Recent budget changes / IHT
- IR35 legislation and an update on the cases HMRC has lost (superb speaker)
- HMRC fines and penalties

The range and scope of the event covered individuals, partnerships, corporations and trusts. It proved extremely difficult to choose between the workshops and there were many more that would have been most beneficial from a teaching perspective. In the future, the situation could be ameliorated if all the Accountancy Lecturing team could attend.

This event proved to be invaluable in terms of updating the technical content for both tax units; the workshop on HMRC Fines and Penalties was particularly relevant and the knowledge gained, used to update the students notes in preparation for the exam – this aspect of tax is always poorly addressed in tax text books on the same.

### **AAT Masterclass**

Thursday 30<sup>th</sup> June 2011; Buckerell Lodge Hotel, Exeter

Key speaker: Cliff Roy ~ Chief Assessor: L4 Financial Performance

The AAT master-class on the L4 Financial Performance paper was part of an ongoing programme of events targeted at AAT providers in part to address the consistent criticism of the content of this challenging paper.

The event took place on 30<sup>th</sup> June and the nature of the information imparted was directly relevant as it is one of the subjects taught by this tutor and is considered by students to be the most difficult compulsory paper on the L4 AAT course.

The speaker was the Chief Assessor for the paper, Cliff Roy whose aspect and attire were interesting if not quite conventional. He not only writes the examination papers but supervises the on-line assessment process of the same whose inception has been anything but smooth. The focus of the course was the content and structure of the external on-line examination and the contrast between the standard of this subject and that of 4 of the other on-line examinations set at this level that are considered by students and lecturer's to be considerably easier to pass.

The dissemination of the content emphasised the fact that the structure of the exam will not change in that it will remain in two sections but that the content will alter according to developments in the syllabus. Roy made no apology for the challenging level at which the paper is pitched but rather criticised the other papers at this final stage of AAT for having suffered from a "Dumbing-down process", a charge that this is almost certainly true.

This event was extremely useful for the future delivery of this paper as it confirmed that the pitch of the paper (despite the complaints) will remain unaltered. This will allow tutors to develop material to ensure students have the necessary mathematical (as opposed to accounting) skills to handle the syllabus content and pass the exam. It also became obvious that a notable weakness is the second, written section of the paper that is still manually marked by examiners. Accountancy students are not expert at writing structured, succinct reports and need to develop the expertise to be able to do so. A number of suggestions were mooted along with a list of useful websites and materials that will help Tutors to develop learning resources to assist in this process.

### **Summary**

Attendance by AAT lecturers at Master-classes is essential in order for tutors to maintain their awareness of developments within the AAT syllabus and examination processes. The offer to attend this event was therefore very much appreciated.

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**James Kearns: Lecturer in Law, Camborne until September 2011  
The Agamben Symposium: the future of law, politics and philosophy  
8th – 10th March 2011; Newcastle University Law School, Windsor Terrace**

### **Law panel**

The discussion was started by David Seymour, of Lancaster University, who argued that there was a tendency to festishize the law, and that the prevailing view was one (of conceptions) of the domination of law: that is, a sovereignty that makes bare life possible, a biopolitics that becomes the obsession, and through the process bare life becomes the neutral figure. David also highlighted the figure of the 'Muslim', merging with US Patriot Act 2001: and that the situation was an endless repetition of the same, that without freedom how can we consider a future?

Ilan rua Wall, of Oxford Brookes University, discussed his research interests, and forthcoming book, on constituent power (that is, violent making of new power, the Constitution; cf. constituted power: the acts etc. themselves). His question: if the politics in politics has been disposed of, what is it to be replaced by? He also brought up ideas of the juridification of politics. He discussed the 'form', generally speaking, the common law and the legislature as set against the 'substance', that is, the economic functions of government.

**QUESTIONS:** What then? The answer will come from the street, Tunisia, Egypt, etc. The British in Libya, 'Take me to your leader': there is no leader, no party, just people.

### **Politics panel**

Tom Frost, of Newcastle Law School, discussed Edmund Burke and his ideas of the 'tradition', his critique of the French Revolution, 'the fly', pure singularity, and that it is possible to conceive a reference to the

past and thoughts of a law of law, to make law anew; render law for whatever use; a ‘profanation’ for ‘whatever-use’.

**QUESTIONS:** Why should tradition be important in law? What does this law look like? ‘Constituted from the cat,’ i.e. we will play with the law as a cat plays etc. Singularity...

### **Philosophy panel**

Lorenzo Chiesa, of University of Kent and Frank Ruda, University of Berlin, wished to distinguish Agamben as a political theorist and argue instead that he is *sui generis* a non-materialist, vitalist thinker. Therefore Agamben should abandon his political ‘project’.

The day ended with hopes that some of the ideas and discussions might be worked up into new formulations on the work of Giorgio Agamben.

### **Law and Space**

6<sup>th</sup> May 2011; Oxford Brookes University

This visit was made with the dual purpose of attending a workshop and speaking to academics in the field of Law, Language and Literature about the possibilities and potential for PhD study and the ways of locating an acceptable supervisor.

The day was held in Headington Hill Hall, erstwhile home of the newspaper magnate and pension pilferer, Sir Robert Maxwell. The workshop was intended to address the question of unity and multiplication of law’s places, paying particular attention to geography and spatial theory in law. The day was opened by Professor Sherene Razack from the University of Toronto who discussed the death of a Canadian man of indigenous origin, Frank Paul, and the subsequent inquest that followed his death.

The case became famous not simply because following his arrest he was removed from the police station and left unconscious in an alley (in the snow), but the fact that his medical records ran to two-thousand pages. The question, in terms of geography and law, was this: how should a post-colonial population treat the indigenous people who end up as a minority, and secondly, why is the aboriginal body so often presented as a wounded body, an alcoholic body, as a by-product of modernity, as, literally, human waste? I think academic language can on occasion be regarded as dry and impenetrable, even obtuse, at times, and Professor Razack cut though this with an example of people’s (and the State’s) indifference to certain members of our society.

The day allowed good deal of debate surrounding related issues: refugees, human-trafficking and how the law relates and places such people. What is it to be a citizen and what does it mean to be a denizen? How do we approach ideas and concepts of human rights? Are such rights universal? And why has the idea of ‘humanity’ become such a target for law; why are people being ‘juridified’ and why are some people neglected in such processes and effectively left out?

All in all, the day was a great success and I was able to meet with some very interesting people.



### **Dr Leo Salter: Head of BEIT Faculty and HE Co-ordinator for Camborne until 31<sup>st</sup> July 2011 32<sup>nd</sup> Institute for Small Business and Entrepreneurship Conference, Liverpool, 4<sup>th</sup> – 6<sup>th</sup> November 2009**

Some 400 delegates attended from a range of national and international institutions (Malaysia, China, Holland, Norway, Japan, West Indies, Australia, Albania, Canada and more!). Over 90% of delegates were from HEIs, but there were a few attendees from Barclays, AACA, the RDA and similar. The conference structure was 30% plenary speakers and six parallel 90-minute sessions of 4 / 5 papers with ten tracks in each parallel session. I have twenty pages of notes from the conference, from which I have selected the top 10 highlights below.

## **Top Ten:**

1. In both a recession and in a benign macroeconomic climate the chief sources of funding for SMEs are credit cards and overdrafts. Term loans go down substantially as a source of funding in a recession; rejections go up by a factor of 2.5 for high risk businesses; but for low risk businesses, bank acceptances of loans remains about the same. Venture capital is more-or-less irrelevant as an SME source of funding. High risk is defined as low assets (low collateral), high credit demands, poor credit ratings, and low business start-up experience. There are lessons here about what we should be teaching students in terms of finance.
2. Creativity has become increasingly linked with the teaching of entrepreneurialism and enterprise by HEIs. It is clear from the studies presented at the Conference that creativity needs to be embedded in all aspects of a course. (At Camborne this could be done via problem-based learning).
3. All the papers I heard emphasised the need for practical involvement with businesses – internships, business mentors, networking and tenacity were some of the key words. Some strategies for achieving these essential elements need to be developed for the site.
4. The difficulty in managing the creative-efficiency tension (i.e. economic profitability versus superior creativity) seemed to be a problem both in terms of students (creativity versus assessments) and businesses. Entrepreneurs are creative but their businesses sometimes make money and sometimes don't – all the entrepreneurs at the Conference had made and lost millions ('fearless') but their creative instincts always drew them back into the game ('100% consuming'). The wise ones surrounded themselves with accountants and managers ('surround yourself with really good people') to look after the books (i.e to keep an eye on economic profitability). Not a few of the HEIs run enterprise courses knowing that the students will end up in such a support role – but will need to be enterprising to sustain it.
5. All courses (e.g. biology, engineering, music, design) were being drawn into the enterprise agenda at many HEIs and the constant lesson was that enterprise had to be embedded in the delivery and not presented as bolted on modules/units. We haven't mastered that at Camborne yet – though Tourism and Hospitality are close. All the speakers from HEIs remarked on the resistance to enterprise by academic staff (and some students) until the need, process and outcomes were clearly explained to them. We need to do more of this.
6. Whatever is done with IT – blogs, wikis, Facebook, etc – it has to be compulsory and mark-bearing, otherwise a surprisingly low number of students do it. It is important that our students get involved in these networking systems and we should force the pace more with them. (See also THES 5<sup>th</sup> Nov 2009, p 11: "Next-gen PhDs fail to find Web 2.0's 'on-switch'")
7. Failure is necessary for any entrepreneurial learning ('There is a vital future-oriented dimension to learning from failure that leads to higher levels of preparedness that increases the probability of future success'). It does not actually need the individual to experience failure – so how do we teach that?
8. The ratio of jobs to interview for an Oxbridge graduate is 1:8; for a student from a new university it is 1:235. Why?
- 9.

<b>1999</b>	<b>2009</b>	<b>Application Style</b>
2%	76%	On-line
98%	2%	Paper
10%	40%	Telephone screening
2%	36%	On-line exercises
35%	64%	Personality tests
25%	80%	Numeracy tests
23%	71%	Verbal reasoning assessment
21%	79%	Assessment centres

The questions are: (a) how have we accommodated this shift in our teaching, and (b) is it true of the local employment market? .... and are students aware of the difference in expectations between local and national employers?

10.  $Q + WED + (SxC) = E \dots \text{Qualifications} + \text{Work Experience} + (\text{Skills} \times \text{Contacts}) = \text{Employability}$

## **HE Retention Conference - 'What Works? Student Retention & Success', Leeds, 3<sup>rd</sup> & 4<sup>th</sup> March 2010**

It was run by HEFCE, the Paul Hamlyn Foundation (PHF), the HE Academy(HEA), and Action on Access and was centred around the 7 projects funded by PHF and HEFCE “ . . . to generate robust, evidence-based analysis and evaluation about effective strategies to improve continuation and completion in HE.” It’s worth noting that,

*“Most institutions have not yet been able to translate what we know about student retention into forms of action that have led to substantial gains in student persistence and graduation.”*

(Tinto (2006) Research and Practice of Student Retention: What Next? Journal of College Student Retention: Research, Theory and Practice, 8, 1- 19: quoted by Liz Thomas (Edge Hill) who is directing ‘What Works’ and is Senior Adviser for WP at the HEA.)

There has been little or no improvement in retention rates over the last decade. Described below are the things I learned from the convention that can be turned into actions. I have excluded the financially impractical.



### **1. Support and guidance for students who want to leave**

(Estelle Morris)

A significant fraction of non-retained students discover that they don’t want to be in HE and leave to get employed. They are perceived as being at risk from the start because their motivation is not high. Though IAG should be able to filter them this is not what happens.

### **2. HEFCE see retention issues as integral to its WP policy**

(Jean Arnold, HEFCE Senior Policy Adviser)

HEFCE links between WP and Retention were created in response to Dearing’s view that increasing participation in HE to 50% would have significant implications for successful participation.

### **3. Transition Support Programme**

The approach used by Sheffield Hallam Business School was multi-factorial: a longer induction period, early, closely directed first assignment support, detailed briefing on tutor expectations, the use of student mentors from higher years, enhanced IT support, detailed exemplars (e.g. plagiarism, citations and references, how to research for an assignment), 1:1 meetings of students with academic staff, academic coaches (50), all organised via a Student Network Manager. A budget of £100k was provided. Stage one retention increased by about 2% (11.5% dropout 05/06 v. 9.5-10% 08/09) which translates roughly into 25-30 more students retained. At about 10K per student retained over 3 years the investment pays off.

### **4. Student Engagement**

“Competitive, frequent, intense learning experiences boost interest and success . . . . Tiptoeing around students is a reflection of us having low expectations of them. A lose framing of the academic experience doesn’t help students achieve (‘the tyranny of the structureless’). (Gill Crozier, Roehampton University)



## 5. Factors which put students at risk

- Continuation for full degrees is 90/91% (PT 65/67%) (96-07) - for FDs 82/84% for 01-07. ((Jean Arnold, HEFCE Senior Policy Adviser).
- Students who cannot clearly express their reasons for HE study are at risk. (Mary Crawford, KCL uses an admissions essay at 'selection day' to assess the students' understanding of why they are studying (i.e. motivation/purpose) – and their literacy.) Students who doubt they're on the right course are 5 times more likely to leave.
- Students who do not respond quickly for requests for enrolment documents and who do not attend all the pre-enrolment meetings and induction events are at risk (Mary Crawford).
- Qualifications on entry, school type, post code and socioeconomic status can be used to identify at risk students.

I think these are less useful discriminators for the College. (For instance, one of the participants had no students with less than three A-Levels at Grade B in her department; this wasn't unusual for the HEIs – I was the only FEC person there!)

- Student self-reported confidence about time-management, reading, research skills, listening, and writing, dramatically over-estimates their actual abilities and reflects the low standards needed to demonstrate excellence at school. Self-reported confidence does not correlate with performance.

This translates into an unawareness (and unpreparedness) by students of what HE study involves,

*"Nothing really prepares you for going from a school where you are spoon fed to coming to a lecture and you are responsible for taking notes; you don't have to show up if you don't want to; you're responsible for handing in the work."*

*"It was a massive culture shock, that it would be so much work, like I did 6 A-levels and never did my work and then I come here and I actually have to learn how to work, they work you so hard, and everyone gets ill, tired, and you've got other stuff to do as well . . ."*

- Students working over 10 hours a week are at risk
- Students studying for less than 5 hours a week are at risk
- A sense of belonging is important

*"... they always said at the beginning treat it like a full time job, come here nine till five and then go home and do what you want, and during the nine till five, you'll find you do enough work to get you through. That's probably what I should have done."*

*"... when I first arrived I was completely unprepared for what the university would hold for me and it took me a while to settle in, a while to get to grips with what was wanted of me and a while to start producing and while I was still confident throughout that period I was on shaky ground . . . now I feel like I'm a lot more cemented but it's taken a while."*

*"Shocked by the work."*

*"Homesick."*

*"Spoonfed at College."*

Evidence shows that the continuity of good experiences with an institution is of immense importance for student engagement with it – especially in the first few months. Promptness, accessibility, flexibility, and (above all) high level customer service skills are needed to reassure and support students. Pre-enrolment support needs to be increased. Students feel like trespassers. Students feel unconfident.

## **Summary**

The engagement of the student with the College prior to enrolment needs to be prompt, accessible, flexible and friendly – and should include direct contact with academic staff throughout. Amongst other things IAG training for HE CMs must include the methodology of proactively exploring students' motivation and discussing options other than enrolment on an HE programme - the College WP unit should be trained in the same way at the same time. Administrative and support staff must share ownership and responsibility for retention with the academic staff.

The proposed intensive 'first six weeks' for Camborne map onto the idea of a longer induction period. Keeping students challenged but intensely supported is important in the early stages. An eighty-five percent attendance target for the first 6 weeks, the use of formative assessment (3) and summative assessment (1), the requirement to write a 'why am I here and where am I going/want to go" essay, and the mobilisation of student mentor, senior tutor, proactive academic 'new student' support (i.e. detailed briefing on tutor expectations, enhanced IT support, detailed exemplars (e.g. plagiarism, citations and references, how to research for an assignment), and 1:1 meetings with academic staff) are all important.

To keep students involved and progressing there needs to be a change in delivery culture on the site which focuses on creating autonomous learners from the beginning. The role of Formative Assessment in creating autonomous learners is paramount. SoW/LPs and attendance/participation can be examined for evidence of challenge and structure respectively. Problem-based learning is an important route to achieving these goals.

We can identify students at risk:

PT and FD students are at risk, students who engage poorly before enrolment are at risk, students working >10 hours a week are at risk, students studying for < 5 hours a week are at risk, students from particular socioeconomic backgrounds (postcodes) are at risk, students with low entrance points are at risk, students who are financially challenged are at risk.

But what can we do about it? The evidence from the conference indicated that focused/targeted interventions (support) for many of the students identified as 'at risk' by the criteria above did not produce results. If students are not engaged with the College because of work, family and other problems, they don't participate in many of the systems/networks designed to support them.



## **Michelle Lawrence: Lecturer in Business & Marketing, Camborne Chartered Institute of Marketing Conference**

14<sup>th</sup> December 2009; Maidenhead

### **Meeting with Examiners**

I had the opportunity to meet and discuss the requirements of the professional certificate with respective examiners. This allowed a review of expectations and requirements at level 4 specifically. I was able to understand the examiners' perspective on the centre's presentation of work, an increasingly important aspect since all Chartered Institute of Marketing qualifications are based on written assignments as well as exams. This supported my professional development in that I am more confident about how to support learners to achieve successful outcomes.

The syllabus workshops attended were:

- Marketing Essentials
- Assessing the Marketing Environment
- Marketing Information and Research
- Stakeholder Marketing

### **Meeting with Ian Marshall – Regional Manager**

In response to the self review of Cornwall College as a CIM accredited centre, accreditation was given until 2011. This was discussed with Ian Marshall. Student reviews were considered and it was agreed that these were overall positive and reflected the new introductions for September.

From student review for November 30, 2009:

Structured weekly sessions have become an established form of delivery 6.00-8.30 pm.

“This is the best way of structuring the course” JB

“Yes, we are more cohesive as a group now” MH

SOW was issued to students prior to start of course.

“It was good to have the course programme (SOW) at the beginning” JB

“Evening work is always tiring but I like the interactive sessions we have” SB

### **Networking with Centres**

As always, the most valuable part of these conferences is the networking with tutors and the sharing of ideas for improving learning and teaching of the CIM professional programme. Break out groups offered opportunities to discuss with other tutors best practice for engaging the professional in the learning experience, particularly those who have not undertaken formal study for some years.

For more details regarding any of the above, please contact: [michelle.lawrence@cornwall.ac.uk](mailto:michelle.lawrence@cornwall.ac.uk)



### **Rose Walker: Course Manager for ATT, CCB Professional, Camborne Accounting & Audit Update Course – 24<sup>th</sup> November 2009**

It is a requirement of all Chartered Accountants that they maintain professional competence through regular CPD, both structured and unstructured. The major provider of CPD to chartered practices in the South West is SWAT(South West Accountancy Tuition) a national based training provider with its head office in Plymouth. Their courses are delivered by leading professionals many of whom sit on the advisory boards and contribute to the publications issued by the Financial Reporting Council and are consequently in the forefront of current practice.

There are continuing changes in the reporting and audit requirements for businesses as the accountancy profession seeks to remedy the perceived deficiencies in their current standards. Presently the UK implements International Accounting Standards, a UK Financial Reporting Standards and International Auditing Standards, all of which are subject to constant review and revised interpretations. On the 15<sup>th</sup> December 2009 the UK issued a complete revision to the International Auditing Standards. In addition to this major revision there have been regular Bulletins and Practice Notes providing guidance on the implementation and application of various standards in the current global recession.

Attendance at this update provided essential information and guidance regarding both current and future changes in both reporting and audit. Many of the local chartered practices attend these courses, including many of the existing cohort of ACCA students, ACCA require all students to be aware of all change that have occurred in the standards issued up to 6 months prior to the examination date and to also have a thorough understanding of all major current issues under discussion. It is therefore essential that the lecturers working in this area attended this update.

The audit section of the course covered the recently issued Bulletin 2008/10 ‘Going Concern issues during the Current Economic Conditions’, Audit and Assurance Faculty Technical release, the revised ISA 700 ‘The Auditor’s Report’ and ‘Common weaknesses reported by QAD’. The financial reporting section covered IFRS for SME’s, Companies Act 2006, Current issues from Companies House and ‘Going Concern and Liquidity Risk: Guidance for Directors of UK Companies 2009’. These are all areas that are potentially examinable in the June 2010 ACCA sitting.



**Russell Searle: Lecturer in Professional Business Studies, Camborne****AAT Conference – “The new qualification”**

22<sup>nd</sup> - 23<sup>rd</sup> April 2010; Radisson SAS Hotel, London Stansted Airport

The accountancy and finance professions are going through various changes in order to meet the needs of the global economy, and therefore the AAT have introduced fundamental changes to their accounting qualification, in both the way it is assessed and the topic areas included in the qualification. The conference allowed the opportunity to see what areas businesses feel important and what they expect from accounting data. This has allowed both the delivery and the content of the foundation degree to be updated, ensuring that the areas that businesses require, and real life examples from a professional qualification, are being provided to foundation degree students.

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**Creative Arts and Media****David Jarman: Technician/Demonstrator - Art & Design, Camborne**

Reflection on the NCTJ Marking Seminar – March 23<sup>rd</sup> 2011

The NCTJ marking seminar in London was both useful and informative. It began by informing us of the changes being made to the syllabus for next year and then we went through the marking of an exam which I had marked in preparation for the seminar. I was pleased to find that my methodology was generally sound but I was awarding half marks which apparently I should not do and this accounted for the discrepancy. Through this marking exercise and doing another marking exercise that afternoon, I was able to identify areas of good practice and those on which I needed to improve/modify my technique.

I also had the opportunity to meet senior NCTJ staff including exam board member David Kett and the chief executive Janet Jones. During the seminar I had the opportunity to not only discuss exam marking methodology but also what students should include in exams and what they didn't need to (e.g. in depth historical background, names and dates of laws etc are not required).

I also received advice on course structure which I will apply to my practice. Overall, this was a very worth while day, and my only wish is that I had been able to attend sooner so that the students I have already taught could have benefited.

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**Jacqueline Knight: Print Technician, Arts and Design, Camborne.**

University visits, April – August 2011 – making a choice for PhD study

The funding supported visits to seek out potential supervisors, meet programme leaders, and look at institutions with the intention to undertake a PhD in the 2011-2012 academic year. After initial research into suitable institutions offering practice-based PhDs and relevant research clusters, I narrowed down my visits to Kingston University, University of the Arts London (UAL), Brighton University, University of Glasgow and Edinburgh College of Art.

**4<sup>th</sup> May: University of the Arts London.** The British Artists Film and Video Study Collection at Central Saint Martins College of Art and Design is part of the International Centre for Fine Art Research at the University of the Arts London. Since I make moving images, and my work references early educational instructional film, this institution would provide an excellent resource and support network of leading scholars in this field. I spoke to research fellow Michael Maziere about the facilities and opportunities here.

**31<sup>st</sup> May: Kingston University research event.** The research community and collaborative potential within the Contemporary Art Research Centre (CARC) at Kingston offers a particular research cluster that matches my interests and research ambitions. The Hall of Records - Art and Epistemology cluster, has a synchronistic parity with my current practice and



the theoretical domain towards which my thinking is increasingly leaning. It was provisionally established through discussion with Sarah Jones that she would be a suitable supervisor should I secure a place after interview. After this visit I emailed a first draft of my research proposal and examples of my practice to try to establish second supervisor.

**2<sup>nd</sup> June: Brighton University** has a good reputation for running practice based PhDs at their centre for



research and development. During a meeting with Prof. Steve Miles it was suggested I might choose two supervisors from different discipline areas – ie curatorial/ museology and fine art. Possible candidates are:

- Sue Breakell - Research Interests: Archives, Memory, 20th Century British Art & Design, WWI, Museology, Research Processes
- Peter Seddon - Research Interests: Image/Text, Museological Interventions and Historiography
- Keith Tyson - Research Interests: painting, fine art, alternative practice, science and philosophy

Tyson's art is influenced by his pursuit of knowledge, and his fascination with scientific concepts and philosophical theories as a means of exploring the universe.

**12<sup>th</sup> August: The University of Glasgow** offers PhDs through the Graduate School of the College of Arts. The particular draw of this university was its resources and access to the holdings of



the Hunterian Museum and Art Gallery, as well as the close links and partnerships with the city's many museums. As my primary references are usually taken from archives these links would be helpful in gaining access and collaborating with important institutions and professionals. I met with Susan Howel and Jennette Berrie in charge of postgraduate research programmes to discuss potential supervisors, relevant research communities and the possibility of studying remotely from Cornwall. It was established that remote study was a possibility as there are no formal lectures or seminars and work is not formally examined until after the final thesis is submitted. Although the university has incredible resources and links to museums it was unclear whether there were staff with similar research interests in the field of art practice who could support my area of study.

**15<sup>th</sup> August: Edinburgh College of Art**, now part of The University of Edinburgh, offeres Research



degrees that are based on *independent study*. They actively encourage applicants to submit proposals that challenge and expand traditional approaches to research in creative practice, via innovative theoretical and/or practice-led methodologies.

Although I didn't get to meet with Postgraduate research staff here I did manage to visit the university site to see the facilities and also speak with principle curator Pat Fischer at the Talbot Rice Gallery, public art gallery to the University.

At this time, although Kingston is my preferred choice of institution, I am waiting to hear from two other suitable supervisors who are linked to other institutions. It is sometimes possible for these supervisors to be contracted by my chosen intuition but this is not guaranteed. In this case, it may be worth foregoing the resources and facilities at Kingston in favour of more suitable academic support.

The funding for these visits has been an invaluable part of the application process. Gleaning information from university websites is a one-dimensional process and is often out of date, inconclusive and frustrating to find. Meeting staff, seeing the institutions and facilities has allowed me to get a sense the suitability and the potential relationship with the people and place.



**James Kearns: Lecturer in Arts & Media, Camborne until September 2011**

**Annual National Council for the Training of Journalists Seminar – Public Affairs**

25<sup>th</sup> September 2009

On Friday 25 September I attended the Annual National Council for the Training of Journalists Seminar. We looked at local government finance and the current issues facing local government who cannot raise taxes, but face rising demands on social services. We also considered the concept of the so-called 'postal lottery' and the fact that it is not random chance (as the news might like to report), but different boroughs etc. acting according to political restraints and pressures. So, there will always be discrepancies when

national standards allow local discretion dependent upon the political complexion of the local government itself.

We also looked at Children's Services, which costs £40 billion per year and makes up one-third of local government's spend. We talked about the Climbie case and the arrival of the Children Act 2004 and the 'Every Child Matters' approach that we see today. In the light of this we also discussed the case of Baby P in the light of the Lord Laming Report and his fifty-eight recommendations. We also discussed the Children's Trust and their new guidance on the protection of children: that is, strategic plans and Child Protection plans.

We were fortunate to have Paul Francis as one of our speakers and he guided us through the Freedom of Information Act. The act has already been very well integrated in the news and has been generating stories, not least the MPs allowances scandal which turned on whether this information should be available to the general public and whether the House of Commons was a 'public body'.

We learned that Housing Associations, privately run prisons, all charities, train operating companies as well as the Utilities companies have all been ruled out and will not be caught by the Act. Jack Straw did not make a speech to the House concerning this and instead merely published his decision in the House library. Also on the agenda was the idea of 'public interest' when looking at Freedom of Information. It has been decided that public interest is a 'balancing act' and that openness itself is regarded as a good thing. I think that will allow us all to sleep easier in our beds!

The day was very informative, and I was fortunate to meet David Kett (NCTJ Board Member) who kindly sent me a great deal of very useful information that can be used in my lectures.



#### **Jamie Hanson: Course Manager, FdA in Graphic &\* Communication Design, Camborne**

1<sup>st</sup> – 4<sup>th</sup> June 2010; Study Visit – Design Museum Lisbon

Of all the museums and cultural centres that I visited in Lisbon of greatest interest was the Gulbenkian Museum, a priceless collection of artefacts arranged chronologically, starting with ancient Egypt and a small carved goblet from 1500 BC right through to a room devoted to the jewellery and glassware of the Art Nouveau sculptor Rene Lalique. A truly stunning collection, cleverly and sympathetically laid out in a building that stands out as a wonderful example of late modernist architecture.

The Modern Art Museum nearby, which is a part of the same complex, had a very interesting exhibition by the contemporary Portuguese artist, Jorge Barbi, as well as a permanent collection of 20 century paintings of mostly Portuguese or British origin.

Another interesting visit was to the Museum of Modern Art, Berardo Collection, in Sintra, a hillside town about one hour east of Lisbon. At the museum in Sintra was another fine permanent collection of European and American contemporary art, and on the upper floors the winners and runners up of the international newspaper cartoon of the year awards.

Other museums visited included; Design & Fashion Museum; Decorative Arts Museum; The City Museum.

I found Lisbon itself to be very large, very old, and surprisingly poor. There was a lot of graffiti on the walls of the splendid old villas in the city centre, and a lot of homeless poor wandering the streets at all times. What Lisbon did have in abundance was small cobbled side streets that would suddenly open out on to a hidden square, populated by purple flowering Jacaranda trees, lovely.

Thank you again for the opportunity to make such a fascinating and inspiring visit, which will feed directly into the coursework that I deliver over the next academic year.

## London Galleries

25<sup>th</sup> – 28<sup>th</sup> October 2010

I enjoyed another fascinating trip to London to view a variety of exhibitions directly and indirectly related to my practice as a graphic design lecturer.

At the Tate Modern I enjoyed both the permanent collection of modern art, and the special Gauguin exhibition. What was most interesting about the work exhibited was just how influenced Gauguin was by the very graphic style of contemporary woodcut prints being created in Japan at that time. In particular the very graphic way the Japanese artists used the 'page' to lay out both image and calligraphy.



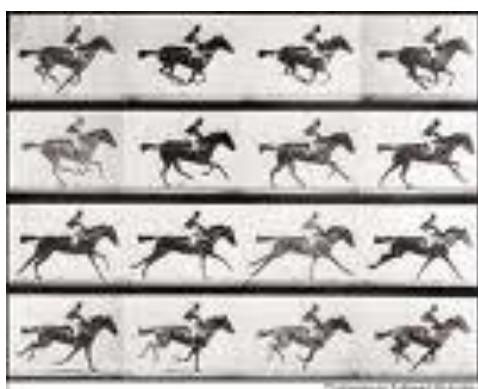
Te Arii Vahine. - Opoi  
(Woman with Mangos - Tired)

The Tate Britain was playing host to this year's Turner Prize shortlist. Much of the art exhibited was mixed media, including a 'soundscape' created by the Scottish artist Susan Philipsz, a room filled with the sound of her singing an old Scottish lament, the sound overlapping and then receding, creating a mournful rather contemplative space.



The artist Fiona Banner had created two huge installations, using ex-RAF jet fighter aircraft, one polished to the metal and 'crash landed' upside down on the floor of the gallery, the other, a Hawker Harrier, suspended by its tail from the gallery ceiling, its nose just hovering above the floor, the whole aircraft swaying slightly in the draught.

The most disturbing piece of work in the Tate Britain was a maze of enclosed offices and dark corridors created by the artists Clunie Reid and James Richards. All of the claustrophobic rooms looking like they had just been vacated by their owners, and consisting of old damaged furniture, strange exotic posters and objects. Rather like the offices of a late night taxi cab firm in deepest Mexico! Due to the confusing layout, and the deliberate replication of certain rooms, both myself and other visitors became completely lost and 'trapped' in this eerie and slightly threatening world.



Also at the Tate Britain was an exhibition of work by the photographer Eadweard Muybridge. His stop motion style of photography was a late nineteenth century attempt to study how human beings move their limbs when walking, running and jumping and also, perhaps most famously, he proved that a galloping horse can indeed fly - at certain moments when galloping, a horse is entirely off the ground. He is also famous for his vast photographic landscapes and cityscapes of the United States, a then emerging superpower.

I also paid a visit to a very crowded British Museum, to have a look at their new exhibition called 'The History of the World in 100 Objects' curated by Neil Macgregor , which is a direct tie-in with the Radio 4 series and book of the same name. It was particularly fascinating to see just how much background

information about the era in which the objects were created could be divulged from examining the objects themselves.

Once again I would like to thank the college for allowing me this invaluable opportunity to keep pace with what is new and contemporary in the art world. As with other HE Delegated Budget supported visits I have been on in the past, the exhibitions that I have seen on this visit to London will directly feed into the delivery of, and module briefs for, the Foundation Degree in Graphic & Communication Design, and my teaching in general here at Cornwall College.

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### **Patrick Lowry: Lecturer in Fine Art, Arts & Media, Camborne - 2009/10 Artists in Residency Programme**

BUILD artist residency has been successfully running since 2006 with two residencies a year, one in the autumn and one in the spring term. Each artist has, in support of their residency been awarded a materials and stipend budget of £600.00, the funding for which has come from various sources including Creative Skills, ProjectBase and most recently from the College via HE Delegated Budget.

This year, having reviewed the residency programme, we recognized that for the artist, student and schools engagement, running a single longer residency would be more effective.

We had 12 applications from artists to undertake the 09/10 residency from which we selected for interview a short list of 4. Alexandra Zierle was ultimately selected for the residency on the basis that we felt she would gain most from the opportunity and her proposed project offered some interesting possibilities for student and community engagement.

Alexandra proposed examining issues relating to displacement and immigration and would use a variety of strategies including interviews, ritual and performance, working with students and others in the local community to develop the project.

Alexandra made a good start to the project and had carried out more than a dozen interviews and in collaboration with students began to develop other aspects of the project before she unfortunately became ill and unable to continue. It was hoped she would be well enough to complete the project before the designated end date but this proved not to be the case. The demands on space and facilities in relation to assignments and end of year exhibitions meant that it was not possible to extend the residency.

It is particularly unfortunate that this was the first time we offered the single extended residency, had we kept to the 2 residency programme we would still had one completed project.

Because of Alexandra's illness we have not as yet been able to do a full review but it is proposed that representatives from the other partners, ProjectBase Creative Skills and myself will meet with Alexandra in the near future to assess what was achieved and to consider the future of the residency programme.

As the residency was not completed less than half of the allocated funds were used.

Despite the problems with this particular residency, overall BUILD remains a very useful initiative in many ways and it is hoped that it can be continued in the next academic year. What form this takes will to some extent depend on whether the partial failure of this residency affects what we do in the future and the availability of funding.

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### **Peter Grout: Lecturer, Photography, Arts & Media, Camborne Current Awareness**

9 – 12 April 2010; London Galleries

The itinerary below was followed:

#### **Friday 9<sup>th</sup> April**

Tate Britain

Henry Moore

## **Saturday 10<sup>th</sup> April**

Photofusion	Sight Unseen	Rachel Cunningham, Ellie Davies, Richard Kolker, Adrian Wood
The Little Black Gallery	Masterpieces	Terence Donovan, Patrick Lichfield & Norman Parkinson
Proud Gallery	Unseen Portraits	Paul Joyce
Hamiltons	Small Trades	Irving Penn
Estorick Collection	On the Move: Visualising Action	
Tate Modern	Van Doesburg & the International Avant-Garde	

## **Sunday 11<sup>th</sup> April**

Royal Academy	The Real Van Gogh: The Artist & His Letters
The Photographers' Gallery	Deutsche Borse Photography Prize Anna Fox, Zoe Leonard, Sophie Ristelhueber, Donovan Wylie
Whitechapel Gallery	Where Three Dreams Cross: 150 Years of Photography from India, Pakistan, & Bangladesh

## **Monday 12<sup>th</sup> April**

National Portrait Gallery	Exposures	Jane Bown
Association of Photographers	Portraits	Irving Penn
Atlas Gallery	Strange Shadows	Matt Antrobus & Camilla Broadbent
	Blackwater	Steve Macleod

Tate Britain's *Henry Moore* provided an opportunity to gain an overview of Moore's output in a variety of materials over his extensive career. Of particular interest were the Elmwood sculptures, surprisingly, his 2D work and the variety of ways of displaying the work in terms of lighting. The exhibition left me with an impression, not of his ideas on sexuality and connections to Surrealism, but of the darkness of his psyche, especially in relation to the traumas of war.



*Sight Unseen* was a particularly poignant theme for students of photography as it explored how shadow and darkness vie with the medium's implicit reliance on clarity and light as a vehicle to express ideas. Four M.A. graduates explored this theme in very different ways, but each created uncertainty and tension due to the absence of visual information. The exhibition provided much food for thought for possible assignments for my own students to consider a variety of approaches to their photography.

*Masterpieces* was a relatively small exhibition of three of the country's top fashion photographers, who created the defining images of the Sixties and Seventies with bold geometric compositions in black and white.

*Unseen Portraits* provided an opportunity to see images by an acquaintance who has photographed many literary figures as well as those connected to the film and photographic industry. There were many surprises and some alternative portraits of those featured in the National Portraits shows of Irving Penn and Jane Bown.

*Small Trades* also complemented the National Portrait's Irving Penn exhibition as it showed Penn's work from the early 1950s, where he used a fairly standardised studio setting approach to photographing ordinary tradesmen. It was this approach to taking people 'off the streets' which showed parallels with his famous studio still life photographs of discarded cigarette butts, similarly collected off the streets. The trades depicted have nearly all disappeared from our streets. Penn's approach to this set of photographs was entirely different from what was seen later at the National Portrait Gallery.



*On the Move Visualising Action* was the Estorick Collection's and curator Jonathan Miller's way of contextualising the Futurist's photography, but surprisingly did not feature much work of the Futurist photographers themselves. This is an area of particular interest to me as a way of exploring the differences between the way the camera records and the perception of the human eye. Reality is a perception and is never fixed. Photography began to reveal previously unseen aspects of reality and this exhibition explored

the work of Muybridge, Marey, Edgerton and Mili, covering the gamut from high speed 'stroboscopic' to long shutter speeds, demonstrating that photography occupies a position on the cusp of art and science. The exhibition successfully explored the links from eighteenth century equestrian paintings to long exposure photography and CAD modelling. Along the way, there were some excellent examples of photography and some inspired sculpture.

*Van Doesburg & the International Avant-Garde* demonstrated the central role of Van Doesburg in the network of ideas arising from a diverse range of artists and designers who desired to construct a new world with an interest in geometric abstraction. The exhibition explored the convergences and differences with artists such as Piet Mondrian, architects, and poets. Whilst Mondrian rejected van Doesburg's abstraction from external reality, it was insightful to see the latter's sketches showing the transition from reality into organised system of geometric blocks of colour, enabling interpretations to be made of abstracts entitled 'seated woman' and 'cow'.



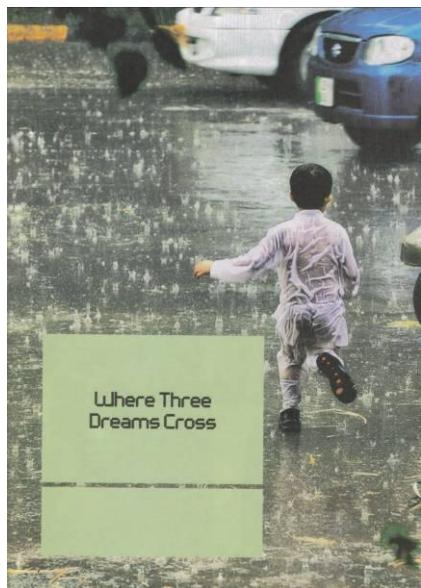
*The Real Van Gogh: the Artist & his Letters* sought to address the truth behind Van Gogh as 'the mad genius of popular myth' through the letters to his younger brother Theo, younger sister Willemien and his artist friends, including Emile Bernard and Paul Gauguin. It was also, of course, an excuse to assemble a vast collection of Van Gogh's work to attract the crowds. Unfortunately, this resulted in a disappointing experience; there were just too many visitors to the exhibition to enable any worthwhile appraisal of the work that had gone into the curation of the show.

*The Deutsche Borse Photography Prize* always provides a thermometer to what is going on in contemporary photography, almost like an equivalent to the Turner Prize. It rewards a living photographer of any nationality

'who has made the most significant contribution to photography in Europe' with a prize of £30,000. In common with some entrants to the Turner Prize, some of the four finalists rely on written concepts to justify their work, whilst Magnum's Donovan Wylie's images were much more explicit in their depiction of post-conflict Northern Ireland. The winner belonged to the former category, indicating the trend for the future.

*Where Three Dreams Cross: 150 Years of Photography from India, Pakistan, & Bangladesh*: 'sets out to challenge our received notion of India, Pakistan and Bangladesh as mediated through the eyes of the west. Here the view is exclusively from within.'

The idea of cultural diversity through the lens was a little disappointing in that most work echoed European practice and history. The show was divided thematically, rather than chronologically or geographically, into five sections: The Portrait, The Performance, The Family, The Street and The Body Politic. The exhibition covers the historical moment when the power of the camera shifted and it became a means of self-representation rather than a way of presenting colonial power and wealth. The show encompassed all the diverse and varied practices of photography itself as well as offering insight into the sub-continent, but the region's turbulent political history seems to have been very much underplayed.



One particular image that caught my interest was from the turn of the century of a colour tinted black and white print of a girl hand tinting a black and white photograph. The illusion was of seeing the girl's original tinting, which of course was the photographer's own interpretation of the colours. It predated the sort of playfulness of postmodernist photography.

The curation of this exhibition left one confused, despite the apparent clarity of the themes, it at times lacked coherence. I heard one visitor exclaim, 'I've got to get out of here, it's so garbled and confusing.'

The photography ranged from the common place to the exceptional, but it felt that everything had been thrown in as though it would be the only chance to show everything that the sub-continent had to offer.



*Exposures* was a small showing of a selection of the excellent Jane Bown's portraits of celebrities and notables, including her famous Samuel Beckett portrait and the 80<sup>th</sup> birthday portrait of the Queen (Bown running around in circles photographing someone who is younger than herself).



*Portraits* provided an opportunity to compare the work seen earlier in *Small Trades*, the cultural figures of Paul Joyce's *Unseen Portraits* and of Jane Bown's *Exposures*.

Apart from seeing how these figures responded to Penn's neutral, minimalist settings over seven decades, it was also a good opportunity to see his printing technique and use of platinum/palladium printing compared to current digital practices.

#### strange shadows

matt antrobus & camilla broadbent

association of photographers gallery  
private view: tuesday 13th april 6:30 - 8:30  
81 leonard street london ec2a 4qg 020 7739 6669  
mvp.kated@capphoto.co.uk  
7th - 16th april m-f 10-6



*Strange Shadows* was a joint exhibition of diverse approaches to the medium of photography. Matt Antrobus's fashion based images were described as a modern take on film noir and he used a restrained colour palette in complete contrast to Camilla Broadbent's saturated colour portraits and still life images. Her still life images explored painterly qualities of light in the fairly mundane subject matter.

*Blackwater* was a small exhibition of large format landscapes. 'Macleod uses the landscape as a vehicle to describe his state of mind' offered an interesting proposition coupled with his use of large format camera movements to assist in this interpretation. Unfortunately, what had great promise was rather disappointing with one or two magnificent exceptions. Many of his landscapes were fairly mundane, but the ideas have great potential.

#### Current Awareness

8 - 11 April 2011; London Galleries

The following itinerary was followed

#### Friday 8<sup>th</sup> April

National Portrait Gallery

Hoppe Portraits Society Studio & Street

#### Saturday 9<sup>th</sup> April

Wapping Project Bankside

Yohji's Women

Sarah Moon, Nick Knight,

Max Vadukul, Peter Lindbergh

Edel Assanti

Between Two Worlds: A Window Onto Contemporary

Photography From Latin America

Plus One Gallery

In Focus

Helmut Newton

Hamiltons

Selected Work

Ambika P3  
Blackall Studios  
Gallery Fumi

Deutsche Borse Photography Prize  
The Eternal Feminine Silvia Anguelova  
Let Me See Valentina Angeloni

### Sunday 10<sup>th</sup> April

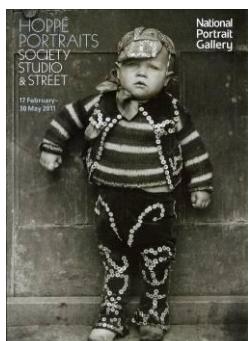
V&A  
V&A  
V&A  
Tate Britain  
Beaconsfield

The Cult of Beauty: The Aesthetic Movement 1860-1900  
Lifetimes: Under Apartheid; David Goldblatt  
A Flash of Light: The Dance Photography of Chris Nash  
Susan Hiller  
Fraternise

### Monday 11<sup>th</sup> April

Museum of London  
National Portrait Gallery

London Street Photography 1860 – present day  
Ida Kar: Bohemian Photographer 1908-1974



Hoppé Portraits Society Studio & Street as the title suggests, presented a cross section of the work of E.O.Hoppé that made him famous in the 1920s. Then, he was known for his portraits of the rich and famous, but he was relatively unknown by his death in 1972. I found his photojournalist work more intriguing than his portraits of the like of Einstein, Fonteyn, and many great literary figures. As curator Philip Prodger commented, Hoppé had “an unexpected and puckish sense of humour.” He had a modernist approach that was uncommon at the time. He was one of the first photographers to conceal his camera to obtain some of his photojournalist images. I found it a revelation to discover that the current fashion for women’s tattoos was evident in a Hoppé image dating back to 1931.



Yohji's Women coincides with the V&A exhibition of Yohji Yamamoto fashion designs. Paradoxically, the V&A's exhibition was, for some, a lifeless display of garments seen in 3D whereas Yohji's Women brought his creations to life in 2D by strong women and seven very talented international contemporary fashion photographers. It was refreshing that these photographers openly acknowledged the influence of other fashion photographers on their own style. Equally interesting was the broad range of styles adopted by individual photographers.



Between Two Worlds was an opportunity to see the work of a diverse range of nine South American photographers.

Of those, two Mexicans struck me as particularly effective; Oscar Fernando Gómez Rodríguez a taxi driver cum photographer who frames the everyday bizarre through his taxi

window; the other, Dulce Pinzón portrays migrant workers as superheroes with captions revealing how much they send back home to their families.



In Focus presented a collection of paintings by three artists who blur the line between photorealism and realism. The paintings were very like Photoshopped photographs, incredibly well crafted, but, I thought, artistically questionable.

*Helmut Newton Selected Works* was an opportunity to see some of Newton's lesser publicised images printed on a large scale and as such exploited the controversial nature of this internationally renowned photographer. To say more would be as explicit as his images.



The *Deutsche Borse Photography Prize* rewards a living photographer of any nationality 'who has made the most significant contribution to photography in Europe' with a prize of £30,000.

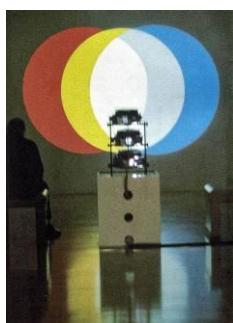
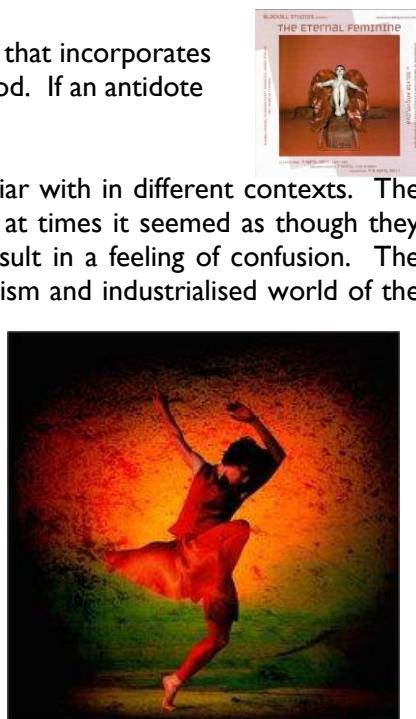
"Due to the breadth of the Award criteria, the jury felt that any one of the four nominees could have been the winner." This breadth results in fine art conceptual photography competing alongside documentary photography. The prize was awarded to Magnum photographer Jim Goldberg and so represented a swing in the opposite direction from last year's winner.

*The Eternal Feminine* could be described as hardcore, post feminist, work that incorporates religious symbolism, myths of mother, virgin, nature, oh, and a lot of blood. If an antidote to Helmut Newton's work was needed, it was provided by Anguelova.



*The Cult of Beauty* represented much of what we are familiar with in different contexts. The V&A is excels at this in their blockbuster exhibitions, but at times it seemed as though they had thrown in everything including the kitchen sink to result in a feeling of confusion. The movement itself is presented as a reaction to the materialism and industrialised world of the end of the 19<sup>th</sup> century.

*A Flash of Light: the Dance Photography of Chris Nash* is virtually unpublished and hidden away from the general visitor to the V&A beyond the jewellery in a performing arts section of the museum and is a gem that is well worth seeking out. Nash brings a catalogue of technique and inspiration to convey the artistry and energy of dance. The prints are captioned with information about the thinking behind the creation of the images as well as the techniques employed. Together with a behind the scenes film of his work, Nash comes across as one who is a master of his craft with more artistic integrity than many with a refreshing nothing to hide approach to showing his work.



*Susan Hiller* "It has taken decades for this American artist to grow out of her wordy cleverness – and the terrifying results have been more than worth the wait" (Charles Darwent, *The Independent*). I couldn't agree less! This exhibition was everything that contrasted with Nash in that it was overblown, self obsessed and a thorough disappointment. The exhibition contained ideas appropriated from others as well as recycled works of Hiller's that resulted in a meaningless vacuous display. On the other hand, if questions such as 'Where does the image go when a television is switched off?' and 'What happens to a painting if you unravel its canvas?' are seriously going to occupy us, then Hiller doesn't necessarily provide the answer, but this has been her inquiry for 40 years now.

*London Street Photography 1860 – present day* was an excellent exhibition on several counts; it provided an historical insight into the changes of life on London streets over the stated period; it showed how the recording of images changed with the evolution of the technologies available; and it effected brought to mind how photographers made the cultural changes from pure documentary to photojournalism i.e. expressing a view, to the more recent change to a fine art sensibility.





*“Street photography is not easy to define. It is a happenstance type of picture that pivots solely on the talent the photographer has for plucking chance frozen moments, seemingly from nowhere.”* (Lucy Davies, The Telegraph).

The exhibition brought together images by 59 photographers, including some outstanding photographers such as Wolfgang Suschitzky, Bert Hardy, George Rodger, Roger Mayne and Tony Ray-Jones. The still images were punctuated by video clips from different periods that cleverly supported the photographic prints. The ubiquitous surveillance culture, the decline in the status of photographers following the death of Princess Diana, and the arrival of Google street, “have conspired against this particular tradition of photographer lurking on street corners.” (Lucy Davies). This exhibition shows us many good reasons why it must continue.

Three of these exhibitions have already proved beneficial in supporting student projects: Between Two Worlds, A Flash of Light, and London Street Photography.



### **Sovay Berriman: Lecturer - Fine Art, Arts & Media, Camborne until July 2010**

### **Glasgow International Festival of Visual Art**

15-19 April 2010

Glasgow International (GI) takes place every two years. Over the time it has been running many developments have occurred in the UK and International art scene. I first visited the festival in 2006 and can see the evidence of these changes on the GI in my recent visit four years on.



We have a growing number of regular contemporary art festivals across the UK, including Art Sheffield (yearly), Whitstable Biennial, Folkestone Triennial, Liverpool Biennial and Glasgow International (biennial), British Art Show (five yearly) and we have Zoo and Frieze annual art fairs. All of these events have changed the face of the British contemporary art scene; very often international artists, curators and writers are invited to take part, this brings international dialogues and debates to the regions of the country, rather than individuals always having to travel to a centre. This in turn seems to inspire the activity of artists in those areas to initiate and develop their own projects, exhibitions and events; their work will have a greater visibility to a larger audience.

Of the contemporary art festivals mentioned above, there has been an interesting development of ‘top-down’ publicly funded, institution-led, curating and organization, that is often accompanied by more independent and artist-led activity. Particularly in Liverpool this often smaller scale activity is publicised through its own identity and platform<sup>9</sup>; similarly independent activity is encouraged by the British Art Show at each of its tour stops, but is not delivered by it. The GI however presented all visual arts activity taking place in the city at the time of the festival under the same umbrella. Therefore established galleries such as the Centre for Contemporary Art (CCA) and Tramway shared a public platform with younger independent spaces such as Washington Garcia, an independent commercial space, and Le Drapeau Noir, a temporary project space recreating a philosophical left-bank bar. There was a real vibrancy to the festival; I think this energy is in part due to this broad platform. Artist-led activity with its lighter weight bureaucracy and lessened responsibility is traditionally more energetic, which is why many weightier institutions are tapping into it, see Tate Modern’s No Soul for Sale<sup>10</sup>, an event showcasing artist-led and independent groups and galleries from across the globe. Glasgow has a strong and established artist-led tradition; spaces such as Transmission are seen as exemplars in the artist-led scene, their model for membership and generational turnover of directors being copied throughout the country. This unity and strong national independence of

<sup>9</sup> <http://www.independentsbiennial.org/>

<sup>10</sup> <http://www.nosoulforsale.com/2010>

the London scene certainly adds to the success of what is, in a sense, a Scottish national festival, rather than simply another British biennial.

The GI did not present the broad range of large outdoor public realm commissions often associated with biennials; an exception was Susan Philipsz' *Lowlands*, a mournful song played over the Clyde; Susan Philipsz has been nominated for this year's Turner Prize<sup>11</sup>. Other interesting works and locations for me included Fiona Tan's *Tomorrow* (2005) presented at the Gallery of Modern Art, David Noonan's installation at The Mitchell Library and NVA's *Witte Fietsenplan* (White Bike Plan)<sup>12</sup>, a project that loaned white bikes to visitors of the GI to use as transport around the city.

The GI demonstrates a confident and ambitious art scene that is comfortable presenting its own native artists alongside those invited from around the world. In my view it has in 2010 presented a festival that sits above other biennials currently active in Britain. Given the recent discussions around Manifesta and the visit of British Art Show to Plymouth in 2011 it is interesting to see how Glasgow has developed a successful festival beyond London. Perhaps the far south west may be able to do the same, next weekend's Falmouth Convention is certainly challenging enough to be a beginning, but the independent activity must not be forgotten. Sharing a platform in Glasgow has certainly paid off.



### **Stephen Howard: Course Manager, Animation & Multimedia, Arts & Media, Camborne Killing Cancer Animation Competition**

12 March 2010; London

I travelled up to London on 12<sup>th</sup> March to represent my students at a nationwide animation competition sponsored by Killing Cancer. They are trying to promote the use of PDT – Photo Dynamic Therapy - and make the public and hospitals aware of the treatment. They are also trying to raise funds.

The event was held at the Frontline Club with a distinguished panel of judges:

- Michael Pool – senior Executive Producer BBC Bristol
- Matthew Wright – TV Presenter
- Kris Tait – former Tyne Tees Editor
- Nicholas Uff – Animator
- David Longman – Chairman Killing Cancer
- Richard Gillespie – Formerly Marketing Director and Trustee of Young Music Makers

The event started at 10.00a.m. with a speech from Richard Gillespie outlining the events of the day and why we were there. He quoted that Marion Lloyd-Langton had approached 45 Universities/Colleges in the UK in March last year with the idea of running an animation competition. The brief was for students to produce a 2-minute animation synced tightly to a 2-minute edit of a single PDT - Photo Dynamic Therapy. The single was written specifically for the Killing Cancer charity by Huw Lloyd-Langton (Hawkwind). All showed interest when the final brief was delivered at the end of July.

26 Universities/Colleges registered for the competition, with a total of 360 students signed up and starting work on the project by September. By Christmas 10 Universities had pulled out for varying reasons. Some wanted to extend the deadline from March to July, while others said the students were finding it hard to fit the work in with other academic commitments. By mid-February 6 more had pulled out, saying the students' work was not up to a suitable standard for submission or that they couldn't meet the deadline. The 10 remaining contestants (some 60 students) made the deadline. It was a tough brief and pure dedication from these students got them there.

Screening began at 11.30 a.m. with each team of students or Course Manager giving a brief synopsis of what the animation was about as well as the design process. I talked about my students from the FdA Animation course and described the work Jonathon Rudd, James Yeo, Eleanor Adkinson and Roxanne Barber carried out to complete the animation on time. It was great to see what other colleges had done with the

<sup>11</sup> [http://news.bbc.co.uk/1/hi/scotland/glasgow\\_and\\_west/8659706.stm](http://news.bbc.co.uk/1/hi/scotland/glasgow_and_west/8659706.stm)

<sup>12</sup> <http://www.nva.org.uk/new-projects/witte+feitsenplan+white+bike+plan-24/>

competition brief and to view the standard of work. Overall I was very pleased with the quality of the work from Cornwall College compared to many of the other competitors. After each screening there was a silent process allowing judges to fill in their mark sheets and discuss briefly what they had seen.

After the screening everyone went to lunch whilst the judges argued the case for each animation before narrowing down the field to eight. During lunch I met up with some of the students and tutors to discuss how they did some of their work and to find out how the tutors and course managers ran their courses. I also chatted with Marion and her husband about the marketing of the campaign and the competition.



At 2.30 p.m. everyone reconvened in the Frontline Club for the awards ceremony. Each runner up was shown again with in-depth comments from each judge. The top prize of £5000 was awarded to a team of three students from UWE Bristol. Seven runners-up were awarded the Adobe Premium Suite. The remaining eight teams of finalists each receive one year's subscription to Spotify. We were told that the winning animation, along with the runners-up, will be included on a DVD to be given away free with Huw's new album "Hard Graft". The animations will be show-cased on a dedicated website on the release of the album. There will be local and national press coverage.

After the awards ceremony I chatted with all the students and various course managers to investigate their curriculum and how they taught various modules. I also chatted with Marion about how the awards ceremony would be covered for marketing purposes. The rest of the day was taken up with sorting our permissions for software etc, and taking photos for the press and website.

Overall it was an extremely worthwhile trip. I learnt a lot about our competitors who are teaching animation and the standard of their courses and students. I felt very pleased after the event, as I think the quality of the courses here at Cornwall College is very high.



### **Suzy Sharpe: Programme Manager for Fine Art Practice, Camborne**

18<sup>th</sup> March 2011: Exhibitions in London including Newspeak – British Art Now, Tate Exhibitions and BAS7

This was a very productive trip, which I feel has greatly enhanced my knowledge and understanding of the most contemporary British art on show in London. I feel that it will equip me with a broader range of artists that I can suggest to students to contextualise their work both written and practical.

The Newspeak exhibition at the Saatchi gallery brought together a large selection of pieces of work both 2 and 3 dimensional from a varied group of young artists, the oldest of which was born in the late 1960s. This is especially important as we were able to see the influences of other artists within their work, which will be very useful when discussing with students the development of a personal and unique visual language. The gallery also had a selection of works which had been selected by the public on the galleries online website from their showdown competition, this is a free and very accessible competition that students can enter, giving them vital experience of professional practice.

The Tate exhibitions were very broad based and all encompassing again, a great way for me to engage in contemporary and historical art practices in all disciplines. In terms of work based learning the Tate galleries have a number of schemes whereby students can volunteer to work within the galleries and their education programmes. I am now able to return to my students with first-hand knowledge of the positions which may be available to students if they chose to explore opportunities outside the county.

The BAS7 show will be particularly interesting when I visit the Plymouth show during the Autumn term, I intend to take students to the shows in Plymouth so that we can compare differences and similarities. I have had further discussions with Phil Power our link tutor about involving the stage 2 students in the constellation project for which Plymouth University is currently trying to obtain funding. We have decided

to use some of the themes from the BAS7 show such as “parallel realities” and “Orbits” as themes within a number of modules next year. It will be valuable for us to be able to show students images from the show and provide contextual references for them to research.

The time constraints did not allow us to visit all of the exhibitions currently on show in London; however I feel that I saw the most valuable of them for my own professional development. My enhanced first had knowledge of contemporary fine art practice will undoubtedly feed in to my teaching practice, professional practice and benefit students.

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### **Val Ashby: Course Manager, HE Arts & Media, Camborne**

Report on the Pairings conference, Manchester Metropolitan University, 12<sup>th</sup>-13<sup>th</sup> May 2011

The aim of this conference was to examine issues arising from collaborative art practice. In part, this was sharing experience and reflection centred round interdisciplinary collaborative projects undertaken by MMU staff as part of the Pairings project.

Talks and events were structured over two days to include themes of collaboration between artists, across arts and science disciplines, with institutions, and in educational and cross cultural settings. Talks were interspersed with opportunities for collaboration and discussion between participants, facilitated by a group called the Map.

I found this a stimulating and generous experience. Much of what was discussed seemed directly applicable both personally and to HE practice at Cornwall College, particularly in light of the new FdA course and the opportunity we have to incorporate new models of practice.

Some of the points which I found particularly interesting included:

1) Positive gains from collaborative practice for collaborators including

- allowing ideas to be tempered in a forum
- end results that could not be achieved as an individual and that are greater than the sum of their parts
- the creation of interdisciplinary “spaces” for reflection and dialogue
- a loosening of personal identity to allow greater playfulness
- experience of “the ephemera of another practice” and broadened knowledge.
- a greater interdisciplinary understanding between teaching colleagues leading to wider connections and opportunities for students

2) Collaboration as a subversion of established art world/gallery practice which is based around the importance of authorship and the final outcome.

3) Different modes of collaborative engagement:

- numbers of collaborators – three was found to create a particularly successful dynamic by some collaborations around artefacts or in particular spaces (e.g. museums, gallery spaces)
- different combinations of participants including artists, scientists, anthropologists, curators
- long distance collaborations
- collaborations over varying lengths of time
- with or without an end product
- with attributable parts or where ownership cannot be unravelled at all

4) Factors in successful collaborative practice

- time for the building of trust and a working relationship as well as the acquisition of knowledge and the gestation of ideas
- the building of collaborative dialogues based on strong personal monologues
- good communication in the sharing of practice and reflection
- choice of collaborators – good personal relationships and points of contact

5) Communication between collaborators. Use was made by speakers of blogging and skype particularly when collaborating at a distance. The success of this was mixed but had been useful in some projects, including in an educational setting.

6) Challenging aspects of collaborative working: risk, communication, authorship, trust

7) The potential of spaces to inform students' learning and practice by making them the focal point of collaboration and interdisciplinary exchange. This was discussed through the experience of students at St Martin's where groups of 7 students were given a week to make and exhibit a collaborative exhibition in a particular space on an on-going basis.

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### **Wendy Wilbraham: Programme Manager, FdA Contemporary Ceramic Practice, Camborne** Victoria and Albert Museum, London; 17 – 19 February 2011

As a Crafts person and Maker this was a particularly pleasing excursion; there is an enduringly constant debate concerning the art/craft divide; central to this discourse is the craft person's engagement with materials, the domestic scale and its reference to traditions and its own histories.

Grayson Perry uses the metaphor of crafts existing in a lagoon as opposed to fine art being on the open seas! The Arts Council England definition of contemporary fine craft is – “Contemporary craft work that is cutting-edge and ensures the highest standard of workmanship. Work that must not seek to reproduce or restore, but rather must be innovative in its use of materials and aesthetic vision. Work that not only reflects the signature of the individual maker but also demonstrates the investigation of the processes and critical enquiry”.

My enquiry and research took me to a variety of locations that endorsed this forward looking aesthetic. The now complete V&A ceramic department takes the viewer through an overwhelming history of ceramics, much held within the vitrine, from stone age to 2010, testimony to clay as the vehicle for society's development through the glory of an industrial past, the period of colonialism and the resulting stylist influences of the aftermath, the philosophy of the arts and crafts movement, modernity and now in the era of post-modernism where the multiple and the deconstruction of industrial ware is a signifier for cultural shifts, using domestic habits as the barometer. Interestingly, the current ceramicist in residence, Karen Dowling, made works which remain unfired and, at the conclusion to her exploration, will be reconstituted and hence recycled.

The Marsden Woo, positioned in the eclectic northeast of London between city and media land, is a serious, self-effacing medium sized white spaced private gallery; it specializes in applied arts, mostly ceramic related, and, if you are fortunate, they are happy to show the behind the scenes collection which documents the transition between the craft/art divide. Glenn Adamson, Deputy Head of Research and Head of Postgraduate Studies at the V&A, has been a vivid contributor to their initiative 'In Conversation' series of artist talks.

Their collection sways between those who chipped away at the boundaries during the eighties - Gordon Baldwin, Brian Ilesley, Carol Mc Nicoll, Allison Briton - and the new generation of ceramic artists such as Sara Radstone, Dawn Youall (current arts foundation fellowship award) and Nao Matsumaga. As a gallery they are keen to educate and nurture.

The Tate Modern has made a particularly loud statement in favour of ceramics and craft by the installation of millions of sunflower seeds by the artist Ai Weiwei. Each is a small work of art with each having been individually sculpted and painted; working in small scale workshops, the realisation of hundreds of skilled makers, it amplifies the traditional methods of craft making in the geopolitics between cultural and economic exchanges taking place today.

Gabriel Orozco responds to locations and observations using a myriad of materials. His prolonged investigation is in part catalogued by photographs which act as a key to reading the works. He used clay to comment on the human condition, the forms adhered to daily processes within the ceramic studio. A

reminder that clay and craft is about remembering that art is seen, felt and heard as well as understood, knowing that not all ideas start with words; thinking with hands as well as head.

The RA had a room dedicated to ceramics and the influences it had upon a material based investigative period as part of British Sculpture in post war Britain. It was appropriately positioned and rare for ceramics to be exulted.

My conclusion was that whilst the debate continues craft and clay has become 'a house of many mansions' in the new order of a post-modern society, consumer led expression has led to an acceptance of craft and design as a valid partner to fine art as this auspicious placement of craft and ceramics demonstrates!

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## **Health and Social Services**

**Caroline Parker: Programme Manager, Health and Social Care, Camborne**

**RCN Assistant Practitioners Conference – "Making sense of the assistant practitioner and apprentice roles"**

8<sup>th</sup> October 2010; the Metropolitan Hotel, Leeds

This conference was delivered by the RCN and was an event to learn about the successes and challenges of preparing assistant practitioners for the future. It was an opportunity to listen to new ideas and explore the possibilities for this new workforce. In addition there were presentations on apprenticeships and how these might be included in the challenges for work in the NHS and private sector.

Having been involved with the FdSc Healthcare Practice for nearly 3 years, and having seen 2 groups of APs graduate, it is an essential element to my professional development to be aware of the emergence of these new roles in the health workforce. There were speakers from Manchester, which is where the first Foundation degree was taught to Healthcare assistants; this has therefore meant that the role has become more established in the North than here in Cornwall, and many of the lessons in integrating this new staff group into the workforce were shared in the conference.

It was informative hearing the workforce development managers in this area talk about strategic plans for the AP roles and how the FdSc Healthcare Practice is a fundamental course of all APs. The development of Band 4 posts within health is now well established and many lessons of how this has been achieved were described by managers and APs themselves.

The workshops were on a diverse range of subjects such as: developing practice through networking – there is now an AP network to which I have subscribed since attending; the difference between change and transition issues for the introduction of new roles – ideas from this will be taken to the employers' forum, and recruitment and retention of support workers. Much of this is relevant to our students who are in College one day a week and at work (related to the course and subject to achieving competencies). Retention and achievement is critical in the workplace but is also critical in the College environment.

The conference overall was well attended with a wide range of delegates from all areas of the country, which has significantly improved my network. In addition there were a number of people who run or lecture on similar foundation degrees and it was extremely useful to share ideas and compare experiences.

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**Dr Deborah Phillips: Programme Lead and Lecturer for Social Work, Camborne**  
**Critical Disability Studies Conference - 'Child, Family and Disability'**

28<sup>th</sup> April 2010; Manchester Metropolitan University

As with the previous year's, Manchester's conference in 2010 was again an EXCELLENT event! The conference is well organised, informal and friendly. It also consists of a range of delegates from different backgrounds and provides an opportunity for Masters and PhD students to present their on-going research

to a lively and supportive audience. The event was somewhat less well attended than in previous years due to the volcanic ash which restricted flight zones and air travel. As a result, some of the international delegates were unable to attend - Professor Rannveig Traustadottir from the University of Iceland being one of them. However, this did not deter from the dynamics of the conference and I suggest more time was spent catching up with old colleagues, getting to know new people just coming into Disability Studies and networking.

The morning session started with a welcoming introduction from Professor Dan Goodley and Dr Katherine Runswick-Cole, both from Manchester Metropolitan University. They then presented their work-in-progress research on 'Disability Hate Crime'. This is an increasing and worrying phenomenon in the UK. Cornwall in particular has seen a sharp increase in this criminal activity which specifically targets disabled/learning difficulty children and vulnerable adults. Their research is not yet completed but I suggest it will make a vital contribution to a number of disciplines and policy related institutes as well as Disability Studies. Following this Professor Traustadottir transmitted her presentation via a video conferencing system. This worked extremely well and inspired me to find out more about 'communicating internationally' by this method. It could work well for the forthcoming (hopefully) Masters in Disability Studies I am hoping to set up. Rannveig's paper was interesting but as we discussed later, the research in Iceland did not really bring up any 'new' ideas on Children, Family and Disability.

The afternoon consisted of two parallel sessions with presentations and then a final lecture: 'Re-visioning and re-telling family: Othering and recognition in the lives of families being seen by paediatric genetics' by Dr Janice McLaughlin, University of Newcastle. My colleague, Elizabeth Ellis attend one of the sessions and me the other. This was to ensure we could cover and gather as much material as possible. The presentations varied in content and context but overall were informative and related to the key themes. The highlight for me was the presentation given by Janice on her recent research with disabled children, their families and paediatric genetics. Again this is work-in-progress but promises to be original and maybe 'groundbreaking' study.

One of the reasons Elizabeth and I applied to attend this conference was to bring some of this 'knowledge', i.e. practice and policy based issues, new or emerging theoretical perspectives and underpinnings, recent research and investigations etc, back to Cornwall's staff and students. This information is relevant to the Social Work degree, and also Health & Social Care degrees. However, this year a new Foundation degree in Childcare and Childhood studies is starting in September. We have already made arrangements to produce a one day seminar for students and staff on this degree and will also be including other students from the FE sector who are studying Children/Childhood related topics. We see 'Disabled Children and Families' as being an essential part of these courses as well as embracing students from FE into HE and academic activities at an early stage. Manchester University have supplied us with the PowerPoints delegates used during this conference. Our intention is to use these slides (of course we will acknowledge the authors) as a template for debate as well as introducing our research related activities to the relevant themes.

Finally, we have been asked to present at next year's conference and invited to forward any favoured themes to the organisers. A research proposal - between Cornwall, Plymouth and Manchester - on 'Theory in the Community' is also in process.

### **Disability and Public Space Conference - Paper presented by Elizabeth Ellis and Dr Deborah Phillips**

28-29 April 2011; University College, Oslo, Norway

#### **'A disabling invasion? The impact of tourism on disabled peoples' spaces, places and rural environment'**

This was an excellent conference and an enjoyable visit to Oslo which in turn provided some insight and preparation for our forthcoming (September 5<sup>th</sup> – 10<sup>th</sup>, 2011) ERASMUS exchange visit. The conference itself was well organised with an impressive line up of Keynotes and other speakers. An interesting addition to the usual format of presentation was the introduction of a 'Discussion' session immediately following the Keynote. The participants of this session had obviously read the publications of the Keynote and came prepared to 'discuss' this work.

At first I thought this an excellent idea and made note for our future conferences/events. However, on reflection, I am not sure how well this worked. Some of the participants used this time to broadcast their own ideas and work as opposed to engaging, critiquing and responding to the subject matter in hand. Nonetheless, it was interesting and overall the conference content was superb.

It was particularly enlightening to have two USA Professors: Rosemarie Garland Thomson and Susan Schweik presenting as the Keynotes. As the focus of the conference was on 'Public Space' both provided intriguing overviews of who can and who cannot enter these spaces and places (underpinned by policy and legislation); who can be 'stared at' and who can be the 'starrers'. These publications: 'Staring – How we look' by Thompson and 'The Ugly Laws' by Schweik are already on our reading lists for the next academic year. In addition we have recommended these readings to current level 3 Social Work students and staff on the BA Counselling and BA Social Work degrees. The themes and issues they embrace are highly relevant for the service users/carers and clients whom we work with. A particular concern raised by Professor Susan Schweik is the attempted 'revival' of the 18<sup>th</sup> century Ugly Laws in the USA today. In the state of Portland, Oregon a policy draft plan on 'Side Walk Management' is now going through the legal procedures. If this becomes legislation the Act will not only restrict the movement of 'some people' i.e. disabled, homeless or beggars but could set a legal precedent for the rest of the United States.

Once again the attendance at the Conference evidenced how diverse and interdisciplinary Disability Studies are now becoming. It was interesting to discuss disability issues with academics and professionals from the Built Environment, Engineering, Public Health and Architects/Housing. Professor Rob Imrie from Kings College, UK gave an inspiring paper on 'Regulating Design – Disability and the City', which had direct links to our presentation but as a contrast to the 'rural environment'. Indeed our paper was well received along with excellent feedback and advice. We have already been in contact with a number of the delegates who are supporting us and encouraging us to work the presentation up for publication.

On a political note it was fascinating to listen to Michael Rasell's (Lincoln, UK) account of 'Everyday Uses of Urban Space by Physically Disabled People in Russia' What was perhaps surprising – as he well documents – is that with the demise of the 'old' Soviet Block disabled peoples voices, in the form of a politically based Disabled Peoples Movement is NOW emerging in Russia. This is characterised by a focus on 'Citizenship', the adoption of Capitalism and a retraction from the former Welfare State. It seems that under the previous (Socialist?) rule disabled people were not acknowledged as citizens and thus segregated and isolated in institutions. In effect, consumerism and capitalism have open up a 'space' for disabled people to become politicised. Apparently the first meeting of the Movement took place in a McDonalds in Moscow as it was the only public building with appropriate 'disabled access'.

Finally, we also used this opportunity to network and met up with colleagues from the UK and the States. It was especially good to renew acquaintances with the University of Lancaster team and provided time to discuss and even to prepare our forthcoming Disability Conferences i.e. Cornwall in October 2011 and Lancaster September 2012. We also discussed the forthcoming Masters Programme in Disability Studies as well as planning the ERASMUS exchange this coming September.

This was probably the best Conference I have attended for some years. I returned inspired, motivated and with lots of information to pass on to our students and staff members. Part of this paper will be presented at the Camborne Research Day on 22<sup>nd</sup> June and I will take this opportunity to publicly thank the College for supporting me in this venture as well as highlighting how research and scholarly activities are so important for our learners and staff members.



**Liz Ellis: Sessional lecturer, Faculty of Health and Social Care, Camborne until October 2011  
Critical Disability Studies Conference: "Child, Family and Disability"**  
28<sup>th</sup> April 2010, Manchester Metropolitan University

The conference this year was less well attended because of travel disruptions due to the volcano eruption in Iceland. This was a great shame because many of the presentations were very interesting and a larger audience would have perhaps resulted in greater discussion of many of the themes presented.

The opening presentation was by Prof Dan Goodley and Dr Katherine Runswick-Cole of MMU on the subject of 'Disability Hate Crime'. Last year, I got into a discussion with Mike Shamash about hate crime and we rather disagreed with each other. Mike works for a DPO in London and is very much involved with hate crime and I took a rather pragmatic view that 'crime is crime', it makes little difference whether the person is black, disabled or female, a crime is traumatic. Goodley and Runswick-Cole's presentation of their research has made me reassess this view considerably. Aside from the complex theorising which has incorporated the work of Zizek, there was a clear and unequivocal explanation of how and why hate crime exists and is important.

For me this was a bit of a 'light-bulb moment'. I now feel able to clearly explain how hate crime works to students, something I found difficult before because I was previously unconvinced. I'm also very excited about how they used Zizek's theories in relation to this issue.

The next presentation was by Prof Traustadottir via internet video conference. This presented research on childhood disability and looked at the 'sociology of childhood'. I found this interesting because the research pretty much made the same conclusions that I did in my undergrad research, which is that families can be overly protective, children are under constant adult surveillance and that disability becomes their 'master status'.

The next sessions were split into two different groups. I attended the 'parents and children' sessions. The first of which was Mahmoud Emira looking at perceptions of trust by parents in accessing services for their children. I thought the methodology was interesting although I thought that there could have been better theorising around the findings.

The second of the panel sessions was Nadia Von Benzen a PhD student from the University of Manchester. Her work was ostensibly looking at how the natural environment was accessed by children with learning difficulties, but the main theme was about how parents cannot be relied upon to speak on their children's behalf. This elicited some very lively discussion around what is 'true' and whose truth are we talking about. The presenter was very much challenged on her assumptions about what the lives of disabled children are like and about the privileging of her interpretations of the 'truth' over the parents' interpretations.

The next panel sessions looked at creativity, starting with Coralee McLaren's analysis of children's movements in the classroom which took a Deleuzian perspective by rejecting the mind/body split and linking in movement with expression and communication. This was interesting not just in terms of how it impacts on disabled children, but also on able-bodied children and I particularly liked the clear discussion around Deleuze as a theorist with whom I have been struggling to get to grips.

The final panel session was by Nicola Grove, a former SALT and now working with people with learning difficulties in the capacity of a 'storyteller'. This was a master-class in how to engage an audience but more pertinently it looked at ways of teasing narratives out of people with profound intellectual impairments, which is an area of specific interest to me, given my own research is based on narratives by people with learning difficulties.

The final plenary session was Dr Janice McLaughlin's overview of her work in progress around paediatric genetics and the impact that genetic advances are having on family units. It was very complex and I struggled to understand some of it, but it is clearly very original. It will no doubt feed into not just the sessions on Childhood and Family that will be part of the forthcoming MA in Disability Studies, but also would be relevant (in a perhaps more simplified form) for the FdA in Childcare and Childhood Studies.

## **Disability and Public Space Conference**

April 28<sup>th</sup> and 29<sup>th</sup> 2011, University of Oslo

The 2011 Oslo Conference was outstanding due to the quality and caliber of presentations and the resultant feedback that resulted from the presentation Dr Deborah Phillips and I gave. In terms of presentations, the keynote speakers were first class. Rosemarie Garland-Thomson gave a carefully detailed account of her work on staring and contextualized it within the civil rights process and, more critically, situated it within the idea of the freak show, which she termed as the 'labour of disabled people'. Her theorizing in this area ties in well with the performance work of Mat Fraser, scheduled to be our keynote speaker at the forthcoming Cornwall Disability Conference in October.

The second keynote was Prof Susan Schweik of Berkeley University whose presentation was around the so-called “Ugly Laws” in US policy. Schweik demonstrated how these laws galvanized the burgeoning disability rights movement in the 1970s and illustrated how poverty and disability were intertwined, because although the laws were directed at ‘unsightly’ people, these were the people who had no access to domestic or commercial spaces. The discussions around ‘fake’ cripples and the way that asylums were situated outside the city have echoes in both my PhD studies and in the research Dr Phillips and I were presenting. Another area which also ties in with our research is how the new “Sit/Lie” laws are again forcing poor and disabled people off the sidewalks and into the curb, but this time using the Americans with Disabilities Law to exclude poor and disabled people from the public space. This had reflections in the data that we collected with respondents who described being forced into the road by tourists.

The third keynote was by Prof Rob Imrie, of King’s College, London, who gave a clear but in-depth discussion around the differences between universal design and accessible design and critiqued both concepts fully. As a human geographer, Imrie has a very different approach to the issues of disability access and also the whole notion of how different spaces including rural ones, impact on disabled people. We were very pleased that Imrie specifically came to see our presentation and we are now in conversation with him about our research and how it both supports and challenges other research out there. Prof Imrie is also pointing me in the direction of literature on urbanization and mental health, which will help me in doing my literature review when I write up the research for publication.

The panel presentations were wide and varied, with some interesting contributions from architects and Professors from Gallaudet University in Chicago which greatly enhanced my understanding of the many issues Deaf people face and made me far more aware of their culture than I had been before.

I think the panel presentation I enjoyed the most was by Prof Patrick Devlieger from University of Leuven in Belgium, who discussed his research in Kinshasa and Brazzaville. As well as being very interesting, Devlieger also introduced me to two new theorists, Auge and Walter Benjamin and gave clear explanations of the way modernity created alienating experiences for many disabled people, especially in what he termed “non-spaces”. This strongly links into my findings in my research and so I was immensely pleased when Prof Devlieger, along with Prof Imrie specifically came to watch our presentation and show such interest in our work. We intend maintaining these links with King’s College and the University of Leuven academics.

I think it is very clear that attending the conference has been extremely worthwhile. It has not only greatly enhanced and expanded my knowledge, but it also has brought the work we do here at Cornwall College to an international audience. The fact that the research we disseminated has interested two very high profile and eminent academics Like Prof Imrie and Prof Devlieger can only serve to enhance the reputation of the college.

On a teaching practice level, because we are now aware of new research, this will be fed back to the students. My own enhanced knowledge and understanding of new theories and ideas will obviously improve my teaching practice. More crucially, it means that students will actually be able to reference the work we did in their own work, as conference presentations may be used as reference material. Finally, I would like to say none of this could have been possible without the funding for the research itself and for the funding to attend this conference in order to disseminate the findings to a wider, international audience. I don’t think we should underestimate the impact conducting research and attending conferences like this has on both the students who participate and the reputation of Cornwall College.

## **2<sup>nd</sup> Critical Disability Studies International Conference: Theorizing Normalcy and the Mundane**

14<sup>th</sup> and 15<sup>th</sup> September 2011, Manchester Metropolitan University

This second international Critical Disability Studies conference held by Manchester Metropolitan University was very rewarding. Primarily it gave me the opportunity to further disseminate my findings from the CETL funded project I was involved with to a much wider audience and has resulted in raising the profile of Cornwall College within the Disability Studies research community. The feedback I received was very

positive and constructive and has opened up new areas of thought in the way rurality and tourism intersect with disability, particularly in the work of Hannah Morgan from Lancaster University. The conference presenters were at the forefront in moving theoretical perspectives from the academy and into practice with particular focus on social work.

One of the key presentations exploring this was by Malcolm Kinney from John Moores University who deconstructed the way that the Mental Health Act of 1983 is used to oppress and disempower individuals who are sucked into a bio-medical model of psychiatric care. Having the perspective of someone who is both a practicing senior social worker and an academic, interweaving the interaction of professional power, ethics and advocacy and the application of theory to practice in a clear and transparent way has already proved instructive as I am using the examples in my own teaching practice.

Similarly, the work of Professor Fiona Kumari Campbell of Griffith University, Brisbane, critiquing the notions of the way ‘reasonable adjustment’ is used as a tool for oppression of disabled people in the context of notions of citizenship and access to commercial productivity has clarified an area which I had previously found to be difficult to explain to students. This was complemented by Dr Rebecca Hallett’s presentation on the way that disability is increasingly commodified in the name of ‘inclusion’.

I also found the work of Dina Poursanidou to be inspiring in the way that she explored the complexities of participatory research and the difficulties of being both a service user and an academic. We hope to be able to collaborate at some point in the future in a participatory project.

Dr Katherine Runswick-Cole gave an incisive critique of the “Big Society” and how the rhetoric behind it of autonomy and independence will impact on disabled people in the UK.

Finally, I was able to promote the forthcoming Disability Conference hosted by Cornwall College this month and as well as liaising with Dr Alison Wilde on her keynote presentation, Dr Katherine Runswick-Cole has also decided to attend and will be chairing some panel sessions.

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### **Rhisiart Tal-e-bot: HE Programme Manager for FdA Children and Young People's Workforce, Camborne**

### **Research trip to South East Wales to visit Mudiad Meithrin (MM) Welsh medium preschool provision and to discover how the organisation functions**

On Monday 27 June I went with Mudiad Meithrin (MM) Development Officer Vicky Pugh to visit the nursery schools Cylch Meithrin Nantdyrys and Cylch Meithrin Thomastown in Rhondda Cynon Taf. In the afternoon I was collected by Mudiad Meithrin (MM) Development Officer Teleri Jones and taken to visit Cylch Meithrin Ynysybwel (nursery school). In the drive to the different nursery schools, I was able to informally interview the Development staff and they were able to give me information about the schools being visited and their role. At the nursery schools I was able to interview staff and observe practice. Two of the three nurseries I visited were Welsh medium ‘pack away’ nurseries.

On Tuesday 28<sup>th</sup> June I was taken by MM Director for SE Wales, Mererid Lewis Davies, to Meithrinfa Gartholwg Day Nursery. I was shown around the nursery by the manager and was able to ask her questions about the functioning of the school. The school was part of one of three similar Welsh medium educational complexes in Wales that covered 0 to adult educational provision. In the afternoon I interviewed Mererid Lewis Davis about the structure, aims and functioning of MM. Mererid also answered any questions I had about the way the rest of the week was being organised.

On Wednesday 29<sup>th</sup> June I visited MM’s offices in Cardiff to interview the Coordinator of MM in SE Wales, Ann Angell. Ann explained to me her role in the organisation and how she coordinated efforts to lobby the authorities in the south east of Wales to improve Welsh language provision. Next I interviewed the coordinator of RhAG, Cerri Owen, which is a parent led organisation that works closely with MM to coordinate parent groups that want increased Welsh language educational provision within their communities.

On Thursday 30<sup>th</sup> June I was taken to Cylch Meithrin Tonyfelin, Caerffili, Cylch Meithrin Coed Duon, Blackwood by MM Development Officer, Nia Parker. I interviewed Nia in the drive to the school about the schools to be visited and her views on the success of Welsh language preschool provision in the Caerffili area, why there had been an expansion of Welsh language education in the region and what needed to occur for expansion to continue. At the schools I was shown around by the managers and I was able to interview staff and observe practice. I also observed a brief music session with MM Quality Officer Eleri Dafydd, who was at Cylch Meithrin Coed Duon on a visit.

On Friday 1<sup>st</sup> July I was picked up by MM Quality Officer Eleri Dafydd to travel to Aberystwyth for the MM National Conference. On the two and a half hour trip to Aberystwyth, I was able to interview Eleri about her role as a Quality Officer and her views generally about the Welsh language and educational provision throughout Wales. Eleri brought with her some MM and government documents and literature about the Welsh language and Welsh medium educational provision in general to read on the journey.

Over 300 MM staff attended the national conference at Aberystwyth University, which was only the second conference of its kind organised. I was introduced to the Managing Director of MM and various other staff members. I was also introduced to three Sami language teachers who had been visiting MM schools in mid Wales and finding out how the MM organisation functioned with the intention of setting up something similar in Norway. The teachers were planning to open their first Sami medium nursery school in their community in September.

The morning of the conference involved listening to presentations from Marion Dowling on 'Young Children Thinking - Where is the Adult?' and Professor Christine Pascal on 'Enhancing Young Children's Play and Thinking Skills'. After lunch there was a choice of workshops and I attended 'Enhancing Children's Welsh Language Skills in the Foundation Phase with Ann Samuel and 'Enhancing Young Children's Learning – How to Observe and Assess' with Professor Christine Pascal.

During lunch I interviewed the Director of the Welsh language publishing company Mabon a Mabli and we discussed the possibility of publishing books in Cornish.

## Evaluation

Overall the research trip was interesting and rewarding. The research built on previous work that I have done with the Mooinjer Veggey Manx language preschool movement and has given me a clearer understanding of how I can focus the next stage of my research in the development of Cornish language education planning in Cornwall.

I spent less money than I had envisaged, because people kept inviting me to eat at their homes and I was in the main picked up and dropped off from where I was staying by the MM staff members in their cars. Wonderful hospitality!

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## Steve McCann: HE Programme Manager, CHS, Worcester Housing and community empowerment – National Conference

9<sup>th</sup> June, 2011; The Abbey Centre, Westminster

### Housing and community empowerment: Engaging with learning from research and practice

The conference looked at the role that housing providers and voluntary and community organisations (VCOs) can play in building empowered communities and places where people want to live.

It explored how community empowerment, social action and entrepreneurship could be inspired at a time of real change for individuals and communities. The conference presented the results of research from the Thirds Sector Research Centre (TSRC) at the University of Birmingham and the experience of housing providers and community groups involved in HACT's work. It sought to answer



questions, such as:

- What role should housing play within communities – and how will this affect local people?
- How can housing providers and voluntary community organisations work together more effectively to deliver?
- How can large housing organisations balance scale and efficiency with local delivery and accountability?
- Does an empowered community take responsibility for their neighbourhood?
- What motivates community action and how do motivations differ between housing organisations and community groups?
- How can mutual engagement overcome power imbalances between housing organisations and community groups?

### **Why I attended?**

I was hoping to learn more about the role of housing organisations as social entrepreneurs, in particular if there was anything that would inform the teaching of CHS's Foundation Degree in Housing with Support.

What I learned was that social entrepreneurship is central to government policy as part of the Big Society programme. I saw evidence presented of housing associations working with their residents and other organisations to develop schemes to improve the quality of life of those who live in the communities where they work.

This will inform my teaching, especially when looking at how communities could develop support for vulnerable people without state funding. I will also be able to use this to engage students in discussions about how vulnerable could and should be supported and whose responsibility that is.

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## **Hospitality, Tourism and Service Industries**

### **Gail Angove: Programme Manager for Tourism Foundation Degrees, Camborne International Conference of Tourism (ICOT 2011)**

#### **"Tourism in An Era of Uncertainty"**

Hosted by: Cyprus University of Technology on Rhodes Island, Greece  
Wednesday April 27<sup>th</sup> 2011 - Saturday April 30<sup>th</sup> 2011



As this was my first foreign academic conference I was not sure what to expect. On arriving in Rhodes after an early morning flight from Gatwick on Wednesday 27<sup>th</sup> April I was a little apprehensive to say the least.

The conference aims were to contribute to the debate on tourism in relation to different aspects of uncertainty. Uncertainty being categorised as climate change, infectious diseases, economic crises, terrorism, globalisation, and entrenched social problems that pose threats and create an uncertain tourism environment.

The welcoming evening reception was attended by approximately 140 conference delegates and I was amazed at the diverse nationalities ICOT 2011 had attracted. Delegates attending were from Australia, Canada, United States, Mexico, Hong Kong, Japan, India, Israel and many EU countries.

The conference began on the following day and comprised of two keynote speakers with 21 parallel sessions over the next two days. The majority of parallel sessions consisted of four speakers and a chair. All oral presentations were allocated twenty minutes; 15 minutes was dedicated to the oral presentation and five minutes to questions and discussion.

[Professor David Airey](#), recently retired from the University of Surrey where he was Pro-Vice Chancellor, gave the first keynote address: "Tourism Education in Turbulent Times". He currently co-chairs the UN World Tourism Organization's Education and Science Council and in 2006 received the UNWTO's prestigious Ulysses award for his contribution to tourism education.

Late in the afternoon the conference delegates were treated to an escorted Tour of Rhodes old town including a visit to the temple of Apollo situated high up on the acropolis of Rhodes. From the summit you could see both the Aegean and Mediterranean seas. The tour concluded with dinner in the ancient walled city; being a culture vulture I thought this a perfect end to day one of ICOT 2011.

Professor Arie Reichel opened day two with his Keynote address: "Tourist Perceived Risk: Something to avoid or desire?" Arie Reichel is Professor and Dean of the Guilford Glazer School of Business and Management at Ben-Gurion University of the Negev in Israel. He is also the Founding Dean of BGU's southern campus at Eilat.

I was particularly delighted to meet Professor Reichel at the conference as I have read many of his published works in tourism both as a student and lecturer. He has published dozens of articles in top tourism and hospitality journals and is also involved with these journals as either an editorial board member or blind reviewer for submitted papers. I saw irony in the title of his speech since he had been advised by the Israeli government not to travel to Greece in the present political climate.

On the final day of the conference there was an address given by George Nikitiades the deputy minister of Culture and Tourism from the Hellenic Republic - Ministry of Culture and Tourism. In his address he stated that although the main indicators, announced by the World tourism Organization, are that world tourism is experiencing a growth, and international tourism data of 2010 shows that it has recovered faster than expected from the impacts of the global financial crisis and economic recession of late 2008 and 2009, and the positive trend is continuing, this has not been the Greek experience for the last year.

Greece had been affected more seriously and 2010 ended up being a very difficult year for a number of reasons, among which negative publicity received both as a result of the economic crisis and of unfortunate incidents. The negative publicity though, was reflecting only the area of Athens, and had no relation with all the various tourism destinations around the country. The government reacted actively and strongly with personal meetings of top ministers, internationally and with concerted efforts to the Media to reverse the initially negative image. The result of these actions was that 2010 ended at a similar level of tourism as the previous year.

It remains to be seen if the technical, political and legal difficulties in Greece are in fact lifting, reducing uncertainties, as part of the effort of the present government to create a new era in tourism development, an appropriate and conducive environment for development.

The conference ended with a conference dinner I thought it would be a traditional formal event. This was not the case the organisers of the conference had other ideas. The dinner was not held in the hotel but at a large tourist attraction where Greek dancing was the order of the evening. I was not sure about this as I struggle with culture being manufactured specifically for the tourist. However the Asian, American and Australian delegates absolutely loved it and were all joining in by the end of the evening.

The conference gave me many, many opportunities to network and have stimulating discussion and exchange of ideas between tourism professionals, academics, researchers, policy-makers, consultants, practitioners, government officials and postgraduate students from tourism-related fields.

I cannot thank Cornwall College enough, Dr Leo Salter in particular, for granting me this opportunity. It truly opened a door for me into a world that I had not previously travelled and one I am determined to explore further.

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**Stuart Mathieson: Curriculum Area Manager, Hotel & Catering, Camborne  
2<sup>nd</sup> International Cruise Conference, University of Plymouth  
18 – 20 February 2010,**

Over 100 delegates attended the 2nd International Cruise Conference held at the University of Plymouth on the 18th, 19th and 20th February 2010.

The conference was successful in being a Professional Development incubator and provided a platform for cruise industry professionals and academics to engage in dialogue, network, share research findings and examine good practice, with the official conference dinner being held at the National Marine Aquarium, Plymouth.

The conference committee was pleased to announce that in addition to the range of keynote speakers and research papers being presented at the 2nd International Cruise Conference, there was to be a series of master classes delivered by a broad range of professionals and specialists. The master classes were designed to stimulate interest and to showcase work in the industry.

These specialist sessions included cruise topics such as: developing trainee management programmes; an analysis of fine dining; industry occupational standards and professional development; challenges of logistics in sourcing and supply; branding and the cruise product; professional certification schemes relating to market share, staff retention and brand experience.

During the two days, a variety of challenges, initiatives and ongoing research were presented, revealing a number of supply-related limitations. The totality of the various presentations served to highlight a broad range of important issues that have emerged, in part, as a result of the industry growth rates and, in many cases, also suggested opportunities for addressing problems.

Cornwall College co-sponsored the event and nine students participated in the conference. Stuart Mathieson delivered a presentation on the role of Foundation Degrees in the industry as part of the Masterclass.



## Sciences, including Marine Sciences and Technology

**Andrew Smart: Head of College, CC Newquay  
UPC Winter Conference – an abstract**

**“Training students through field research - CCNewquay Projects in Sabah, Borneo”**  
30<sup>th</sup> November 2010; Future Inn, Plymouth

The development of long-term field projects in Borneo as a focus for some conservation courses at CCNewquay began in 2009. Rather than running a traditional field course; students are encouraged to be part of the research team running a series of projects while in the field. Some students may develop their own year 2 or Honours projects alongside existing fieldwork to complement research currently taking place at the field station. The project runs alongside Cardiff University field projects and plans to engage with the sector to look at fundraising and forest recovery. The long-term potential for student involvement at every level is high and as a case study this is a great opportunity for students who wish to get involved in global conservation.

The presentation looks at how the project developed; funding options and the work undertaken by the first cohort of students. Long-term plans for research in the field and for support work in the UK are also discussed.



**Faye Archell, Rebecca Allen, Imogen Ahern: Programme Managers and lecturers, CC Newquay**  
**British Divers Marine Life Rescue & Cornwall College – 25<sup>th</sup> European Cetacean Society Conference**  
21 – 24 March 2011; Cadiz, Spain

## **Background**

The European Cetacean Society (ECS) was established in January 1987 and aims to promote and advance the scientific studies and conservation efforts of marine mammals and to gather and disseminate information about cetaceans to members of the Society and the public at large. The ECS is coordinated by a Council of 11 members and each year organizes an Annual Conferences in a European country with this year's meeting being held in Cadiz, Southern Spain.

## **Workshops**

**A series of workshops are held on the weekend before the conference. Seven workshops were held over two days, two of which have been reviewed for this report.**

### ***The case for and against destructive sampling***

Destructive sampling of marine mammals for scientific purposes remains a very controversial issue. Questions frequently posed include: Does the science derived from killing marine mammals justify that action? Will the killing of a few individuals aid the conservation of many? What information can be gained from destructive sampling, and would alternative approaches provide equivalent information?

A workshop on the use of data from destructive research on marine mammals took place on Saturday 19<sup>th</sup> March. The workshop covered different aspects of human-derived lethal/invasive sources of research data, such as hunting or culling, but particularly focused on scientific whaling. It was divided into two sessions: the first considered philosophical and legal issues relating to animal ethics, and the second focused upon scientific aspects. Invited speakers ranged from Lailla Sadler (previously of the RSPCA), Russell Leaper from IFAW, Arne Bjorge who has been the chair of the International Whaling Commission (IWC) Scientific Committee as well as scientists presenting data from destructive sampling studies. Speakers addressed the various issues from both perspectives, and there followed a debate to which all those attending participated.

The aims of the workshop weren't so much to decide whether destructive sampling was right or wrong, but more to decide whether the ECS should accept presentations based on destructive and invasive research methods.

The workshop concluded the following action points:

1. Abstracts submitted for future ECS presentations will have to declare whether invasive or destructive sampling techniques were used
2. A definition of invasive techniques will be given to avoid any confusion from those submitting
3. If a declaration is made then the abstract will be sent to the ECS Scientific Advisory Committee (of which BDMLR Veterinary Advisor, James Barnett, is a member)
4. Decisions will be made on a case by case basis
5. Each person submitting work must sign a statement of truth

### ***Interest and feasibility of a web-accessed database for marine mammal strandings and necropsy data in the ASCOBANS region***

The aim of the workshop was to discuss the feasibility and cost of a common web-accessed database for strandings and necropsy data, potentially accessible at different levels of data protection. There are different marine mammals stranding networks in the ASCOBANS (Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas) regions that record strandings and conduct necropsy and tissue sampling of stranded and bycaught animals. The aims of such stranding networks are to determine causes of death, monitor exposure to pathogens and pollutants, and help to monitor changes in distribution and abundance and to collect tissue samples for archive. Such data help to highlight major threats to conservation status of these charismatic species. Although data which they collect during the course of such investigations are routinely recorded and in some cases made available through scientific reports, public release of information or websites, no centralised European point of access currently exists for the recording and display of data on both strandings and any necropsies which have been carried out. Creation

of a database in the ASCOBANS region would facilitate access to data on European strandings and would be of potential benefit for scientists, policy makers and NGOs, as well as helping inform the wider public by making marine mammal strandings data available at the national and international levels via a web-access portal. Although the initial workshop is being funded by ASCOBANS it is hoped that both seal and cetacean data could be included and the database could be extended to other non-ASCOBANS regions. A pan-European strandings database has been a longstanding goal of ASCOBANS and a web-accessed database has been recommended by a number of scientific for such as the International Council for the Exploration of the Sea.

The workshop was hosted by Rob Deaville of the UK Cetacean Strandings Investigation Programme (CSIP). There were 53 attendees from 11 different countries. There were presentations from nine stranding/pathology networks including the UK; Belgium; the Netherlands; Spain; France; Germany; Denmark; Portugal and Ireland. The combined data from all these countries amounts to 46,784 strandings and >4,600 cetacean necropsies. Each of the countries gave a short presentation on how data is collected and the type of database kept. An afternoon of discussions were then held with the flowing action points made

Three working groups need to be established

1. Strandings (live and dead)
2. Pathology/cause of death
3. Database design/technical aspects of setting up a European database

An ASCOBANS report is due in September 2011 where progress made from this workshop will be reviewed. The workshop was very positive and all felt that a shared European database would be beneficial to strandings science.

### The conference

**The conference is held over three days with fifty two speakers presenting their work in 15 minutes talks.** The theme for the 2011 conference was **long-term datasets on marine mammals: learning from the past to manage the future. A series of talks have been reviewed for this report, with particular reference to UK based / strandings presentations.**

### **Understanding grey seal demographics in the UK**

Speaker: Paddy Pomeroy, Sea Mammal Research Unit, University of St Andrews

An annual aerial survey is carried out over 60 colonies in and around Scotland every year, with 30 others being checked regularly. Each colony is surveyed 4-6 times a year to create a pup production curve. (Fig 1)

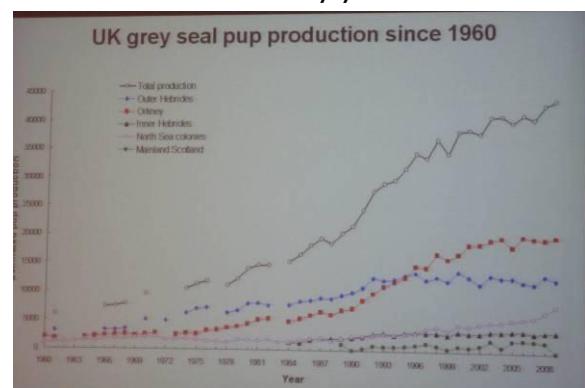


Fig 1 Data collected over a number of studied sites between 1960 and 2008

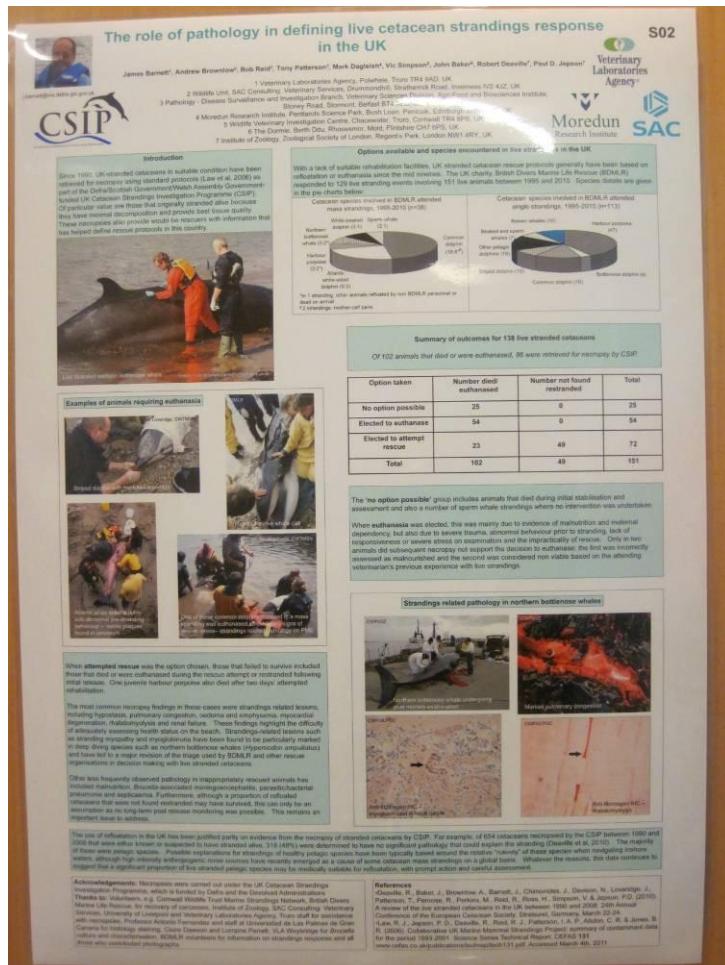
### Fig 2 Age at first resight of tagged pups from one cohort

Data is also collected on adult females. A range of techniques are used to re-sight individuals including flipper tagging and photo ID. Animals tagged as pups were not re-sighted until later in their lives. (Fig 2) It was also found that very few adults on breeding sites were non breeders (by observation = 0.02). However, not all females were re-sighted each year. This led to the question – are they non-breeding and therefore not returning to the breeding site for that reason. Or are they pupping elsewhere? The following theory was discussed

Seals are capital breeders, with a typical mammalian growth pattern. The maternal mass expenditure in females during pupping and lactation can be great (up to 131kg), so non-pupping years could allow for additional mass gain. This would account for ‘missing’ seals in each year’s data.

## The Cetacean Strandings Investigation Programme (CSIP) – 20 years of research into cetacean strandings in the UK

Speaker: Rob Deaville, Project Manager CSIP, Zoological Society of London



The Cetacean Strandings Investigation Programme (CSIP) record details on the UK's stranded cetaceans, basking sharks and turtles. They conduct systematic necropsies on these species and investigate causes of disease and mortality. The data gathered is shared on a UK database and is used to advise government on appropriate strategy in disease outbreak/unusual mortality events.

CSIP is a consortium made up of the following structure; Defra – Welsh assembly group, Scottish government and Joint nature conservation committee. Necropsies are carried out and strandings data is recorded in England by the Institute of Zoology and the Veterinary Laboratories Agency (in Cornwall). Carcasses are recorded and removed by the Natural History Museum and the Cornwall Wildlife Trust. In Scotland the Scottish Agricultural College and in Wales Marine Environmental Monitoring carry out necropsies and collate data. British Divers Marine Life Rescue and the Maritime and Coastguard Agency also contribute data.

James Barnett's poster on the role of pathology in defining live cetacean response in the UK

Between 1990 and 2009, there have been 8055 dead strandings and 980 live strandings. Of those, 2774 necropsies have been carried out in the UK under CSIP. 18 species of cetacean underwent necropsies and include harbour porpoise; common dolphin; bottlenose dolphin; minke whale; sperm whale; killer whale; humpback whale and blainville's beaked whale. Cause of death was established in 86% of cases, the most common being by-catch/entanglement (20%) followed by infectious disease (17%).

Further information on workshops, presentations and posters can be found via the following internet links:

[ECS 2011 workshop schedule and abstracts](#)

[ECS 2011 abstract book](#)

[ECS 2011 list of posters](#)

## Jason Birt: Lecturer, Marine Sciences, CC Newquay 5<sup>th</sup> Annual Presenters' Conference 8<sup>th</sup> March 2010; Bristol Zoo Gardens

**Reason for attendance:** To bring self up to date with regard to cutting edge wildlife education and industry practice; to introduce the selected students who came with me to conferences and networking.

**Content of programme/What was gained:** See below in article and – a lot of new ideas and contacts including Vanessa Barratt of Natural History Museum.

**Dissemination:** To staff and students on the FdSc Wildlife Education and Media programme and BSc (Hons) Applied Zoology in the form of the article below.

Perhaps as recently as the 1980s, zoos and aquaria were passive experiences; punters went through the doors and stared at the animals – there was precious little interaction, unless you poked your arms through the bars and then it was a little too interactive. If there was signage, it was to state the common and scientific names of the jaded animal in front of you and maybe where it can be found in the wild – nothing about its conservation status; nobody cared if it was endangered. If there were feeding talks, then a bored keeper talked about the animal whilst nonchalantly throwing food to the equally bored animal. Zoos were there for the entertainment of the masses; the appearance of exotic animals was excitement enough for a population that rarely travelled outside the confinement of the national borders. Some zoos were different, allowing handling of the animals – some even allowed children to ride up on the elephants and aquaria often allowed customers to pet the fish as they came to the surface. Health and safety and ethical concerns have put a stop to that and facilities now have to provide a different form of interaction. This has come alongside the transition of most facilities' intentions from housing curiosities to conservation programmes and environmental education. The buzzword amongst zoos and aquaria is *Edutainment*.

According to Will Elgar, Head of Animal Training at Chessington Zoo, part of Chessington World of Adventure, which recently became part of the Merlin Entertainments empire, "It's all about Edutainment". In his presentation, he stated that the presenters became part of the animal training team and this has integrated the animal care and the animal performance parts of the business. Animal performance increases the interaction for the audience. Will Elgar's team put on different shows from *Ocean Rangers*, which educates the public regarding protection of the oceans to *Wild Factor*, an animal X-Factor show that highlights the performing animal's natural talents. As far removed from the bored feeding talk as is possible, these performances involve voiceovers, interviews with the animals and performance art. And according to Will Elgar, the public love this. They have different standards to zoos. They have Customer Service Questionnaires that ask the public to rate the shows and then they improve the shows based on responses. For example, they know that adults have 10-12 minutes of attention span and children 4-6 minutes so shows are tailored for different audiences. He also stated that the animals are cared for according to legislation and are not put under undue stress. Additionally, there is a rotation policy. He also mentioned that the animals' behaviour indicates that they enjoy it and whilst it is not natural behaviour, if they can convey a message to the public that changes its behaviour and leads to the natural populations having a chance of surviving, that is for the greater good. The public are immersed and they retain more information as a result.

Ethical concerns are something dear to Mat Richards, a Zoo Keeper at Bristol Zoo Gardens. He stated that training animals requires an ethical training code of conduct and at Bristol Zoo Gardens, they train their keepers to follow a training plan for husbandry, to allow for vet checks, etc, to train animals to perform natural behaviours for display and to identify when unnatural behaviours occur. Mat's team use training plans, goal sheets and ensure the same message is adhered to across the team. They also use large enclosures to house the animals because the animals will fly or crawl around for 10-20 minutes per day in the performance but need space to continue exercising. Mat also suggested that Bristol Zoo Gardens displays are fun to watch, focus on the animal – not the trainer – and motivate visitors to want to do something to help that species. To improve performances, they evaluate their audiences through feedback forms, continue to develop their ethical code of conduct and debate whether they should continue to exploit unnatural behaviours even if they lead to increased conservation behaviour on the part of the public. When asked about over-exertion of the animals, he stated that the animals are only performing for 10-20 minutes per day. They have a pool of 10 performing animals, only five of which are used at any one time. Mat concluded his presentation by saying that the ultimate intention of BZG is to use subtle cues to trigger natural behaviours with minimal human interaction. That is, they enter, they act and they head back into the enclosure.

Watching the *Amazing Animals* show at Bristol Zoo Gardens, I was impressed by how closely they seem to be able to keep to this intention. The animal display is performed on a stage and the audience are seated on cut logs. It is a theatrical arrangement. Whilst some attention is inevitably focussed on the trainer (or presenter, as certain zoo staff are now called), the audience is rapt with the different animals making their centre-stage appearances. Miked-up, the presenter gives information about each animal as it is introduced

to the public, the tamer of which are brought forward for the audience to get a close look and then the presenter segues into the next animal. The audience's attention rarely wavers and that includes the kids.

According to the Head of Learning at BZG, Simon Garrett, it has been an evolutionary process. Thirty or so years ago, zoos were content to welcome punters through the door. Then they became worthy conservation bodies. 100 years ago and they had people riding on elephants. There's probably a middle ground. Zoos could captive breed most of the 8,000+ red list species – there are, after all, over 1,000 zoos worldwide. Zoos also do field conservation. But, with this 'worthy' attitude did they forget the visitors? Zoos are not about animals, they are not completely about biodiversity but they are about people. He elaborated in his talk using Steve Irwin's Australia Zoo as an example. For many years, it was sneered at by those who ran zoos as conservation bodies. And yet, when research was undertaken, its controversial hands-on approach was found to be more effective in getting the public engaged than traditional zoos. Simon's approach to developing conservation is similarly cutting edge. He thinks that we need to preserve the common as well as the rare; it's about ecosystem services. Our legislation is to protect the rare when it should be to protect the common. They need to buy, as zoos, big tracts of land. This is what Bristol Zoo Gardens has done, buying 55 acres on the outskirts of Bristol with the intent of publicising and educating about conservation. So, how has the educational message at Bristol Zoo Gardens evolved in light of the considerations Simon has stated? BZG's commercial department has, as part of its mission statement, a requirement to integrate learning and to satisfy the visitor experience. In short, it needs to deal with the quandary of balancing the need to give the important message whilst giving the family an exciting day out. They intend to drip feed the message so it doesn't come across as preaching – a passive experience. And passive experience is, in effect, knowledge out equals knowledge in – nothing is learnt. Active learning – touching, doing – are needed to understand. People do, then rationalise. And whilst people often say that they want an educational day out, their feedback indicates otherwise. Squaring that circle remains the challenge and they think, with their shows like *Amazing Animals*, that they are beginning to get there.

Another conference presentation presented research that seems to back this up. Danish research has indicated that, when questioned outside the context of a zoo, the general public wanted exhibits that demonstrated naturalism (for example, natural enclosures, termed scientifically as *iconic environmental*), signage (called *symbolic scientific*), were ambivalent about what is called *indexical multi-sensual* (in short, the 'Wow! Look at that!' and pointing) and were firmly against what is referred to as *popular anthropomorphic* (or, getting their hands on the animals). However, when filling in feedback forms after visiting zoos, those same people found naturalism and symbolic scientific a turn off and revelled in the indexical multi-sensual and the popular anthropomorphic. In other words, they wanted excitement and to stroke the fluffies! They also retained more knowledge if the experience was interactive. The researchers termed this *cosmomorphic* – the public want to be the animal!

But is animal involvement needed in a zoo show? Not necessarily, according to Fleur Wainhouse's presentation. An "Explainer" at the Zoological Society of London's base at London Zoo, her team commissioned Morris Hargreaves McIntyre consultancy to determine who came to the zoo and what they most got out of the experience. The findings were used to refine the shows and alter the role of the staff, who became "Presenters" and "Explainers" as a result.

A new show developed was called *Do you have the AMPH-factor?* and was developed to increase the public's knowledge of amphibians. This involved a game show format including public involvement but *not including any animals*. The survey was then undertaken again. The second survey found that the 98% enjoyed the new show, 80% remembered that chytrid fungal disease was a major threat to amphibians, 75% now recognised that ZSL are world leaders in combating the disease and that 90% could list the three amphibian groups. This retention of facts is higher than one would find in more traditional presentations. Overall, 74% enjoyed the zoo more because of the live show. However, the senior management of ZSL were unhappy about the lack of use of animals, considering they are a zoo body and stopped the shows. According to Fleur, they just weren't ready for it. The live shows continue but they involve animals. One show being developed – an Explainer Event – involves people in the feeding and enrichment of the big cats.

However, the differentiation between presenters and explainers has been maintained. Presenters present more formal shows and direct the public to different parts of the zoo. They also engage the public in live shows. Explainers are on hand to provide additional explanations to the public in a more informal situation,

for example, by the enclosures. For both roles, though, confident presentation and ability to deal with unexpected situations are important. Chris Scott, of the Old Vic Theatre School, believes that these elements can be taught. His talk stated that presenters should accept the situation and build on it. Presenting is just like acting but you are playing yourself, not a character. He believes that presenters should prepare in the same way as an actor. Presenters should warm up the voice. Presenting is about projection. Projection is not volume but about articulation and diction. It is also about breathing and intensity. Presenters should mentally prepare the text, do a few vocal exercises, practice some breathing exercises, for example, breathing in through the nose for five seconds, holding that breath for three seconds and then breathing out through the mouth, making a Sssss sound for up to 35 seconds. Finally, they should hum, to practice resonance, something like *Amazing Grace* and feel the resonance on the face. There are specific exercises that tie these aspects together.

During a workshop he elaborated further. Tips included giving the length of the talk at the start, undertaking a microphone check and checking the acoustics before the audience arrives, answering children by lowering yourself down to their level and answering questions either immediately if straightforward or saying politely 'I will answer that later' if more involved. He also thinks that if you try to base talks on a rule of three, they will be more understandable. He also thinks that you should think Macro – the overall picture – then think Micro – the specifics of the subject – and then finally think POV or Point of View – give an anecdote or an example. Of course, rules are made to be broken – for effect, you could start with the anecdote. What is most important is that there is some structure. Ultimately, the more prepared you are the less effect something unexpected will have on you and the better you will cope with it.

Perhaps the most cutting edge technique in factual presentation can be seen at the Natural History Museum, not a zoo or an aquarium, and an institution suffering a marked deficit in live animals. NHM has a considerably body of scientists and it is only a recent phenomenon that scientists have been given media training or even encouraged to write popular science, a genre that has, up until recently, been scoffed at by purists. As a result, scientists are not so good at engaging the public and are too prone to jargon-heavy monotony. This is where Presentation Facilitators come in, said Charlotte Coates and Vanessa Barratt of the Natural History Museum. They, in effect, translate what the scientists say and coax a more public-friendly message from the research staff. Scientists are encouraged to take part in a 20 minute conversation with a Presentation Facilitator, with an audience of about 100 people, with 10 minutes after for questions. This is in a studio setting, and is filmed for dissemination on the web. About one-third of the 350 scientists get involved and it is a contractual requirement for them to spend 5-10% of their time on public engagement. For the two-thirds who are too shy, they can achieve this by writing articles or content for the web. Under the banner *Nature Live*, these shows have been a popular addition to the NHM output and greatly increase the public awareness of NHM's hidden collections and the role of scientists. It has also led to the scientists becoming more media-savvy – there are some discovering hidden talents!

So the world of the zoo and the aquarium is evolving. Or perhaps, coming full circle, rediscovering the entertainment value and realising how easy it is to use this as a vehicle for education. However, whilst we are unlikely to see people on elephants riding through the middle of a zoo in British zoos any time soon, the adoption of interactive and engaging content brings the conservation message home far better than any method used so far.



**Lawrence Moores: Curriculum Area Manager, Zoology, CC Newquay  
ZSL Symposium - Linking Biodiversity Conservation and Poverty Reduction: What, Why and How?**

28<sup>th</sup> & 28<sup>th</sup> April 2010, ZSL London.

**Issues addressed were:**

1. Defining the Policy & political background and terms
2. What does biodiversity do for the poor?
3. What can the poor do for biodiversity?
4. Role of Paid Ecosystem Services
5. Role of Community based conservation

## **Central themes...**

Conservation has moved from global planned approach to more sympathy with market-based solutions  
However, both conservation and poverty alleviation are intensely political activities.

- Difficult – and we don't know how to do them with any real confidence.
- They are also expensive, complex to plan,
- Slow to have the effects desired
- Difficult to get right
- Outcomes are often controversial.
- Both generate losers as well as winners, whether some (or all) among the poor, or the rich, either locally or globally.

A number of case studies of projects attempting to generate income for poor communities and deliver biodiversity conservation goals were discussed:

- ❖ Community-based conservation in the Maasai Mara in Kenya.
- ❖ Agri-diversity maintenance by small-scale farmers in the Sahel
- ❖ REDD and REDD+ initiatives
- ❖ PES – water supply from forest people in Costa Rica
- ❖ Arapaima Conservation – Rupununi, Guyana
- ❖ Honey Care – Kenya
- ❖ Mangrove Restoration Pred Nai, Thailand
- ❖ Elephant Insurance scheme in Sri Lanka

## **What was missing? – areas not considered which are relevant to this field:**

- China
- Population control
- Resource depletion
- Collective rights v Individual rights
- And there was naivety about the effectiveness of markets to deliver equitable outcomes.

These reflections were reported to staff and students at Cornwall College Newquay at the college's Research & Scholarship day on 1<sup>st</sup> July 2010.



## **Dr Peter McGregor: Research Co-ordinator, Newquay - 5<sup>th</sup> European Conference on Behavioural Biology, Ferrara, Italy, 16 – 18 July 2010.**



The ECBB is a 3 day conference held every 2 years. It is the principle conference for reporting animal behaviour research in Europe, attracting over 1,000 delegates from the Americas and Australasia as well as most European countries. I attended the conference to present the opening spoken paper in a symposium of 6 talks on animal communication networks that I had been invited to co-organize and chair with Professor Francesco Dessimone from Florence University. We discovered that Ferrara, a World Heritage Site in the Po Valley, is rightly notorious for two things – bicycles and heat waves in July. The conditions proved interesting, touching 40°C and 99% relative humidity, especially as none of the lecture halls had air conditioning. Our symposium attracted about 400 delegates to a lecture theatre that seated 350 and to prevent delegates melting away we had to have windows and doors wide open. This provided a challenging level of background noise from the cicadas outside and the flapping programmes of the

delegates inside as they tried to stir air that was best suited to the steam room of a Turkish bath. And of course the speaker's mike didn't quite work. However, the food and company were as brilliant as you would expect from Italy and we got very good feedback on our symposium. Conferences are also all about delegates networking and I caught up with several international colleagues. One outcome was an agreement to co-edit a book series on animal communication with a German colleague based in St. Andrews University for publisher Springer Verlag.



**European Conference on Behavioural Biology 2010**

Welcome | General Information | Important Dates | Scientific Programme | Registration | Abstract Submission | Contacts | Sponsors & Exhibitors

**9 Sex differences in hormones, brain and behaviour**  
Organized by Cornelia Voigt, University of Ferrara, Italy & Stefan Leitner, Max Planck Institute for Ornithology, Germany

**10 Behavioural ecology of keystone species as early bioindicator of anthropogenic impact on ecosystems**  
Organized by Stefano Cannicci, Università degli Studi di Firenze, Italy & Gil Penha-Lopes, Centro de Oceanografia da FCUL, Laboratório Marítimo da Guia, Portugal

**11 Audience effect**  
Organized by Francesco Dessimilis, Università degli Studi di Firenze, Italy & Peter McGregor, Cornwall College, United Kingdom

**12 Recognition systems and their overcoming at multiple levels of social organization**  
Organized by Rita Cervo, Università degli Studi di Firenze, Italy & Patrizia d'Ettorre, Laboratoire d'Ethologie Expérimentale et Comparée (LEEC), France

**13 Trends in cognitive primatology**  
Organized by Elsa Addessi & Valentina Truppa, Istituto di Scienze e Tecnologie della Cognizione, CNR, Rome, Italy & Valerie Dufour, SPRG, School of Psychology, University of St. Andrews, UK

Room	Symposium	Symposium	Symposium	Oral session
E2	E3	D6	D7	
Title	Cognitive abilities of invertebrates: questions and perspectives	Lateralised Behaviour	Audience effect	Sociality I
Chair	Francesca Gherardi & Robert Elwood	Davide Csermely & Richard Andrew	Francesco Dessimilis, Fulgheri & Peter McGregor	Donato Grasso
14:00	The question of "individual recognition" in invertebrates	Forms of lateralisation in common wall lizards	Audiences, eavesdropping and communication in networks	A comparative perspective on delay discounting: from capuchin monkeys to other primate species
	Francesca Gherardi	Davide Csermely	Peter McGregor	Elsa Addessi

**Peter McGregor** is well-known internationally for his research into bioacoustics; ecological issues and animal behaviour are also amongst his research interests. Some of Peter's activities:

- Academic Journals: editor of "Bioacoustics"; associate editor of "Acta Ethologica"; editorial advisor for "Ethology, Ecology and Evolution";
- Papers / Reports / Presentations: paper published in "Animal Behaviour"; entry in the "Encyclopaedia of Applied Animal Behaviour and Welfare"; report to COWRIE on pile-driving noise effects; presentation at the UPC Winter Conference 2010 in Plymouth about the COWRIE report;
- Peter is one of three authors of the 4<sup>th</sup> edition of a text book on experimental design and data analysis / presentation. His main contribution is "Asking Questions in Biology: A Guide to Hypothesis Testing, Experimental Design and Presentation in Practical Work and Research Projects".

**Sarah Galley: Programme Manager, CC Newquay  
Reptile Survey and Handling course run by Acorn Ecology**  
14<sup>th</sup> May 2010; Exeter

I have had an interest in herptiles for some time but through being asked to teach a module in *Biology of Exotics* for year 2 FdSc Animal Science which comprises a large component of herptile biology my interest in this subject has grown considerably. I felt that although in the



module we discuss contrasting examples within the anatomy, physiology, ecology and behaviour of different species, we do not really look at our native wildlife which is perhaps missing from my knowledge. I looked into this course as I wanted to combine biology and conservation and this course seemed to tick all the boxes.

The course itself was fantastic. It covered all areas from identification, handling surveying techniques, legislation and mitigation. The course was run by Sue Searle who in a day took us through everything from what is a reptile to the processes involved when moving animals where developments such as housing estates are happening. The course is UK based as it is primarily for people who want to be ecological consultants, as a huge proportion of consultancy work during the summer months involves reptile surveying and translocation projects. The aims of the course were to:

- Learn to identify UK reptile species
- Learn best practice in handling of reptiles (including slow worms and non-native snakes)
- Carry out a field survey for reptiles
- Learn about surveying and mitigation strategies.

The day was split into a theory morning and then an afternoon out in the field looking for reptiles. The first half of the day we looked habitat types where you are likely to find reptiles and what makes 'good' reptile habitat. A key part of the course was to learn how to identify our native reptiles and which species are protected and whether any need a license to touch/disturb/move. A major part of the theory was to understand the processes involve in the translocation of animals when required to do so due to building development. We had an in depth look at the process from start to finish including the fact that you need to have suitable receptor sites to move them to before you start. We had a look at the different methods



used to survey reptiles, and Sue gave us examples of surveys she had done and the problems she encountered along the way, including having to spend 40 days continuously moving a very large number of Slow worms from a small site, as you need to have 4 clear visits of finding no animals to be sure that you have moved as many individual as you think are there.

To get experience of handling the animals in a correct fashion Sue brought in her pet snakes for us to practise on, using both our hands and also snake hooks for when moving venomous reptiles such as adders. This was very good practise as we need to make sure we handle them with care, and I think this was the only way we could have covered this part of the programme.

After lunch we went out to a field site where Sue had put 'tins' out to look for lizards and snakes but unfortunately, due to miscommunication between the RSPB reserves manager and other staff, these tins were removed (they needed to be down for about a week before you start searching for reptiles), which was a shame as it would be have been good to see if we could see some real life native ones! Nevertheless, we saw sloughed skin and could identify good habitat on the ground where we would likely see reptiles.

At the College we do not really have any 'experts' on reptiles, particularly in surveying and mitigation, so in doing this course I have not only improved my knowledge of our native species but I also feel more confident in searching for reptiles and laying tins down to attract them to show students our native reptiles. The new '*Applied Ecology*' actually has a module in this area, so I think my new found knowledge, with practise, will be of benefit to the course and will add another area of speciality which the College requires.



## **CC Newquay – Conferences attended during 2010-11**

Several staff at CC Newquay attended a variety of conferences during 2010-11, after which they gave presentations to disseminate the knowledge and information gained to both students and academic colleagues. Below is an overview of these events:

- I. Andrew Golley, lecturer, attended the 13<sup>th</sup> National Aquarium Workshop (NAW) in November 2010. This was organised by BIAZA (British and Irish Association of Zoos & Aquariums) and held at

the Blue Reef Aquarium in Bristol. NAW conferences enable public aquaria staff, researchers, industry professionals and other interested parties to share and discuss current research issues, technological developments and husbandry practices. This conference was pertinent to Andrew's teaching on the Aquaria and Conservation of Aquatic Organisms module. "Excellent conference, with speakers covering a variety of topics, many of which I have been able to implement in to my teaching."

<http://www.biaza.org.uk/resources/library/images/NAW%20Delegate%20Registration%2010.pdf>

2. Dr Hazel Selley, lecturer, attended the Zoological Society of London's (ZSL) symposium on the Marine Protected Areas (MPAs) of the High Seas at Regents Park, London in February 2011. The Symposium addressed current status on MPAs in the High Seas & issues regarding selection criteria – size / species / habitats, monitoring, compliance and management.

The benefits gained were:

- Knowledge about plans to protect the High seas
- Awareness of contemporary threats to High Seas environment
- Greater knowledge about NGOs and organisations involved in developing HSMPAs

The Symposium included talks from IUCN representatives and Greenpeace highlighting the work which is currently being undertaken to improve global co-operation on Marine Protected areas, and the status of technology for monitoring vessel movements to improve the compliance of MPA restrictions.

This was of relevance to the Contemporary Issues in Marine Conservation module.

[ZSL Conference Presentation](#)

3. BIAZA Presenters' Conference attended by Sarah Galley at ZSL London Zoo in February 2011.

The Presenters' Conference is an annual event held at different zoos/aquaria around the UK, and is available to all in Britain, where its members can get together to discuss and exchange ideas about how to educate visitors to their zoo/aquarium.

The theme is different every year, and this year it was 'Helping Audiences'. As this was very pertinent holistically to the FdSc Wildlife Education & Media programme as a whole, but particularly for the year 1 module *Wildlife Education*, and year 2 modules *Education & Interpretation in Public Spaces*, *Educational Event Management* and *Communicating Science & Natural History*, we opened this event up for students to attend; as a result three year 1 Wildlife Education & Media students attended with us.

The programme is very much about working with the public, providing education materials and relaying messages about conservation and environmental issues, so was a particularly good conference to attend. Attendance at this provided the students with some valuable techniques to engage the public.

The morning began with a talk on delivering difficult messages in talks and how to get visitors to engage with messages. This was very much a look at human behaviour psychology. This was followed by short workshops focussed on how you can engage visitors. We attended a workshop by a comedian about how you can inject humour into talks and when it is appropriate to do so, also another about how you can use props, biofacts and other 'things' in presentations. This was particularly useful as we were given an object to talk about but without saying what it was!

In the afternoon we went into the Zoo itself to their 'Animals in Action Amphitheatre' where two of their keepers were giving a demonstration about their 'audience participation in animal displays', whereby they get the public up and close to their tame, trained species.

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**Geoffrey Garbett: Lecturer, Science, Camborne  
Quaternary Research Association Sea Level Discussion Meeting  
5<sup>th</sup> – 8<sup>th</sup> January 2010; University of Durham**



Despite the snow and the cold I arrived only half an hour late at Durham after a long but very efficient train journey via London. I had studied for an MSc at Durham University in 1980 and have not been back since, so this was a visit I was looking forward to. I remembered my way from the station to Hatfield College,

trudging through the deep snow over the River Wear and through Market Place. The college sits just below the ancient cathedral and was mercifully warm as was my spartan but comfortable room.



During that first evening I was fortunate enough to meet my PhD supervisor in the restaurant where I was eating so we were able to have a good hour chatting about my progress and his latest projects. Since James Scourse is also the current president of the QRA, and much in demand, this was a very lucky opportunity.

It was clear on the first day that only a few people had not been able to make it through the ice and snow so we had a pretty full lecture theatre for the presentations. With climate change being such a major issue the scientists present were very much in the 'front line' giving the proceedings an interesting edge. One thing rapidly became clear to me, that there are far more ways of measuring sea level changes than I had realised. These range from the analysis of diatoms in the sediments on Antarctic islands to looking at changes in speleothems (stalagmites and stalactites) in limestone caves under Caribbean islands. Macrofossils in Greenland tidal marshes, ancient coastal ruins in the Mediterranean and testate amoeba on the US Atlantic coast were all called upon to provide evidence, sometimes back over millions of years, of the ever fluctuating sea level. I had to quickly establish the difference between eustatic changes (caused by the amount of sea water) and isostatic changes (caused by the rising and falling of the land). Then there was the Canadian physics professor who pointed out the importance of the movement of fluid in the earth in response to shifts in the mass of ice and water. Data was collected using simple tape measures and satellite arrays, and analysed with old fashioned graphs and computer models.

A conference highlight was a 'question time' evening session when the academics talked about their differing experiences of explaining science to the media. Ian Stewart of Ice, Fire and Water on the BBC had been with us throughout and was able to give an insider's view. Others reported on bad misrepresentations or producers who had refused to use the interview because the scientist hadn't said what they wanted them to. It was agreed that the concept of uncertainty in science was the hardest thing to get across to non scientists. On the last evening I trudged in the snow under the tower of the floodlit cathedral to the great hall of Durham Castle where we had the annual QRA dinner in the most inspiring of venues. Altogether a fascinating, very useful and very enjoyable three days.

### **18<sup>th</sup> INQUA Congress**

20<sup>th</sup> – 27<sup>th</sup> July 2011; Bern, Switzerland

I attended this conference as a PhD student.

The journey to Bern was not without its difficulties. Our flight from London City Airport was delayed two and a half hours and then we were diverted to Stuttgart due to bad weather over Zurich. We finally arrived in Zurich 5 hours late but the (ruinously expensive) train journey to Bern was quick and straightforward.



The conference started the next morning entailing a train journey into town and then a tram journey out to the conference site. I was astonished when I arrived, at the vast number of people wearing the red lanyard and name badge that set us out from mere mortals. Well over 2000 delegates had enrolled, twice as many as the last Congress in Australia in 2007. The opening address in the vast plenary hall was fascinating with talks from a New Zealand then a Japanese professor about the recent calamitous tectonic events in their countries. Both felt that, in hindsight, the severity of the events should have been anticipated and planned for. One of the striking features of the NZ quake was the liquification of the soft ground resulting in massive damage to buildings. Many buildings which were 'earthquake safe' although they did not collapse killing occupants will now have to be demolished. Should they have been post quake serviceable? The Japanese tsunami, 10 m high by the time it reached land, could have been predicted from the increasing amounts of data being gathered on palaeotsunamis.

We then heard from two award winning post docs on their research into OSL dating and Palaeoseismology, and finally, after our first noisy buffet lunch, a talk from a Dutch glaciologist. Why does one of the world's top glaciologists come from Holland? Think sea levels he told us. His final graph was ominous. Using all the data currently available on the changes in glaciers over several hundred years and

from all over the world he showed that, extrapolating current trends will result in most of the world's glaciers being gone by 2100. The first day ended with a wine and cheese reception, in one of those big indoor horse arenas, when I gingerly approached one or two people who I wanted to look at my poster before taking an early tram home. Back by 7 pm, a long day.

Over the next six days I made mountains of notes as I visited one or other of the dozens of sessions running concurrently. It was tough deciding where to go and they were long days, leaving the hotel at 7.30 for an 8.30 start and returning at about 18.00. Much stands out, historical climatology in particular as it should provide an excellent basis for 3<sup>rd</sup> year ERM projects. The projects were ingenious and enthusiastically pursued. Another session described how Cumbrian people in the Bronze Age contaminated their habitats so much that they had to temporarily abandon them on occasions.

Not much is new in our relationship with the environment it seems. Ancient DNA has been used to trace the origins of the people of Greenland (from Siberia) and even to reconstruct their appearance including eye colour and baldness. A session on drowned landscapes opened up another entirely new area of study to me, one amongst very, very many.

The experience was both stimulating and daunting, and on more than one occasion I had to ask myself what I was doing there, amongst these enormously learned professors, and massively enthusiastic PhD students and post docs forging a career for themselves. This doubt came to the fore particularly when the afternoon came for presenting my poster. It was a very sorry affair compared to almost all the hundreds of other posters put up each day for the different sessions. I had left so much out and it looked cringingly simplistic. But I stuck by it and came out at the other end feeling only slightly crestfallen.



Mid week was our extraordinary trip to almost the top of the Jungfrau, 3400m, by train. Our small party (there were dozens of field trips to choose from) was treated to a tour of the research area and a meeting with the professor in charge. We were all suffering from the altitude, drowsiness and giddiness, but it was all forgotten when we returned to the tourist part of the trip walking through the glacier with hundreds of Japanese and Indian tourists.

On Monday night we all went out on a series of boats on Lake Thun, and enjoyed a beautiful meal while the sun set over the mountains. Ours was the smallest but the best, a brass and wood paddle steamer. On Wednesday afternoon the last papers were presented and there was an amazingly well attended final plenary session. People gradually peeled away resolved to meet up again in Nagoya (or maybe Spain) in 2015, if the glaciers haven't all melted by then.



### **Dr Tom Richardson: Lecturer, Science, Camborne Falmouth Energy Week**

23<sup>rd</sup>- 24<sup>th</sup> May 2011

#### **The Conference**

Falmouth Energy Week is designed to bring together key decision makers, stakeholders, academics and other people interested in building a low carbon future. It encourages informal, constructive discussions and networking between delegates and speakers.

#### **Rationale for attendance**

Energy and climate change policy in the UK is currently undergoing big changes and keeping abreast of what this means for the low carbon agenda is complex and uncertain. We are currently in the process of developing the College's FdSc Carbon Management, and potentially a BSc Carbon Management and Renewable Energy Technology, and it is therefore seen as critical at this point that we understand what these developments might mean for the future of carbon management and low carbon energy supply. As well as staying abreast of current policy developments, the event is also an excellent opportunity to stay connected and networked with academics and local organisations involved in delivering the Governments

low carbon agenda, as it is likely that some might play a future role in delivery of the College's new provision. To a lesser extent, it was also felt that, given the high profile nature and visibility of this event, having the College presence at the event was also beneficial.

## **Outcomes**

The conference covered several primary topics; not least among these was the upcoming reform of UK electricity markets (ERM). Also covered was the role of new institutions and practices in the context of decarbonisation, and what the likely role of the big society and increasing localism might mean for delivery of carbon savings at the sub regional level. Large changes at the European level were also explored. As such the conference provided an excellent insight into the likely difficult issues that will arise around decarbonisation over the next five years. As well as helping me stay abreast of these issues, I also had the opportunity to interact with individuals from a number of different organisations in the context of the College's new provision. This led, for example, to discussions around the possibility for sharing of resources and delivery on relevant courses.

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**Yvonne Oates: Course Manager, Geographical Information Systems Specialist - Module leader GIS Short Degree**

**Working with 3D using ARCGIS training event**

August 2011; Aylesbury

This specialist course familiarises GIS users with the fundamental concepts of 3D GIS as you learn to visualise, edit, model, and analyse GIS data within a 3D context. Topics covered were as follows:

- **Using 3D GIS**
- **Working with 3D data**
- **Visualising GIS data in 3D**
- **Editing features in 3D**
- **Optimising 3D performance**
- **Solving problems with 3D GIS**

The training, delivered by an ESRI tutor (the software providers), was aimed at a multidisciplinary audience who were experienced users of GIS. It was specifically a 'users' course rather than an academic module and through discussion and practical exercises, familiarised those present with the specific ArcGIS functionality.

It was a very well organised course, which covered a large amount of ground in a short time.

I would only recommend this course to potential users of this application who have a sound grounding in the use of ArcGIS, as it is a very specialised course. To those whom it is relevant – it would be of great benefit and I am now employing it in my teaching practise.

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## **2010 - 2011 Scholarship Report**

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