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Introduction from Head of School

Welcome to the latest edition of our alumni newsletter. These are exciting times for the School of Geography, as we get ready to move into our new premises in Spring 2015. Yes, after many happy years in our current building, we have outgrown its capacity and are off across campus to refurbished accommodation in three of the wonderful 1960s Brutalist buildings – Miall, Manton and Garstang. This will make us next door neighbours to the School of Earth and Environment, and also means that the University’s sustainability garden will soon be our front lawn.

We are also excitedly awaiting the results of the Research Excellence Framework (REF), which is the nationwide assessment of research performance in Universities, which happens every 5 or 6 years. It has been a mammoth undertaking to collect all the data and submit all of our publications for review, so we are eagerly anticipating a good outcome that shows the international importance of Geography’s research.

As usual, there’s lots more going on in the School – in terms of research and in terms of teaching. We have recently welcomed a new cohort of PhD students, our largest ever, and have exciting new Masters programmes in development. As you will all no doubt remember, the School is a lively and vibrant place, and we are all looking forward to settling into our new home in the heart of the campus.

David Bell
Welcome from the editorial team

Welcome to the Christmas 2014 newsletter. We hope you enjoy another packed edition. As usual we have a number of articles from past students, news of reunions, new staff profiles in 'meet the staff' and details of new and exciting research projects.

The main research news from the School in fact is a fantastic new £6 million grant from the Economic and Social Research Council to establish in the School the UK’s new ‘Consumer Data Research Centre’. Mark Birkin explains the concept of ‘big data’ and the role of the Centre later in the newsletter. As well as facilitating research into consumer behaviour using big data, the monies provide the opportunity to design and launch a new masters course on ‘Retailing and Consumer Science’ jointly with the University of Leeds Business School, probably in Autumn 2016.

We also had hoped to be in new premises by the time you read this, but the move has been postponed until Easter 2015. So, hopefully, we will be able to give you a virtual guided tour in the next edition.

Once again we would all like to thanks Tessa for doing such a remarkable job in sourcing articles and shaping the format of the newsletter along with our graphic designer Alison Manson. Finally, may all of us here at SoG wish you a very happy Christmas and successful New Year!

Best wishes, Graham and Tessa.
Research news

Why was the country of football screaming “FIFA Go Home”?
Researchers from the School of Geography and the Institute for Transport Studies were recently in Rio de Janeiro looking at why and how thousands of Brazilians, after one year in the streets, were still mobilising against the biggest sporting event of the year. Despite being considered a country with huge growth and development potential, Brazil is still a territory of dramatic inequalities and injustices.

Since June 2013 a huge popular movement has swept through the country. It started from small protests against the increase in bus fares and quickly reached a peak of millions in the streets who oppose the current capitalist model of development that has climaxed in the hosting of mega events for most cities in Brazil. The country hosted the FIFA World Cup in 2013 and Rio de Janeiro will host the Olympic Games in 2016.

While huge new infrastructures were built to accommodate athletes and tourists, thousands of families faced evictions due to these mega events, and billions of public money was poured into luxury stadiums and hotels. All this happened in a country that still lacks standard health and education facilities and in which millions of people live in precarious conditions in slums, while natural resources are heavily exploited. Federico Venturini (Geography) and Ersilia Verlinghieri, both doctoral students from the Faculty of Environment, collected testimonies for a documentary, working together with the Grupo Popular Pesquisa em Ação, a people’s research collective from Rio de Janeiro.

This research is part of a wider initiative on Contested Cities, a network of researchers in the UK, Spain, Argentina, Brazil, Mexico and Chile looking at changes in our cities.

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This research is part of a wider initiative on Contested Cities, a network of researchers in the UK, Spain, Argentina, Brazil, Mexico and Chile looking at changes in our cities.

'It doesn't make sense to be the soccer country if there is no health or education.'
Big Data Centre

The University of Leeds is spearheading research which could halt the spread of lethal diseases and ensure the buses run on time. The research could also help to create jobs in a wide range of sectors across Yorkshire.

Academics from the Centre for Spatial Analysis and Policy: Mark Birkin, Martin Clarke, Graham Clarke and Nick Malleson, have received grants to help them analyse the vast amounts of data produced by individuals and public sector organisations, in order to help shape Government policy. Every time we buy goods, or use public services, we leave a digital record behind. This ‘Big Data’ can potentially be used by academics to spot wider trends.

In February the University of Leeds received two multi-million pound grants that should turn it into a major centre for Big Data analysis. The grants, announced by Minister for Universities and Science, David Willetts, at the High Performance Computing and Big Data conference in London, were awarded by the Economic and Social Research Council (ESRC) and the Medical Research Council (MRC).

The University of Leeds has been awarded £5.8m from the MRC and, although the final details are still being negotiated, a further grant of around £5m from the ESRC.

The ESRC grant will be partly used to establish a new masters course in Geography and Business, which will help to address a national skill shortages in Big Data analysis. It will also fund a Consumer Data Research Centre (CDRC), which will be jointly hosted by the University of Leeds and University College London (UCL). The CDRC will be a national resource that will make data, which is routinely collected by business and local government organisations, accessible for academics so they can carry out research that could shape future Government policy.

At Leeds, this data analysis will span a wide range of topics, including research into controlling the spread of epidemics and improving the transport system. It could also help with other challenges, such as mapping consumer trends and tracing relationships between shopping habits and health.

Professor Mark Birkin, of the University of Leeds’ School of Geography, who will lead the ESRC project, said: “The modern consumer environment is producing vast amounts of data that we are only just starting to get to grips with.

“These data sets can contain enormous volumes of information that, if analysed and studied in the right way, will offer valuable insights into our society.” Mark added that the Big Data analysis could play a role in transport planning, which could mean we have fewer traffic jams. He said: “Bus routes are still the same as they were 35 years ago, despite the way mobility patterns have changed.” He said the establishment of a Big Data hub in Leeds could create employment opportunities at a number of firms, including information providers to the healthcare sector. Initially, the CDRC is expected to create around 12 jobs.

The ESRC project will include stringent checks to protect the identities of individuals. The MRC-funded research will focus on linking up electronic health records, from people who want their data used for research, with other data. The findings will be used to help improve healthcare.

As well as the ESRC and MRC funding announcement, the University of Leeds has also received research funding for Big Data projects from the Arts and Humanities Research Council (AHRC) and the Natural Environment Research Council (NERC). The AHRC has awarded the University £280,000 for a project which aims to find ways of making data more accessible to the public.

An award of £183,000 from NERC will enable researchers to expand a processing facility for the large amounts of radar data that will be created by the satellite Sentinel-1, which was launched in March. This grant will allow greater access to this data. It will enable scientists to monitor and map ground movement in all regions across the world that suffer from earthquakes and volcanic eruptions. It will also monitor the rates of ice loss from Greenland and Antarctica.

Mr Willetts said: “Making the most of large and complex data is a huge priority for Government as it has the potential to drive research and development, increase productivity and innovation and ultimately transform lives.”

Mark Goldstone, the head of business representation and policy at Leeds, York and North Yorkshire Chamber of Commerce, said: “This is significant investment and recognises the important role the University of Leeds plays in this agenda. Leeds already has many strengths in this sector and this investment will strongly support future development and expansion.”
A species of alga that resembles the planet Saturn has been discovered for the first time in the British Isles.

The algal species, which is classified as ‘Saturnella saturnus’, was discovered by PhD student Jeannie Beadle from the School of Geography at the University of Leeds. Her research looks at pools of water created by peatland restoration measures in the Pennines, such as drain-blocking, with this particular find coming from Moor House-Upper Teesdale Nature Reserve in March 2014.

“I’m really pleased to have shown that drain-blocking is genuinely helping biodiversity. It’s evidence like this which helps land managers to justify the money spent on peatland restoration measures,” said Jeannie.

After World War II, many peatlands in the UK were drained using shallow ditches with the aim of drying out the peat to make it more suitable for forestry and land grazing animals. However, the process has since been shown to be largely ineffective and also damaging to peatland ecosystems.

The blocking of drainage ditches began in the 1980s in an attempt to restore the peatlands to their former boggy state, with most of the pools being created in the last decade or so, when restoration programmes became more widespread.

Jeannie concludes: “As well as looking at algae, I’ve sampled about 150 artificial pools for macroinvertebrates, which I’m currently sorting and identifying, so there may be further interesting discoveries. However, I doubt any will be as beautiful as this Saturn of the Moors.”

Jeannie’s research is funded by a Natural Environment Research Council (NERC) CASE partnership with the RSPB.

A British scientist trekked for three weeks through perilous jungle swamps in one of the most far-flung corners of Africa. His reward? A peat bog the size of England.

But while some explorers might have found this anti-climactic, for Simon Lewis it was like striking gold. His discovery is being hailed by experts as a breakthrough in unlocking secrets of the Congo basin and climate change.

The monster swamp his expedition found in Congo-Brazzaville is thought to contain billions of tonnes of peat dating back 10,000 years. Studies of this carbon-rich material could reveal how the environment has changed over millennia in central Africa — information that has remained largely shrouded in mystery due to political instability and the geographical remoteness.

The vast peatland was first detected by satellites, prompting Simon, a lecuturer in physical geography at Leeds, to lead a scientific expedition last month from Itanga village into one of the world’s biggest wetlands which, because of its inaccessibility to outsiders, also has one of the biggest concentrations of gorillas and elephants. People can only wade into the bog two or three months a year, at the end of the dry
season, said Simon. Even so, to avoid getting soaked, his team had to build a platform each time they wanted to pitch tents and cook food.

Along the way their guide encountered a gorilla, while on a couple of nights a herd of elephants thundered past the camp. Crocodiles were also a potential danger.

“It is very remote,” Simon recalls. “If things go wrong, it could be hard to get everyone and take them to hospital.”

But for the academic and his fellow researchers (including a Geography PhD student Greta Dargie) from the University of Leeds, the Wildlife Conservation Society-Congo, and Congo-Brazzaville’s Marien Ngouabi University, it was all worthwhile when they identified the bog spanning 40,000 to 80,000 square miles across Congo-Brazzaville and the Democratic Republic of Congo, its peat layer up to 23ft (seven metres) deep.

The discovery illustrates how relatively little is still known about some of Africa’s most remote and inhospitable environments. Simon said: “To me it’s quite amazing that there are still uncharted places. This is a peatland something like the size of England.”

Peat arises from partly decomposed plant material and builds up in waterlogged conditions. The researchers believe this bog holds billions of tonnes of partially decayed vegetation and large quantities of carbon. The team took samples of the peat back to the UK for scientific analysis.

Simon adds: “The Congo peatland is a major store of carbon, slowly removing carbon from the atmosphere. This should, if the region is not drained for agricultural use, store billions of tonnes of carbon for the long term, keeping it out of the atmosphere.

“Additionally, as peat develops it retains concurrent environmental conditions so can provide a window on the past. Pollen captured as the peat forms can be linked to the vegetation of the time. This is important for the central Congo basin as so little is known about the region, either today or in the past.”

He adds: “Understanding past vegetation and climatic changes can help scientists make robust assessments of how the climate will likely change in the future and how that will affect the swamp forest and peat.”

Peatlands cover less than 3% of the land surface of the Earth but are believed to contain twice as much carbon as the world’s forests.

Fellow scientists said Simon’s discovery would offer fresh insights into the environmental history of the Congo basin and its role in the global climate. This could have implications for predicting and mitigating climate change.

“To me it’s quite amazing that there are still uncharted places”

Simon Lewis
Super high-resolution survey in Greenland

Dr Duncan Quincey, Dr Jonathan Carrivick and Joseph Mallalieu (all School of Geography) used the emerging technique of ‘structure-from-motion with multi-view stereo’ (SfM-MVS) to analyse bedrock parts of a river channel at an unprecedented resolution.

“Worldwide, glacier margins are retreating, loss from glaciers is increasing and the consequent meltwater often forms temporarily ‘ponded’ in glacier lakes. Many of these lakes are unstable and can drain rapidly producing outburst floods,” explains Jonathan.

“Glacier outburst floods can cause loss of life, displacement of populations and damage to infrastructure, but our understanding of them is limited, due to their suddenness and short-lived nature and also the power of the flow which makes direct measurements extremely difficult. Flows are not easy to understand because they cause rapid landscape change, causing erosion and routing through complex channels. They frequently accelerate and decelerate, with rapid and abrupt changes in energy and capability to erode, transport and deposit sediment. So, new methods of surveying are needed to identify sources of sediment from outburst floods and the changes that take place between events.”

SfM uses novel digital photogrammetric and computer vision methods for simultaneously reconstructing camera pose and 3D feature geometry using multiple, overlapping digital photographs. It produces super high-resolution topographic models to improve flood modelling (A) and also provides baseline data to compare future surveys against, allowing quantification of bedrock erosion and sediment redistribution (B).

“This project collected the imagery using a combined ground-based and airborne approach,” explains Jonathan. “Surveyors walked on the river banks, getting hand-held camera images at each new perspective, producing around 300 images for each site. Additionally, a quadcopter took multiple aerial photographs...
of the bedrock gorges, and was invaluable for speed of survey and for imaging inaccessible and exceptionally complex areas. The resulting topographic datasets have centimetre-decimetre resolution, which far surpasses any previous elevation models of the site.”

The team is now analysing the multi-scale data with a view to improving models of flood routing and propagation – for hazard analysis via information on time to inundation and hydraulics – and improving understanding of rapid bedrock erosion. The research was funded by the Royal Institute of Chartered Surveyors, administered by the Royal Geographical Society.
Meet the staff

Mark is a Lecturer in Water Research and joined the School in 2012. Mark’s research interests lie in the fields of hydrology, hydraulics and process geomorphology.

Dr Mark Smith
Lecturer in Physical Geography

1. Why did you become interested in research?
I have a definite inquisitive streak and often look for explanations and answers. While this can occasionally bore friends and family, it is essential for research. We are always questioning things and asking: but why? In that sense research was a natural fit. While the study of distant universes or subatomic particles is interesting, the great thing about geography is that it’s all around you and very accessible for study. Sometimes holidays can get side-tracked for this very reason.

2. What are you currently working on?
One project I’m working on at the minute relates to the melting of Arctic glaciers. I spent two weeks camping near a small glacier in Arctic Sweden last summer with Dr Duncan Quincey. We used new surveying techniques to look at the roughness of the snow and ice surfaces and are seeking to understand the effect this has on melting rates. We are working up the data we collected at the minute. It’s the only survey I’ve ever done that captured a wild reindeer!

3. What is the most important finding from your research to date?
I was involved in a big project in Tanzania looking at malaria transmission in a particularly badly afflicted valley. As a hydrologist and geomorphologist I was interested in the water bodies and their particular characteristics. The data we collected showed that the type of water body and its setting in the landscape (e.g. whether it is a puddle in a river bed or a bigger wet soggy area at the bottom of a hill) influenced the numbers of breeding Anopheles mosquitos and the timing of their emergence as adults. It was great to work in an interdisciplinary team on such an important problem.

4. What has been the highlight of your career so far?
We get to travel to such interesting places! One particularly good day ‘in the office’ recently involved leaning out of a gyrocopter to take aerial pictures as part of a topographic survey of eroding badlands in Spain. It was just like being in ‘Little Nellie’ from the James Bond film ‘You Only Live Twice’. Plus, we got some fantastic data from it.

5. What advice would you give to someone interested in pursuing a research career in your field?
Follow your nose! Study what interests you, because if you don’t, you won’t have the passion needed to get through those awful wet and rainy field days.

6. What is the most common question you are asked by non-researchers?
“What has geography got to do with....?”. Many people have only experienced geography at school (i.e. oxbow lakes) and that bears little resemblance to the topics that we teach and study at university. The great thing about geography is that it crosses all the disciplines and so can contribute to many of the world’s big challenges.

7. What is your favourite hobby?
I’m a big fan of the outdoors and a long-distance runner so I’m often running the trails and fells nearby. In fact that’s where I’m off right now.

For more on Mark’s research visit: www.geog.leeds.ac.uk/people/m.smith
Dr Alex Schafran — Lecturer in Human Geography

Alex’s research focuses on the contemporary restructuring and retrofitting of urban regions, with a particular emphasis on the changing dynamics of race, class and segregation across space and place. Alex is trained as an urban planner and his work attempts to fuse critical, historically-rooted and place-based geography with a planner’s eye for policy and the future.

1. Why did you become interested in research?
I came very late to research and very much through the back door. I was a community organizer and policy worker focused on housing rights and social justice in New York City, with a background in immigrant rights. The desire to learn more about the interconnections between housing and other aspects of the city — environmental issues, jobs, transportation, etc. — led me to an urban planning masters, where I realized that teaching about these interconnections was my calling. This meant a doctorate, which meant research. Only after starting my PhD did I realize that the production of knowledge was also pretty interesting.

2. What are you currently working on?
It’s incredibly exciting to be here at Leeds and have a chance to collaborate and research widely now that I am officially a proper academic, so a lot of my new work is just getting started. I am building a collaboration with colleagues in Denver which will enable me to do grounded research on the “suburban retrofit” in the United States, work that will continue a variety of current projects with various American colleagues looking at issues as diverse as the changing geography of poverty, new conceptions of segregation and “secondary apartments” in single-family homes. I live part of the year in France, where I am starting a long-term comparative project on changes in the French banlieue and the American suburb, two legendary places often thought of as opposites. I’m thrilled to be part of the Contested Cities project here at Leeds, an exciting network of researchers in Rio, Buenos Aires, Santiago, Queretaro and Mexico City working on issues like gentrification and urban restructuring.

3. What is the most important finding from your research to date?
I like to think I have made a solid argument for a more urban explanation and understanding of the foreclosure crisis in the United States. The racial and regional geography of the crisis — long-impoverished inner-city communities, poorer inner ring suburbs and far flung exurbs — should tell us that this is not just about banks or irresponsible homeowners. This is about how we have built American cities and regions for two generations.

4. What has been the highlight of your career so far?
I am just getting started in the research world, so I like to think that my best days are ahead of me. I was really proud when the most influential urban planning organization in San Francisco gave me a special issue of their magazine to feature some of my work on rethinking sprawl and regionalism.

5. What advice would you give to someone interested in pursuing a research career in your field?
This is very selfish advice, but I am hoping we get more people committed to redefining the possibility of urban studies as a central “non-discipline” for the 21st century. Most models of what it means to do research and be a researcher come from either science or social science, neither of which will suffice for the co-production of urban knowledge and action over the next 50 to 100 years.

6. What is the most common question you are asked by non-researchers?
When people ask what I do, I tell them I am a geographer and planner and I study cities. Since everyone knows something about cities and towns — I consider a town of 20 just as much a part of what I study as London — we generally just end up talking about what they know or what interests them: gentrification, mass transit, sewage, urban politics, crime, economic geography, you name it. I do end up asking them a lot of questions, so perhaps I am a researcher after all.

7. What is your favourite hobby?
It is probably a tie between wandering or biking the streets of new cities and taking pictures, hiking or running where there are no buildings anywhere, and following my beloved San Francisco Bay Area sports teams.

For more on Alex’s research and publications visit: www.geog.leeds.ac.uk/people/a.schafran
Where are they now?

Richard Murgatroyd – BA Geography 2000
Richard Murgatroyd Photography

My name is Richard Murgatroyd and I am a professional photographer and here are a few words about my journey.

Geography has always played a part in my life starting at school where my geography teacher was an important mentor to me and helped focus my mind on getting to university. For me, my three years studying for my BA in Geography at Leeds transformed me as a person and opened my horizons. I’d always been fascinated by the world but I had been on a flight just once when I was 18 and was hungry to find out more.

I came to Leeds in 1997 – the city was on the cusp of a huge redevelopment. By the time I graduated in 2000 with a first class honours it had been transformed. After university I was faced with a classic heart vs head decision. At the time joining a management consulting firm offered a great compromise: money I’d never had, a means to pay my student loans and the ability to defer my entry to travel for a year. I ended up working for an NGO in the Costa Rican jungle for a local farming cooperative and seed bank – there was no running water, no electricity, and getting anywhere involved a five hour journey hiking through swampy jungle and hitching lifts through banana country. On my return little was I to know the world economy was about to collapse. The writing was already on the wall for the .com boom when the 9/11 terrorist attacks happened just two days after flying back from my graduate training course in the USA. The majority of the large consulting firms with the exception of the one I had joined went to the wall or were sold.

Despite a rocky start, as a management consultant in the oil, gas and utilities sector I was looked after well. Long holidays meant plenty of opportunities for personal travel, the benefits were great and I made friends as good as those I made at university. Working on projects away from home could be akin to being at university but with the benefits of a salary. However I longed for something else and with my then girlfriend and now wife we headed to Australia to bush camp and four wheel drive 48,000km across the Australian outback. After 18 months in Australia, Bali & New Zealand, paid for by five months working as a management consultant in Sydney, we returned to London seeking new challenges and I decided to change tack and work in the City buying real estate and real estate companies for a private equity firm. I’m not sure how I got the job being neither an investment banker nor a surveyor – I think I may have mentioned something about studying retail location analysis at university…! I joined just as the financial crisis struck (there is a pattern developing) which ironically was a great thing for my employer who had a war chest of money to invest. There was a certain excitement, intellectual intrigue, and dynamism about the work. I joined at the bottom, crunching numbers and less
than five years later I found myself as a Vice President running the UK acquisitions team. Whilst my mum thought that meant I was second in command to the President of the USA the reality was somewhat different. I travelled with work plenty – from Beijing to Paris, Poland and Hungary. However five years in I found myself questioning whether the hours, demanding schedules and the compromises that entailed were ones I wished to sustain for the rest of my life.

It was in my early 30s when the possibility of being a professional photographer first started – I’d always photographed everywhere I went but when I was planning my own wedding I found a photographer who had begun his career by working with communities in the Middle East. I loved the approach and style and started working for him. He liked my work and so when only a few months later I left my job to travel to India, Nepal and Sri Lanka for eight months I had it in my mind that this was going to be something more than a hobby. On my return I set up Richard Murgatroyd Photography (www.richardmurgatroyd.com). I photograph across a few genres – but the essence is the same – very natural documentary photography capturing my client’s story in an unobtrusive way. There is no Photoshop, big studio lights or fashion poses. In the last 15 months I’ve been out to India three times to work with an NGO to document their drive to eliminate rabies from India, and my work has been featured by, amongst others, the National Geographic: completing a circle from where I started as a keen geographer inspired by the photos of others. My commercial clients love the more dynamic and raw approach I take to my work. I was surprised how much I loved photographing weddings where it is all about capturing special moments and the emotion of the day. Regardless of whether I am in a slum in India, or in Monaco about to photograph a bride, it is the human element of what I do that is important – reading emotions, visual cues, and putting people that are often apprehensive in front of a camera at ease. Whilst I’m probably earning less than I was at any time since university I’m back doing what inspired me to study geography in the first place – exploring the world in which we live, and surrounding myself with the complexities of human nature and emotion.

To get to where I am today has been a journey for sure – one that I would not change for a second. It’s given me a huge amount of life experience and wonderful memories as well as giving me a unique experience of business and a confidence in dealing with and understanding people. It’s also enabled me to see the world. Every new chapter required a plunge into the unknown and an element of fear but the decisions I’ve made and the places that they’ve taken me have worked out so far and I’m keen to see where I go next.

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Annabel Ling – BA Geography 2013
Account Manager, Forum Centrespace

Former BA Geography graduate, Annabel Ling, has been promoted to Account Manager at Forum Centrespace after spending her first year working at the company’s Gosforth head office.

Newcastle-based commercialisation pioneers Forum CentreSpace Ltd is opening a London office in Clapham, where Annabel will be based. The company, which set up in 2001, was one of the first to specialise in the commercialisation of shopping centres and currently works on behalf of owners and asset managers at more than 65 shopping centres across the UK.

Annabel will be working at the London office near Clapham Common. During her BA Geography degree at Leeds she studied advanced retail planning, which included a dissertation on commercialisation in shopping centres. Having now moved to London, she intends to work more closely with shopping centres and owners, and attend British Council of Shopping Centres events to be able to network within the shopping centre industry.

Expansion within the company has been considerable over the past five years, and since much of the new business is in London and the South East, as well as the head offices for many of the landlords and managing agents, a presence in London will be an advantage.

CentreSpace account director Caroline Al-Jumaili said: “Forum CentreSpace is well-established across the UK and we have worked well from the Gosforth office. However, we are growing to the extent that it makes sense to have a secondary base in London, so that we can respond quickly to the demands of the clients we work with. Annabel has gained valuable experience in the last year, and will work on the centres in the South of England and increase our presence in the London area.”

Annabel added: “I am looking forward to this new challenge, and have no doubt that the London office will quickly become an asset to the CentreSpace team. We will have increased access to brands and promotions companies, which can bring greater variety to the activities we already provide for shopping centres.

“The demographics and lifestyle profiles are always slightly different for each shopping centre, and it really interests me to find out which promotions are suitable for the centres I deal with. Commercialisation is developing into new areas and becoming more refined, so that it offers added value as well as revenue to the centres, and I intend to make sure we are at the forefront of this trend going into the future.”

MSc in GIS 2009
PhD in Geodemographics 2014
Teaching Fellow, School of Geography, University of Leeds

Following on from his studies, Luke continued his association with the School by gaining a post as a teaching fellow in 2013. Since then, not only has Luke won the ‘Teaching Star’ Award 2013/14 for teaching on the BA Geography Programme, he has just been announced as the winner of the Association for Geographic Information (AGI) Excellence in Education Award, 2014 for his teaching of GIS and Spatial Analysis to level 2 students. Congratulations Luke, many more awards in the pipeline I’m sure!
The Real Junk Food Project is a collaborative effort between catering professionals and activists to bring about a radical change in our food system. Our first step to achieve this challenging task is to intercept perfectly edible food that would otherwise not make it to plate and serve it as meals in the café, or distribute it through our food boutique. As well as the positive environmental impacts of reducing edible food waste, the project also has clear social benefits through operating a strictly Pay-as-you-feel (PAYF) policy. PAYF offers an alternative to the conventional payment system as there is no price on any produce of the café. Our system transcends monetary transactions and liberates people to use their skills and attributes as well as money to pay for their meals. Furthermore, we aim to highlight the absurdity that the produce we use has been stripped of its monetary value but still retains its nutritional value. By making people think about what they wish to contribute for their meals, the idea is to get society thinking about how they value food as a resource.

- Chefs at Real Junkfood Project only use waste food to create meals.
- Restaurants and supermarkets donate leftovers every day to the café.
- So far caviar, truffles and smoked salmon have been given to the project.
- Customers decide what they want to pay.

The café where the food really is rubbish: a restaurant which only uses waste food to create meals opens its doors... and customers pay what they want for their dinner.

Conor Walsh — BA Geography with Transport Planning 2014

The Real Junk Food Project is a collaborative effort between catering professionals and activists to bring about a radical change in our food system. Our first step to achieve this challenging task is to intercept perfectly edible food that would otherwise not make it to plate and serve it as meals in the café, or distribute it through our food boutique. As well as the positive environmental impacts of reducing edible food waste, the project also has clear social benefits through operating a strictly Pay-as-you-feel (PAYF) policy. PAYF offers an alternative to the conventional payment system as there is no price on any produce of the café. Our system transcends monetary transactions and liberates people to use their skills and attributes as well as money to pay for their meals. Furthermore, we aim to highlight the absurdity that the produce we use has been stripped of its monetary value but still retains its nutritional value. By making people think about what they wish to contribute for their meals, the idea is to get society thinking about how they value food as a resource.

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The concept is not restricted to Armley and other cafés are these wonderful individuals the project would not be possible. Volunteers who are the life and soul of the project. Without Départ. The café is staffed by an enthusiastic team of local champion Greg Lemond during his stay in Leeds for the Grand demographic of people including three time Tour de France now open seven days a week serving meals to a wide Johanna cooked Christmas dinner for the homeless population. From its trial period in December 2013 where Adam and project in a local food activist meeting Sam (university of Leeds) and Conor Walsh (geography) met Adam in order to offer people like Conor who believed in him and his ideas, and in late December was offered access to a struggling community kitchen in Armley, an area of Leeds renowned for high rates of poverty, drug abuse and crime. After hearing about Adam’s project in a local food activist meeting Sam (university of Leeds) and Conor Walsh (geography) met Adam in order to offer him some carrots and parsnips they had reclaimed from a skip, which he gladly exchanged for tofu and crisps, in true PAYF style! The partnership began!

From its trial period in December 2013 where Adam and Johanna cooked Christmas dinner for the homeless population of Leeds, the café has gone from strength to strength and is now open seven days a week serving meals to a wide demographic of people including three time Tour de France champion Greg Lemond during his stay in Leeds for the Grand Départ. The café is staffed by an enthusiastic team of local volunteers who are the life and soul of the project. Without these wonderful individuals the project would not be possible. The concept is not restricted to Armley and other cafés are popping up in other parts of Leeds as well as other cities. All these efforts will be supported by a charitable trust serving as a network.

Leeds Markets have also teamed up with The Real Junk Food Project to reduce the amount of food waste sent to landfill. The first collection by The Real Junk Food Project intercepted nearly 250kg of food that otherwise would have gone to landfill. We’re really excited about this ongoing partnership, not only are we reducing our waste, we’re also helping to feed those in need in an imaginative and successful way. The Pay As You Feel café uses only donated waste food produce to create healthy meals for the community. It then allows customers the option to donate what they feel for the service.

Co-director Adam Smith said “We hope to be intercepting at least one tonne of food per month from Leeds Kirkgate Market, and with the environmental impact we’re having this could be the catalyst for The Real Junk Food Project and Leeds City Council to work together more effectively in the future to manage waste around the city. Restaurants, supermarkets and local residents across the city have been getting behind the venture — with caviar, truffles, a kilo of smoked salmon among the unwanted food dropped off, alongside the more common potatoes, bread and broccoli.

Menus change every day. Food on offer is seasonal and depends on what is donated. The café is now open five days a week to serve breakfast and dinner. It has also started catering for outside events.

Conor Walsh, 23, said: ‘We get a real mix here from locals in the area who come in and spend the day here to students. The pay as you feel concept makes people think about what is offered and what they think it is worth. We like to think if somebody has a little more money they might pay a little more. But if a person did not have the means to pay we are not going to not serve them. If they are hungry we are going to give them food.’

‘Sometimes if customers don’t have money they will help out for a couple of hours, invest some of their time.’ Conor said they are now operating a food bank from the premises as well. He added: ‘We want to make use of all this food that is being needlessly wasted over society. ‘We want to provide healthy meals for people who are food insecure. Using food collected that basically gets sent to landfill.’ Conor said he hoped to see similar cafés around the country and ‘feed more people and raise awareness of food waste’.

10,520.716 KGS
OF EDIBLE FOOD INTERCEPTED BEFORE MAKING IT TO LANDFILL

2888 PEOPLE
SERVED AT THE PAYF CAFE

4073 MEALS
MADE AT THE PAYF CAFE

(STATS FROM DEC 13’ TO JUNE 14)
A vegetable curry prepared from ingredients which would have otherwise gone to waste.

Conor with some donated vegetables.

Unfortunately at the time of going to print the PAYF Café in Armley has found itself at risk of closure. Despite their attempts at building an alternate economy not financially focused, they have found themselves in a position where they need investors to help raise £130,000 before 1 January 2015.

If you would like to help, go to www.therealjunkfoodproject.co.uk and click ‘Donate’

www.facebook.com/PAYFcafe Twitter: @realjunkfood
Richard Boon — BSc Geography, 1983
Chief, Orange County Stormwater Program

California’s State Soil is the San Joaquin Series. This official emblem of the Golden State was the subject of a fusillade of letters that briefly strafed the letters page of the Los Angeles Times last year. The Dustbowl and the billion dollar agribusiness of the Central Valley notwithstanding, “Perplexed from Huntington Beach” couldn’t see the rationale for having a State Soil. I had to conclude that the writer had neither found the time to read Bob Eyre’s Real Wealth of Nations nor graduated from Leeds in the early 1980s with a BSc in Geography.

For the BSc student in the early 1980s, Richard Smith (soil geochemistry), Ken Atkinson (soil typography), Mike Kirkby (soil creep, amongst a number of earth surface processes), and Bob Eyre (the fundamental significance of soils) ensured that soils, figured prominently in the curriculum. There was also John Palmer. You could determine the composition of soil by drying and sieving, or you could, as John suggested, simply mix a sample with some spit and taste it. On an Easter field trip and mid-trudge up a rain blasted hill in Wales, John got to his knees and drew our attention to an exposed soil profile. Barely audible above the howling wind, and with mud dribbling down his chin, he concluded that we were atop a sandy loam. Mike Kirkby’s forays into differential calculus were not so challenging after all.

Thirty years on from my time at Leeds, soils, sediments and stream systems are still the touchstones of a continuing career in environmental protection. While undertaking graduate studies (upland streams and sediment supply) at the University of Wales (Lampeter) I met my future wife Jo who was on an education abroad exchange from the University of California. We eventually married and I have spent 20 of the last 25 years living in Southern California. Today I manage the Orange County Stormwater Program (see www.ocwatersheds.com) for the County of Orange and 34 cities of Orange County.

Within two weeks of arriving in Los Angeles for the first time in July, 1988, I got married, accepted a position as a staff geologist with a geotechnical consulting firm and acquired a 1976 Plymouth Fury. President H.W. Bush had no enthusiasm for Star Wars, so I knew, with his election, that my days preparing environmental assessments of the testing and validation of Star Wars technologies might be coming to an end so I joined the County of Orange as an environmental specialist. Initially, I did a lot of fieldwork including stream discharge monitoring to support flood control design and stream, lake and harbour water quality monitoring. I was also assigned the oversight of a soil conservation program in the rapidly urbanizing County’s remaining agricultural lands intended to control sediment flux in the ecologically significant Newport Bay Watershed.

When USEPA promulgated regulations in 1990 requiring local governments to be permitted under the Clean Water Act’s National Pollutant’s Discharge Elimination System provisions, and ultimately be held accountable for polluted urban streams, I got given responsibility for the fledgling stormwater program. Working cooperatively with 34 cities I developed a Drainage Area Management Plan for Orange County. We stencilled 35,000 street drain inlets, implemented new water quality protection requirements for land development and worked very closely with the District Attorneys Environmental Crimes Unit and fire departments on the abatement of illegal discharges and illicit drain connections.

I was surfing the regulatory wave of urban runoff management and getting active in policy issues in Sacramento as vice-chair of the California Stormwater Quality Association (www.casqa.org), when my wife was transferred to the UK. We left California in 1998 and I joined the Environment Agency as a field officer based in Warwick responsible for discharge consents and waste management licences in the middle section of the Warwickshire Avon. I got a record fine levied in a solid waste prosecution and felt a real affinity for the landscape I was charged with protecting. But the Agency was always re-inventing itself. I joined it in the aftermath of a major re-organization and left after three years as it initiated another one. There were great opportunities to be pursued at the Environment Agency but I felt like I was at an academy rather than a regulatory agency. When Orange County called in 2003 to say my stormwater program position was again vacant, I prevailed in the recruitment and we returned to California.

The focus of the urban stormwater program has now shifted in California from abatement spills and discharges to re-constructing the urban landscape for water quality protection. By 2011, we had institutionalized Sustainable Urban Drainage Systems (SUDs). Any land development project in Orange County creating more than 5,000 square feet of impervious area must now retain the first 0.75 inches of rain on site using Low Impact Development (LID) practices (i.e. SUDs). If the site drains to an eroding channel, the project proponent must also ensure that post development runoff conditions (flow rates and durations) must not exceed pre- development runoff conditions by more than 10 percent (for the range of flows that result in increased potential for erosion, or degraded in-stream habitat downstream of Priority Development Projects).

Geographical Information System (GIS) — based analysis is now starting to transform our approach to water quality protection. While we will continue to require LID and ensure that spills are effectively prohibited, GIS is now enabling us to complement the Countywide approach with watershed-specific
approaches particularly with respect to screening the landscape for retrofitting opportunities, including stream restoration projects and runoff retention facilities for local aquifer replenishment. Over the next two years we will be working to put the institutional framework in place to enable us to create an in-lieu fee alternative to on-site mitigation as a basis for funding regional stormwater management projects.

Managing the Orange County Stormwater Program has been and continues to be an exercise in revisiting the enduring lessons i.e. the touchstones of my three years at Leeds. At the time, I had a reverence for the United States Geological Survey (USGS) Professional Papers that were required reading for Mike Kirkby and Pam Naden’s classes. This reverence has endured and I still quote Luna Leopold when addressing conferences. Coincidentally, my program budget now includes an allocation for assistance from the USGS with stream gauging. I have kept in contact with Jeremy and Janice Hutchins and Chris Yoxon who graduated with me in 1983 and through them have kept somewhat current on the careers of my contemporaries. I suspect that I am the only BSc graduate of the class of ’83 that still practices BSc Geography on a daily basis.

Incidentally, the “San Joaquin Series” comprises a reddish brown, gritty sandy loam about 14 inches thick at the surface and a sticky and very plastic, brownish red sandy clay loam subsurface. Sorry John Palmer, I am content to take the United States Department of Agriculture’s word for it. If you are passing through Southern California and have an interest in LID and urban stream management, let’s do lunch!

Richard.boon@ocpw.ocgov.com
Reflections – A Leeds Geographical Battle in Greenland, 1948

Robin Butlin — Emeritus Professor and Visiting Research Fellow, School of Geography, University of Leeds

During the course of assembling materials and ideas for a book on the history of the School of Geography, University of Leeds from the late nineteenth century to the present day, I came across an article from 1949 in Orbit, the Leeds University Student Geographical Society magazine. The article was written by a geography student, W.R.B. (‘Ben’) Battle, on ‘Greenland. A Research Laboratory’. It described a Leeds University Expedition to Greenland in 1948, the first ever University of Leeds overseas expedition.

The leader of this four-man expedition, the 28-year-old W.R.B. (‘Ben’) Battle, was an honours student in the Geography Department at Leeds, who graduated in 1949. For most of the Second World War, he had worked on English farms, as he was a conscientious objector to involvement in war. In 1949 he returned to the Greenland research area visited in 1948. The others in the 1948 expedition were: J.W. Haines, 32, a geomorphologist, a geography honours graduate from Leeds and also an old boy of Leeds Grammar School, who was a geography teacher at Abertour Preparatory School in Scotland; G.F. Leedal, 31, a geology graduate from Leeds; and D.S. (‘Denny’) Brock, from London, a geography graduate from Trinity College, Cambridge.

They were all experienced in mountaineering or expedition work. Battle had mountaineered in Scotland and the Alps, and was responsible for geomorphological and glaciological work. Haines had similar experience, and had been an observer in the wartime ‘Operation Eskimo’ in the Arctic. Leedal had worked in Iceland, France and Scotland and was in charge of the expedition’s geological research. Brock had been a member of the Cambridge University Iceland expedition in 1947 and was a surveyor.

This was the first expedition that Leeds University had ever sponsored, the cost of about £400 being met in fact by a group of sponsors, including the Scott Polar Research Institute at Cambridge, and the Royal Geographical Society.

The actual location of the work was in East Greenland at latitude 74° 30’ degrees North, near Clavering Island, at the snout of the Pasterze Glacier. The problems of getting to and from the site were overcome by transport from Denmark to the site by the ship of the Danish Pearyland expedition to Greenland, via Copenhagen, and spending five weeks from 29th July to 25th August 1948 in East Greenland.

A more informal account of a significant event in the expedition – a three-day expedition by Battle and Haines to climb a nearby peak – is given by Battle in the journal of an English rock-climbing society:

I want to describe a three-day expedition by Jack Haines and myself, the glaciologists of the expedition, to climb the highest peak in the neighbourhood, as yet unnamed. Perhaps our ‘nunatak’ hardly deserves the term peak, but as it rises to a height of 1,600 metres, and commands a view of the whole region for a distance of at least 50 miles, it is a feature of some prominence. We set out with moderate loads about 10.30 one morning. Our light duralumin packboards had already proved their worth, when we carried five weeks’ food and equipment for the four of us, in relays, to our base camp in the valley. This time it was very pleasant to have reasonable packs, although our scientific equipment always tended to make us look and feel more like Arolla mules than humans.
The Pasterze Glacier up which we were going was at least a mile wide and the rock ridges on either side of us were broad and sweeping, the flat tops giving them a typically Scottish appearance.

East Greenland (Source, Battle, 1949, by permission of the editor of Meddelelser om Grønland.

His account celebrates their successful climbing of this nunatak, and the accompanying action to have the peak named ‘Leodiensis Bjerg’, after their Leeds sponsorship (it was eventually agreed by Danish authority that it should be named ‘Ledesia Bjerg’).

This four-man expedition made good progress in the short period of five weeks available, two (Brock and Leedal) with geological mapping and the collection of samples of spiders and vascular plants in the the Svejstruppe Dal and two other valleys, and two (Battle and Haines) with mapping and measuring various features of glacial movement and temperature, and with the examination of bergschrunds, and the climbing of the 1,010 metre (5,700 feet) nunatak, mentioned above.

The scientific purpose of the expedition is described in the student magazine Orbit by Battle in the following terms:

One of our particular problems was to study the problem of corries, those characteristic armchair-shaped depressions so prevalent in mountain regions. It had been ascertained by various workers in the Alps and Norway that meltwater played a very important part in the actual corrie erosion. Their formation had been traced to an actual cycle starting first with an actual snow patch which gradually enlarged and eroded back into the hillside. Some workers considered that water from the melting snow seeped and trickled into the bergschrunds, usually associated with a mature corrie, and by alternately freezing and thawing cut back the head wall... it was not known for certain whether the water found its way to the bottom of the glacier as a sub-glacial stream or not.... So far, only one, or at the most two, scientists had ever penetrated a bergschurd, and in the Polar regions no work at all had been carried out on these lines.... Battle goes on to describe the hazardous circumstances in which he and his companion descended, by means of a rope ladder, a corrie in this glacier to a depth of 100 feet, described the ice formation, worked on the interior of a bergschurd, took crystal rubbings and studied ice-flow evidence.

The group covered a total distance of about 400 miles.

Battle returned to this area the following year, with a Danish expedition, when he graduated in geography from Leeds, and went to Cambridge University as a postgraduate research student, his Ph.D being awarded in 1953. He worked in Norway, and in 1952 had moved as Carnegie Fellow to the Arctic Institute of North America, based at McGill University, Montreal. It is very sad to learn, however, that on 13th July 1953 he drowned in a glacier stream on the Cumberland Peninsula on Baffin Island, Canada, while on another expedition.

Ben Battle is also commemorated in a place-name in Antarctica: a coastal headland below Mount Datar on the east coast of Grahamland was named ‘Battle Point’ by the Antarctic Place-Names Committee after its mapping by the British Antarctic Survey of 1963. The number of Orbit mentioned above records an early meeting of the Geographical Societies of the Northern Universities, which led to an annual publication (The Northern Universities’ Geographical Journal), which was still continuing in the early 1960s.

If this has piqued your interest in the history of your alma mater, you may like to know that Robin has written a new book on the subject, to come out in the Spring: The Origins and Development of Geography at the University of Leeds, c.1874-2015. The book looks at the development in geography at Leeds, and puts courses, fieldtrips, and people in their context within the development of geography as a subject, both nationally and internationally. It also covers where the School is now, and its plans for the near future.

For more details, see our Alumni webpage: www.geog.leeds.ac.uk/alumni/
Reunion of the class of 1967

We were delighted to welcome back graduates from 1967 to the School in September.

Malcolm Fairweather, Professor Emeritus, Center for Earth and Environmental Science, State University of New York (pictured in the red top), was the driving force behind the reunion and put together a fascinating collection of photos from their Leeds student days for a presentation in the Geography Lecture Theatre, their old haunt.

It was fortuitous to arrange the reunion this year, as with the rapidly approaching move and the severing of ties between the School of Geography and the East Building, for many of you your primary seat of learning will be no more!

Proof that selfies existed back in the 60s! Malcolm Fairweather 1965.

Field trip to Wales 1966 John Crofton, Chris Richardson and Steve Frost Tony Pont, Barry Stainthorp and Milner Tomlinson.
Thinking of further study or how to continue building on your expertise?

Our Global Urban Justice Masters programme is new for 2015 (details below). In terms of your own continuing professional development, we are now offering standalone modules relevant to those working in the water industry and our online distance learning programme is ideal for anyone working in commercial or public sector organisations who requires core training and skills development in Geographical Information Systems.

The MA in Global Urban Justice (GUJ) at Leeds, which is an ESRC recognised pathway to PhD qualification, is a unique postgraduate programme that combines cutting-edge theoretical and methodological training with ‘real-world’ experience of working with civil society organisations and campaign groups.

It aims to meet a growing demand for interdisciplinary knowledge and expertise in the challenges of contemporary urbanisation and social justice in cities and regions around the world.

THE COURSE OFFERS
• ‘Real-world’ experiences through dedicated placements with established external partners, in the third sector (voluntary, charity, think tanks, NGOs) organisations.
• Introduction to the core concepts and debates around urban justice and injustice across the global north and south with genuine broad coverage.
• Interdisciplinary and critical engagement with contemporary urbanisation in the global north and south to create more just, equitable and sustainable urban futures.
• Advanced training in qualitative, quantitative and action research methods offering students an excellent pathway to employment or doctoral study.
• An opportunity to explore cutting edge themes in global urban justice through modules associated with the School’s research clusters on ‘Citizenship and Belonging’ and ‘Cities and Social Justice’

Duration of MSc is 12 months full-time or 24 months part-time
Continuing Professional Development modules

We are offering five modules as standalone continuing professional development modules.

**MODULE INFORMATION**

*Accredited by CIWEM*
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- Opportunity to study alongside postgraduate students
- Part of water@leeds
- Lectures combined with field, laboratory and computer practicals
- Give you access to academic facilities and resources
- Certificate of completion awarded

**MODULES AVAILABLE**

**Issues and Skills for River Basin Dynamics and Management**

72 hours contact (10 x 2 hour lectures, 2 x 8 hours fieldwork (residential), 1 x 8 hour practical, 7 x 4 hour practical)
Topics include fundamentals of river basin hydrology and river hydraulics, overview of river basin management, carbon management overview, legislation, river basin dynamics and channel stability overview, field work skills for environmental data collection (two day residential trip), skills in environmental data analysis using open source R software, skills in river flood modelling using the flood estimation handbook (FEH), the industry-standard 1D hydraulic model; ISIS, and a cutting-edge distributed open source model; Delft3d.

**Hydrological Processes and Analysis**

22 hours contact (7 x 2 hour lectures, 3 x 2 hour practicals, 2 x 1 hour tutorials)
Topics include runoff, hydrograph analysis, magnitude and frequency (and modelling practical), groundwater, soil water storage and fluxes, laboratory practical on soil hydrology, river flood control and river engineering, river basin hydrology, land management and climate change.

**River Basin Management for Water Quality**

30 contact hours (8 x 2 hour lectures, 1 x 6 hour practical, 1 x 8 hour fieldwork)
Topics include physical and chemical properties of rivers, linkage between river basin characteristics and sediment and solute sources and fluxes and their impact on water quality, local, regional and international scale management options, skills in the use of field and laboratory equipment for the analysis of water samples.

**Environmental Assessment**

22 hours contact (11 x 2 hour lectures)
Topics include environmental impact assessment, environmental risk assessment, strategic environmental assessment, cumulative effects assessment, environmental justice assessment, integrative appraisal, post-assessment processes.

**River Basin Management for Water Quality**

30 contact hours (8 x 2 hour lectures, 1 x 6 hour practical, 1 x 8 hour fieldwork)
Topic include physical and chemical properties of rivers, linkage between river basin characteristics and sediment and solute sources and fluxes and their impact on water quality, local, regional and international scale management options, skills in the use of field and laboratory equipment for the analysis of water samples.

Find out more: [www.geog.leeds.ac.uk/study/masters/](http://www.geog.leeds.ac.uk/study/masters/)