
THE
SCHOLAR

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IN THIS ISSUE

IN THE BUBBLE

A meditation on time well spent in government

METAMORPHOSIS

Changing the image of science

21ST CENTURY WILDERNESS

What is "remote" in the digital age?

THE MUSLIMS' WAR

Mobilising Muslim communities in the Second World War

CONTENTS



The Scholar, 2015

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The Scholar is the publication of the Gates Cambridge community. Articles that offer a window into the lives and work of Gates Cambridge Scholars or articles that tackle large interpretive questions relevant to the Gates Cambridge mission are particularly encouraged. Highly focused contributions are welcome, but preference will be given to submissions that are of interest to a diverse cross-section of readership in more than one discipline of study. Contributions are subject to editorial approval. Ideas expressed are those of the authors alone.

3 EDITOR'S NOTE

4 SCHOLARS IN ACTION

Africa Together by *Njoki Wamai*
and *Johanna Riha*

Gates Cambridge Day of Service
by *Catherine Gascoigne*

5 IN THE BUBBLE

A meditation on time well spent
in government by *Chris Tooley*

6 LOOKING BEYOND THE NUMBERS

Using women's lived experiences
to inform policy by *Tara Cookson*

7 THE LATIN AMERICAN MOZART

In search of unknown composers
by *José Manuel Izquierdo König*

8 GENDERING THE POLISH POLICE FORCE

Introducing gender studies'
principles to a new audience by
Maria Pawlowska

9 METAMORPHOSIS

Changing the image of science
by *Kerstin Göpfrich*

10 21ST CENTURY WILDERNESS

What is "remote" in the digital
age? by *Evan Miles*

12 BOOSTING GREEN ENERGY

Solar cells improved with
organics by *Maxim Tabachnyk*

13 ZONOTIC OUTBREAKS

Preventing the next Ebola
epidemic by *Alexandra
Mannerings*

14 THE MUSLIMS' WAR

Mobilising Muslim communities
in the Second World War by
David Motadel

16 MACHISMO POLITICS

Human rights and gender
equality in Russia by *Darja Irdam*

17 CHINA'S RISE IN AFRICA

On the continent's first Chinese
studies centre by *Ross Anthony*

18 APE TECHNOLOGY

Investigating tool use in
chimpanzees and bonobos
by *Kathelijne Koops*

19 READING BEYOND CLASSROOMS

The long road to improving
literacy in India by *Ananya
Mishra*

20 BEYOND THINK TANKS

Think tanks, universities and
policy processes in Pakistan by
Muhammad Arif Naveed

21 INDONESIA STATE OF MIND

Reforming the mental health
care system by *Sabrina Anjara*

22 PROFESSIONAL UPDATES

Scholars from across the
community share their
professional activities and
accomplishments.

EDITOR'S NOTE

Gates Cambridge Scholarships are one of the most prestigious scholarships in the world. These scholarships were made possible by a \$210 million donation from the Bill and Melinda Gates Foundation to the University of Cambridge in 2000.



Editor-in-Chief
Bo Shiun Lai '13

Scholarships are awarded to outstanding applicants from countries other than the United Kingdom to pursue full-time postgraduate studies at Cambridge. Our fellow Gates Cambridge Scholars come from all over the world and all walks of life. To date, we have more than 1,300 Scholars from over 100 nations.

What strikes us the most about this community is its sheer diversity – diversity in every sense imaginable, from the subjects our Scholars study to the issues they care passionately about to the tangible impact they have already made or will make in their respective countries. This magazine celebrates that diversity, while uncovering the common qualities that connect members of our community.

We begin by highlighting the concrete, palpable changes made by Gates Cambridge Scholars in places thousands of miles apart. First, we review two Scholar-organised events in Cambridge: Njoki Wamai and Johanna Riha share their experiences planning the “Africa Together” event, and Catherine Gascoigne explains what the Gates Cambridge Day of Service entails. Next, Chris Tooley – having devoted years to public service – provides an insider’s perspective on the workings of the New Zealand Executive. Through her ethnographic fieldwork in the Andean highlands, Tara Cookson explores the limitations of quantitative measures in shaping effective policy that empowers women in Latin America. José Manuel Izquierdo König, whose research is also Latin America-specific, argues that professional musicians from the region should be appreciated on their own merits rather than being evaluated based on European expectations.

Maria Pawlowska describes her work lecturing on gender studies’ principles to groups of male police officers in Poland.

These authors demonstrate that our Scholars have impact around the world.

Next, our Scholars tackle issues with global reach. Kerstin Göpfrich looks at the divide between science and society: she contends that scientists must engage with the wider world and make their discoveries more accessible to the general public.

Evan Miles gives a new meaning to the word “remote” in our connected world. Finally, Maxim Tabachnyk describes a new way of energy transfer that may boost efficiency of conventional solar cells. Alexandra Mannerings argues that social, veterinary, biological, and medical scientists must work collaboratively to prevent future epidemics. David Motadel illustrates the tactics employed by Nazi Germany in the Second World War to recruit from Muslim communities. Darja Irdam delineates human rights and gender equality in present-day Russia.

These authors demonstrate that our Scholars care about issues of global relevance.

As our journey comes to a close, we emphasise the diverse subject areas investigated within the Gates Cambridge community. Ross Anthony notes the growing Chinese presence in Africa encapsulated by the continent’s first Chinese studies centre. Kathelijne Koops investigates tool use in chimpanzees and bonobos in Uganda and the Democratic Republic of Congo, hoping to shed some light on the evolutionary basis of our own ability to use tools. Ananya Mishra describes designing and implementing reading programmes that improve literacy in India. Muhammad Arif Naveed recounts the limitations of over reliance on think tanks in shaping public discourse and argues for a need for institutions of higher learning to play an active role in the process. Lastly, drawing upon her experience as a psychologist in Singapore, Sabrina Anjara investigates the prospects and challenges of reforming Indonesia’s mental health care system.

These authors demonstrate the impressive zeal and fearlessness with which our fellow Scholars pursue their passions.

This magazine would not have been possible without the writers’ contributions, the diligence and meticulousness of our wonderful editing team, and the Gates Cambridge Trust’s unwavering support. To each and every person who helped make this magazine possible, I owe you my sincere gratitude.

SCHOLARS IN ACTION

Africa Together: Celebrating Africa's past and its future

Njoki Wamai (Kenya, 2012) – PhD Politics and International Studies

Johanna Riha (Austria, 2011) – PhD Public Health and Primary Care

On May 23rd 2014 in Cambridge, the first annual "Africa Together" event was launched, commemorating Africa day and marking the formation of the African Union. The event celebrated African narratives of the past, present,

and future from an eclectic group of disciplines spanning the African continent. Africa Together not only engaged and energised Africans and those interested in Africa, but also explored the current pan-Africanism and African renaissance that are key to the promotion and acceleration of the continent's development in the 21st century.

spirit, and warmth that emanated from attendees and speakers alike speaks true to the theme of 'Africa Together,'" said Johanna Riha, President of the African Society 2013/14, who led the programme.



"Africa Together was an iconic event that surpassed our expectations, not just at the University of Cambridge and Anglia Ruskin University but across the city and further afield. The ideas,

Biography: Njoki Wamai is a co-founder of the African Society of Cambridge University and former president of the Cambridge Eastern African Society. Johanna Riha is the founding president of the African Society of Cambridge University (ASCU).

Gates Cambridge Day of Service: #opengates2014

Catherine Gascoigne (Australia, 2013) – PhD Law

Gates Cambridge Scholars took part in the inaugural Day of Service on 8 November 2014, which brought together 82 volunteers from amongst the Scholar body, showing public commitment to the Scholarship's mission of "improving the lives of others." Scholars, sporting Gates Cambridge t-shirts, volunteered to assist charities in a range of activities, including:

- gardening and painting at Wood Green animal shelter;
- spring-cleaning at Wintercomfort for the Homeless;
- playing games and painting with disadvantaged Cambridge children (facilitated by Bounce! and Student Community Action); and
- assisting with the collection/classification of data for large-scale citizen science or humanities research projects, such as Galaxy Zoo (Astronomy) and Cell Slider (Oncology).

The day culminated in an Open Gates Cambridge Dinner at the Cambridge Unitarian Hall, which was attended by 65 Scholars and representatives of local Cambridge charities. The dinner was cooked and served by Scholars in order to raise funds for Oxfam. Updates during the day were broadcast on social media, including Twitter at #opengates2014. The day was organised by the Gates Cambridge Scholars'

Council and was generously sponsored by the Gates Cambridge Trust.

Biography: Catherine Gascoigne has worked for three years as a practising lawyer at an international commercial law firm and for a year as a Research Fellow at the University of Melbourne Law School. Beyond her work and academic study, Catherine has been very involved in working with the homeless in both Sydney and Cambridge.



IN THE BUBBLE

A meditation on time well spent in government
Chris Tooley (New Zealand, 2002) – PhD Education

A scholar of political philosophy and oppressed movements finds himself working in government – and surprises himself by liking it.

I had no intention of working in the government or in the executive branch. My PhD at Cambridge was on political philosophy and oppressed movements struggling for self-determination – often challenging governments themselves. A short time after Cambridge, I found myself a chief advisor for a Minister of the Crown in the New Zealand Executive – a position I held for six years. How ironic.

The demands of Ministers are extraordinary. Between meetings of the Cabinet committees, the House of Representatives, various agencies, and key stakeholders, and working through the red tape of your own portfolios, it was often a fight to “break the bubble” and meet with constituents. Life around Parliament has its own brutal pace. Everyone has his own power walk. People carry their phones in their hands because if you do not respond to an email straight away you’re off your game. Most meetings are 30 minutes, and if you cannot cover your agenda in that time, something is wrong. And you should always be able to provide a briefing on any policy or process while you are in the elevator moving between meetings.

During my time I developed an appreciation for two things: communications and officialdom.

Communications was an enigma. Sometimes policies with communications strategies bombed while other policies that had no strategy took off. Communicating with constituents and managing perception was always a hard-fought battle. Officialdom was also challenging. While decision making remains the jurisdiction of Ministers, the ability of bureaucrats to regulate the advice and process coming into the office was a double-edged sword.

The English writer Douglas Adams once said “I may have not gone where I intended to go, but I think I have ended up where I intended to be”

– which sums up my time in the bubble. Providing advice to the Executive in a high-pressured environment and achieving some important policy gains was a valuable experience. I learned to appreciate the importance of understanding the machinery of government and points of leverage, whether inside or outside the bubble, in bringing about transformation.

Biography: Chris Tooley is currently a consultant based in Wellington, New Zealand and working across government and academia.





LOOKING BEYOND THE NUMBERS

Using women's lived experiences to inform policy
Tara Cookson (Canada, 2011) – PhD Geography

Qualitative data can be beneficial and informative to policy-making.

Conditional cash transfers (CCTs) are programmes in which monetarily poor women receive small sums of money on condition of pre-natal exams, children's health check-ups, and school attendance. They are popular because they have a high compliance rate; in Peru, it is 95%. Yet numbers do not tell the whole story.

During a year's ethnographic fieldwork in the Andean highlands, I investigated the impact of CCTs from women's perspectives. Between teaching in a village school, learning to harvest quinoa, and negotiating my way into government boardrooms in the nation's capital, boots-on-the-ground research made for insightful and, at times, heart-

wrenching discoveries about how we approach social welfare today.

For one, celebrated compliance rates fail to capture policy-induced assaults on dignity: I recall when Señora Leoni placed my hand on the lump in her breast and sobbed. The nearest clinic was eight hours away, and who would care for her children? Later, 17-year-old Jimena told me that if it was cancer, the only option was to die or hope that God saved you. Often, we can only glean such information by building trust. Once, while picking purple capuli berries, I told Maria that my relative had been a victim of domestic violence. Something between us shifted, and Anita said that her sister's husband beat her, too.

Numbers also do not capture irony: when I asked Carlita whether it bothered her, being required to send her children to school when there were no teachers, she said wryly, "maybe we should be taking their attendance, not

the other way around." Or injustice: Lucia told me the government wanted to shut down her private clinic because furnishings should be of metal. She provided subsidised reproductive health services, among them safe abortions. I had just visited public clinics in the neighbouring village that did not have soap or a flushing toilet.

Ethnographic research involves daily encounters with prejudices, expectations, and value systems. Many of these encounters, at once abrasive and productive, have to do with human dignity. Looking beyond the numbers, these insights can inform policies – including CCTs – making them more effective and just.

Biography: Winner of the 2014 Bill Gates Senior Prize, Tara Cookson has been investigating effects of post-neoliberal policies on empowering women and alleviating poverty in Latin America.

THE LATIN AMERICAN MOZART

In search of unknown composers

José Manuel Izquierdo König (Chile, 2013) – PhD Music

The names of Latin American composers from the past are as unknown today, to specialists and audiences alike, as they have always been. Is there any reason to rediscover them now?

For most people, Latin American music is perceived and appreciated as exotic and foreign: a series of complex dance rhythms, with a broad range of rare instrumental colours and a deep passion in both singing and movement. In the 1960s scholars started to search for the musical past of the Americas and discovered an enormous range of musical archives in the region. Scholars were most impressed by the style of the music, which defied expectations.

Baroque pieces in the manner of Vivaldi or Pergolesi were the norm. Only a small percentage of those written before the 1850s, today calculated at around 0.5%, showed clear signs of exotic elements such as motets sung in quechua or other native languages from the Andes. It is a small repertoire that has proven to be very popular with performers and record companies looking for an “exotic baroque.”

For musicology, the relation with these archives went down other paths, particularly trying to find exceptional compositions that could compete with those written in Europe: the works of an imaginary local genius who could be promoted as the next Bach or Mozart. Tens of archives and thousands of scores later, we are still in the same place, without such a composer. Latin American historical composers and their music are still completely unknown to performers, audiences, and scholars alike, at least beyond that small percentage of exotic pieces.

Professional musicians from Latin America are certainly not Mozart and in direct comparison they might not fare well. But perhaps this is because we are putting our prejudices and expectations before their ideas, proposals, and aesthetic interests. On a different continent, across an ocean, diverse social, economic, and political backgrounds shaped music and those producing it in ways that are usually quite different from what we expect. I believe it's time to stop searching for such a “Latin American Mozart” and use local resources to transcribe, edit and perform the music of these composers, understanding and appreciating them not against European expectations but on their own terms.

Biography: Born in Valdivia, Chile, José Manuel Izquierdo König has been working for years on rediscovering the musical heritage of Latin America, founding and developing various local projects.



GENDERING THE POLISH POLICE FORCE

Introducing gender studies' principles to a new audience

Maria Pawlowska (Poland, 2007) – PhD Earth Sciences

Are police forces the new frontier for gender studies? A Scholar reflects on her experience lecturing to attentive crowds of officers in uniform.

Most of my lectures don't start with the command "march in" and finish with "march out". And in most of my lectures 95% of the audience isn't men. In uniforms. But that's the case when I lecture to the Polish police force. Most of the time I speak to the senior management, only 9% of which is female. In a democracy, the police force is there to protect citizens, enforce the law, and stop and trace crimes. It should work with the community and be trusted by it. Many people believe a more representative police force is a better police force, but in case you have any doubts – Poland is not 91% male. There also isn't a single openly gay man in the whole of the quarter-million-strong Polish police force. This diversity problem unfortunately translates into the way the police force does and doesn't do its work; for example, hate crimes based on sexual orientation are still not taken seriously enough.

And that's where I come in. As a gender studies lecturer at the Polish Academy of Sciences I was initially invited to give an introductory lecture about the concept of gender to the heads of the human rights divisions in each region during a three-day long training session. They found the lecture useful enough to want their bosses and colleagues to hear it, and so started my journey to a third of the regional capitals in Poland and the major police school.

In each place I visit, I describe the concepts of gender equality and non-discrimination irrespective of gender identity or sexual orientation, and explain that a lot of what we think of as "natural" is actually cultural constructs. For example, police officers tend to tell me that there are few women in the force because it isn't a "soft and maternal" job, falling into reified concepts of what men and women are "naturally" predisposed to do. I challenge their perceptions using humour and words that the police people I work with don't usually hear spoken out loud (like "vagina"). I think the best summary of my work (and a huge compliment) is something a senior police officer said to me: "I didn't want you to come and I thought we'd disagree on just about everything, but there really is no way to argue with all the common sense stuff you say."

Biography: Maria Pawlowska is a Lecturer in Gender Studies at Polish Academy of Sciences in Warsaw. She is actively involved in organisations such as the Global Poverty Project and the Maternal Health Task Force.



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METAMORPHOSIS

Changing the image of science

Kerstin Göpfrich (Germany, 2013) – PhD Physics

The anthropologist Margaret Mead came up with the ever-entertaining “draw-a-scientist” test. Why do we see Einstein as a 72-year old with his tongue sticking out? He was 26 and actually quite handsome when he wrote the four papers that revolutionised physics.



As scientists, we have created a cocoon around ourselves. We nourish it by hiding our work away in journals that are inaccessible to the public and by encrypting our message in jargon. The scientific process is purposely camouflaged from the outside world, presenting merely its glorious results. The public have responded with stereotypes. Hollywood normally depicts a scientist as someone with wild hair, bearing a mad look who is incapable of living a normal life. Furthermore, studies have revealed three types of film scientists across continents and decades: the lonely saviour of the world, the crazy professor, and the one who seeks to rule the world. Nothing anyone would want to identify with. And, while science and technology have changed our lives tremendously in the past 50 years, the stereotypical images of scientists persists.

These stereotypes associated with scientists have affected the way society views science in general and contribute to the growing divide between science and society. Yet climate change, genetically modified food, and antibiotic resistance concern us all.

New media like YouTube and Twitter present great opportunities for scientists to counter these stereotypes and to take society on a fascinating journey to the forefront of knowledge. Teachers across the globe, far beyond privileged science hubs in the West, can now use TED-Ed and similar platforms to create stimulating lessons. Physics no longer has to be about calculating the trajectory of a cannon ball and other seemingly boring, male-oriented problems that have been solved hundreds of years ago. Modern inspiring examples can be used to teach the basics of science. It is an opportunity we cannot afford to miss.

Fellow scientists, it is time to undergo metamorphosis. It is time to share the wonder of science with the rest of the world. Many scientists remain scared to enter this new territory mainly because they are afraid of being ridiculed – ironically not by society, but by their peers. Let us discontinue this negative behaviour and support each other. Let us not fear to lose our authority because what we will gain is a new face. Finally.

Biography: Alongside her work on DNA origami, Kerstin Göpfrich recently produced a short film reaching out to the public. The film can be found here: (<http://youtu.be/tk4FCcX78E0>).

21ST CENTURY WILDERNESS

What is “remote” in the digital age

Evan Miles (USA, 2012) – PhD Polar Studies



In a world with smartphones, Dreamliners, and over 7 billion people, surely there's little left to discover about this planet we call home. Humans have been everywhere, and, if not, Google Earth covers the rest. So what are you supposed to do if you have “itchy feet”?

Without a doubt, the Golden Age of Exploration is long past: the North and South Poles are regularly visited by cruises and scientists, and the remote parts of High Mountain Asia – the so-called “Third Pole” – usually comes to mind because of accidents and overcrowding on popular climbing routes. No longer are nations vying for the conquest of Everest, nor to put a man on the moon. Adventure athletes routinely accomplish feats thought humanly impossible just 30 years ago. Surely in an era of satellite imagery, handheld GPS, and satellite-enabled iPhones, “remote” has lost its meaning. Not without reason – it takes less than 24 hours to fly almost anywhere, and, once there, you can tweet via satellite phone.



This sense of connectivity does not change the rigid definition of remoteness. Satellite phones and GPS units help, but if a bad Patagonian storm sets in, if a polar bear is stalking you in Svalbard, or you get injured on a Himalayan high peak, internet connectivity is not much help. You feel the solitude. I have been to these wild and wonderful places, experienced their inherent remoteness, sharply punctuated by the frostbite I experienced in Nepal this past year. A rescue may be possible, but it's not guaranteed nor immediate. You are largely on your own.

Technology has fundamentally changed our experience of the wild. Planning: from your couch you can fly in Google Earth to plan a route. Accessibility: modern aviation takes you to a jump-off point in hours or days, instead of months. Documentation: GPS, digital cameras, and GoPros demand that you share that experience with the world. Adventure forums are filled with skeptical statements for those that do not share: "pics or it didn't happen."

Modern technology has always pervaded the frontier. The cameras and altimeters of George Mallory's day were the smallest and lightest in the world, and the historic navigators of eras past pioneered the sextant and chronometer. This is nothing new, but it is shifting our objectives as adventurers. "Getting there" is no longer enough for most of the remote places of yesterday. Harder (Tommy Caldwell and Kevin Jorgeson on the Dawn Wall), faster (Ueli Steck's speed-solo of Annapurna), bolder (Alex Honnold's slew of big-wall solos), and longer (Tommy Caldwell and Alex Honnold's traverse of Patagonian spires) are the new calling cards for adventure athletes.

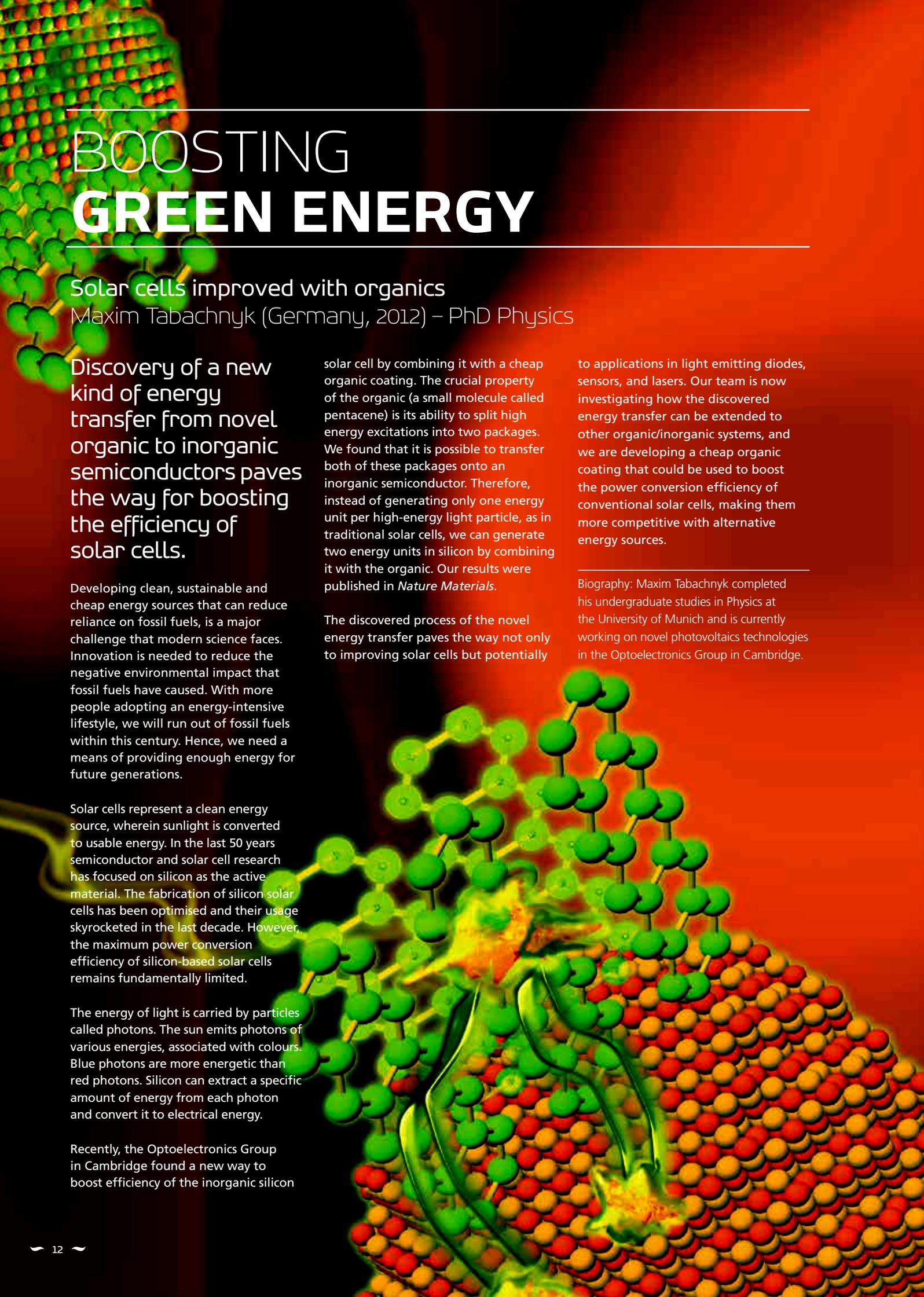
Meanwhile, we are increasingly taking science to remote places. Glaciologists, volcanologists, and climatologists have long visited the Polar extremes in the Antarctic and Arctic. An erroneous statement in the IPCC's 2007 report about disappearing glaciers brought to focus science's limited observations and understanding of the Himalayas, stimulating renewed interest in understudied regions, such as the Andes and High Mountain Asia. With modern science comes

new gadgets: solar panels, aerial drones, and sophisticated sensors. But in increasingly harsh environments, technology does not assuage the feeling of remoteness: the dependence on provisions is very clear, with a new demand of power for electronics.

People as a whole are often leaving civilisation for experiences in the rugged unknown. Perhaps the most telling is the number of adventure holidays available to challenging environments. Scuba-diving the Great Blue Hole, sea-kayaking in Patagonian fjords, a trekking circuit in Nepal, or mountaineering in the Caucasus – formerly only for those with deep-pockets or the dedicated dirtbags, but now available to us all in a bow-tied seven day outing. Humanity seems to be hankering for grandchildren-worthy stories, and modernity brings the distant corners of the globe to our front porch. The sudden concentration of an unprepared populace in delicate, unaccustomed environments presents many problems, of course. One example: construction of tourist accommodation in Nepal is rampant, leading to deforestation and waste management problems. No longer is the water clean to drink untreated – we bring civilisation's challenges to the wild.

So is there anything left that is remote? As it happens, all of our exploits have simply expanded the horizons of possibility. In science, progressive understanding often leads to more numerous questions, and so it is with the outdoor world. The more we explore and adventure, the more numerous the opportunities for exploration seem. Another valley, another fjord, another mountain, another route. The objectives are no longer as singular as K2, but intricate and hidden away, requiring just as much planning as for our grandfathers. Perhaps you do not feel isolated – you may have your iPhone with a satellite adaptor to SMS your friends and take pictures, but you are still truly remote. You'll find there are plenty of adventures to be had.

Biography: Experienced in the Himalayas, Patagonia, and Svalbard, Evan Miles is an alpinist, explorer, vagabond, and PhD student in glaciology at the Scott Polar Research Institute.



BOOSTING GREEN ENERGY

Solar cells improved with organics

Maxim Tabachnyk (Germany, 2012) – PhD Physics

Discovery of a new kind of energy transfer from novel organic to inorganic semiconductors paves the way for boosting the efficiency of solar cells.

Developing clean, sustainable and cheap energy sources that can reduce reliance on fossil fuels, is a major challenge that modern science faces. Innovation is needed to reduce the negative environmental impact that fossil fuels have caused. With more people adopting an energy-intensive lifestyle, we will run out of fossil fuels within this century. Hence, we need a means of providing enough energy for future generations.

Solar cells represent a clean energy source, wherein sunlight is converted to usable energy. In the last 50 years semiconductor and solar cell research has focused on silicon as the active material. The fabrication of silicon solar cells has been optimised and their usage skyrocketed in the last decade. However, the maximum power conversion efficiency of silicon-based solar cells remains fundamentally limited.

The energy of light is carried by particles called photons. The sun emits photons of various energies, associated with colours. Blue photons are more energetic than red photons. Silicon can extract a specific amount of energy from each photon and convert it to electrical energy.

Recently, the Optoelectronics Group in Cambridge found a new way to boost efficiency of the inorganic silicon

solar cell by combining it with a cheap organic coating. The crucial property of the organic (a small molecule called pentacene) is its ability to split high energy excitations into two packages. We found that it is possible to transfer both of these packages onto an inorganic semiconductor. Therefore, instead of generating only one energy unit per high-energy light particle, as in traditional solar cells, we can generate two energy units in silicon by combining it with the organic. Our results were published in *Nature Materials*.

The discovered process of the novel energy transfer paves the way not only to improving solar cells but potentially

to applications in light emitting diodes, sensors, and lasers. Our team is now investigating how the discovered energy transfer can be extended to other organic/inorganic systems, and we are developing a cheap organic coating that could be used to boost the power conversion efficiency of conventional solar cells, making them more competitive with alternative energy sources.

Biography: Maxim Tabachnyk completed his undergraduate studies in Physics at the University of Munich and is currently working on novel photovoltaics technologies in the Optoelectronics Group in Cambridge.

ZOONOTIC OUTBREAKS

Preventing the next Ebola epidemic

Alexandra Mannerings (United States, 2009) – PhD Veterinary Medicine

Preventing the next major epidemic won't be easy. But if social, veterinary, biological, and medical scientists work together, we're much more likely to succeed.

The latest Ebola epidemic in West Africa has killed almost 8,000 people. The fact that the virus originated in bats is powerful evidence that zoonoses (pathogens that jump between animals and humans) pose one of the greatest public health threats worldwide. Dr Francis Collins, Director of NIH, recently claimed that "if we had not gone through our 10-year slide in research support, we probably would have had a vaccine in time for this [Ebola outbreak]."

Of course, all that can be done to control this deadly Ebola outbreak should be done. But one problem with Dr. Collins' comment is that we cannot know until after the fact which zoonosis will lead to the next outbreak. For example, in the 40 years preceding the most recent outbreak, Ebola has caused only about 1600 deaths; twice that number die each year of another African haemorrhagic fever, Lassa fever (for which there is also no vaccine).

Because they mutate and spill over from a vast number of wild and domestic animals, particularly those that live near humans, zoonoses present a growing threat as human development in volatile areas

continues. The driving factors behind emergence are thus only partially biological, making many of these epidemics unpredictable from medical research alone. Instead, tackling zoonoses requires understanding the political, social, and behavioural context surrounding outbreaks, and the inextricable links among animal, human, and environmental health.

Social scientists are just as vital in this battle as natural scientists. The first responders from the CDC in March focussed only on medicine. They fatally underestimated the role burial traditions would play in spreading the disease as well as the depth of distrust of foreigners that existed, keeping patients away from aid workers. Veterinarians, farmers, and ecologists – groups with which doctors are unaccustomed to collaborating – could provide rapid detection of new outbreaks at the forefront of

the animal-human interface, rather than waiting until an outbreak is in full swing. Supporting development policies that move people away from risky behaviours like bushmeat hunting while reducing poverty and improving nutrition could do far more to reduce future zoonotic outbreaks of all kinds than could any single vaccine.

The biggest successes against Ebola, and the pathogens that will undoubtedly follow, can only come from social, veterinary, biological, and medical sciences collaborating fully. As Helen Keller said, "Alone, we can do so little. Together we can do so much."

Biography: Having had to move on from chasing bats, livestock and antelope, Alexandra Mannerings now pursues her passion for people's wellbeing and public health as a healthcare research analyst for the Colorado Hospital Association in the United States.



THE MUSLIMS' WAR

Mobilising Muslim communities in the Second World War

David Motadel (Germany, 2006) – PhD History

Nazi Germany made significant attempts to promote an alliance with the "Muslim world".

At the height of the Second World War, as Hitler's troops marched into Muslim-populated territories in the Balkans, North Africa, the Crimea, and the Caucasus, and approached the Middle East and Central Asia, officials in Berlin began to see Islam as politically significant. In the following years, Nazi Germany made significant attempts to promote an alliance with the "Muslim world" against their alleged common enemies: the British Empire, the Soviet Union, America, and Jews.

The reason for this policy was not only that, in 1941–42, Muslim-populated regions became part of the war zones, but also, more importantly, that Germany's military situation deteriorated. As the Wehrmacht came under pressure, strategists and

bureaucrats in Berlin began to seek broader war coalitions. The courtship of Muslims was to pacify the occupied Muslim-populated territories and to mobilise Muslims to fight on the side of the Third Reich.

My book *Islam and Nazi Germany's War* (Harvard University Press, 2014) draws on archival research undertaken across three continents and examines Germany's engagement with Muslims during the war. On the ground, German authorities frequently considered Islam to be of strategic importance. As early as 1941, the Wehrmacht began to train the troops to behave correctly towards Muslim populations. On the Eastern front, Germans ordered the rebuilding of mosques and madrasas, previously dismantled by Moscow, and the re-establishment of religious rituals and celebrations to undermine Soviet rule. German military authorities also made extensive efforts to co-opt Islamic religious dignitaries in the Eastern territories, the Balkans, and North Africa. Nazi propagandists tried to use religious rhetoric to mobilise Muslims, politicising sacred texts like the Qur'an

as well as religious imperatives – most notably the concept of jihad – in order to foment religious violence for political ends. One pamphlet distributed in the North African desert in 1942 proclaimed: "The English, Americans, Jews, and their allies are the greatest enemies of Islam!", adding: "Germany will win the war – insh'Allah!"

Moreover, from 1941 onwards, the Wehrmacht and the SS recruited tens of thousands of Muslims – mainly to save German blood. Muslim soldiers fought on all fronts – they were deployed in Stalingrad, Warsaw, and Milan, and in the defence of Berlin. German army officials granted these recruits a wide range of religious concessions, taking into account the Islamic calendar and religious laws such as dietary requirements. When speaking about the recruitment of Muslims into the SS to Nazi functionaries in 1944, Himmler said: "I don't have anything against Islam, because it educates men in this division for me and promises them paradise when they have fought and been killed in combat. A practical and attractive religion for soldiers!". After

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the war, many Muslims who had been recruited into German units, especially those from the Soviet Union and Balkans, faced gruesome retaliation.

Nazi officials tended to view Muslim populations under the rubric of "Islam". (Non-Jewish) Turks, Iranians, and Arabs had already been explicitly exempted from any official racial discrimination in the 1930s, following diplomatic interventions from the governments in Tehran, Ankara, and Cairo, and during the war the Germans acted similarly toward Muslims from the Balkans and the Turkic minorities of the Soviet Union. Muslims, it was clear to every German officer from the Sahara to the Caucasus, were to be treated as allies.

And yet, this policy towards Muslims was by no means straightforward. In the first weeks after the invasion of the Soviet Union, SS squads executed thousands of Muslims on the assumption that their circumcision proved that they were Jewish. On 12 September 1941 Reinhard Heydrich, the chief of the SS Reich Security Head Office, cautioned SS men that the "circumcision" and "Jewish appearance" of Muslims did not constitute sufficient "proof of Jewish descent". In North Africa, the Balkans, and on the Eastern front, German soldiers were confronted with diverse Muslim populations, including Muslim Roma and Jewish converts to Islam. In Bosnia and Herzegovina in particular, many Jews tried to escape persecution by converting to Islam – in some cases successfully.

Overall, the attempts to promote Nazi Germany as a patron of Islam repeatedly clashed with the realities on the ground. The Germans also failed to incite a major Muslim uprising against the Allies, although tens of thousands of Muslims were recruited into the German armies.

The Third Reich's claims that it protected the faithful lacked credibility, as most Muslims in the war zones were aware that they served profane



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political interests. In the end, the British, French, and Soviets were more successful in mobilising their Muslim populations: hundreds of thousands fought in the Allied armies against Hitler's Germany. In the last days of the war, in the Berlin bunker, Hitler lamented that Germany's attempts to mobilise Muslims had not been strong enough: "Just think what we could have done to help them, even to incite

them, as would have been both our duty and our interest!"

Biography: Author of *Islam and Nazi Germany's War* (Harvard University Press, 2014) and *Islam and the European Empires* (Oxford University Press, 2014), as well as an op-ed contributor to *The New York Times*, David Motadel is a historian at the University of Cambridge.

MACHISMO POLITICS

Human rights and gender equality in Russia

Darja Irdam (Estonia, 2011) – PhD Sociology

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While democratic tendencies sway more and more countries across the world, Russia is clenching its iron fist on human rights and gender equality. But how does this affect its other policies?

As homosexuality becomes accepted as a social norm, the Russian government not only neglects LGBT rights, but also actively discriminates against homosexual people. A new law passed at the beginning of this year classifies LGBT individuals as “adults with psychological dysfunctions.” While Russian society regresses its achievements in human rights and liberal social development, the government and its propaganda of radical patriarchal machismo legitimises gender inequality and violence against minorities.

After WWII, as the male population declined significantly, men were freed from many expectations, while women were rebuilding the country. The culture of machismo – in contrast with these newly-created boyish and infantile men – started to flourish, and continues to do so today. Brutal, unpredictably melancholic, strong, not necessarily educated, drinking, but holding their liquor - this is what the best of Russian men are expected to be. Stereotypes are imposed on women, too, to make the men shine brighter and stand out more clearly. Women are encouraged to be submissive and secondary.



Unsurprisingly, neither the government nor popular culture see female homosexuality as a threat. It is rather perceived to be a silly sex game: arousing but innocent. The best example of how lightly female homosexuality is treated would be the choice of act performing for the opening ceremony of the Olympics in 2014: t.A.T.u., a duet of two teenage girls popular in the early 2000s for French kissing during performances. A duet of gay men would never be given such an honour.

Apart from human rights violations and further widening the gender inequality gap, and a more active entanglement of orthodox Christianity with politics, radical machismo threatens liberal progressive values in other ways. Aggressive patriarchy consolidates Vladimir Putin's popularity as a mighty Russian man with an

iron fist. He can proudly continue the economic policy based on hard power: reliance on natural resources, an outdated automotive industry, and no investment in Research and Development.

Is there a chance for economic growth, democracy, and a vibrant and robust civil society in 21st-century Russia? In a country where orthodoxy and patriarchy gain momentum day by day, and where simply being different is seen as politically challenging, any form of comprehensive economic and human development seems highly unfeasible.

Biography: Darja Irdam's research focuses on economic transitions, gender and public health. She currently works for the Cambridge based PrivMort project researching privatisation and mortality.

CHINA'S RISE IN AFRICA

On the continent's first Chinese studies centre

Ross Anthony (South Africa, 2005) – PhD Social Anthropology

When Ross Anthony left South Africa in 2005, China had a tiny foothold in his country. Today, the Chinese presence is everywhere – and is rapidly growing.

As I began my studies at Cambridge in 2005, the issue of the Chinese presence in South Africa was still of minor (although growing) importance. For a South African who had long been fascinated with China, Africa was clearly not the place to pursue that interest. There was little in the way of expertise and resources. Besides, with the pressing concerns South Africa faced, who could blame the lack of interest? This drove me to pursue my studies abroad. By the time I completed my PhD several years later, the Chinese presence in Africa had grown significantly, particularly in the resource extraction and infrastructure sectors. And cross-cultural exchanges had risen, with growing numbers of African traders traveling to China and vice versa.

Upon returning to South Africa in 2012, I had the sense that my newly gained knowledge of China would be of use within my home country, but I was not sure how. My PhD had focused on the relatively exotic topic of Xinjiang, a Muslim region of Northwest China, and I was uncertain how my work related to the immediate African experience. Fortunately, Stellenbosch University, which had started up Africa's first Centre for Chinese Studies, offered me a post-doc position looking ostensibly at the growing role of Chinese security within Africa. After the hyper-specialisation of British

higher education, I took on a 'jack-of-all-trades' role: over the next two years, I worked not only on China-Africa related security themes, but also on trade, infrastructure, economic diplomacy, and Chinese domestic policy. I taught everything from Qing Dynasty ideology to Maoist agronomy. I learned a whole new set of skills, including media engagement, political advocacy, and business consultancy.

Now, as the Centre's Acting Director, I am using this opportunity to further develop the growth of Asian Studies on the African continent. With China now the largest trading partner in Africa, the need for both research and teaching on the region is increasingly urgent, and our centre is working to cater to this need. I am honoured to play a part in this development and, from the perspective

of ten years ago as a newly arrived student in Cambridge, could not have foreseen the use my studies would have back home.

Biography: Ross Anthony is the Interim Director of the Centre for Chinese Studies at Stellenbosch University, South Africa.



APE TECHNOLOGY

Investigating tool use in chimpanzees and bonobos

Kathelijne Koops (Netherlands, 2006) – PhD Biological Anthropology

How did humans become technological beings? To understand ourselves, we must look to our evolutionary past.

Humans are the ultimate tool-using ape. We use tools in nearly all aspects of daily life. But how did we become such technological beings? To answer this question we need some information about our evolutionary past. Unfortunately, we cannot go back in time to see how our hominin ancestors lived, so we must turn to our primate cousins, the great apes, instead.

Chimpanzees (*Pan troglodytes*) and bonobos (*Pan paniscus*) are our closest living relatives. We shared a common evolutionary history until about seven million years ago, and they diverged from their last common ancestor about one million years ago. Yet, despite their genetic closeness, the two species differ in a number of important ways. One of

the most striking differences lies in their reliance on technology. Chimpanzees are renowned for their use of tools, including cracking nuts with stones and catching ants with sticks. Bonobos, on the other hand, use surprisingly few tools and none for feeding.

As a Gates Cambridge Scholar (2006–2010), I studied chimpanzee tool use in Guinea, West Africa. For my post-doctoral research, I set out to investigate why tool use in chimpanzees and bonobos is so different, so I headed east to study chimpanzees in Uganda and bonobos in the Democratic Republic of Congo. I wanted to know whether the two species are intrinsically different, in terms of their innate predispositions, or whether the tool use difference may be explained by extrinsic differences, such as opportunities for tool use in the environment and learning how to use tools from others.

My findings showed that both species had plentiful opportunities for tool use and that opportunities to learn skills from others could not explain the tool use difference. However, I did find a difference in the predisposition for tool use. Young chimpanzees engaged much more with objects than young bonobos, a step towards explaining the complex tool use found in adult chimpanzees. By studying the use of technology in our closest living relatives, I not only aim to learn more about human evolution, but also to increase awareness of our close evolutionary links with the African apes and promote the conservation of our endangered cousins.

Biography: Kathelijne Koops is a post-doctoral researcher at the Anthropological Institute & Museum, University of Zurich and an affiliated lecturer at the Department of Archaeology & Anthropology, University of Cambridge.





READING BEYOND CLASSROOMS

The long road to improving literacy in India

Ananya Mishra (India, 2014) – MPhil Modern South Asian Studies

If classrooms become feared chambers of one's inability and of being forced to swallow incomprehensible symbols, where does a child get an education and discover the joys of reading?

In India, where primary education is free and compulsory, the student enrolment rate is almost 100%. However, the level of student learning at the primary level is alarmingly low. Statistics from the reading level tests published in the Annual Status of Education Report 2014 indicate that not even half of Grade 5 children can read a Grade 2 level text and 32.5% in Grades 1–2 cannot even decipher alphabets.

Research indicates that the problem is due to policies that focus on inputs (building schools, providing free lunches and uniforms), while failing to ensure the said inputs translate to meaningful outcomes (students learning well in school). School curricula remain ineffective due to the persistent disparity between the level of material provided and comprehension levels of

children. As children fail to comprehend, many drop out after primary school. The rest continue without being equipped sufficiently to cope in secondary school. Many NGOs in India have come up with a single solution: read stories. Read India designs books catering to the language levels of school children in rural India to help them develop a reading routine.

The Library Project at Make a Difference designs library spaces in shelter homes across major cities in India. The idea is to provide a healthy, fun environment where these children can spend hours reading stories. The children are allowed to choose books, then read and discuss them with the volunteers. More than aiding formal learning, these reading projects help sustain a safe space for a child's imagination, often stunted by harsh living conditions.

Along with providing maths and science lessons, Science Education Initiative (SEI) has also started the SEI Reading Project in government schools of Pune. With weekly worksheets in

Basic English, SEI has a lending library. The volunteers assess initial reading levels and try to recognise varied learning mechanisms among children. They use the idea of "shifting spaces" to allow the child to break away from the notion that the act of reading is limited to a classroom.

Of course, these are local initiatives. However, through their rigorous research, well-designed curricula and a creative approach to language learning, these reading programmes seem to be succeeding in their objectives where the formal education system in India has failed. In the future, diligent impact assessments of these programmes will hopefully inform the design of educational policy at the national level and drive more systemic reform.

Biography: Ananya Mishra's research concerns changing song cultures of tribes in eastern India. She designs English language curriculum and reading programmes for SEI and VOICE4GIRLS.



BEYOND THINK TANKS

Think tanks, universities, and policy processes in Pakistan Muhammad Arif Naveed (Pakistan, 2014) – PhD Education

Historic colonial patterns confound access to and generation of knowledge. This means that the tremendous potential in the advancement of social justice in the Global South largely remains unexploited. In Pakistan, the producers of policy-relevant knowledge consist mainly of universities and think tanks. This has serious bearings for the knowledge produced and its policy implications.

Ideally, one expects the institutions of higher education to play a vibrant role in shaping public discourse. Given the colonial history of Pakistan, frequent military regimes, the overall neglect of education, and the ideological context, social sciences remain largely underdeveloped. The imperialistic tendencies of social sciences which are deeply embedded in the tradition of Orientalism pose further challenges to their nurturing in a non-Western context. Universities in Pakistan continue to remain merely teaching places rather than active knowledge producers. Even when they produce research, their relevance to and link with public policies are very weak. As happens elsewhere, academic concerns

for publishing high “impact-factor” peer-reviewed research override the concerns for creating real impact through informing public policies.

“Universities in Pakistan continue to remain merely teaching places rather than active knowledge producers.”

Think tanks, with the support of international aid, have emerged to fill this void by engaging directly with policy processes through research, advocacy, networking, and capacity building. They have flexible organisational structures, host interdisciplinary research teams, engage proactively with the politics of policy processes, respond promptly to the explicit research needs of policy, disseminate their research widely, and engage mass media. Their key dilemma is linked to the precarious funding arrangements given the lack of public

sector support and their exclusive reliance upon international aid resources. Due to short-term and conditional funding of policy research, think tanks largely fail to develop long-term research capacity and the priorities of international development agenda are privileged over indigenous alternatives.

Incentive mechanisms for enhancing the engagement of university-based academics with policymakers should be created. The public sector should fund policy research through both universities and think tanks. Supporting such collaborative research has a strong potential for improving the independence, rigour and effectiveness of research and hence can greatly contribute towards socially just policymaking in the country.

Biography: Prior to his arrival at Cambridge, Muhammad Arif Naveed was a policy researcher at Mahbub-ulhaq Human Development Centre and the Sustainable Development Policy Institute. He helped implement rural development and bring about textbook reform in Pakistan.

INDONESIA STATE OF MIND

Reforming the mental health care system

Sabrina Anjara (Indonesia, 2014) – PhD Public Health and Primary Care

With a new President in Indonesia, will an inherited colonial structure be put to rest?

Easily overlooked amidst recent discussions on fuel subsidies and slowing economic growth, Indonesia should invest in its people.

Despite ongoing political and social reformation bringing hope for improved welfare, the health care system remains a colonial inheritance that should be addressed. One of the most pressing needs is mental health service provision.

Indonesia has among the highest treatment gap in the world for mental health disorders. While the median worldwide treatment gap for psychosis is 32.2%, the treatment

gap in Indonesia is more than 90%. When the behavioural manifestations of psychiatric disorders are deemed threatening, a quick solution is to restrain the person, locally known as pasung. It is estimated that around 57,000 Indonesians had previously been or are currently living under restraint (chains, wooden block, cage, etc.). Lack of knowledge and understanding of mental health, as well as limited access to mental health services, remain the most salient reason for pasung.

Indonesia's new President, Joko Widodo, promises free healthcare to all citizens and launched a new healthcare scheme in November 2014. This complements the new Mental Health Law, endorsed by parliament in July 2014. The new law promises better treatment of people with psychiatric disorders and intellectual disabilities, including outlawing pasung. A milestone for an otherwise archaic healthcare system, the law

contains a set of regulations on health care infrastructure to be adopted by regional governments.

For two years before relocating to Cambridge, I worked as a psychologist in the Singapore Civil Service. During this time, I became a strong advocate of evidence-based interventions and implementation science. While the new mental health law in Indonesia is a breakthrough, its implementation requires meticulous planning, stakeholder engagement, and management. In the next three years, I will study the implementation and outcome evaluation of the new mental health policies and care quality guidelines in Indonesia, with the hope of applying our key learning points in other developing countries.

Biography: Sabrina Anjara is a Psychologist and PhD candidate at the Cambridge Institute of Public Health.

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PROFESSIONAL UPDATES

2004

After completing his PhD degree in 2007, **Mohammed Elshafie** (Sudan – PhD Engineering) worked in industry. He then returned to academia, accepting an appointment as the Laing O'Rourke Lecturer in Construction Engineering and Technology at the University of Cambridge in June 2011. He has been elected a Fellow at Robinson College, where he was previously the Director of Studies in Engineering for three academic years.

Mohammed Elshafie (Sudan – PhD Engineering) and **Rose Spear** (USA – PhD Materials Science and Metallurgy) won the Cambridge University Engineering Photo Competition.

Robyn Scott (New Zealand – MPhil Bioscience Enterprise) was one of three keynote speakers at a conference which aims to inspire and support those running or seeking to start a social enterprise. Other Scholars taking part included **Toby Norman** (USA – PhD Management Studies), **Isaac Holeman** (USA – PhD Management Studies), and **Songqiao Yao** (China – MPhil Geographical Research).

2005

Nathan George (USA – CASM Mathematics) recently launched a new product, the Kube (which combines high fidelity audio and insulated storage into one handy device), to great reviews. Check it out at kubecoming.com. He is also reopening a historic bar and restaurant, called Spats, in Berkeley, California.

2006

Tristan Brown (USA – MPhil Environmental Policy) recently began work as an associate attorney at Van Ness Feldman LLP in Washington, D.C.

2007

Caitlin Casey (USA – PhD Astronomy) is joining the Department of Astronomy at the University of Texas at Austin later this year after finishing a McCue Fellowship of Cosmology at the University of California, Irvine and a Hubble Fellowship at the University of Hawai'i. Caitlin researches the most extreme galaxies in the Universe, which had significant impact on the formation of the first stars, dust, and metals shortly after the Big Bang.

Elizabeth Dzeng (USA – PhD Public Health and Primary Care) published an article in *Wired* magazine asking 'Is offering 'futile resuscitations' really the right thing to do?'

2008

Sytske Besemer (Netherlands – PhD Criminology) received the Early Career Award from the Division of Developmental and Life-Course Criminology from the American Society of Criminology.

Alice Chang (Australia – MPhil Public Health) is working with indigenous children and teenagers with mental health issues in Australia.

Edward Chouchani (Canada – PhD Biological Sciences) was lead author on a paper published in *Nature* where scientists have identified chemicals that could protect vital organs from long-term damage following a heart attack or stroke.

Andrew Gruen (USA – PhD Sociology) recently became the Director of Marketing at Seven Bridges Genomics in the Boston area.

2009

Alexandra Mannerings (USA – PhD Veterinary Medicine) recently published a research article in *EcoHealth* exploring the role that social demographics and perceptions may play in the spread of disease (such as Ebola) from fruit bats to humans.

Kamins et al. 2014. *Characteristics and Risk Perceptions of Ghanaians Potentially Exposed to Bat-Borne Zoonoses through Bushmeat*. *EcoHealth*, Sept. DOI: 10.1007/s10393-014-0977-0.

Kristin Buterbaugh (USA – MPhil History, Philosophy & Sociology of Science, Technology & Medicine) recently graduated from medical school and became a resident in orthopaedic surgery at the University of Pennsylvania.

Bilal Mahmood (USA – MPhil Bioscience Enterprise) joined Silicon Valley startup Optimizely.com, the world's leading website optimization platform. He is spearheading efforts in Optimizely's new Business Systems Engineering and Data Science teams, coordinating internal data analytics and predictive modeling projects.

Usha Chilukuri Vance (USA – MPhil Early Modern History) graduated from Yale Law School in 2013 and is currently clerking for a federal judge in Washington, D.C. She will be moving to the San Francisco Bay Area in August.

2010

Shlomo Bolt (USA – MPhil Modern Society and Global Transformations) was interviewed in *Al Arab* newspaper about his work on the Syrian Revolution.

Alex Davies (Australia – PhD Engineering) won a £10,000 G-Research prize for his PhD research on Gaussian Processes.

2011

Annalijn Conklin (Canada – PhD Medical Science) received a highly-competitive, prestigious post-doctoral fellowship award from CIHR (Canadian Institute for Health Research) which she will be undertaking at UCLA's School of Public Health, World Policy Analysis Center.

Katie Hammond (Canada – PhD Sociology) published an article on egg freezing in the *International Journal of Feminist Approaches to Bioethics*, and it received widespread media attention. She has been a leader in international debate on the topic, participating at a conference in Germany directed towards the ethics of the technology, and through various media and journalistic endeavours.

Erin Kara (USA – PhD Physics) was awarded a Hubble Postdoctoral Fellowship to study the origins of the universe.

Greg Nance (USA – MPhil Management) continues to lead ChaseFuture, a Gates Cambridge-inspired social enterprise, to market leadership in global admissions consulting with over 10 million students now using the organisation's instructional articles and videos to apply to university. Sixteen of ChaseFuture's mentor corps are Gates Cambridge alumni.

Luis Perez (El Salvador – PhD Latin American Studies) has recently been appointed Postdoctoral Fellow in Caribbean Studies at the School of Advanced Studies, University of London. He has been asked to found an integrated Caribbean research centre that will include the English, Spanish, French and Dutch societies in the region. This will be the first and only multidisciplinary and multicultural institution of its kind in the United Kingdom and one of just a handful in the world.

Diana Pirjol (Romania – MPhil Epidemiology) is a public health professional by training with experience in monitoring, evaluations and communications. She is passionate about working with people who tackle big challenges in the health sector because she believes health is a key determinant for growth and societal transformation. She pursued her passion by working at the intersection between health & economics in NGOs, national & international organisations and recently co-funded her own organisation. She currently works in a trust fund within the World Bank where she coordinates the portfolio of health

related impact evaluations. Previously, she served as a policy and project officer in a pan-European cancer patient coalition.

Johanna Riha (Austria – PhD Public Health and Primary Care) was part of a delegation to the Kurdish region of northern Syria where a new form of self-government is being rolled out.

Sukrit Silas (India – MPhil Pathology) was awarded an international research fellowship this summer by the Howard Hughes Medical Institute.

2012

Raphael Lefevre (France – PhD Politics and International Studies) was interviewed in *Research Horizons* on what Lebanon can learn from the 1980s about how to deal with IS. He also spoke at the recent POMEPS event on Islamist Politics in the Shadow of the Islamic State.

Daniel Storisteanu (Canada – PhD Medicine), **Alexandra Grigore** (Romania – PhD Nanotechnology) and **Toby Norman's** (USA – PhD Management Studies) pioneering fingerprint identity device has been covered by a peer-review journal *Global Health: Science and Practice* and is up for several awards including start-up of the year at the Business Weekly Awards and is entered in the UKAID Direct competition.

Maxim Tabachnyk (Germany PhD – Physics) discovered a new way to combine the advantages of organic and inorganic semiconductors, allowing for a cheap organic solar cell coating which can break the efficiency limit of conventional solar cells.

2013

Evelyn Boettcher (USA – PhD Politics and International Studies) was appointed to the Cambridge University Women's Boat Club squad after making it through multiple cuts throughout the year. The 2015 Boat Race marks a significant moment in women's rowing history in the UK, as it will

be the first time that the women's teams of Cambridge and Oxford will race on the Tideway in London on the same course as the men. Evelyn is also honored to be named the 2015 Blondie boat Captain.

Isaac Holeman (USA – PhD Innovation, Strategy & Innovation) published a scoping review of mobile technology for cancer care. In 2014, the organisation he co-founded, Medic Mobile, won a Skoll Award for Social Entrepreneurship.

Rebekah Scheuerle (USA – PhD Chemical Engineering) was awarded a National Instruments (NI) Engineering Impact Award in the biomedical category for her use of LabVIEW and NI DAQ hardware to verify devices that prevent HIV transmission between mother and child during breastfeeding.

2014

Victoria Herrmann (USA – PhD Polar Studies at Scott Polar Institute) published an article in *The Hill* on Obama's State of the Union address and why Alaskans should not be forgotten.

Neha Kinariwalla (USA – MPhil Modern Society & Global Transformations) is the youngest person on the *Forbes* 30 under 30 list for Healthcare (21) in 2015.

Amirah Sequeira (Canada – MPhil History Philosophy & Sociology of Sci, Tech & Med) was named one of the world's top 100 young AIDS advocates. Amirah was named one of the 100 list honorees by *Poz* magazine, an award-winning US print and online brand for people living with and affected by HIV/AIDS which has been publishing since 1994.

Michelle Teplensky (USA – PhD Chemical Engineering) won the \$500 National Student Paper Competition for the American Institute of Chemical Engineers. She was awarded the prestigious prize for her research on a smart system for releasing type-2 diabetes drugs to patients over the long term so that they no longer damage their health if they miss a dose.



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