

Welcome to the MEG Newsletter 1/2012

Editor

Welcome to the first edition of the MEG Newsletter for 2012. With summer time well and truly upon us, it is now time to briefly recap some of the main news from the first half of the year.



The 2012 Freiburg Forum on Environmental Governance was held back in March but remains fresh in many peoples' minds, such as its power to convey the message of sustainable consumption. Over 200 people attended the event which innovatively combined documentary film, keynote speakers (Dr Rainer Grieshammer, Sylvia Lorek and Peter Volz), audience discussion and scientific theatre. The success of the event was testament to the hard work and long hours invested by the MEG 6 students over many months of preparation.

In more good news for the MEG Program, the German Academic Exchange Service (DAAD) and Open Society Foundations awarded the MEG program three additional scholarship positions for the years 2012 to 2015, specifically for students from countries of Central Asia, South Caucasus,

and the Balkans. The MEG program is happy and proud to have succeeded in obtaining these scholarship positions and we look forward to welcoming applications from students from these regions very soon.

In May, MEG 7 student Cameron Dron proved that all the MEG debating, discussion and presentation practice has an application outside the classroom by winning second prize at the 7th Freiburg Science Slam. The competition gives students in Freiburg the chance to present a short speech on a topical or popular science issue before an audience who then vote for their favourite speaker. Cameron's presentation was on the perils of coal power and, in true MEG fashion, he was not afraid to raise some uncomfortable truths in order to convince the audience of the strength of his case.



Following their success at the Freiburg Forum on Environmental Governance, the MEG Scientific Theatre group was invited courtesy of DAAD to perform their highly regarded theatre piece, *Setting the Stage for Sustainable Consumption*, in Bonn in June. The troupe presented two performances to diverse audiences including DAAD staff and visiting professors and scholars, many from developing countries, attending the Right Livelihood College Campus at Bonn's Center for Development Research (ZEF). Despite the different professional and cultural backgrounds of the audience members,

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the play was incredibly well received by all in attendance, proving once again the ability of the medium of Scientific Theatre to cut across cultural boundaries to deliver important public science.

In July, students from MEG 6 were invited by the Environmental Department of the City of Freiburg to present their documentary film, "SustainAbility: An Experiment," at the closing festival of the City's project *200 Familien Aktiv fürs Klima* (200 Families Active for the Climate). The Project, whose motto was "Self-made Sustainable Development", involved 200 families from Freiburg who worked for a year on initiatives to reduce their ecological footprint.



More recently, preparations for the 2013 Freiburg Forum on Environmental Governance have begun to move into full swing. The organisers, the MEG 7 class, plan to critically explore Freiburg's "Green City" image and to analyse various environmental conflicts within the city. Taking an innovative approach, the class hopes to provide a public platform through which residents of Freiburg can voice their concerns about the city's environment. We eagerly await further developments about this event, which is bound to be highly engaging and interesting.

For all the latest news on the MEG Program, please visit <http://www.meg-uni-freiburg.de/>

Review: Scientific Theatre in Bonn



Tamara Bujhawan (MEG 6, Trinidad) reviews the MEG Scientific Theatre's recent performance in Bonn.

On 7 June 2012, I had the pleasure of travelling to Bonn to catch up with some of my MEG 6 classmates after three months apart, and the opportunity to experience the MEG Scientific Theatre's brilliant performance of "Setting the Stage for Sustainable Consumption" firsthand. The performance was part of the Right Livelihood College's workshop on "Mobilisation for Change: Social Movements in a Developing World" which brought together delegates from around the world. The skill and professionalism of the group was evident throughout, and their excitement was palpable. The talent of the group is truly exceptional as they were able to keep up the high energy performance even when faced with an audience who gave nothing away. Even so, at the end of the play the audience was moved to rapturous applause and the group earned themselves a standing ovation.



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What truly stands out however, is the creative way in which they are able to convey the sustainability message through scientific theatre. By utilising this medium they are winning a lot of fans and spreading the word about sustainability in a fun and inspiring way. They even garnered accolades from lecturers from a number of international universities including in the UK and Malaysia. Born out of the 2012 Freiburg Forum on Environmental Governance, the exposure and recognition that the group is bringing not only to themselves, but to the MEG program as well, is quite amazing.

At the end of a wonderful afternoon in Bonn, it was once again time to bid farewell to my classmates. However, like all the other members of the audience that day, I remained captivated by what I had witnessed.

Riding the thesis wave



Sophia Louise Carodenuito (MEG 5, USA) relates her experiences of writing the MEG Master thesis.

Writing the Master thesis, I felt like a surfer far out to sea who sees a big wave coming off in the distance. After sailing through the MEG modules, the thesis is the first encounter with the wave. You see it coming out the back and it at first it seems small and totally manageable, until it comes closer that is. Although your heart begins to race as it approaches, you easily glide to the top of it.

Everything you learned in the MEG program up until then helps boost your ego and you take it on with full force. In the beginning, you quickly surf to the top of the wave, high on the crest, you see the world

from above - everything is clear and the opportunities vast. Some tribulations may arise during the research proposal, but you feel as if you could keep riding on the top of this wave all the way to the faraway beach.



(Image: Aquabumps.com)

As you begin to read more and more, you soon become so immersed in the details that you let yourself go and although you may not realise it at first, you start to lose control of this wave. Methodology, scientific validity and data analysis begin to draw you further down and to the other side of the wave, and as you wait for comments on your theoretical framework, you realise you are descending this wave at a much faster pace than you would like, gaining downward momentum by the minute.

The deeper into the details you dive, the further down you are drawn - down, down into the cold dark water. The descent accelerates the more you read and read and read. But then you have to write and write and write. All of a sudden, you are hit with a feeling of being at the bottom of the wave, you feel as though you cannot possibly go down any further. What are you to do? You are all alone and there is no-one to reach out to. You look up and only see walls of water quickly surrounding you and your board.

How did the horizon glimmer in the distance while you were surfing on top? You cannot even remember those sights at this point. You

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are certain this wave will crush you brutally, you will no longer enjoy the warmth of the sand, no longer be able to show your face at the university. Then you get a grip of yourself and you say, "I can do this. I am strong." You will not be crushed by this wave, not here, not now. You slowly find a way to surf it and begin to feel yourself rising, somehow you ride the wave up and up. It takes all your strength, all your power, more than you ever thought you had in you.

The current begins to take your board, nudging you back up towards the sun. Gaining momentum, you soon feel like you are surfing again, this wave is taking you along with it, no turning back now. You are riding this wave and you are making it back up to the top! When you reach the crest, you see the tsunami you lived through, now a distant glimmer in the sun. You breathe in the fresh air and tell yourself you live and learn, but for the moment, you will stick to building sand castles on the beach.

Death by PowerPoint



Jade Buddenberg (MEG 5, Germany) vents her spleen about the indiscriminate and excessive use of PowerPoint presentations in our modern lives.

We are addicted to PowerPoint. Every conference, meeting and lecture is dominated by this technology, and quite frankly, I'm utterly bored by it. What is meant to be a tool to improve communication in fact limits our space for interaction, creativity and holistic thinking. Even worse, compiling "ppts" unnecessarily consumes a great proportion of our working hours – unless

one is lucky enough to have a poor intern to take care of the mind-numbing job.

Microsoft has truly hit the jackpot here - PowerPoint is now used across the globe at least 30 million times every day, a frequency of use unrivalled by any other presentation software. No matter which domain - policy making, military strategy, primary school teaching or sustainability science - PowerPoint is "the" medium of information exchange. To demonstrate the pervasiveness of its infiltration into our society, I will recount a personal story. Recently, a friend of mine was to meet her new boyfriend's parents for the first time, a naturally nerve-racking occasion. In order to assuage her fears, and avoid potentially awkward and annoying questions, she decided to present herself (background, education, hobbies, etc.) via PowerPoint. Whilst she intended this to be a witty solution to an awkward social event, it struck me as scary - PowerPoint has entered our personal lives. Will its conquest of human thought ever stop? Is this a case of technology taking control of humanity?

PowerPoint, as the name suggests, is supposed to help us make a point powerfully. The software structures conversations slide-by-slide, encouraging the user to build arguments hierarchically through bullet points and layered formatting. As a result, it imposes linear thinking and stifles discussion. Pieces of information are unavoidably presented as absolute truths, a practice which prevents the audience from engaging in the thought process of the speaker, and consequently removes any space for interaction – indeed the US Military has coined the term "hypnotizing chickens" to describe this effect. A recent article in the New York Times revealed how this effect is used intentionally to silence noisy journalists probing into the Afghanistan conflict. PowerPoint encourages passivity, undermines critical thinking and limits participatory decision-making. Audiences are



bombarded with details and lose sight of the big picture.

Of course the way you use the program matters - there are both PowerPoint sinners and PowerPoint saints. The sinners overload their presentation slides with information and read directly from them, losing the attention of their audience completely – truly “Death by PowerPoint.” PowerPoint’s programming legitimises this style of presentation, and its pervasiveness contributes to the unreasonable tolerance of PowerPoint sinners at all levels. On the other hand, PowerPoint saints use the software only as a support to provide visuals whilst speaking independently. These are the presentations we remember. Saints manage to control the software instead of being dominated by it. So it depends on the user. Peter Norvig, director of research at Google Inc., believes that “PowerPoint doesn’t kill meetings. People kill meetings. But using PowerPoint is like having a loaded AK-47 on the table: You can do very bad things with it.” Still, PowerPoint can drain the inspiration from even the most stirring speeches. Norvig has made a PowerPoint presentation of Abraham Lincoln’s Gettysburg Address, one of the most moving and inspiring speeches in history. Needless to say, PowerPoint sucks all the power from the content.

Theoretically, we know that the “how” matters as much as the “what.” Studies of body language tell us that content is much less important than the way a message is delivered. Using a single medium inherently limits our ability to effect meaningful communication and with that, undermines progress in a discourse. Yet we seem to be locked into the technology of PowerPoint. Amongst researchers, it is the standard tool of presenting knowledge to

each other and third parties – an unofficial code of conduct. However, considering the challenges science faces in making its research seem meaningful to policy makers and the wider public, we need brave scientists who are prepared to “mix up” their presentation styles. Saying no to PowerPoint can create space for different and more original discussions at conferences, in the classroom or even at home, and can encourage solutions to problems. Indeed, there is already a tendency to diversify scientific communication at conferences with ice-breakers, graphic recording and theatre workshops – a trend that should be encouraged. Freeing our individual presentations from the grip of PowerPoint addiction will make knowledge exchange more memorable. My guess is that we might even have fun doing it.

- Tips for better communication of data and science: <http://www.edwardtufte.com/tufte/>
- The Gettysburg Address PowerPoint: <http://www.norvig.com/Gettysburg/index.htm>

Bees in a bottle



Julio Quintini (MEG 1, Venezuela) provides his views on the problems associated with current sustainable development policies.

Bees are amazing creatures. It is delightful to see worker bees flying from flower to flower as they collect nectar to produce honey. On the other hand, it is very sad to find a honeybee trapped inside a soda bottle. Attracted by the high concentration of sugar, the bee gets into the bottle and then, unable to find its way out, slowly perishes.

This grim scene accurately illustrates the way modern society has evolved. For multiple decades we have blindly embraced a model of “development,” which exalts unlimited eco-



conomic growth whilst disregarding environmental protection and social justice. The false promises of unrestrained economic development have lured society into a dire situation, just like the sugar does to the bee. The combination of ever increasing ecological, social and political problems caused by this model form the soda bottle in which we are all trapped.



Unlike the bee, however, we have recognised the gravity of our situation. Through the process started with the establishment of the Brundtland Commission in the 1980s, modern society has acknowledged the urgent need to adopt a different development paradigm. As a result, the principles of sustainable development are now well known, and countless policies and procedures have been introduced to promote them in every sector of society. Yet, environmental and social indicators suggest that the negative effects of our current economic model continue to intensify. In other words, we are still trapped inside the bottle.

We cannot break free because our escape plans are analogous to the bee trying to smash through the bottom of the bottle, whilst ignoring the open “mouth” of the bottle – its natural exit. For instance, vast resources are allocated for the develop-

ment of electric cars and to the expansion of capital-intensive public transport systems. Meanwhile, less expensive solutions like improving the quality of public transportation or embracing more innovative approaches to reduce long distance commuting are ignored. Likewise, extensive resources are used to deploy inefficient technologies to generate electricity, whilst strategies to reduce the consumption of energy remain largely inadequate. Essentially, society is fixated on ineffective methods that try to forcibly make everything “green” or “sustainable,” whilst neglecting the need to properly educate people about sustainability.

We need to think outside the box to get out of the bottle. The identification and dissemination of new approaches is paramount to the success of sustainable development. However, only when we stop paying so much attention to the sugar inside the bottle, will we be able to appreciate the abundant nectar that is outside.

Climate Trojan: Beware of sceptics bearing gifts



Cameron Dron (MEG 7, United Kingdom) analyses recent developments in the climate change debate. This article first appeared on Cameron's Blog, Realistic Being Green -

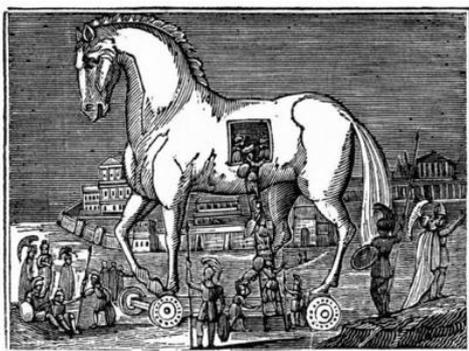
<http://realisticbeinggreen.wordpress.com>

The Climate Wars could be entering the endgame here if a new strategy deployed by the “sceptical” lobby is successful. Professor Richard A. Muller, head of the Berkeley Earth Surface Temperature (BEST) project and physics professor at the University of Berkeley, has just written an article in the New York Times declaring his “conversion” to what has been mainstream science for a long, long time. Professor Muller has even gone one step further and declared that “*humans are almost entirely the*



cause” of global warming as opposed to IPCC reports which suggest that human industrial activity may only be one cause, in combination with natural cycles.

Excellent news, no? The war between sceptics and believers is over. All are agreed that climate change is caused by human activity. Natural sciences departments in universities across the world have rejoiced. UNEP offices will witness many a sunrise and dark moon as cleaners put them back in working order. Professor Michael Mann, vilified by the engine of denial and its bootlickers, magnanimous in victory has congratulated Professor Muller for behaving like a “good scientist.” Blogs of poison can cease. Quite terrible name-calling is needed no more. Finding the solutions for a bright new world with a planetary temperature of no more than an extra two degrees can begin.



Trojans Deceived.

Sadly not. What we are witnessing instead is a very cunning shift in sceptic strategy. That game is up. No longer could they deny the science brought together by the IPCC and nor could they come up with a better theory as to why the planet was warming. They could not even keep on pretending that the planet was not indeed warming. They have, however, shifted the

goal posts. Rather than deny that the basic science is accurate, they will now deny that climate change poses any threat to human well-being. This is nothing new but merely a shift in emphasis. Professor Muller’s article is the perfect Trojan Horse and could be the final tactic that makes sure this war is really over.

Muller’s article is uncontroversial except for the part where he predicts warming to increase to a level above IPCC predictions. That was worrying, but not as worrying as the paragraph where he essentially states that the threats from climate change are overblown, unsubstantiated or just plain false. He then goes on to list several examples to support his point. I’ll deal with those, courtesy of Skeptical Science, at the bottom of this article. For now though let’s focus on the New York Times article.

It is written in a very clever way to achieve what the main objective of the sceptical lobby has always been – to delay meaningful action on climate change for as long as possible. Muller points out that the BEST methodology is indeed the best - better than the IPCC’s. He argues that his data is superior and therefore gives better results. It is important to link this to what I’ve written above. By framing the article in this way Muller seeks to position himself as the true scientist, the one with integrity who didn’t go leaping to conclusions just like those inferior scientists from the IPCC did. Now that Professor Muller and his team have truly, scientifically established that humans are warming the planet, he can now go on to find out what the negative effects from this warming will be. Do not trust what the IPCC has to say, for their methodology is weak and inferior. Wait for us to provide the *real* answers. It’s the waiting, as the sea ice caps melt and the deserts expand, that Muller wants. It’s the waiting which is what the oil industry needs - more and more time to extract that oil before those bothersome scientists obstruct their work.

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If this is the case then it could signal a slight shift in the debate from one that argues over what was fairly established science, and thank God for that at least, to one that is certainly less established – predicting the future. We cannot know what the future is, but good science can help us to make good predictions. The war will now rage over what is good science in this department and what makes a good prediction. But before these new battles commence we have to beware this Trojan Horse sent to us by Professor Muller. It would be a disaster for progress if climate scientists were to come out en masse and congratulate Professor Muller, or not to challenge the inevitable news coverage, because it would give him legitimacy, therefore making it easier for the “sceptical” lobby to employ the argument I outlined above. Muller has been the closest thing to legitimate that the sceptic lobby, filled with crackpots, has had for years. For the scientific community to ignore what is blatantly a new way to further delay investments in renewable energy, energy efficiency and wholesale system change is to allow it to succeed.

And how does this all fit together? Oil money. It's no secret that the Koch brothers have funded this project and it's no secret that these two oil barons, and big oil in general, have funded the denial machine, just as the tobacco industry tried to pretend that lung cancer was not exacerbated by smoking. People were shocked, and many environmentalists satisfied with the delicious irony, when the Koch-funded BEST project results came in and confirmed what was already known for a very long time – that human activity is driving observed global temperature increases. If big oil could fund a project that confirmed the scientific consensus then clearly we

can now trust oil-funded research. Now it's all very clear why this was done. It began the implementation of a long term strategy of delay. It is still not yet time to party – or it really will be game, set and match to the oil industry.

What does Professor Muller get wrong in his article?

The web-site, Skeptical Science, provides the rebuttal:

1) Polar bear populations are decreasing: <http://www.skepticalscience.com/polar-bears-global-warming.htm>

2) The Himalayan Glaciers will not be gone by 2035, but most are retreating. An excellent deployment of the cherry-picking tactic: <http://www.skepticalscience.com/himalayan-glaciers-growing-intermediate.htm>

3) Hurricanes. Even if they are decreasing in frequency in the US, it is certainly not possible to claim that they are decreasing globally: <http://www.skepticalscience.com/hurricanes-global-warming-intermediate.htm>

4) Warming in the US is offset by cooling elsewhere in the world. It seems contradictory to ‘discover’ that global temperatures are increasing but then somehow imply that the warming witnessed in the US cannot be attributed to global climate change? Perhaps the BEST results are only for the US?

5) Medieval warm period: <http://www.skepticalscience.com/medieval-warm-period-intermediate.htm>

On missed opportunities



Scott Cettie (MEG 6, USA) laments foregone chances for robust scientific debate in the MEG classroom.

In the MEG program, it has become axiomatic that the answer to almost any (and perhaps



every) question will begin with the preface “it depends.” A facetious example of a Q&A session in the program might read:

Person 1: Is the earth flat?

Person 2: Well, it depends, are you looking at it by way of mirror, or perhaps a photograph?

Person 1: No, I mean, objectively, is the earth flat?

Person 2: Well, it depends, as you stand now, it seems quite flat to me.

Person 1: No, I mean is there a curvature to the surface of the earth, in its entirety?

Person 2: Well, yes. As I understand it....

After much back and forth, a declarative statement is finally arrived at by way of much qualification. It is only then that a true dialogue can begin. Unfortunately, I find that many MEG related discussions never quite make it to this point, which is a shame as this is a critical threshold of thought.

While “it depends” is often stated in the form of a joke, and is therefore meant to elicit laughter (as it should), it should be noted that, in practice, it is also often said with a touch of cynical irony - as if there may be no answer at all, or, rather, that the answer is too complex or obscure or elusive to grasp. In a subject as profoundly expansive as Environmental Governance, which addresses the interface of human and environmental interactions, this is a fairly pardonable offence. It is perhaps suggestive of the humility of the speaker, who is merely acknowledging that further research is necessary. However, what “it depends on is often an unknown variable, which may throw off the entire discussion and analysis.

It is my belief that while the statement may somehow seem innocuous, it is not - for it also suggests an abdication of responsibility to truly answer the question, despite “incomplete information,” for surely no-one alive possesses “complete information” with regards to such problems. As supposed “scholars” in a burgeoning field, if anyone has the responsibility to answer these questions with a degree of confidence, then it should be those students and graduates of the MEG program.

This phrase, “it depends,” is simply lazy - and for those individuals who look to the MEG students and faculty for “answers” (as I believe some do), it is suggestive of a certain non-committal, intellectual dilettantism. We are students, yes, and no doubt have much to learn. But we are also teachers to those who look to our work and lives for guidance in their own. Though our collective impact may be small, it would still be wise to use it for the benefit of humanity. I hope you can at least agree with that. To say “it depends” foregoes this opportunity to make a difference. To use this phrase is to acknowledge base incompetence, and should therefore be a phrase not looked to for comfort, but rather, as a last resort. This is not to say that some questions do not require this answer, but rather that it should “taste bad” when it is on the tip of your tongue.

There is, no doubt, a quiescent political force in this program. The people you meet, from many different countries, will all one day hold influential positions in critical institutional structures. However, when they reach this point in their lives, class will well and truly be over. Outside the university walls, beliefs (arrived at by way of “incomplete information”) are being “operationalised” on a daily basis, with little or no room for debate. Take the following, rather terse, example - Anarchism, Communism, Democracy, and Totalitarianism are all ideological belief structures with normative claims on how govern-



ments should operate and corresponding institutional structures and personnel furthering their socio-political agendas. Anarchism follows the principle that “none rule.” Communism follows the principle that “all rule.” Democracy follows the principle that the “majority rules.” Fascism follows the principle that “the Great Leader rules.” Sovereignty is at stake and it is self-evident that this is a zero-sum game. How successful these belief structures are in furthering their agenda is entirely dependent on human beings who take up the cause and invest in these ideas.

Human agency (the power we have to change things or to shape our environment) is entirely dependent on free will, which is dependent on a degree of consciousness divorced from structure. I suspect a counter-argument might come in here which I will briefly address. The reader may ask – “as soon as I choose an ideology, am I not at the mercy of structures? Is my free will then taken from me?” I would answer these questions by saying that you are bound by structures only if you believe so intransigently in your chosen ideology that you do not acknowledge that another ideological option may be available. In my view, if you find yourself disagreeing with the available ideological choices, elaborate the reasons why and construct your own ideology which distinguishes itself from what is already available.

Elaborate your opinions and give others the opportunity to critique them, if only so that you might test and refine your own beliefs. Do not forego the opportunity to have another person hear your thoughts, so that, even if they disagree with you, they are forced to internalise the information presented, and either find a rea-

sonable way around it, or submit to the charge. Dithering about needing “more time to decide” is either abject cowardice (to express your true beliefs) or ineptitude (to form an opinion). Agency is directly correlated with action, and unless we are all self-satisfied automatons, we should embrace our differences of opinion, and become agents for change. This is something I learned in the MEG class, and is perhaps a true “answer” to any difficult questions we might face. Perhaps you disagree?

Review: Small is Beautiful



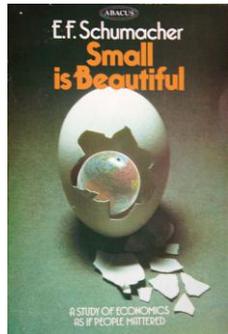
Peter Volz (MEG 3, Germany) reviews E.F. Schumacher’s seminal work, “Small is Beautiful.” Peter is currently the scientific director at Die Agronauten, a locally based non-profit research society for sustainable regional agriculture.

E.F. Schumacher (1911-1977) was born in Germany and studied in Bonn, Berlin and Oxford before moving to the UK permanently in order to flee fascist Germany. He was a protégé of economist J.M. Keynes and, after World War II, worked in an influential position at the British Coal Board, then one of the largest employers in the world. After working as an economist for many years, he used his in-depth knowledge and life experience to reflect upon his discipline. In 1973 a collection of his essays was published under the title “Small is Beautiful”, which has since become an inspirational text for many interested in an alternative, sustainable economic paradigm - The Times voted it one of the 100 most influential books of the post war period.

Schumacher had the remarkable gift of expanding economic thinking beyond the dismal science that we witness all around us and instead linked it to common sense, empathy, humanity, spirituality, inner growth and wisdom. He states



that, *“the exclusion of wisdom from economics, science, and technology was something which we could perhaps get away with for a little while, as long as we were relatively unsuccessful; but now that we have become very successful, the problem of spiritual and moral truth moves into the central position.”* Here we can observe the great influence that the teachings of M.K. Gandhi and his economist J.C. Kumarappa had on Schumacher.



In his book Schumacher takes the frank words of one of the most influential economists of the last century, J.M. Keynes, and analyses the problems that result out of the current development paradigm.

Keynes discussed the future of the world and envisaged the day when everyone would be rich – this would then allow everyone to *“once more value ends above means and prefer the good to the useful.”* *“But beware”*, Keynes goes on, *“the time for all this is not yet. We must pretend to ourselves and to everyone that fair is foul and foul is fair; for foul is useful and fair is not. Avarice and usury and precaution must be our gods for a little longer still. For only they can lead us out of the tunnel of economic necessity into daylight.”* For Schumacher the proposition that universal prosperity is a prerequisite to the recognition of the value of beauty is naïve and unworkable.

First of all – what is rich, or rather, what is enough? When are we satisfied? Where is the rich society that says we have enough? If economic growth is pursued as the highest goal how can there ever be enough?

And even worse, what does the pursuit of avarice and usury and precaution lead us to? *“If human vices such as greed and envy are systematically cultivated, the inevitable result is nothing less than a collapse of intelligence ... If whole societies become infected by these vices, they may indeed achieve astonishing things but they become increasingly incapable of solving the most elementary problems of everyday existence.”*

Secondly, what would the consequences of managing to achieve universal material prosperity be if *“modern man does not experience himself as a part of nature but as an outside force destined to dominate and conquer it”*? We are *“estranged from reality and inclined to treat as valueless everything that we have not made ourselves. The modern industrial system lives on irreplaceable capital which it cheerfully treats as income.”* This thinking has already seriously impacted the balance of global systems through the exploitation and waste of natural resources. *“A businessman would not consider a firm to have solved its problems of production and to have achieved viability if he saw that it was rapidly consuming its capital. How then, can we overlook this vital fact when it comes to that very big firm, the economy of Spaceship Earth and, in particular, the economies of its rich passengers.”*

Thirdly, what sort of meaning does the practice of economics actually produce in this regard? Economists have attained a central role in the world today and are largely shaping how Spaceship Earth is managed. Yet the dominant stream in economic thinking relies on a misguided sense of judgement as to the value of things - whether or not they yield a monetary profit to the person exploiting them. The question is not if they yield a profit to society as a whole. It furthermore is based on a definition of cost that excludes all free (natural) goods unless they have been privatised. Economics,

moreover, deals with goods in accordance with their market value and not in accordance with what they really are. The market therefore represents only the surface of society. Schumacher sees it as the institutionalisation of individualism and irresponsibility where neither buyer nor seller is responsible for anything but themselves.

Summing up Schumacher comes back to the elementary level when he states that, *“the assertion that foul is useful and fair is not is the antithesis of wisdom.”*

So where to go from this? For Schumacher, we need to first understand the problem and then evolve new life-styles with new methods of production and new patterns of consumption – a life-style designed for permanence. *“From an economic point of view, the central concept of wisdom is permanence.”* The term permanence - not as commonly abused as the term sustainable – is then linked to the notion of simplicity and beauty. *“Wisdom demands a new orientation of science and technology towards the organic, the gentle, the non-violent, the elegant and beautiful.”* Here again we see the influence of philosophical ideas from South Asia. It is thus no surprise to find that Schumacher, a devout catholic, visited Burma in the 1950s and reflected upon Buddhist economics in one of his essays in the book.

But what is wisdom? For Schumacher *“it can only be found inside oneself. To be able to find it, one has first to liberate oneself from such masters as greed and envy. The stillness following liberation – even if it is only momentarily – produces the insights of wisdom which are obtainable in no other way.”* This thinking that links the self to the world and wisdom to economics is today still as relevant as it was in the 1970s. It sees change starting at the personal level.

Beyond that, wisdom should be incorporated into the structure of technology and science. In this regard, Schumacher demands that scientific methods and equipment should be cheap enough so that they are accessible to virtually everyone, suitable for small-scale application and compatible with humanity’s need for creativity.

For Schumacher, a passionate gardener by the way, this meant that agricultural science should seek the perfection of production methods, which are organic, build up soil fertility and produce health, beauty and permanence. In industry Schumacher saw the need for small-scale and thus relatively non-violent technology – technology with a human face so people could enjoy their work. Furthermore, new forms of partnership like common ownership were desirable.

All these ideas have of course found their way into new forms of living, working, producing and thinking. Yet this book cannot be called outdated as it still serves as inspiration and reflection for anyone occupying her or himself with the future of our living planet.

The importance of memory



Guest contributor, Matt Ji (REM Student, USA), provides this article based on his presentation for the FREG Slam, a regular science slam event organised by and for MEG, FEM and REM students.

Memory is an art of living. It serves as the essence of our experiences and is the database from which we draw upon inspiration and all of our immediate decision making capabilities. It is, therefore, also a potential collective cognitive weakness.

In the artistic sense of the word, memory constructs the world that we inhabit. However, environmental degradation and resource depletion

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is real. In the most severe manifestation of this crisis, once the damage is done and the resources are consumed, we can never recover the original orderly and more aesthetically appealing state. In this sense, all consumption is entropic.

Nature and its physical laws are uncompromising. All of this we know and recognize. However, society has collectively chosen to ignore this reality. We have done this because the economic system that has existed in the three phases of globalisation has guaranteed an appealing, albeit, temporary offer of wealth and prosperity. This temptation has proven too attractive to pass up and along the way has generated some impressive social and technological innovations.

However, the time has come for us to seriously and soberly address the limitations imposed by nature on our economic system. We need to reconcile our resource consumption with nature's systemic balance. We need to do this while creating greater equity within society and ensuring that future generations are provided for - no doubt a tall order for our weak global political framework.

Generally, humans are aware of their environment only through their immediate senses and memories. They do not often spend time thinking rationally about the consequences of their actions on the environment. Despite the ever-expanding body of human knowledge, we seem to be currently defenceless against this basic cognitive gap. The tendency of humans to consider only their immediate environment has allowed our economic system to sweep the consequences of our actions under the proverbial rug, whilst failing to balance the costs to natural systems.

Some people would argue that these problems could be solved through market-based solutions, such as carefully directed incentives to encourage the development and uptake of environmentally beneficial technologies. Unfortunately, these arguments seem weak given the fact that many technologies to increase energy efficiency are already available on the market but are yet to yield significant economic returns due to consumer ignorance. Here is where I believe that environmental advocates could take the lead of savvy business marketers, rather than cerebral economists.

Marketers have a more palpable construct of a human being. They do not rely on convoluted notions of *homo economicus* or even a fancy graphs. Rather, they focus on human narrative construction, which steers consumer habits, behaviour, and, you guessed it, memory.

I believe there is great potential to improve social engagement in environmental issues through the use of business marketing strategies. Businesses have the capital and strategy in place to saturate communication channels with their messages, and influence people's lives - in this realm immediate aesthetics dominate reason. It is clear that these strategies can be misused. Bad politicians abuse this system to get re-elected. Companies repair their brand through marketing instead of correcting their impact on the environment. Despite this, the impact of business marketing on society is clear, and, in my view, plays a much greater role in shaping societal decisions than economic theory.

We need to harness the power of these advertising strategies for the good of the environment and society. We need to go beyond superficial green washing and deliver a message that speaks to individuals and communities directly. This message needs to increase social cognisance of the limitations of our natural environment, the impacts we are having on the envi-



ronment and the need for compassion – a message that allows us to improve our memories together.

And so that concludes another edition of the MEG Newsletter – well almost!

Please scroll down to the next page for the latest instalment of the MEG comic book – Preggy Potter: And the Curse of the Tainted Grant!

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Preggy Potter: AND THE CURSE OF THE TAINTED GRANT



TIME PASSES... PREGGY, A BRILLIANT STUDENT, RECEIVES AN OFFER OF RESEARCH GRANT MONEY FROM A MYSTERIOUS SOURCE ... DENMARK

OUR STORY BEGINS WITH YOUNG SCIENCE WIZARDS, PREGGY POTTER, LEOMIONE GRANGER AND PHILIPP WEASLY, NERVOUSLY EMBARKING ON THEIR FIRST DAY OF STUDY AT THE FAMOUS MEGWORTS SCHOOL OF ENVIRONMENTAL WITCHCRAFT AND GOVERNANCE WIZARDRY ...



THE TOPIC OF THE PROPOSED RESEARCH? MARKET BASED ENVIRONMENTAL POLICY SOLUTIONS!

NATURALLY SUSPICIOUS OF THE NEO-LIBERAL NATURE OF THE RESEARCH, PREGGY'S CONCERNS ARE HEIGHTENED WHEN HE RECEIVES UNSOLICITED ADVICE FROM BROODING DARK ARTS OF DEVELOPMENT TEACHER, PROF. SEVERUS POKORNY.



JUST ACCEPT THE GRANT POTTER! IN THE REAL WORLD THIS IS HOW THINGS GET DONE. JE-SUS! SOMETIMES YOU HAVE TO MAKE COMPROMISES!



"YOU KNOW WHO, WHO, WHO?"

I THINK "YOU KNOW WHO" IS THE SOURCE OF THE FUNDING!

YOU DON'T MEAN ... LORD BJORN VOLDEBORG!

MEANWHILE, LEOMIONE HAS BEEN TO THE LIBRARY TO DO SOME RESEARCH TO UNCOVER THE IDENTITY OF THE MYSTERIOUS SOURCE OF FUNDING... ONLY TO FIND THAT ALL THE BOOKS IN THE LIBRARY HAVE BEEN REPLACED BY... "THE SKEPTICAL ENVIRONMENTALIST!"

DESPITE LEOMIONE'S WARNING, PREGGY FINDS HIMSELF SEDUCED BY THE "WIN-WIN" RHETORIC OF THE NEO-LIBERAL DARK ARTS!



FOR HEAVEN'S SAKE LEOMIONE, DON'T MEG IT UP! THIS RESEARCH COULD BE GOOD FOR THE ENVIRONMENT AND THE ECONOMY! PERHAPS SEVERUS IS RIGHT - MAYBE WE DO HAVE TO COMPROMISE OUR VALUES TO EFFECT CHANGE. I'M GOING TO ACCEPT THE GRANT. DOES... THAT... MAKE ... SENSE... TO ... YOU?



NO PREGGY! STAY TRUE TO YOUR HEART... DON'T COMPROMISE YOUR VALUES. IT'S TOO DANGEROUS TO ACCEPT THAT GRANT IF VOLDEBORG IS INVOLVED! LET'S JUST CONTINUE WITH OUR RESEARCH ON URBAN GARDENING AND COMMUNITY SUPPORTED AGRICULTURE ... ONE DAY IT'S SURE TO MAKE A DIFFERENCE ... PLEASE!

A CONFUSED PREGGY FINALLY DECIDES TO ACCEPT THE RESEARCH GRANT AFTER DISCUSSING HIS DILEMMA WITH HIS FRIEND HAGRID SWILLING...



GEE WHIZ YOUNG PREGGY, YOU'RE IN A RIGHT PICKLE... PERHAPS A NICE WARM DE-COUPLE OF TEA WILL HELP YOU DECIDE?

HE BEGINS WORK ON HIS RESEARCH PROPOSAL...



NO PREGGY! DON'T YOU SEE? THESE MARKET BASED SOLUTIONS JUST ALLOW THE ECONOMY TO KEEP GROWING AND CONSUMING! WHEN ARE WE GOING TO REALISE WE HAVE ENOUGH ALREADY?

OH LEAVE IT OUT LEOMIONE! I HAVE TO WRITE THIS RESEARCH PROPOSAL!

LEOMIONE IS FORCED TO USE MAGIC TO STOP PREGGY... HE SOON FINDS HIMSELF CLEANING THE KITCHEN, RE-ORGANISING HIS STAMP COLLECTION AND, IN FACT, DOING ANYTHING ELSE BUT WRITING HIS RESEARCH PROPOSAL!

YOU ARE DEALING WITH VERY DANGEROUS MATERIAL MY BOY. I KNOW THAT IN YOUR HEART YOU KNOW WHAT IS RIGHT AND I TRUST YOU WILL MAKE THE CORRECT DECISION. REMEMBER, YOU ARE MEGWORT'S BRIGHTEST STUDENT. YOU FIGHT FOR ALL OF US, NOT JUST YOURSELF. YOUR HEART IS COMMON PROPERTY NOW. MAKE SURE YOU MANAGE IT WELL...



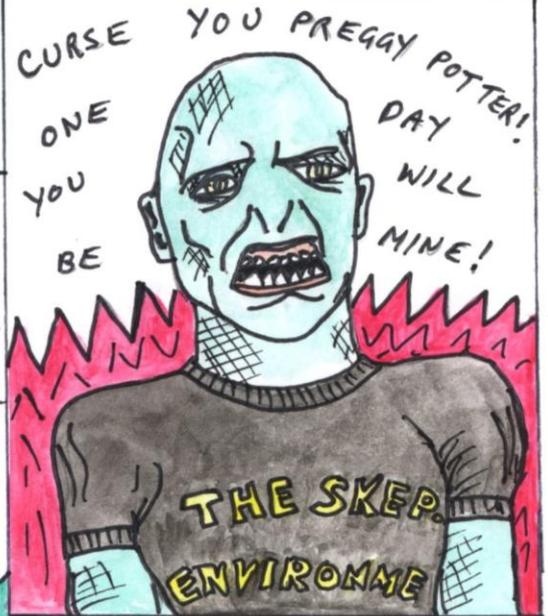
EXHAUSTED FROM HIS PROCRASTINATING ACTIVITIES PREGGY FALLS ASLEEP AND IS VISITED IN A DREAM BY MEGWORT'S PRINCIPAL, PROF. OSTROMORE.

THE SCALES FALLEN FROM HIS EYES, PREGGY AWAKES AND HAS HIS FAITHFUL HOUSE ELF, DOBBIE, RE-WRITE THE RESEARCH PROPOSAL TO REMOVE THE TAINT OF THE DARK ARTS OF NEO-LIBERAL ECONOMICS...



DOBBIE! RE-WRITE THIS TAINTED RESEARCH PROPOSAL!

YES PREGGY POTTER SIR! DOBBIE IS WRITING ANYTHING THAT PREGGY POTTER IS TELLING HIM TO WRITE, AND WITH PLEASURE!



CURSE YOU PREGGY POTTER! ONE YOU BE DAY WILL MINE!

MEANWHILE... IN DENMARK...