130X
LOOKING FURTHER
130 VISIONS OF
130 VU LUMINARIES
TO CELEBRATE
130 YEARS OF VU

VU UNIVERSITY AMSTERDAM
LOOKING FURTHER
MICHEL SCHOLTE
SECOND-YEAR RESEARCH
MASTER’S STUDENT IN SOCIOLOGY

“I WILL NOT BE SURPRISED IF IN
2075 MANY RETIREES WHO HAVE
CONTRIBUTED SIGNIFICANTLY TO
POSITIVE CHANGE, AND PASS THEIR
LEGACY ON TO NEW GENERATIONS
GOT INSPIRED BY VU UNIVERSITY
AMSTERDAM”
FOREWORD

EBERHARD VAN DER LAAN
MAYOR OF AMSTERDAM

I am very grateful for being given the honour of writing the foreword to ‘130x Looking Further’. This year’s Annual Review is a special edition to commemorate the 130th anniversary of VU University Amsterdam. I would like to congratulate the entire university community on this wonderful achievement.

VU University is an old friend of mine: I am a VU alumnus. I started studying Dutch Law at the university in the late 1970s and I graduated in 1983. After finishing secondary school, VU University was the ‘natural’ choice for my academic ambitions. I was brought up in a Reformed household, you see; in the town where we lived, Rijnsburg, my father was a council member for the Anti Revolutionary Party, one of the predecessors of today’s CDA. My youth was infused with Reformed principles, and it was only logical that I would respect that tradition and choose the Reformed Vrije Universiteit for my studies. I felt at home straight away, and looking back I see that my own convictions regarding the independence of church and state are reflected in the core values of the ‘Free’ University. I enjoyed my studies here tremendously and it was a great time to be a student.

I’ve also come to see this old friend in a whole new light. I have been the Chair of KennisKring Amsterdam since being appointed Mayor of the City of Amsterdam in July 2010. In late November 2010, both Amsterdam universities, VU and UvA, a number of companies and government authorities signed an agreement establishing the Economic Development Board for the Amsterdam Metropolitan Area, which is now the premier regional economic advisory body. This agency will allow us to compete successfully with cities in the international arena, and to promote growth and new employment opportunities in the Amsterdam metropolitan area. As the Mayor of Amsterdam I applaud practical - and necessary - alliances like these. And I’m not referring just to the partnership between the two universities, but to the entire network. Together we will ensure a secure future for Amsterdam.

I would like to close by expressing my gratitude for the honour of being included in the list of 130 VU luminaries. As the first on the list, I am proud to present 129 VU luminaries to you. I hope you enjoy reading this commemorative Annual Review and I wish VU University Amsterdam 130 more years of academic excellence.
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UNIVERSAL THEORY, MICROSCOPIC PRACTICE  We physicists know nothing about 74% of the universe. The missing ingredient had been dubbed ‘dark energy’. Davide Iannuzzi thinks he may be on the way to finding out what dark energy is.

PERCEIVING PERCEPTION  Put more effort into training the brain to make it more adept at telling reality from very realistic fiction. Scientists Jeroen Smeets and Elly Konijn in debate.

ENTERPRISING LAW  Jaap Bellingwout is one of the driving forces behind the ‘Zuidas Master’s’. We as a university have a lot to offer the businesscentre Zuidas. And vice-versa.

LANGUAGE AND THE WORLD ON OPEN ACCESS  Arianna Betti is an enthusiastic advocate of Golden Road Open Access. Since my work - the relationship between language and the world - has gone online, the number of people citing me or contacting me has risen dramatically.

DENTISTS ON THE MOVE  The Academic Centre for Dentistry in Amsterdam (ACTA) has moved into new premises alongside VU University Medical Center. Managing director Alice Stäbler: It marks a watershed in the Centre’s history. ACTA is now looking firmly to the future.

THEN DO NOT GO FAR FROM HOME  Dutch writer and VU alumnus Désanne van Brederode wrote an essay on special request about ‘looking further across borders’.
The number 130 is an artificial maximum selected with our present anniversary in mind. It is clearly an arbitrary and symbolic figure. Our university is home to many more individuals who could easily have provided equally impressive contributions to an initiative such as this, and of whom we are equally proud. But the underlying concept of our 130th anniversary has compelled us to limit ourselves. Nonetheless, we have tried hard to reflect the great diversity represented within our institution.

For this publication, we have classified the selected VU luminaries into various categories: leading researchers, inspiring tutors, top students, forward-looking policymakers, prize winners and so on. This has resulted in 13 groups of ten individuals. Each is given their place in the spotlight on the pages of this work, and all can be traced through the online version: www.vu.nl/130xlookingfurther.

AREAS OF FOCUS

VU Looking Further is the title of VU University Amsterdam’s recently published Strategic Plan for 2011-2015. In that document, the university describes its ambitions for the medium to long term in research, education, operations and international relations. This publication focuses upon the same areas. You will find it divided into the following sections: Looking Further into Research, Looking Further into Education, Looking Further into VU Basics and Looking Further Across Borders. Each chosen VU luminary can be found in the section most relevant to their work.

You can also look into the VU campus of the future. Our artistic pre-VU illustrates how we as an institution are building the future as we build the future VU University Amsterdam.

One thing which emerges very clearly from this publication is the great sense of pride in their university felt by the individuals included. It is also quite apparent that they look to the future of VU University Amsterdam with a great deal of optimism. You can take our word for it: the same applies to the many thousands of others who are not featured here. All of us together form VU University Amsterdam. And we cannot wait to embrace the challenges and opportunities of the future.

We would like to express our heartfelt gratitude to the Van Coeverden Adriani Foundation, whose great generosity has made this publication possible.
Artistic pre-VU of the VU campus of the future.
(CIID - Architectural Presentations)
Looking further into research

VU University Amsterdam is ambitious in its academic and scientific research. We are increasingly successful in becoming an institution engaged in high-level international research that is helping to solve the major problems facing the world today. In this first section we look at some examples of that work. As fifty researcher ‘self-portraits’ reveal, we play host to world class scientific minds across a wide spectrum of disciplines. They include many recipients of prestigious Veni, Vidi and Vici grants under the Innovational Research Incentive Scheme operated by NWO, the Netherlands Organisation for Scientific Research.
By 2050 we could replace nuclear and fossil energy with renewable sources, including photosynthetic algae. The challenge lies in finding the courage to pursue this dream.
According to a 2011 report from environmental campaign group World Wildlife Fund, with concerted action at the global level it should be possible to eliminate these now controversial sources of energy as early as 2050. Alongside renewables like solar, wind and hydroelectric power, another promising alternative is the use of photosynthetic algae to produce biofuels. But this technique still requires substantial development before it will become commercially viable. Having devoted his entire scientific career to understanding the fundamental processes within photosynthesis - the process whereby plants convert sunlight into chemical energy - biophysicist Professor Rienk van Grondelle, Academy Professor at the department of Physics and Astronomy at VU University Amsterdam, is at the forefront of efforts to make the most of this exciting new form of energy.

Van Grondelle’s academic work focuses upon the very first moments of photosynthesis, an extremely rapid process on a microscopic scale. “Light consists of subatomic particles called photons,” he explains. “When they hit a green leaf, a number of things happen within an incredibly short time - a matter of picoseconds, that’s $10^{-12}$ of a second (see illustration on page 17). First, the light is absorbed by chlorophyll pigment molecules. These are contained in
proteins within the leaf, which hold them in a particular way. The photon excites the chlorophyll, creating a little package of energy that moves quickly through the leaf until it reaches a special pigment-protein complex, which in a very clever way then transfers an electron through a membrane. With a positive charge on one side of that membrane and a negative on the other, at this point the solar energy is effectively transformed into a chemical biobattery, storing the power the plant needs for its later development."

By elucidating these mechanisms - absorption, transportation and so-called transmembrane-electrontransfer - Van Grondelle and his team are breaking new ground at the intersection of biology, physics and chemistry. And their work has clear practical implications: the group’s findings are contributing to efforts to optimize the recovery of stored plant energy for human use. "Photosynthesis at this initial stage is highly efficient, with an extremely good quantum yield. Almost 100 per cent, in fact. Yet by the time plants are harvested as crops, the overall yield is extremely low. Perhaps only 0.5 per cent. The reason is that they consume most of the energy they store for their own purposes: growth, reproduction, self-defence or whatever. So only a tiny amount of the energy yield is left over for fuel. To overcome this inefficiency, what we need to do is tap the energy as soon as possible. Not wait until the plant is dead."

Using ‘ordinary’ plants is not the best solution, says Van Grondelle. They are overcomplex structures for the generation of a basic product like the fuel butanol. "If you use algae instead, a simpler kind of organism, they are far more efficient. And it should be possible to modify them genetically to enable easy recovery of the product at an early stage. Indeed, algae have the potential to

ALGAE HAVE THE POTENTIAL TO BECOME A SORT OF ‘ENERGY COW’, YIELDING FUEL IN MUCH THE SAME WAY AS CATTLE GIVE US MILK
I’ve calculated that sustainable algae production could satisfy about 20 per cent of Dutch fuel needs.

The genetic modification will also improve yields. In nature, algae are exposed to more light than they require for photosynthesis, and so incorporate mechanisms that dissipate the excess energy harmlessly - by transforming it into heat - to prevent damage to the organism. This function needs to be scaled down, so that as much photosynthesis as possible takes place. Van Grondelle also hopes that it will be possible to genetically ‘switch off’ some of the natural processes which consume photosynthetic energy, such as self-defence measures. These are of little use to an organism being cultivated under controlled conditions, and the energy thus saved can be diverted into fuel production.

There are surprisingly few drawbacks to the use of photosynthetic algae as a source of fuel, he insists. “Of course we are talking about genetically modified organisms, which are controversial in some quarters, although in this case they’re obviously not entering the food chain. So I think that will make them acceptable to most people. And algae naturally produce their own toxic waste products, which have to be dealt with.

But on the plus side they consume the greenhouse gas carbon dioxide, and overall the issues they present us with are far less daunting than the potential consequence of a rise in global temperatures by 5 degrees Celsius. Which is what we face if we continue using fossil fuels at the current rate...”

For the Netherlands at least, Van Grondelle reckons that the alternative scenario proposed by the World Wildlife Fund is feasible. “If we follow that model, by 2050 we really could have replaced nuclear and fossil energy with up to ten renewable sources. Algae amongst them.

Diversity is key, as is bringing energy production closer to the consumer. One of the main challenges lies simply in finding the courage to pursue this dream. We have to be prepared to make space, which is relatively scarce in this country, for these alternatives. But at the same time we don’t want them to compete for land with food production, as is already happening in places like Brazil where conventional biofuel crops are grown. “That’s another thing which makes algae so attractive: they can be grown in water.” This, he explains, would much reduce their impact upon agriculture and the environment in general. Especially in the Netherlands, a nation incorporating vast tracts of underused water. “Take the Markermeer,” he says, referring to the 700 km² southern section of the former Zuiderzee. “I’ve calculated that sustainable algae production there could satisfy about...”
Looking further into research

20 per cent of Dutch fuel needs. If we have the imagination to act - and that includes fostering the necessary intellectual innovation here at the university - the prospects are really exciting."

Putting his words into action, Van Grondelle has recently helped to form an Amsterdam-based consortium to pursue the production of algae biofuels on a commercial scale. Bringing together local companies, municipal enterprises and scientists from both the city’s universities, the initiative is hoping to gain financial backing from the Dutch government. “If we can secure the funding, we believe that we should be able to produce butanol on a large scale and at a competitive price - comparable with that of oil - by 2020. We’ll start with a test plant right here in Amsterdam, using the CO₂ generated as a by-product of waste incineration and conventional power generation to ‘feed’ our algae.

“This by joining forces in the way we have, our new consortium is in the global vanguard. As an initiative, it is almost unique in the world. On the academic side alone, it includes theoretical and experimental physicists, biotechnicians, system biologists, synthetic chemists and more. That’s the broad range of disciplines you need to bring a project like this to fruition. And I am proud that I have been nominated to lead the effort.”

**PHOTOSYNTHESIS**

‘When subatomic particles of light hit a green leaf, a number of things happen in a matter of picoseconds.’

1. Chloroplasts trap light energy
2. Water enters leaf
3. Carbon Dioxide enters leaf through stomata
4. Sugar leaves leaf
UNIVERSAL THEORY, MICROSCOPIC PRACTICE

DAVIDE IANNUZZI

ABOUT THE VERY BIG AND THE VERY SMALL
Physicist Davide Iannuzzi has spread his net wide. In a combination of pure and applied science, with more than a dash of micro-engineering thrown in, he is exploring everything from the fundamental forces governing our universe to the development of minuscule measuring devices with practical uses for health professionals and industry.

“We physicists know nothing about 74 per cent of the universe,” Iannuzzi declares. “Not only is that pretty embarrassing, it’s also a disaster for our understanding of the cosmos.” The missing ingredient has been dubbed “dark energy”, and Iannuzzi thinks he may be on the way to finding out what it is.

“Looking at the universe, we can see that it’s expanding faster and faster. But measuring all the energy we can find seems to indicate that gravity should be sufficient to make the whole thing implode. Clearly, then, there is something missing. That’s dark energy.

“One theory about why we can’t find it is that its properties change according to where it is.” In the vacuum at the edge of the universe, goes this idea, the particles responsible are very light in mass. It is this light mass that allows them to drive the cosmic expansion as we observe it. But in the presence of other matter, as here on Earth, they gain mass and this makes it difficult to detect them. Because of this characteristic, they have been dubbed “chameleon particles”.

In theory, Iannuzzi explains, it should be relatively easy to prove or disprove the existence of chameleon particles. The idea [see upper illustration on page 21] is to bring together two metallic plates inside an artificial vacuum, leaving a gap of just a few microns between them, and then measure the force present there as a function of the density of a gas allowed into them. “The rest should be simple maths. If chameleon particles exist, they give rise to an extra force on top of those that we already know. If we do not see any extra force, they probably don’t exist.”

“The problem is that other forces drown out its minuscule effect. So the chameleon, if it is there, can’t be detected by direct measurement in vacuum.” Instead, the researchers hope that the particle may be betrayed by the postulated change in mass and energy according to the medium in which it is situated. As Iannuzzi puts it, “We intend to exploit the very trait it uses to camouflage itself. The idea is now to measure the force between the two metallic plates when they are immersed in a gas.” Comparing experimental results at high and low gas...
WE PHYSICISTS KNOW NOTHING ABOUT 74 PER CENT OF THE UNIVERSE: ‘DARK ENERGY’

densities should reveal whether or not the force attributable to the chameleon particle has changed.

“That is going to be extremely difficult,” Iannuzzi admits. “By far the hardest thing I’ve ever tried in my career as a physicist. The amount of force you are trying to measure is incredibly tiny. The current first stage of the project has funding from the Foundation for Fundamental Research on Matter, for four years. And I wouldn’t be surprised if we need a second round to complete the programme. This is something I could easily spend ten years of my life doing. But it’s certainly worth it. And here at the VU I have an exceptional team of PhD students, postdocs and engineers who seem to be just right for this project. The potential payoff is immense: we could solve one of the greatest mysteries in science. And it’s great fun.”

As leader of the “Ideas at the Micron Scale” research group, if there is one thing Iannuzzi seems to enjoy then it is measuring tiny things, like elementary forces or the properties of materials. In fact - although not directly related to his work on dark energy - he has developed a tool for just that purpose [see lower illustration on page 21]. Known as the fibre-top cantilever, this is a new kind of miniaturized device created by carving minute mechanical bars directly onto the cleaved end of an optical fibre. The reflection patterns of light coupled from the other end of the fibre allow the position of the cantilever to be measured with subnanometric accuracy.

“I originally came up with this design as a way to solve a technical problem in earlier fundamental research, the same work that inspired my interest in dark energy. But this aspect went off in a completely different direction. It is a patented technology providing an innovative platform for a whole generation of new and extremely small sensors. We have already secured a European Research Council grant worth €1.8 million to help bring the idea to maturity, and in collaboration with the university’s Technology Transfer Office we’ve now set up a company to exploit it commercially.”

Iannuzzi compares the fibre-top cantilever with a diving board. “One end is fixed, the other can move freely. When touched there, it deflects mechanically just as a board does when a diver jumps up and down. By measuring the extent of that movement, I’m able to calculate how
The idea is to bring together two metallic plates, leaving a gap of just a few microns between them, and then measure the force present there as a function of the density of a gas allowed into them.

An artist’s representation of a fibre-top cantilever.

Setup for the measurement of small forces between objects at close separations

much force is acting upon it.”

“What’s so interesting about all this? Well, the device has a number of technical advantages over other sensors. First of all, it’s extremely small - as small as a human hair - and it also allows remote sensing. So the unit itself will fit into the tiniest of spaces, with all the supporting equipment somewhere else. Secondly, it is entirely optical, so the sensor can be placed in almost any environment. Liquids, explosive gases, you name it. Places where electronics would fail.”

Iannuzzi and his team are now exploring potential applications, both inside and outside the laboratory. They include user-friendly scientific instruments. The group has already demonstrated the fibre-top cantilever’s practicality in atomic force microscopy and biomechanical sensing, for measurements of temperature, humidity, flow and forces, and they are planning to use them for new experiments in biophysics.

“But my dream for the future,” Iannuzzi confides, “is to put it in the hands of a surgeon. As I understand it, there is increasing interest in assessing certain types of disease by measuring the stiffness of cells and tissues. This could be just the device to do that, and small enough to use in minimally invasive surgery.”

“We have spoken to surgeons in the past and it’s a concept that interests them, but we still have some way to go before the precise details of such biomedical applications are worked out. We do have a device working in the lab, though. The next step will be to start conducting measurements on biological specimens. It’s a long road, but we’re working our way down it. And even if that proves a dead end, there are plenty of potential uses in industry. I know that for sure.”
DORRET BOOMSMA
Psychology and Education
Professor of Biological Psychology and head of the department.
My research focuses on the genetic factors that produce individual differences in behaviour (including cognition, personality and lifestyle) and in mental and physical health (including the development of psychopathology in children, psychiatric disorders in adults, migraine, fertility, and metabolic syndrome). We quantify the effects of genetic factors in an absolute sense (heritability based on twin-family data) and by identifying genetic variants through genome wide genotyping and Deoxyribonucleic Acid (DNA) sequencing. The aim of these studies is to elucidate the genetic and biological pathways that lead to particular outcomes such as Attention Deficit Hyperactivity Disorder (ADHD) or diabetes, and to learn about the relative importance of genes and environment.

The next step is to go beyond predictions on single species and find out how ecological interactions between species shift under temperature change. The large differences in temperature response among species suggest that global warming will disturb species interactions.

JOYEEA GUPTA
Earth and Life Sciences
Professor of Climate Change Policy and Law and Academic Director of the Environment and Resource Master’s.
I was born in India where I also did my undergraduate work and earned a law degree. I later went to the US for a further law degree from Harvard, and my PhD is from VU University Amsterdam. I have worked at the Institute for Environmental Studies, Faculty of Earth and Life Sciences, since 1993.

PHOTOGRAPHY: MARIEKE WIJNTJES
I do research on environmental and water related issues. I edited a book on development cooperation and climate change from Cambridge University Press in 2010, and I am now conducting research on how global forest governance can be made more effective. These are both EU-funded research projects that are examining the potential for enhancing global environmental cooperation within the context of changing governance patterns.

ELLY KONIJN
See page 57

MARIJEN MARIJN
Philosophy
Assistant Professor of Ancient and Patristic Philosophy.
The research project which is keeping me busiest at the moment is a project entitled ‘Beauty and science. The role of aesthetics and semiotics in Neoplatonic science.’ The main questions addressed in this project are: in what sense is scientific knowledge beautiful, and what are the function and importance of that beauty.

PHOTOGRAPHY: MARIEKE WIJNTJES
Female fertility is one particular outcome that I would like to understand better: which genetic variants cause some women to have twins?

JACINTHA ELLERS
Earth and Life Sciences
Professor of Evolutionary Ecology at the department of Ecological Sciences.
The interplay between genes and environment in shaping the characteristics of animals, that’s the focus of my research. Currently I am working on the evolution of temperature adaptation to understand if and how animals will cope with the rapid change induced by global warming. I’m investigating the genetics underlying interspecific differences in temperature tolerance, and the effect of increased temperature on the performance of insects and other arthropods. Such knowledge may be used to identify key genes and traits that make species robust to future climate change.

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PHOTOGRAPHY: MARIEKE WIJNTJES
Female fertility is one particular outcome that I would like to understand better: which genetic variants cause some women to have twins?
according to thinkers of late antiquity? Once this project has been concluded, I would like to take a closer look at ancient theories on the nature and workings of the human mind.

I am especially interested in questions such as: What is the mind? How does the mind obtain scientific knowledge? What is the role of mathematics, logical reasoning, and language in this process?

RHIANNON MEREDITH
Earth and Life Sciences
Neurobiology researcher at the department of Integrative Neurophysiology at Neuroscience Campus Amsterdam.
As a junior group leader and Associate Professor, I work with my research team to investigate synaptic transmission and plasticity of single neurons and neuronal networks in the brain. In 2010 I received a five-year grant to investigate the early development of synaptic pathology in the brain that underlies mental retardation. Using genetic mouse models of neurodevelopmental disorders, we want to discover the mechanisms behind the formation of neuronal networks in the brain that result in cognitive deficits in information processing.

Furthermore, we will test whether potential drug therapies for mental retardation that are currently in clinical trials could refine neuronal connections in the brain during early postnatal development.

BRENDA PENNIX
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ELIES VAN SLEDREGT
Law
Professor of Law and head of the Criminal Law department.
I work in the department of Criminal Law and Criminology. My field of research is international criminal law, more specifically the prosecution of war crimes, crimes against humanity and genocide. I am interested in liability theories and the application of international law by national/domestic courts. International criminal law is somewhat still in a stage of development and at times even inconsistent. It is not self-evident that time-honoured national criminal law should yield to international norms. My research has a twofold purpose. First, it will result in guidelines that can serve to inform national judges on the extent to which they need to apply international norms when trying international crimes. Second, I aim to develop a corpus of ‘harmonized’ substantive international criminal law.

In the future I am planning to change the focus of my research to the actual decision-making process. How do judges in international courts interpret and apply legislation in a cross-cultural environment where the law itself is a product of varying legal cultures?

These studies will provide novel insight into the role of these receptor proteins in diseases such as cancer, and how one should effectively target this class of receptor protein. Combining the expertise of different disciplines is necessary to unravel how diseases progress and how they can be targeted effectively.

BARBARA VIS
Social Sciences
Associate Professor at the department of Political Science.
My most important current research project is Politics of Risk-Taking: What Drives Governments’ Decision-Making in Welfare State Reform? This project examines why some governments propose or pursue policies that may cost them votes while others do not. I argue that this variation stems from the risks that political actors are willing to take. My findings thus far show that the varying risk-attitude of governments is indeed crucial for the degree of welfare state reform that they are willing to pursue.

MARTINE SMIT
Sciences
Professor of Target and Systems Biochemistry at the department of Pharmaceutical Sciences.
My current research focuses on oncogenic signalling networks activated by human and virally encoded chemokine receptors, proteins that play a role in cancer and serve as important novel drug targets. My research is translational, involving in vitro pharmacology, transcriptomics, proteomics, in vivo pharmacology (xenograft, transgenic micel and use of patient material, integrating both experimental and computational approaches.

I want to extend this line of research by studying if and how socio-economic and political risks affect the behaviour of political parties and individual politicians. As in my current research, I intend to employ a variety of qualitative and quantitative methods to study these factors.
JAAP BELLINGWOUT

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HERBERT BOS

Sciences
Associate Professor in the department of Computer Science.

Last year, I was the first computer scientist in the Netherlands ever to win a European Research Council Starting Grant. The €1.3m grant has enabled me and my research team to work on the reverse engineering of software - a decades-old problem in Computer Science that most consider too hard to solve. Typically when you buy a program, you do not get the source code, and it is hard to fix bugs or to analyse whether the program is behaving as intended.

My project pioneers new approaches to recover readable source code from such ‘closed’ software. If successful, the project will also allow us to protect legacy software. Older software is often the weakest link in system security. By reversing the program, we can add protective measures to prevent attackers from subverting it.

SIERD CLOETINGH

Earth and Life Sciences
Royal Netherlands Academy Professor and head of the Tectonics research group.

Scientific Director of the Netherlands Research School of Sedimentary Geology and a member of the Board of Directors of the Netherlands Research Centre of Integrated Solid Earth Science.

My current research focuses on the interaction between deep-earth processes and processes taking place at or near the earth’s surface, including the effects of climate on erosion and sedimentation. I am leading the large-scale European collaborative research effort TOPO-EUROPE, involving 23 countries, that has generated €23.5m in new research funding for more than 60 young researchers from all over Europe.

TOPO-EUROPE’s research is of direct relevance for a better understanding of natural hazards, including earthquakes, landslides, flooding and for the assessment of novel energy resources including geothermal energy and unconventional gas prospects.

RIENK VAN GRONDELLE

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ANDRÉ LUCAS

Economics and Business Administration
Professor in the Finance department and programme director for Risk Management at the Duisenberg School of Finance.

My team and I are currently working on a project about the instability of the risk models used by financial institutions. The project won a five-year research grant from the Netherlands Organisation for Scientific Research. Our goal is to produce a new class of risk models that can better cope with unstable market conditions. This will give us an improved set of risk management tools for the industry.

Going forward, it would be great to contribute to bringing together the complementary modelling perspectives of statistics, economic theory and behavioural finance (psychology) so that we can enhance our understanding of how financial risks actually emerge and evolve, particularly as periods of market stress unfold. When different disciplines like these converge, real insights are often the result.

PETER NIJKAMP

Economics and Business Administration
Professor in the department of Spatial Economics.

I started in the department in 1973 as a fresh, post-war baby-boomer and I have remained here ever since. The university offers such great opportunities for academic research, after all. At present I am chairing a large
international research project on the socio-economic and regional impacts of international migration. In my view there is a clear need for evidence-based and methodologically sound research. Our research is showing that the often negative perceptions of the impact of migrants are generally misguided. We will compare our findings with results from other countries.

A challenging question is how our urban economies would look today if there had been no foreign immigration in the past.

GUUS SMIT

Earth and Life Sciences
Professor of Molecular Neurobiology and head of the department of Molecular and Cellular Neurobiology at Neuroscience Campus Amsterdam.

My research group focuses on understanding the way brain cells communicate. In particular, we study the synapse, which is where nerve cells make contact, since this is where many of the characteristics of healthy and diseased brains are determined.

My colleagues and I are involved in a number of large-scale European projects to map the most important protein components and their role in the synapse. Thousands of proteins are involved in synaptic protein networks. The goal of the research is to understand how these networks contribute to synaptic function, to creating circuits of nerve cells and finally to processes such as learning and memory.

Our research will also lead us toward new techniques for highly specific therapies for brain disorders.

JAN THEEUWES

Psychology and Education
Chair and Professor of Cognitive Psychology.

My field of research concerns the basic processes involved in visual perception, eye movements and attention. I specifically want to find out how the brain selects, controls and retains information. One of my current research projects has to do with the way emotional stimuli affect eye movements. Results show that the eyes curve away from angry faces, while no such curvature is seen with neutral and happy faces. These results are consistent with the idea of a phylogenetically ancient pathway in the brain that can quickly warn us about threatening situations.

Future studies will focus on subliminal emotional stimuli by examining eye movements when people are not consciously aware that a threatening stimulus is present. These studies are key to increasing our understanding of the neural basis of emotion.

MARCEL VEENSWIJK

Social Sciences
Professor in Management of Cultural Change of the department of Organizational Sciences.

I am interested in the cultural dynamics of large-scale organizational transformations like those we are currently experiencing in such sectors as finance, infrastructure and healthcare. Together with a team of PhD students and researchers, I am focusing on ‘Narratives of Change’. These are corporate texts, ideologies and images that are used to create (or break) meanings and conceptualizations of ‘new’ organizational realities during strategic change processes.

Our aim is to unravel the way or ways in which these narratives are constructed and modified, and to examine the impact they have on daily organizational practice.

To this end we have entered into partnerships with national and international public and private institutions and research groups.

ERIK VERHOEOF

Economics and Business Administration
Professor in the department of Spatial Economics.

Most of my research is in transport economics. My work on road pricing has received quite a bit of notice. The European Research Council is funding my most important current project, in which my fellow researchers and I are investigating the regulation of transport network markets when large actors are strategically active on these markets. Examples include airlines and airports, public transport companies and insurance companies. It turns out that the actions of such stakeholders may undermine the good intentions of public regulators. This project’s research focus is on the choice of prices, capacities and network choice.

The research will also result in proposals for appropriate policy responses by public regulators.
Scars ruin lives. Especially after major trauma or serious burns, they remain a very visible and often painful reminder of tragedy. As doctors learn more about how they form, however, hopes are increasing that science can mitigate the disfigurement. One of those working towards this goal is Babak Mahdavian Delavary, a qualified medical doctor now engaged in PhD research at VU University Medical Center.

Mahdavian Delavary’s work is homing in on the macrophage, a form of white blood cell that plays an important role in healing wounds and the formation of scars. In particular, he is trying to understand more about their physical and behavioural characteristics, or functional phenotype, since this appears to play a major part in causing the excessive or hypertrophic scarring so characteristic of patients with second and third-degree burns.

Within ten years we will be able to make a real difference for burns patients.
“When the skin is damaged,” he explains, “the body sends in macrophages to orchestrate the healing process. But for reasons we don’t yet fully understand, in certain situations – with burns being typical – they seem to stimulate the creation of more scar tissue than is necessary simply to heal the wound. That is one of the functions which this study is trying to elucidate. If we succeed in that over the coming two years or so, then we will already have made a great deal of progress. The next step will be to try to intervene in the process, in the hope that we can disrupt hypertrophic scarring. In other words, by modifying the phenotype it may eventually become possible to normalize the healing of burns and so tone down the kind of disfigurement they cause.”

“Totally scar-free recovery is a long way off indeed, but I think that within ten years or so we will be able to make a real difference for burns patients. That’s a realistic ideal. And one I believe is worth pursuing. My current study will be completed by then, but I hope to remain involved after that. When you invest four years of your life in a project, it’s a shame just to turn your back on it at the end.”

Mahdavian Delavary is conducting his research at the VUmc’s department of Molecular Cell Biology, in close collaboration with the department of Plastic, Reconstructive and Hand Surgery. The Iranian-born scientist was able to set up his project thanks to a €200,000 grant from the Netherlands Organisation for Scientific Research. That money came from its Mosaic fund, which supports ethnic-minority students in postgraduate higher education, where they remain underrepresented.

The award was a major boost, says Mahdavian Delavary. “I’m sure I could have found the backing I needed from other sources, because this study is so important. Indeed, there are additional contributors since the Mosaic grant doesn’t cover its full cost, which could have delayed the process by months. I’m also grateful for the support I received from the talent programme of the university. This was my first ever grant application, and my supervisors put a lot of effort into helping me write it. They’ve backed me all the way.”

HAGIT AMIRAV

A TALE OF TWO TESTAMENTS

For Christians today, it goes without saying that the Bible is divided into an Old Testament - the ancient Jewish scriptures - and a New Testament relating the life and message of Christ. For the Fathers of the Church, however, it was no easy matter reconciling these very different bodies of work. Did they even need the Old Testament? Or was it a vital source of their own religious authority? And if so, how could they interpret it to reinforce the emerging Christian identity in the multicultural Roman Empire? With funding from the European Research Council, Hagit Amirav of the Faculty of Theology is examining the early Church’s appropriation of the Jewish Bible. A process that resonates to this day.

Hagit Amirav is very clear about her motivation for studying Christianity, despite her own roots in Israel and the Jewish faith. “Early on in my own development I identified Christianity as the most important cultural development in the cultural and intellectual history of mankind. I’m interested in a very simple question: how did it succeed? I can’t point to any phenomenon which has had the same impact. You can see the writings of the Church Fathers and their contemporaries as the elitist musings of a bunch of intellectuals but there was a reason for all that frenetic intellectual activity - the sermons, the interpretation, the exegesis. They were so busy explaining the Bible, defending the Bible. You can’t just dismiss their work by claiming they had nothing better to do. They were on a mission.”

COMPLEX DEBATE

The inclusion of the Old Testament in the Bible is self-evident to modern-day Christians but it was a matter of intense debate in the Ancient World. Amirav sees this process as central to Christian identity: “Christians had trouble accepting the angry, arbitrary God portrayed in the Old Testament.
Amirav is keen to point out that this Christian debate cannot be seen separately from the Pagan heritage and the Classical world to which the Christians owed such a great debt. “There’s no issue more sensitive than the appropriation of someone else’s authoritative text. The Old Testament was strongly associated with the Jews, and its appropriation implies suppression and claiming the title of ‘the true Israel’ for themselves”. Yet in order to make this appropriation work, the Christians had recourse to the traditionally Pagan method of allegorical interpretation to connect the Old Testament with the New. However, Pagans contended that their method could not be applied to all genres. They deemed the Bible unfit for allegorical interpretation. “My work at present focuses on the later adoption of Paul as a model exegete who provided a key to unlocking the moral message of the Old Testament. I think this was the Christian answer to Pagan criticism.” While drawing on existing traditions, the Christians were eager to distinguish themselves.

MODERN RELEVANCE
“People hear the words ‘biblical exegesis’ and the automatic reaction is ‘yeah, whatever’ but that’s because it’s not part of our world anymore. But the fact that it’s not part of our world doesn’t mean you should discount it when looking at the Ancient World, because that was all they had. And it’s only in the past 100 years or so that it has stopped being a part of modern society at large. These things are very much part of identity formation, so from the beginning I’ve always assumed that the

Influential writers such as Marcion argued that clinging to the Old Testament would work to the detriment of the Christian message. But ultimately it was a smart move to hang on to it, as it lent authority. In the Ancient World, building on tradition was seen as important. Without it, Christianity could well have been dismissed as nothing more than a new sect.”

THE SEARCH FOR IDENTITY AND AUTHORITY IS A DEEP-SEATED HUMAN ACTIVITY
issues involved were much larger. That was the argument I took to the European Research Council and I’m happy to say they were convinced.”

“I’m not one of those people who lament the death of religion, something you often hear nowadays. I switched on CNN the other day and saw an American preacher who had sold out a football stadium that seats 10,000 people. That’s quite an audience! There’s such a huge market for religion, for culture. People are searching for meaning in their lives and we universities haven’t managed to pick up on this renewed interest in culture and the arts in order to cement the bond between academia and the public - a bond which is bound to yield extra sources of funding for research in this area in particular, and in the humanities in general.”

IDENTITY AND AUTHORITY
Looking to the future, Amirav is keen to initiate an international research project looking at what happens when traditional figures of authority fall away. “What do we replace them with? It seems to me we are always defining and redefining our own identity, and we do so in relation to others. Why else would we Europeans be so preoccupied with minorities today? And why are Muslims returning to their authoritative sources and why now in the European context? These are interesting questions and there are fascinating parallels with the sudden revival of Hebrew in the polyglot Bibles after centuries of being kept at arm’s length. Polyglot Bibles are Bibles in which the text, rendered in different languages, is laid out in parallel columns.”

“The key issue is the search for authority: looking for authoritative figures, authoritative texts,” Amirav argues. “I believe that the search for identity and authority is a deep-seated human activity. We couldn’t change it if we tried. If the queen were to walk through that door now, even the most fervent republican would get flustered. We’re social animals with a strong sense of hierarchy. We can’t escape our social structure, our social context. We academics are a prime example,” she smiles. “What do you think all those footnotes are for?”
EDITH HOUBEN
VU University Medical Center
Postdoctoral fellow at the department of Medical Microbiology and Infection Control at VUmc and the department of Molecular Microbiology at the VU.

My research focuses on protein secretion systems in pathogenic mycobacteria. These bacteria, that can cause several serious diseases such as tuberculosis and leprosy, transport virulence factors across their complex cell envelope to manipulate the host. The goal of my research is to understand how the transport systems of these proteins, the so-called Type VII secretion systems, work, and I am currently focusing on the composition and structure of these molecular machines.

This research will not only help us to understand the success of pathogenic mycobacteria, but it will also provide new targets for the development of antitubercular compounds.

TOBY KIERS
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LYDIA KRABBENDAM
Psychology and Education
Associate Professor at the Faculty and Research Institute LEARN!

How do individual differences in social cognition impact academic, social, and mental health outcomes? This question fascinates me and forms the key theme of my research. In my work, I use social dilemmas in combination with functional neuroimaging to study social cognitive processes during real social interactions. In one of my current studies, participants include healthy adolescents and adults, as well as adolescents and adults with a psychotic disorder. This will elucidate the mechanisms leading to successful or disturbed social interactions, and how these change during development.

The next challenge will be to establish the meaning of these findings for functioning outside the laboratory and to explore the possibilities for interventions.

REINA MEBIUS
VU University Medical Center
Professor at the department of Molecular Cell Biology and Immunology.

I teach immunology to both Bachelor’s and Master’s students. I am a Principal Investigator and my research group is funded by grants from various organizations. We focus on the development of the immune system and the parallels we see in the mucosal immune system and during periods of chronic inflammation. Our research is helping us to unravel the requirements for the formation of lymphoid structures in healthy and diseased individuals.

ALBERT MENKVELD
Economics and Business Administration
Associate Professor of Finance.

My work focuses on the social cost of malfunctioning financial markets. The 2007-2008 crisis pushed the financial system to the brink of collapse. A particularly important contributing factor was the fact that the interbank market, where banks share risk, effectively stopped working. As a result, banks were forced to undertake precautionary measures to preserve their capital, which was at a low level to begin with. This in turn meant that loans were...
no longer available for companies and individuals, whose production and consumption were needed for an economic rebound. My aim is to understand the frictions that lead to such market breakdowns or, in financial terms, illiquid markets. My focus is on technology and how it might either impede or improve market functioning.

DANIELLE POSTHUMA
Earth and Life Sciences
Professor of Functional Genomics.
I am a full professor and hold the Fenna Diemer Lindeboom Chair at the Faculty of Earth and Life Sciences. I am also affiliated with VUmc (Clinical Genetics), and Erasmus MC in Rotterdam (Child and Adolescent Psychiatry). I am the Principal Investigator for the Complex Trait Genetics group where we aim to understand the genetic and environmental mechanisms underlying complex traits such as psychiatric and brain disorders. I am currently investigating whether groups of genes that share a similar function in the synapse are important for psychiatric disorders. Insight into the role of synaptic dysfunction in psychiatric disorders will aid in improving current treatments.

Future research will focus on investigating the key regulatory and functional genetic elements that cause one person to develop a psychiatric disorder, while another person remains healthy.

JEROEN SREET
See page 57

GERARD STEEN
Arts
Professor of Language Use and Cognition at the department of Language and Communication.
My main research interest is metaphor in discourse, about which I direct several research projects, including an NWO Vici project which will be rounded off with four PhD dissertations in 2011. I am the founder and director of the Metaphor Lab, an expertise centre at the Faculty of Arts for interdisciplinary metaphor studies across the humanities and the cognitive and social sciences.

My main interest for the coming years lies in the relation between metaphor and consciousness: metaphors are used unconsciously in language, cognition, communication and culture, but we do not know how this relates to their conscious use and application in rhetoric, design, organization and management, and instruction.

KRISTINE STEENBERGH
Arts
Assistant Professor of English Literature.
I recently secured a grant for my project Moving Scenes: Theatre, Passions and the Public Sphere in Early Modern England.

In the context of this project, I will analyse the role of the theatre in debates about the effect of passions on an audience in early modern England. The emerging public sphere in this period evoked pervasive questions about the role of the emotions in persuasion. The commercial theatres were one of the key cultural laboratories in which ideas about the effects of passion took shape. Moving Scenes will result in a conference, journal articles and a book, providing insight into the politics of passion in early modern English culture.

WOUTER VERAAART
Law
Professor of Legal Philosophy at the department of Legal Theory and History of Law.
Currently I am working on the research project ‘Time, Restitution and the Law’. This project deals with time-related dilemmas concerning the restitution of property rights after periods of historic injustice in Germany, South Africa, the Netherlands and elsewhere. The project includes three case studies which are analysed in a number of articles and a collection of essays.

In my next project I would like to further explore the relationship between justice, property rights and constitutional law from a comparative and legal-philosophical perspective.
HAGIT AMIRAV
ERC Ideas Starting Grant
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RICK BETHLEM
ERC Ideas Starting Grant
Sciences
Associate Professor in the Physics department.
My research topic is experimental molecular physics. The art of experimental physics is all about control. The better one controls the parameters of an experiment, the more precise and reliable the outcome of the experiment will be. My research focuses on using electric fields to fully control the motion of neutral molecules. I want to use this control to perform very precise experiments on molecules that address profound questions, such as ‘are the fundamental constants really constants, or do they vary over time?’ and ‘do the fundamental forces change if time is reversed?’

DAVIDE IANNUZZI
ERC Ideas Starting Grant
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BAS VAN DER KLAUW
ERC Ideas Starting Grant
Economics and Business Administration
Professor of Policy Evaluation at the department of Economics.
In 2008 I received the ERC Grant for research into the evaluation of active labour market policies. Such policy measures are often used to encourage a return to work among individuals collecting social insurance benefits. The empirical evaluation of these policies is non-trivial, because of the non-random use of policy intervention and the dynamic nature of the institutional setting. In recent papers I made some methodological contributions to the evaluation of active labour market policies. These contributions are both in terms of improved understanding of empirical methods and the economic interpretation of estimated causal effects. These have been applied to the evaluation of financial incentives as well as counselling and monitoring schemes for unemployment benefit recipients.

MARJO VAN DER KNAAP
Spinoza Award
VU University Medical Center
Head of Child Neurology in the department of Pediatrics.
I am a neurologist, specialised in child neurology. My special focus is on disorders of the white matter in the brain. In children, these disorders are most often genetic and progressive, leading to cognitive and motor handicaps and early mortality. Frequently, the cause of the disorder cannot be found. My research focuses on defining new disorders among the undiagnosed cases. MRI pattern recognition is my primary tool. Once we have identified a new disorder, we go on a quest for its related genes. Thanks to new developments such as exome sequencing, we can start looking for genes in small groups of patients. If we find disease genes, we can offer the families prenatal diagnosis and carrier testing. We are also studying a variety of disease mechanisms.

The ultimate goal is to use this knowledge to help optimize public policy.

HUIB MANSVELDER
Member of Royal Netherlands Academy of Arts and Sciences (Young Academy Members)
Earth and Life Sciences
Professor of Neurophysiology at the Neuroscience Campus Amsterdam.
I study the molecular and cellular basis...
of thought processes. It is estimated that more than one third of all people experience mild to severe cognitive impairment as they age. Identifying the molecular mechanisms involved in cognition is a priority as the average life span continues to lengthen, increasing the risk for cognitive decline.

We use novel genetic and optical tools to activate or silence specific types of brain cells (neurons) in brain areas involved in cognition. We are also able to remove and replace specific molecules in the brain, helping us to determine their role in cognitive processes. Ultimately, we hope to understand the role of each of the many different neuron types in cognition and identify molecular targets for therapeutic intervention to improve cognition in brain disorders.

IRMA MOOI-RECI
Junior Societal Impact Award
Social Sciences
Assistant Professor at the department of Sociology.

Recently, I was appointed programme director of the newly established VU Graduate School of Social Sciences. My research focuses on the socioeconomic implications of unemployment (insurance benefits) and methodology. Currently, I am involved in a research project about the intergenerational effects of unemployment [partly in collaboration with Statistics Netherlands] which will lead to new empirical knowledge about the mechanisms that drive unemployment and poverty across generations, helping us to devise workable policies to combat this cycle.

For the future, my aim is to add a cross-national perspective by including the US as a comparison. This will add to our understanding of how specific intergenerational mechanisms work in different labour markets.

GIJS WUITE
ERC Ideas Starting Grant
Social Sciences
Professor of Life Processes, Complex Systems research group, department of Physics.

I use physics to investigate life. The ultimate goal is the quantification of biology: a fundamental understanding of how complicated biological materials work. One key line of research is the physics of viruses. We want to know how they are constructed, and what their mechanical properties are. A virus is basically a container, the capsid, with inside its genetic material. That is actually a very mathematical structure, with beautiful symmetry and great physical strength. The capsid is also essential to the mechanism by which the virus spreads from one host to the next.

If we can work out how it is assembled, what gives it that strength, our colleagues in the health sciences may be able to develop drugs that weaken the container and so suppress the spread of viral diseases. In the end, this very fundamental work could save lives!

LIESBET HOOGHE AND GARY MARKS
ERC Ideas Advanced Grant
Social Sciences
Strategic Chair in Multi-level Governance

The Hooghe-Marks alliance started accidentally. In 1993, we met at the annual meeting of the American Political Science Association, and promptly fell in love. Since 2004 we have been co-holders of the Chair of Multilevel Governance in the department of Political Science. We are also professors at the University of North Carolina, and divide our time between Amsterdam and Chapel Hill.

We love the transatlantic life, which they say helps us to keep a fresh perspective. Our PhD students on either side of the Atlantic have taken to it as well. Two VU PhD students are doing coursework at Chapel Hill, and several University of North Carolina PhD students will be heading for Amsterdam over the summer to work in our transatlantic research group. In May 2010 we received an advanced ERC Grant. This is a five-year grant to conduct research on the causes and consequences of multilevel governance. We want to investigate how government is organized from the local to the global level. Why is government multilevel, and how does this affect the quality of democracy and the quality of policy delivery? Finding answers to these questions requires better data and comparison that goes beyond just Europe. Together with eight PhD students and postdocs at VU University Amsterdam and Chapel Hill we are collecting time series data on regional governments in Latin American countries, in Southeast Asia, and data on international organizations and regional regimes, which will lead to a series of co-authored books, articles and special editions.
MUTUALLY ASSURED EVOLUTION

TOBY KIERS

ABOUT HUMAN INFLUENCE ON EVOLUTION
No man is an island. Indeed, no organism on our planet is. Animal or plant, fungus or bacteria, all forms of life have to cooperate with other species to survive and prosper. Toby Kiers of the Institute of Ecological Science at VU University Amsterdam is investigating how these so-called mutualisms have evolved and persisted over millions of years, and how human influence is now changing them. Moreover, she is using her findings to promote more sustainable approaches to the complex ecosystem in which we all live.

"Mutualism really is a ubiquitous phenomenon," says Kiers. "Every species on earth is involved in some kind of symbiotic relationship with other organisms. They are absolutely fundamental to every kind of life.” And the variety is endless. Many plants rely upon birds, bees or butterflies to pollinate, whilst others work with friendly fungi to ward off pathogens and to help them absorb water and nutrients. Even our own digestive tracts host a plethora of bacteria essential to the digestive process.

"Lots of mutualisms are millions of years old," Kiers continues. "The whole evolutionary advance of life has depended upon them. What’s scary right now is the speed at which they are being forced to change. The big question is how anthropogenic factors - human influences - are altering these relationships. Things like climate change and extinctions. To study this, we artificially manipulate external environments to explore the reasons mutualisms disappear; this is what we call experimental evolution."

Kiers cites an example from East Africa, where she has a student looking at an ant-plant mutualism. The dominant tree on the savannah is a species of acacia, but it is vulnerable to grazing by large herbivores like elephants and giraffes. To deter them, the acacia has teamed up with an aggressive ant. "The tree provides the ants with a source of food, in the form of extra floral nectaries - little fruiting bodies - and a home: they get to live in swollen thorns. In return, the
creatures protect the plant. Whenever a herbivore approaches, the ants swarm and attack. They literally get up its nose! It’s fascinating to watch.”

“We are working with collaborators who have an extinction simulation running, to see what would happen if we lose those herbivores and the plant no longer needs the ants. The method is quite straightforward: they built enormous fences to keep the animals away. Everybody hypothesized that the plant would do very well because the herbivore threat had been removed. And it did for a little while. But as soon as the danger was gone, the plants stopped making food for the ants. After all, why should they bother? That just diverts energy. Because there was nothing to eat, however, most of the ants defected from the mutualism. They simply left and went elsewhere.”

The surprise was what happened next. “Without the good ants to protect them, the trees were colonized by beetles - an unexpected invasion - which literally destroyed them. The population was decimated. So what this simulation shows is the amazing cascade effect which can ensue from upsetting a mutualistic relationship. Rather than helping the acacias, removing the animals that eat them results in their loss. It’s a domino effect, and you never quite know where it’s going. Now we are studying how this simulated extinction affects mutualists underground in the soil, like helpful bacteria and fungi.”

On the other side of the coin, mutualisms can be exploited for the greater good. In agriculture, for example, practices that maximize the benefits - such as nutrient uptake - which crop plants obtain from their symbiotic relationship with certain microbes could reduce our growing dependence upon synthetic fertilizers. Kiers has been communicating her findings in this domain by taking part in workshops on ‘Darwinian Agriculture’ for farmers, mainly in the US. “We tell them that they’re increasingly important as selection agents,” she explains. “Most aren’t aware of how much impact they can have upon the evolution of the
microbes in their crop systems, which in turn can enhance yields naturally. We hope that the recommendations we make will make a difference."

The real gains, though, are to be made by influencing global policy. So Kiers has been working with IAASTD, the UN-sponsored International Assessment of Agricultural Science and Technology for Development. That, she believes, is the level at which she really needs to make her voice heard. "Rewarding though it is, we won’t change the world by persuading individual farmers one at a time. But if we’re talking with the people running the World Bank, for instance, about how microbial mutualisms can improve farming, that may influence their investment decisions. The big fight in agriculture today is about where to earmark money for research. Should we put it all into the development of genetically-modified crops, say, or are there new and innovative processes we hadn’t previously considered? Like the use of mutualisms.”

Kiers is optimistic that such ideas will receive a sympathetic hearing. “In the future, I think it’s going to be much easier to convince people how important mutualisms are. This is no longer fringe science.” Ironically, she believes that the negative human impact upon these symbiotic systems will strengthen her case. "When these effects become visible to the public, that’s when we will start gaining much more support. These will draw our work into the mainstream.”

And she plans to widen her own research net. "Some of the work I’m most excited about involves looking at the past. Current research is really only asking ecological questions, so it covers a time-span of between 50 and 100 years. Studying mutualisms over much longer periods is a new field, but I think it’s where we can make the biggest impact. From fossil records and so on, we are now starting to see how symbiotic relationships have evolved over millions of years.

Sometimes they have been abandoned, and sometimes species have switched partners. Looking at these philogenic records may help us predict what might happen tens of thousands of years in the future, rather than fifty.”

"On that scale, organisms definitely have the capacity to respond to a changing environment. Mutualisms are remarkably resilient. Partners evolve together or, if that’s not a possibility and one is lost, the survivor may establish a substitute mutualism with another organism. The question is whether they can now adapt fast enough to keep pace with current developments, like climate change.”
ARIANNA BETTI  
See page 112

PIM CUIJPERS  
*Psychology and Education*  
Professor, head of the department of Clinical Psychology, and Vice Director of the EMGO Institute for Health and Care Research.  
My research group develops innovative psychological treatments for depression. Depression is one of the most serious health problems in modern societies, and will become even more serious in the decades to come. New technologies, especially Internet-based treatments and advanced mobile phone applications can help in the treatment of depression.

We are using these applications to improve existing treatments, and to prevent the onset of new cases of depressive disorders. But we are also trying to discover exactly how these treatments work. This approach helps us develop new treatments that are more effective than current ones, so that we can help relieve the suffering experienced by those affected by depression.

HALLEH GHORASHI  
*Social Sciences*  
Professor occupying the endowed chair of Managing Diversity and Integration at the department of Organization Sciences. My research for the coming years will focus specifically on identity and diversity issues in organizations. I also teach on this topic. I am particularly interested in the stories of successive generations of migrants and refugees in their search for work and their experiences as members of various organizations. My findings show how the intersection of identity components such as gender, ethnicity, age etc. influence the position of migrants on the labour market in the context of field-specific, dominant discourses.

Analysing these stories can help provide insight into underlying sources of exclusion, which will enable us to develop durable alternatives for inclusive organizations.

LEO HUBERTS  
*Social Sciences*  
Professor of Public Administration in the department of Governance Studies. I was head of the department until 1 January 2011. I teach a Bachelor’s course on Governance and I give a Master’s seminar on Public Administration Theory. My main areas of research concern systems of governance and power, and the integrity and ethics of governance. The VU Research Group ‘Integrity of Governance’ has been central to that, with the international initiatives that it has produced and the group’s strong position and authority in national debate and policy-making.

The group is quite ambitious when it comes to exploring challenging new areas of research. Our university is a leader in governance research, which benefits both science and society.

AD DE JONGH  
*Dentistry*  
Professor of Anxiety and Behavioural Disorders at the department of Social Dentistry and Behavioural Sciences of the Academic Centre for Dentistry Amsterdam (ACTA). Chair of the postgraduate programme in Managing Dental Fear.

The focus of my research is on the psychological dynamic and treatment of dental phobia, the most prevalent extreme form of fear in the Netherlands. Currently I am conducting research into the genetic background of dental phobia and the effectiveness of a new drug (propranolol) on disturbing memories of past traumatic dental events. I hope that the outcome of my research will tell
us more about how memories affect the development of anxiety disorders and how these memories can be resolved.

Related to this, I have also introduced an innovative treatment method (EMDR) in the Netherlands, which is currently the preferred treatment for psychotrauma.

**ANDRÉ KROUWEL**
*Social Sciences*

Academic Director of Kieskompas (Vote Compass).

I teach political science at VU. My research focuses on political parties and elections. My interest in finding practical applications for scientific knowledge resulted in the development of an online profiling application for political parties - the Vote Compass. This tool allows voters to determine which political party is most closely aligned with their own policy preferences.

Used by millions of voters in more than 30 countries, Vote Compass offers a unique opportunity to do extensive academic research into the decision-making mechanisms behind party choice. Vote Compass also helps journalists report on election campaigns by focussing on the match between voter preferences and party positions.

**JAAP SEIDELL**
*Earth and Life Sciences*

Head of the department of Health Sciences and Professor of Nutrition and Health at VU and VUmc.

I am particularly interested in investigating the effectiveness of an integrated local approach to the prevention and management of overweight and obesity in communities. My ultimate goal is to realize lower rates of obesity and an improved quality of life for all.

PIER VELLINGA

*Earth and Life Sciences*

Scientific director of the National Research Programme on Climate Change.

I do my research and teaching at the Institute for Environmental Studies (IVM). My topic is Climate Change and its Societal Implications. The programme on Climate Change includes more than fifty PhD researchers. We are exploring climate change and generating solutions for the problem, both here in our own country and elsewhere in the world. I am especially curious about rising sea levels, what to expect and how to predict and anticipate them. I recently published on this topic in the series ‘a world beyond four degrees’ issued by the Royal Society of the UK.

**JAAP TIMMER**
*Social Sciences*

Associate Professor in Police Studies at the department of Governance Studies.

I am a sociologist. My PhD dissertation was about the use of violence by and against the police in the Netherlands. I teach policing and safety at the department of Governance Studies. I recently started the first scientific study into suicide among police officers in the Netherlands. This study will help to improve the professional resilience of Dutch police officers. Another project in progress is a comparative European study of the use of firearms by police officers. In the context of the growing police cooperation in Europe, it is valuable to know more about the rules, practices and consequences of the use of force by the police. I’m also a holder of the chair in Safety & Social Cohesion at Windesheim University of Applied Sciences in the city of Zwolle.

We are now setting up the International Delta Alliance, a global alliance of researchers, practitioners and policymakers, for sharing knowledge and experience in river delta issues.

**MARK VAN VUGT**

See page 64
Where is the justice of political power if it executes the murderer and jails the plunderer, and then itself marches upon neighbouring lands, killing thousands and pillaging the very hills?

Khalil Gibran

Working for a tax consultancy, I learned that tax law is a man-made instrument put into effect to reach goals marked by many as ‘socially just’, and considered by others to be the exact opposite. The consequences of tax law can be felt in one’s wallet. Working for the national public prosecutor’s office, I learned that criminal law is another man-made instrument designed to achieve a version of this thing called ‘justice’. Journalists need never go hungry as long as they have the law to write about. Criminal law is often felt in the head and heart, yet sometimes it is felt nowhere exactly. Working as an immigration law research assistant, I learned that borders are the pinnacle of man’s creative abilities, alongside novelties such as the cloning of animals and human organs. Borders are more plainly evident in our society’s systems and structures than children are in our families. There is evidence of this everywhere. What exactly does a piece of cotton painted red, white and blue have to do with my geographical location as I write this essay? What exactly does the language spoken in Honduras say about the content of books being read by that country’s schoolchildren? These are only a few questions triggering the minds of those seeking to abandon everything that is considered a given in this world. It is against this background of searching for true justice where I find myself discussing the man-made phenomenon of diplomacy.

One year ago I took part in a United Nations (UN) simulation conference hosted by none other than Harvard University. About a thousand students from all over the globe were milling about the gorgeous marble hotel venue pretending to have the fate of the world in their hands. Impressive, Obama-like speeches were followed by nights spent lobbying and drafting texts on topics such as nuclear terrorism, genocide, the depletion of natural resources etcetera. During this entire process we were often forced to turn to the ‘real’ documents for inspiration. “The UN condemns Iran for doing this”, “this body urges North Korea to comply”, “the UN requires member states to help protect human rights in Iraq”. These sentences soon became more central to my life than any other. And that wasn’t even the real deal! My
IN RECOGNIZING EACH PERSON’S AND EACH SYSTEM’S FLAWS AND FALLIBILITY, WE WILL BECOME MORE MODEST AND REALISTIC

proficiency in international law helped me out quite a few times, especially when talking to political science students. Simply reminding them of the legal facts often made the loudest conference room discussions fall silent. When my teammates and I took home the ‘Best International Delegation Award’ we felt like all the hard work had paid off and that our abilities had been recognized. I can still remember us beaming with pride.

Yet, to this very day the only real impact that my UN simulation experience has had on me, is that my speaking and social skills have improved. Did my being at this marble hotel contribute to a better world? And if so, how can this be measured? More importantly, do actual delegates to the UN contribute to a better world? And if so, how can this be measured? Without a commonly accepted way of measuring justice, how can we start fighting for it? I can honestly say that I would not enter the actual Security Council chamber and start defending ‘my country’s point of view’. These viewpoints are the product of a certain governmental system, that was once introduced at the discretion of my fellow human beings on a certain bit of geography that seems to have belonged to them ever since. The UN charter does not even describe the notion of sovereignty and the right to self-determination as fundamental truths, but merely as tools for coexistence. Laws are drafted and enforced in such a way that they make nice newspaper headlines, never deviating too much from what is socially acceptable at the time.

In a time when the recognition of a fundamental truth is widely criticized for being ignorant at the least and dangerous at the worst, I would nevertheless like to advocate a re-evaluation of our competences and goals. I would like to contribute to a world that focuses more on its boundaries than its borders. I believe that in recognizing each person’s and each system’s flaws and fallibility, we will become more modest and realistic about our options. We will base our actions on the presumption that hard work is required, but that some things are just out of our hands. Perhaps the idea of toning down a little by realizing that we are a creation as opposed to the Creator, will help us grow closer to each other while maintaining a healthy respect for our differences. Then, all our endeavours will have to be justified and justifiable for everyone, not just for the wealthiest or the loudest.

ROSALIE SALAMEH is a student at the Faculty of Law and a participant in the VU Honours Programme
VU University Amsterdam’s ambitious approach to academic higher education is closely aligned with our attitude towards research. At every level, from undergraduate to postgraduate and beyond, we choose to teach our students subjects relevant to the great social themes of our times. The education we provide is designed to train students to serve society, and to encourage them actively to take up that challenge. Such objectives are achievable only if tutors embrace them wholeheartedly, in such a way that they inspire and enthuse the scholars in their classrooms. In this section we meet some of our most highly motivated teaching staff, plus a number of top students past and present.
the chronically underfed and the clinically obese literally live side by side in parts of the developing world

COLLEEN DOAK
ASSISTANT PROFESSOR OF HEALTH SCIENCES

THE CHRONICALLY UNDERFED AND THE CLINICALLY OBESE LITERALLY LIVE SIDE BY SIDE IN PARTS OF THE DEVELOPING WORLD
21ST CENTURY HEALTH PROBLEMS

Science has found cures for many ailments, but the modern world has its own plagues. Not least amongst these are obesity, depression and other psychiatric disorders. What hope does current research hold for sufferers, from the townships of South Africa to the streets of Amsterdam? Three VU University Amsterdam health experts and inspiring teachers deliver their prognoses.
Parts of the developing world are suffering what looks like an incongruous dual epidemic, with the chronically underfed and the clinically obese literally living side by side. In the department of Health Sciences, Colleen Doak, her collaborators and students are attempting to understand this apparent paradox.

“South Africa was where we really first noticed the problem,” says Doak. “In the townships you quite often see severely stunted, undernourished children alongside overweight or obese adults, particularly women. Their own mothers. You have both conditions simultaneously, in the same households.” Since then her group has observed similar situations in other parts of the world, such as Guatemala.

“How can this be? It is not that parents are deliberately feeding themselves but not their offspring, Doak stresses. For her, the underlying causal matrix is clear. “It’s about poverty and how that shapes the food supply in developing economies. And also about infectious disease.”

“Low-quality food is cheap and widely available. Whereas high-quality food...
- fish, vegetables and rich sources of nutrition like meat - is expensive. That poor diet causes both problems: kids don’t get the nutrients they need to grow, whilst adults eat a lot of fat and sugar that causes adiposity.” And disease only exacerbates the problem. “The principal culprit is HIV. An infected child requires up to double the energy intake of a healthy one, meaning that they have to eat twice as much as they ordinarily would. Parasitic infections are also widespread, and relevant. Children with hookworm are more likely to have anaemia because of the loss of blood. And these children also have nutritional deficiencies due to the increased energy needs caused by the infection.”

Resolving the problems is not going to be easy, Doak admits. Apart from requiring a concerted effort to control childhood infections, it involves overturning both entrenched cultural attitudes and the world’s approach to feeding the poor. “The ‘ideal’ diet in developing countries is often high in fat and sugar, because they are traditionally scarce resources. So they’re considered high-status foods: you eat them whenever you can, because they are associated with relative wealth. And there’s an evolutionary value placed on their effect. Being heavy is seen as a survival mechanism, a way to get by when food is in short supply. Moreover, HIV has put a new spin on things. In places like South Africa it is associated with severe weight loss, so you can’t persuade people to slim. It’s not a body image that appeals. Instead, we talk to them about being stronger or more physically active. That seems to strike a chord.”

“Then there’s the way we in the West design our food policies. Our approach to child undernutrition has been just to feed them, without thinking much about nutritional value. We think: they’re hungry, give them food. But it has been shown that ill-considered interventions can actually cause children to become overweight in later life. We therefore need to research more innovative solutions that address undernutrition without exacerbating obesity.”

In pursuing that effort, Doak is exploiting a valuable resource: her students. “Almost all our findings in this domain come from their research. By MSc students, in particular.” In South Africa, for instance, it was realized that adolescent girls might form an interesting line of research, as they are at the point of transition from an undernourished childhood to a potentially obese adulthood. “It was one of our students who went into Soweto with a local colleague to investigate their eating habits. What she found was that groups of schoolgirls pool their lunch money to buy a portion of kota, a cheap fast-food dish of bread filled with meat. It’s a pretty fattening meal, but sharing a kota is a good way to stretch a very limited amount of money. However, our student also discovered that the girls would instead eat healthy meals if their school canteens offered them at a reasonable price in quantities they could share. So the group dynamic, pooling the money, was also an important factor. Maybe that can be exploited in nutritional education.”

Doak actively encourages her students to conduct research and contribute to publications. “Whether they’re doing fieldwork or analysing datasets here at the faculty, I’ve found our Health Sciences and International Public Health students incredibly motivated. One recently had two first-author publications almost as soon she obtained her Master’s degree. She achieved that because she took three months off after graduating to see the papers all the way through the process. Only then did she come back to start her PhD.”

“That’s the level of dedication it takes, and it’s what I see in our scholars here. Which is important, because they are the future of research. Without quality students who are well-trained in an interdisciplinary perspective, academic investigation ends. So the importance of good teaching cannot be emphasized enough. It’s what the university is all about: a thorough education that feeds the research which, certainly here in health sciences, changes lives.”

A THOROUGH EDUCATION FEEDING THE RESEARCH, THAT CHANGES LIVES: THAT’S WHAT THE UNIVERSITY IS ALL ABOUT
THEO DORELEIJERS ABOUT BIOLOGICAL DETERMINANTS OF CRIMINALITY

Professor of Child and Adolescent Psychiatry Theo Doreleijers studies and works with young offenders suffering from behavioural disorders. He also trains the psychiatrists who help them. Some of his findings have proven scientifically and politically contentious, but he approaches such controversy with relish.

“The children I study are those who are having the toughest time in society,” he says. “Yet typically we don’t see them until they end up in court and then prison. But how do they get there? What’s wrong with them?”

Working at VU University Medical Center, Doreleijers sees the city’s young delinquents at first hand and has investigated their backgrounds. This work has provided an insight into why some fall into crime and others not.

“Half of children who come into contact with the police a first time eventually become psychiatric patients or hardened criminals, or both. That’s obviously very worrying. But half don’t. Clearly, some are deterred at that point. So the real problem for society lies with the repeat offenders. From research and follow-up, we have found that one huge predictor of such recidivism is poor reading ability for their age. That’s an important discovery, because if we catch these youngsters early we can do something about that problem.”

Literacy is not the only factor at play, though. Others are both social - having a criminal older brother, for instance - and psychological. “Conditions like Attention Deficit Hyperactivity Disorder [ADHD] and conduct disorders are highly indicative of recidivism,” Doreleijers explains. “In fact, the first time a young person is arrested they should really be taken for psychiatric assessment and treatment, not to the cells. I’m convinced that early screening and intervention help, and in the long run save society money and pain.”

More controversial has been Doreleijers’ work on biological determinants of criminality. This was long a taboo subject for research, due to its association with discredited racial theories. When he first proposed looking into the issue, there was massive resistance within the scientific community and beyond.

WE ARE BECOMING LESS TOLERANT OF BEHAVIOURAL DISORDERS IN THE YOUNG
It took an intervention from Job Cohen, the then mayor of Amsterdam, to break the impasse. As Doreleijers recalls, “He said ‘Let the man do his work and we’ll have the debate once he produces his results’.”

Those findings centre on the workings of the adolescent brain. “The stress axis between the hypothalamus and the pituitary gland produces the hormone cortisol, which regulates how we respond physically to stress. Some people are born with a suppressed stress axis, which means that they don’t exhibit a ‘normal’ reaction when faced with danger: palpitations, sweating and so on. It had already been shown that this was quite a characteristic feature of habitual criminals, but we wanted to go further and see how the axis develops during puberty and whether there is a link between that and the emergence of criminal behaviour. What we’ve discovered is that the biology is so clear that you can tell from a young offender’s heartbeat whether or not he is likely to commit more crimes in the near future. That’s really incredible!” (See illustration on page 51) Doreleijers stresses, though, that the finding concerns prediction at group level: “The police will never be able to identify criminals just by taking their pulse…”

Even without such unlikely turns, Doreleijers’ work has clear implications for the public policy arena. That contribution was acknowledged by the university in 2011, when he won its prestigious Societal Impact Award for senior researchers. It is a side of the job he takes very seriously, collaborating closely with the judicial authorities and also willing to enter the political arena.

“Youth crime is high on the public agenda,” he points out. “The group of children we are working with regularly make headlines, and not for the right reasons. We in the Netherlands are becoming less tolerant of behavioural disorders in the young, which I actually see as a positive tendency. You could say that we have become such a civilized country that we’re no longer prepared to put up with socially disruptive behaviour in our children. We have to do something
The 'stress hormone' cortisol elicits significant differences between police arrest boys with and without a psychiatric behavioral disorder. Psychiatrically disordered boys do not experience fears in stressful situations; moreover, they are seeking kicks in order to raise their stress axis which is necessary for appropriate normal day life functioning. (Dissertation Arne Popma, 2006)
BRENDAN PENNINX ABOUT AN UNHEALTHY MIND IN AN UNHEALTHY BODY

Depression and anxiety disorders affect about a third of us at some time in our lives. Traditionally, they have been regarded as conditions of the psyche. But according to Brenda Penninx, Professor of Psychiatric Epidemiology at VU University Amsterdam, scientists are now gaining a far clearer understanding of the physiological and genetic factors involved.

Feeling down? Or anxious, perhaps? Tell your doctor today and you would expect him or her to refer you to a psychiatrist, who will then probe your state of mind using interviews and questionnaires before recommending a course of medication or therapy. And then you will hope for the best. But ten years from now your own general practitioner might be able to conduct a simple blood test to identify your condition and prescribe an effective treatment that works first time. That, says Brenda Penninx, is just one of the prospects presented by a major project she is coordinating. The Netherlands Study of Depression and Anxiety (NesDA) has been tracking nearly 3000 patients since 2004 and is now beginning to deliver real insights into what makes people susceptible to disorders of this kind. In the picture beginning to emerge, physical, neurophysiological, genetic and psychosocial aspects all seem to play their part.

TEN YEARS FROM NOW THE GENERAL PRACTITIONER WILL BE ABLE TO CONDUCT A SIMPLE BLOOD TEST TO IDENTIFY YOUR CONDITION AND PRESCRIBE A TREATMENT THAT WORKS FIRST TIME
“One promising line of enquiry is gene expression,” she says, referring to the process whereby genes trigger the production of proteins and other materials. “We have recently been awarded a grant to explore this theme in more detail.” If links can be found between particular disorders and activity by certain genes, then the presence of an associated protein in the body could lead doctors towards a specific diagnosis.

“Depression is an umbrella term for a whole range of conditions,” Penninx explains. “Every patient is different, and it’s not always clear from the way they feel - and how they describe those feelings - what the underlying cause is. So diagnosis is still a process of trial and error. Nor is the chosen treatment necessarily evidence-based. It can just as easily be driven by doctor or patient preference. Half the time a particular antidepressant drug will work and half the time it won’t. So we try another. And then another, until something proves effective. One objective of NESDA and its associated studies is to understand much more about the fundamental biology of anxiety and depression, so that we get the treatment right first time. Be that prescribing a particular course of medication, applying a specific form of psychotherapy or taking some other approach.”

It is also becoming increasingly clear that an unhealthy mind often means an unhealthy body. Or vice versa. “We have long known that there is a link between depression and physical ill health. But there’s now evidence that that’s not just down to lifestyle.” In other words, people are drinking and smoking and eating badly because they feel down, or slumping mentally because they are physically ill. “It actually seems that anxiety and depression might accelerate physical ageing. Research shows an association between these disorders on the one hand and, on the other, a whole range of somatic conditions: cardiovascular disease, diabetes, obesity and even possibly cancer and cognitive decline - see also illustration below. It’s as if we’re seeing the early onset of old age in our patients.

What appears to happen is that being depressed induces a form of constant stress, so that the body’s physical stress mechanisms - which are normally used to resist toxic substances or in response to danger - are permanently active. They’re normally beneficial, but working in this chronic state of alert they simply exhaust the body. And in excess, the hormones and proteins produced have detrimental effects like raising blood pressure and disrupting fat metabolism. Hence the possible link with heart disease and obesity.”

This complex and progressive pattern of disease might seem enough to depress anyone, but for Penninx it is only a cause for optimism. “The more we discover thanks to NESDA, the more hope it gives us. The findings are creating opportunities for whole new forms of intervention.”

Research shows an association between anxiety and depression, and a whole range of somatic conditions.
LOES DERKSEN
*Philosophy*
Teaching Philosophical Anthropology.

I’ve been teaching at the Philosophy department since 1984. For many years I also taught philosophy courses to psychology students. I am also a lecturer in the honours programme and I’ve been invited to give guest lectures at Amsterdam University College. Students at VU University Amsterdam are given the opportunity not only to specialize in their chosen field, but also to broaden their horizons by taking minors, pursuing a second degree or joining the honours programme. In my opinion, the only thing missing in the present system is time to absorb all this new knowledge - time to think about what has been learned, time to integrate it into one’s life and time to simply meditate on it.

THEO DORELEIJERS
See page 49

RENÉ VAN WOUDENBERG
*Philosophy*
Dean of the Philosophy department and Professor of Philosophy.
I teach in the fields of Metaphysics (which deals with questions like: What do we mean when we say something exists?) and Epistemology (which deals with questions like: What do we know and what is knowledge? Is science the only source of knowledge? Can we ever be justified in believing that God exists?).

What sort of changes can a thing undergo before it is no longer the same thing? How do chance and design relate to one another? and Epistemology (which deals with questions like: What do we know and what is knowledge? Is science the only source of knowledge? Can we ever be justified in believing that God exists?).

AD KERKHOF
*Psychology and Education*
Professor of Clinical Psychology.

I am currently teaching a total of five courses in the Philosophy department and at Amsterdam University College. What I really like about today’s teaching system is its international orientation and the time allotted for in-depth discussion with students and PhD candidates. I would like to see more serious discussions on the Big Questions at VU, questions about meaning and purpose, that scientists tend to avoid with such grace and skill.

Future employers have high expectations for the new generation’s social media skills and the added value that this represents. Communication Science students need to be qualified to meet these expectations. As a university, we need to foster a scientific environment where they can both acquire these skills and critically reflect on their theoretical and practical implications.

PETER KERKHOF
*Social Sciences*
Professor and Chair of the Communication Science department.

I teach Personality Psychology and Suicide Prevention. I was honoured to receive the VU Best Teacher Award in 2010. What I really appreciate in
the current Bachelor’s and Master’s system are the opportunities for talented students to develop scientific and professional skills based on their individual interests. Our university system really achieves success when we inspire students to become personally absorbed in a research topic and enthusiastic about enhancing their professional skills with an eye to a specific target group or problem. As chairman of the psychology examination board, I feel that VU University Amsterdam should do more to upgrade our lecture halls, examination halls, workshop facilities etc., so that we can pursue our mission even better.

CHRIS REIJ
Centre for International Cooperation (VU)
Sustainable land management specialist.

In 2005, a study on long-term trends in agriculture and environment was started in four countries in the Sahel. One of the major study findings had to do with farmers in Niger who had been protecting and managing young trees on five million hectares of land since 1985. This is by far the biggest environmental transformation in the Sahel. International media reported extensively on this re-greening. These findings triggered me to switch from research to action by developing African Re-greening Initiatives (ARI), which builds on current successes in the area of re-greening. ARI is funded by bankers in London. In 2009, the VU Network Institute and the Web Foundation of Sir Tim Berners-Lee (who created the world-wide web and received an honorary doctorate from VU University Amsterdam in 2009) decided to support ARI by linking the internet, mobile phones and radio to distribute information about re-greening and the impact it can have. The challenge for the next few years is to convince millions of farmers in the Sahel to invest in on-farm trees to help them adapt to climate change and to improve food security.

COLLEEN DOAK
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ERIK SCHERDER
Psychology and Education
Professor and Head of the department of Clinical Neuropsychology.

I currently spend a little more than half my time teaching courses in Neuropsychology, Aging and Dementia and demonstrations of patients with a neuropsychological disorder. I really enjoy working closely together with students to achieve the highest quality. This is one of the strengths of the current system. I sincerely hope that the number of contact hours will not deteriorate. Specifically, I am concerned about the video recordings that are made of lectures. I understand the reasoning behind it, of course, but I’m afraid it will lead to less personal contact between student and lecturer. In my opinion, science needs the interpersonal contact; classes at the university form the basis for science.

SANDRA EVERS
Social Sciences
Associate Professor at the department of Social and Cultural Anthropology.
I currently teach courses in Human Security and the course on Inequality and Poverty at Amsterdam University College. I left a good job in media to enrol in an anthropology programme, because I wanted to better understand the world and the people behind events. Working at a university allows you to combine research with teaching. This extremely dynamic environment is largely responsible for the genesis of my two current major projects: 1) The Anthropology of Children and 2) large-scale land acquisitions in developing countries by foreign entities (Wotro Integrated Programme).

DOUWE YNTEMA
Arts
Professor of Mediterranean Archaeology and dean of the Faculty of Arts.

White beaches, gently waving palm trees, deep blue sea and balmy temperatures: this is the setting of one of the VU excavation sites in southern Italy. Teaching students how to bring new data to light and to interpret these data to create an image of the past, that’s what matters. We are studying the impact of Greek migrants on the environment and the Italic tribes in the 1st millennium BC. I’m an archaeologist at the Faculty of Arts. I really enjoy the interaction with students when we’re engaged in hands-on research. I’ve missed it a great deal during the past five years since becoming dean of the faculty. Being dean is not only rewarding, but challenging, too, given the responsibility for a staff of some 270 people and more than 1,700 students. But I’ll be back on my hilltop close to the Mediterranean shore soon. University management is a challenge, archaeology is a dream.
PERCEIVING PERCEPTION

OUR WORLD IS CHANGING. OR IS THAT JUST WHAT WE THINK? IS A FLOOD OF MEDIA IMAGES AND COMPUTER-GENERATED ALTERNATIVE REALITIES AFFECTING THE WAY OUR MINDS RESPOND TO THE INFORMATION THEY RECEIVE? AND WHAT ARE THE IMPLICATIONS FOR CURRENT AND FUTURE GENERATIONS? TWO VU UNIVERSITY AMSTERDAM SCIENTISTS WITH VERY DIFFERENT APPROACHES TO THESE QUESTIONS SHARE THEIR PERSPECTIVES ON PERCEPTION.
ELLY KONIJN AND J. JEROEN SMEETS ABOUT THE EMOTIONAL AND PHYSICAL ASPECTS OF VIRTUAL REALITY

Working at the Faculty of Human Movement Sciences and interdisciplinary research institute MOVE, Professor Jeroen Smeets is studying the interplay between perception and motor control in humans: how our brain guides our bodies when performing such tasks as grasping an object. He is especially interested in the effect of visual illusions upon this ability - how the mind is tricked, and how it adapts to and recovers from the illusion - and in 2011 was awarded a Netherlands Organisation for Scientific Research (NWO) grant to develop new methods to help us understand the visual processing function.

Elly Konijn is Professor of Media Psychology in the Faculty of Social Sciences. A graduate of Psychology, Social Scientific Information Systems and Media Studies, her research into how we process media-delivered information explores what she describes as "the fuzzy borders between fiction and reality from media use, and the role of emotions therein". In investigating perceptions of reality, much of her work focuses upon the adolescent experience: whether "wishful identification" with characters in violent video games increases general levels of aggression in teenage boys, and how girls respond to the thin-body ideal in media representations of women. With her research group in the interdisciplinary research institute CAMeRA, she is developing serious games (e.g. for e-health).

Where does your research currently stand?

J. "My research is about how we perform tasks like, say, picking up a cup of coffee. In analysing that process, we have identified a number of subquestions.

For instance, how we obtain precise information about what is where in the outside world. And once we've done that, how we control our movements to grasp the cup correctly. How do we know exactly where it is in relation to the hand reaching for it, and how do we apply the right amount of pressure so that we don't squeeze it too hard or knock it over?"

"In scientific terms, this process involves a complex interplay of perceptual and psychomotor problem-solving. Coordinating body-parts to attain a goal is an incredibly intricate skill, but most of us do it very successfully most of the time. And without conscious thought. We just pick up the cup, take a sip and move on to the next task."

"To help us understand these mechanisms, one line of experimentation involves the use of visual illusions. Using prisms, for instance, we try to fool the brain into thinking that the cup is in a different position. Or we magnify it to appear bigger than it actually is. From the results so far, what's striking is how robust our brains are in dealing with these tricks, and how quickly they adapt. If the cup appears larger, for instance, a test subject will apply greater strength in trying to pick it up - they think it's heavier - but can still control their hand to grasp it correctly. They are able to select the correct visual information almost instantaneously to deal with that aspect of the illusion."

"And the speed of adaptation is incredible. We can use prismatic glasses to twist a person's whole view of the world by more than 10 degrees. That's disconcerting at first, but it has been found that they can operate effectively in this new environment after just ten attempts. It works in practice, too. If your fingers are in plaster, your brain quickly reorganizes your perceptual and motor apparatus to cope with the new situation. It takes just a couple of days to get used to it."
"In so little time? Wow! Perhaps that helps to explain how some people are so acclimatized to life in virtual reality. That can also be seen as a perceptual illusion, of course. If their brains can adapt so quickly to the artifice, then this could be why some players of computer games are susceptible to influences from the world they create. That’s one of the questions at the heart of my research: under what circumstances are adolescents, especially, receptive to the negative effects of violent games? Or, come to that, to the positive effects of those used for learning, training and coaching, for example relating to e-health and well-being?"

"With my interdisciplinary background my interest is in what media use in general - and digital media in particular - does to people, and how it affects their behaviour. With particular reference to gaming and adolescents, such as the aggression and violence in certain games. It will come as no surprise that these so-called ‘first-person shooter games’ are very popular with adolescent boys. Nor, perhaps, that they can have a genuine and lasting psychological effect upon those who play them frequently."

"Politically and socially, of course, this is a hot issue. You will find plenty of headlines linking violent games to acts of real-life violence. Usually by teenage boys. But our findings are less clear-cut. Many of these young people actually may use the ‘amoral’ and ‘antisocial’ content to guide or test their own moral development. In some cases that can be in a negative sense, with a negative outcome. But for a far larger group the effect may even be positive. The games are part of a wider experience. They provide input into the broad process of finding a place in the world. Early adolescence is very much characterized by a search for moral and emotional boundaries. In that context, for the majority of boys the violent games provide a safe environment in which to see what happens if they cross those boundaries. To put it simply, they can let off their pent-up hormonal aggression without hurting anybody except a computer-generated opponent. In the process, they may discover what they find acceptable and how to regulate their emotions. However, they may be all not be equally successful in that and several studies show that playing violent games may then increase aggression."

"This is something boys have always done. Growing up before computer games, we played soldiers in the street. I got killed hundreds of times."

"Yes. And I bet there were a few boys who went a bit further. Who took it all a little too seriously. Who had trouble telling play from reality. Just as we see today in gaming. Studying what mechanisms trigger that response, we’ve found a fairly clear set of circumstances in which things are likely to go wrong. One factor is low educational achievement, another a higher-than-average need for sensation. Furthermore, if ‘wishful identification’ kicks in, this may heighten aggression after the game is over: they see game characters as role models, whose behaviour offers a means to solve their own problems. Then the boundary between fiction and reality blurs, making them a risk group for violence in real-life."
Has virtual reality become too real, then?

E: “For the brain, at first glance it seems not always easy to tell the difference between what’s real and what’s not. The more true-to-life the computer-generated world becomes, the more trouble the brain has in distinguishing it from the real thing at the primary level of processing. At the secondary level - once you think about what’s going on - there’s usually no great problem. But it takes practice to do that effortlessly or effort to consciously realize that. So I think we need to put more effort into training the brain at that level, to make it more adept at telling reality from very realistic fiction.”

J: “I’m not sure that the dividing line, between the virtual and non-virtual world is the essential one. What really matters is what information is relevant, not so much how it’s presented. When you’re driving a car, the speedometer is important. The way it represents information is totally unreal, but it’s relevant because it influences your behaviour. Or it should, otherwise you get a speeding ticket. So drawing a distinction between reality and unreality, or virtual reality, is irrelevant. What matters is how it affects you. Whether we gather information directly by looking at the road ahead or by interpreting instruments, we process it all in the same way. There’s no essential difference.”

E: “Fair enough, it’s more about primary processing: the first response. Things are different at the higher level. To go back to your experimental example, the people with those glasses on mustn’t think that the world is actually twisted by 15 degrees. So we need training that encourages reflection, adding information whereby you can tell fiction from fact. That becomes particularly important when you bring emotion into the mix, because that’s very much part of the primary reflex. Emotionally, we can respond just as strongly to something that’s untrue as to something that’s true…”

J: “Indeed. That’s an example of an evolutionary mechanism that has survived from our ancestral past. It has been proven that they still exert a very strong influence.”

E: “Our research on emotions shows that the greatest impact, and hence the greatest perceived relevance to ourselves, comes from those things we experience as most real. Whether or not they are actually so. We showed people excerpts from a dramatized documentary - a story presented as real but in a rather ambiguous way. We could label an edited part of it as either reality-based or fiction (played by actors). Then we split the group of participants such that half were brought a degree of emotion induction. For the viewer, this either overwhelmed the knowledge that the scenario was fictionalized or caused an excitement transfer effect: the emotional state induced a feeling that the events must be real and so made them more relevant to the viewer - kind of ‘if I feel, it must be real’. As a result, those watching the dramatization assessed it as being more ‘real’ and containing more relevant information than actual documentary footage of the same events, which lacked that artificially introduced emotional aspect.”

J: “That’s exactly how politicians work. They attract support by playing on particular emotions, whether or not the facts support their arguments. It can be done quite subtly, just by the way you put a question. Ask people whether they are in favour of genetic modification and they are more likely to say yes than if you use the term ‘genetic manipulation’. That word evokes a particular emotion. Everybody is against it.”

With so many visual illusions in today’s world, how are our brains coping?

IF YOUR FINGERS ARE IN PLASTER, YOUR BRAIN REORGANIZES YOUR PERCEPTUAL AND MOTOR APPARATUS. IT TAKES JUST A COUPLE OF DAYS TO GET USED TO IT
"We are already used to dealing with information fed through the media, which comes to us in a way that would have perplexed our forefathers. Remember the classic example of the first film: a train coming towards the camera. When people saw that barely a hundred years ago, they hid under their seats. No child today would react in that way. Today we accustom ourselves to such perceptual manipulations far more easily. We understand them faster. And at a much younger age."

"Take the difference between fiction and reality on television in games and even today’s 3D-movies. Children nowadays understand very young and very quickly that what they see on that screen may not be real. Our experience is that kids of three or four have no trouble telling between what’s ‘real’ on TV, something like a sporting event, and an ‘artifice’ - a cartoon or a movie. According to developmental psychology, that doesn’t happen until the age of seven or eight. In fact, I think it’s now happening much earlier. However, at another level, images are shaped and stored in our brain at an associative level, and this is much more complex to unravel."

"This kind of adaptation has been going on for a very long time. For example, Einstein couldn’t read Newton. They did their mathematics in quite different ways. It has worked like that all down history. In whatever era you live, you learn to use the tools you need to survive in the society which exists at that time."

"In the old Soviet Union, children were identified at a very young age as potential gymnasts, say, or ballet dancers. Then moulded accordingly. Now we’re starting them on computers at that early age, whilst they’re still malleable. Spend five hours a day training them in those skills at this impressionable time of life and they become second nature. Engrained."

NOW WE ARE ALL INTENSIVELY TRAINING OUR KIDS TO BE MEDIA-SAVVY, COMPUTER-SAVVY HIGH-FLYERS IN A TECHNOLOGICAL WORLD
CHILDREN ARE ABLE TO DIVIDE THEIR ATTENTION BETWEEN A NUMBER OF DIFFERENT THINGS. AND TO DEAL WITH MUCH GREATER COMPLEXITY. FAR MORE THAN IN THE PAST
OUTSTANDING STUDENTS

ANI POGOSIAN
Dentistry
I am a second-year dentistry student at ACTA. Dentistry demands a lot of time if you want to be successful. I’m glad that the programme now takes six years to complete instead of five, since this gives us much more time to focus on our practical skills. I started working in a dental clinic as a dental assistant a year ago to expand my horizons. My sister Sirarpi and I really feel lucky to have the opportunity to study dentistry at one of the best universities where modern technology is available for every student.

SIRARPI POGOSIAN
Dentistry
I’m a 23-year-old dentistry student at ACTA. This is my fourth year of a six-year study programme. Dentistry is an intensive discipline, and since I am also in the Honours Programme it means that I have a very busy schedule for a full five days a week on average and sometimes even more. I enjoy taking on challenges in my own faculty and from other disciplines. I feel that students get a lot of opportunities in the current university system for personal development. However, there is one thing I would like to change: the lottery system for medical and dentistry school admissions. I think that we should take the Belgian system as an example, in which admission is based on a medicine/dentistry entry exam.

SANDAMALI VAN DAM
Law
I am 27 years old. I studied History and American Studies at the University of Amsterdam and Japanese Studies at Harvard.

In 2007 I started at VU University Amsterdam as the web editor at the Faculty of Law. In 2008 Dr Alette Smeulers introduced me to the Master’s programme in International Crimes and Criminology, which made me decide to combine my full-time job with this programme. After graduating, I started on the Master’s in Law and Politics of International Security which I completed in 2010. In the meantime I transferred from the Faculty of Law to the department of Marketing and Communications. What I appreciate about the university is that it gives you as a student and as an employee numerous unique opportunities for personal development.

CHEN FLEISHER
Economics and Business Administration
I am a PhD student at the Management and Organization department. I am working on a four-year research project supported by a grant from the Netherlands Organisation for Scientific Research. I am presently also involved in teaching activities at both BSc and MSc level, including academic courses and thesis supervision. In the current system, I really appreciate the intimate, international class environment, which
allows for interesting and inspiring discussions. Since my research is on career development and its contribution to organizational outcomes, teaching provides me with the opportunity to educate students on their future careers.

In the future I would like to see practitioners and academics interact more to ensure that students acquire the right tools to become both leaders and socially responsible members of society.

LARS JONGERIUS
See page 100

NICKY NIELE
VU University Medical Center

I am a fourth-year medical student and I'm 22 years old. Last October I received my Bachelor's degree with honours. I recently finished a research project on behalf of the neonatology department at VUmc. This September I will start on my internships, but before I do I will be participating in an Erasmus MC research project on Curaçao. I am very grateful that I got the opportunity to get involved with this project. I do feel, however, that there is room for improvement at VU when it comes to partnerships with other universities. I think it’s great that students are encouraged to broaden their horizons and that they are given the opportunity to learn from others. Cooperation is important for the exchange of knowledge and skills. I hope that I can serve as an example for many to follow.

ROSALIE SALAMEH
See page 40

MICHEL SCHOLTE
Social Sciences

I am a second-year research Master's student in sociology at the VU Graduate School for Social Sciences. I am currently working on my thesis and I am a teaching assistant, teaching research methods to first-year Sociology students. I appreciate the many motivating and inspiring people at the university; fine teachers, professors and fellow students are by far the most important determinants for good academic education. Together they create the banquet. Buildings, books, schedules, grades are just ingredients.

Academic education is one part of a system that fosters personal and societal development. In this respect, it’s a challenge to make sure that everyone in the world gets a meaningful education, regardless of age (life-long education), nationality (education for all) or any other arbitrary criterion.

JAN-WILLEM SNOEKER
Social Sciences and Law

I'm 24 years old. Between 2004 and 2011 I graduated from three different programmes: Policy, Communication & Organization, Law, and Business Law. During my studies I served as an elected officer on several student boards and co-founded my own online tax consulting company named Ficsus. The freedom to combine all these activities is what I valued most in the university environment. In my opinion, students should also have the opportunity for personal development in the broadest sense. This is why I am sceptical about the current proposals coming from the Dutch government and universities that will end up forcing students to graduate in a shorter period of time. This will be a major constraint on students’ personal development during their studies. Don’t you also think that universities should be more than just lectures and literature?

JONNA DEN UYL
Social Sciences

I am currently working on an MBA in Strategy and Organization. I am also a member of the University’s Student Council, where I am responsible for the Education & Research portfolio. My aims for this year are to strive for higher English language proficiency for lecturers and students and to make the university’s graduation ceremonies more appealing. Additionally, I am a member of the Honours Committee, which I really love since I participated in the Honours Programme myself.

I think the university is doing a great job when it comes to their Honours and language policy in general. However, I feel that we should accelerate the policy’s implementation, especially since language proficiency leaves quite a bit to be desired.
SPACE AGE LEADERS, STONE AGE BRAINS
When we choose our leaders, political or corporate, do we really select those individuals we think most capable of running a modern nation or a complex business in a global economy? Or are we still subconsciously looking for the people best able to lead us in hunting mammoths or fending off sabre-tooth tigers?

Marc van Vugt thinks we might. Appointed Professor of Labour and Organizational Psychology at VU University Amsterdam in 2011, he believes that mankind’s mental attitudes towards leadership and followership remain rooted in the challenges faced by our ancestors hundreds of thousands of years ago. “Inside our heads, we are all carrying round a Stone Age brain. The history of human evolution goes back 2.5 million years, and for more than 99 per cent of that time we were hunter-gatherers living in small bands roaming the African savannah. It was during that period that our brains developed into what they are today, but they did so to cope with the challenges we faced then. And that includes our attitudes towards leaders and leadership.”

“When I began studying leadership as a psychologist some 15 or 20 years ago, I found that some of the really fundamental questions about the topic were simply not being addressed in the literature. Why do we so naturally seem to follow particular leaders? Why do leaders always emerge when you put a group of people together to work on something? And how - and indeed why - do human leadership models differ from those in other animals? When I couldn’t find the answers in the psychological and organizational literature, I started looking to other disciplines. Fields like biological sciences and anthropology. There was some material there, but it was so widely scattered that I decided to try to integrate everything and from there develop a theory of leadership that would bring all those disparate findings into one unified framework.”

“The approach I ended up adopting was an evolutionary one, because that provides...
a very broad structure within which we can think about how leadership emerged in our species, how human leadership patterns differ from those in other species and what proximate mechanisms propel a particular individual into a leadership role within a specific group. Only the evolutionary perspective seemed to address such issues satisfactorily, and so I began to formulate what I call my evolutionary leadership theory.”

“So why and how did we originally pick leaders, and how is that reflected in the way we do so today? My argument is that our ancestral environment created a need for leadership because our forebears needed to solve particular problems and meet challenges that required some form of group coordination. In particular, how to defend the group against predators and against attacks from other groups. What that produced was leadership by example: the leader was literally the person out in front when it came to a confrontation.”

“I think that even today - and we have now accumulated quite a bit of evidence in support of this - when faced with what our minds perceive as a group defence problem we seek out the same type of leader. That’s a prototype based upon physical features. So in times of conflict we tend to prefer someone who looks more masculine, who appears stronger. Not only a person who expresses dominant behaviour, but one with a dominant physiology. We really do seem to take that ideal with us to the ballot box when deciding who’s going to be our next prime minister or president.”

“But that masculine prototype is not the only relevant one. Our ancestors faced other challenges, too. Over time, group sizes increased to form larger, more complex societies. Which had to be held together. And so arose the need to keep the peace within the group, creating a niche for a different kind of leader. We believe that this role was filled by feminine leaders, originally most probably post-reproductive females freed of the burden of bringing up children. The matriarch figure, if you like.”

“Incredibly, these archetypes still seem to hold true. In experiments we gave students pictures of two fictional presidential candidates and, after explaining the situation facing the country, asked which one they would be most likely to vote for. In times of war and crisis they chose more masculine-looking face, whereas during a period of peace and reconciliation the majority of votes went to the more feminine-looking image.”

“Does this mean, then, that we are using now irrelevant Palaeolithic criteria to choose our leaders? Ancient warfare was about physical hand-to-hand combat, but what use are those skills when you’re sitting in an oval office with a few buttons? Where in the job description of a twenty-first century CEO does it mention beating rivals to death with a club? Nowhere, but there may well something about an assertive, competitive drive. And perhaps that’s the same thing translated into modern terms.”

“When you make that leap, you can see that those Stone Age brains of ours still serve us pretty well. Even though we’re now using them to find our way in a vastly different environment, in most situations they make the right decisions for us. Only comparatively rarely do they let us down by prompting behaviour maladapted to the modern world.”

“Actually, the world of tomorrow may be better adapted to our ancient brains than that of recent history. Lately, we have tried creating systems that are at odds with human nature. Take communism, for example. It’s a great idea in principle, but we’re the wrong species to apply it to. It works wonderfully well for ants, but not for humans. That’s because, although we do have a lot of shared interests, ultimately we remain individuals with our personal interests.”

“You can even say much the same about today’s nation states and economic structures, and the forms of leadership
they predicate. They didn’t exist in anything like their current form a few thousand years ago, and there’s no reason to assume that they will survive that much longer. Ironically, the rapid cultural evolution and dramatic technological advances we are now witnessing may allow us to revert back to a more traditional leadership model.”

“Leadership in ancestral times was probably something fluid. There was not one permanent leader of a group. Rather, that role was assumed by the person considered best able to take the lead in a given situation. Now, in a world of global communications, we can to some extent reproduce that more distributed form of leadership. Wherever they may be, the person most capable of taking charge will be able to do so. If you can mobilize a group of individuals on the internet, for example, you essentially become their leader. With more ad hoc and more decentralized models of leadership - and followership - thus possible, maybe we need to reappraise the way we think about businesses and nations.”

“In that light, when it comes to the finding the leaders of the future I think the fundamental criteria we apply will once again be determined primarily by the nature of the problems we face as a group or society. Which, at heart, are the same as those confronting our distant ancestors: external threats, internal peacekeeping, maintaining stability and coping with societal change. Those factors have always determined the type of leader we prefer, and they always will.”

WHAT WE ARE NOW WITNESSING MAY ALLOW US TO REVERT BACK TO A MORE TRADITIONAL LEADERSHIP MODEL
DÉSANNE VAN BREDERODE  
Philosophy from 1991 - 1996  
See page 122

VOLKERT CLAASSEN  
Chemistry from 1972 - 1979

During my period as a student, I learned how important philosophy is in addition to science. I completed my PhD with Professor Stouthamer in the Microbial Physiology research group. I was employed at VU from July 1983 till August 1984. I made a career in industrial biotechnology. I spent 5 years working for Genencor International in California before returning to the Netherlands in 2006. I am fascinated by the emerging bio-based economy, which presents us with tremendous opportunities but also a number of dilemmas relating to ethics, the environment and the relationship between underdeveloped regions and the rich Western world. I was named Vice President of Strategy and New Growth Options at the DSM Innovation Center as of January 1, 2011.

BLOEME EVERS-EMDEN  
Psychology from 1964 - 1973

I was born in 1926, making me 84 years old at present. I grew up in an environment where study at university was an almost impossible dream, yet my parents encouraged me to finish secondary school, which I did under the most trying of circumstances in the summer of 1943. I was the last pupil left in my class; all the other Jewish pupils had been deported to Germany, never to return, or had gone underground. It was in September 1964 that my dream became reality when I started studying at VU, finishing with an MA in Child Psychology in 1973. I have always maintained that these years of study enabled me to realize my full potential, in spite of (or perhaps because of) seeing my family grow from four to six children while I studied!

I practised as a child psychologist and lectured at the University of Amsterdam from 1973 till 1991. Even after reaching the age of 65, I kept my position at the university for seven more years, during which time I researched and published books on Jewish children in hiding during the Holocaust and their Dutch saviours. I earned a PhD in 1989, and I remain active in adult education to this day. I owe a great debt of gratitude to VU University Amsterdam and its many lecturers. In particular I would like to mention Prof. Jan de Wit, to whom I am grateful until now. I would like to salute the courage and spirit of VU University. I have never forgotten that they closed their doors in 1943 to protest the Nazi occupation. May this same spirit and courage remain the guiding light for this outstanding educational institution.

JESSICA GAL  
Medicine from 1989 - 1998

When I started studying I was already fully engaged in a top-level judo career, having won European and World championship medals, and I’d been to the 1988 Seoul Olympic Games. With help from the university I was able to combine my medical studies with my sports career, with the focus alternating between them. After graduating I did part-time research work for two years, and when I stopped competing after the 2000 Olympic Games, I started training to be a sports physician. I finished the specialization in 2005, and started my own sports medicine practice in 2009. For the future I dream of being part of a medical centre of excellence for top level athletes, which I hope fits in with the ambitions of my university.

MARIA HENNEMAN  
Arts from 1974 - 1983

I studied contemporary history at VU University Amsterdam in the 1970s. I never would have imagined that I would go on to start two companies in the
21st century! The seed was planted at the university. I learned to write and to speak up at VU University Amsterdam. As students in the 1970s we organized our own curriculum. Professors like Horst Lademacher, Arie van Deurzen and lecturers Jaap Molenaar taught me discipline, dedication and creativity in science. I started my working career as a policy advisor for a trade union. Since then I have had many jobs.

Most people know me as an anchor/correspondent for the television news or as chief editor of a current affairs tv-programme. All this set the stage for my successful communication company. I carved out a niche for personal advice, training and coaching for high-level managers. I run this company alongside my dressage stable near Amsterdam.

EBERHARD VAN DER LAAN
Law from 1975 - 1983

See Foreword

SIJBOLT NOORDA
Theology from 1964 - 1971
See page 75

SANNE VAN DER STAR
Earth and Life Sciences from 2004 to 2010
I'm 25 years old. I started with the Bachelor's in Health Sciences, followed by the Master's in Policy and Organization of Healthcare. Afterwards, I remained active as a VU guest lecturer and I expanded my Master's research, resulting in two published articles. The subject of my research was individual responsibility and health-risk behaviour in health care. During this period, I combined my academic pursuits with a career as a speed skater.

The university's regulations and communication structure made it easy! Unfortunately, a rather serious injury made me decide to stop skating a few months ago. I'm currently looking for a job that will allow me to use the knowledge and skills that I learned while working on my Master's.

PAUL STRIJP
Human Movement Sciences from 1980 to 1988

I specialized in sports policy. In the meantime I also received a Bachelor's degree from the Faculty of Law. I developed a generalist way of thinking at VU University Amsterdam and a lifelong interest for history and philosophy as well. I especially remember my lecturers Jan Tamboer, Onno Meijer and Hans Dona. At the moment I am Head of the department of Spatial Planning for the Province of Noord-Holland. In this job I manage about 30 highly qualified professionals. Any special plans for the future I don't have, other than carrying on with learning and enjoying history and philosophy.

SIEGFRIED WOLDHEK
Biology from 1970 to 1977
I studied Ecology. Prof. Joosse and Prof. Lever taught me an invaluable lesson early on: the boundaries of what we know are close by and any open-minded person can contribute. It is a legitimate pursuit to question and explore everything.

After working for Birdlife Netherlands, first as biologist and later as Chief Executive Officer (CEO) (1985-1990), I became CEO of World Wildlife Fund - Netherlands from 1990-1998 and Action Network Director for WWF International until 2002. I then founded NABUUR.com, an internet platform for assisting villages in developing countries.

Photography: Sake Elzinga

As a parallel career I’ve always worked as an artist, creating literary portraits and political cartoons for leading Dutch newspapers. As of 2011 this is now my main occupation and I am really looking forward to painting many more portraits and free designs.
Looking Further
In My Life

In 2045 I will - God willing, that is - have reached the age of 58. Looking back on my life, I hope to have achieved many things. But what are those things that I want to have achieved? To answer this question, I should first give a description of how I view life.

Life to me is a remarkable thing. We are born and do not have any say in the whole process. We cannot choose where we are born, in what era, with what features, and in which family. Being dropped into the world just like that, the only thing we know for sure is that it is for a fixed period of time, and that as we came, one day we will also leave this place. In the meantime we need to fill in the blank space.

This simple outlook on life forms the basis of one of my great interests: observing and trying to understand people. How do they view life? What drives them? Why do they do the things they do? What is their outlook on life?

Why is that?
One thing I have discovered so far is that although people use different words, different expressions, and different examples even, in the end what they mean in essence is the same. As one race, the human one, we all share the same basic needs: the need for love, hope, faith. So I generally do not understand people’s fixation on power, wealth, and hatred. I did not choose to be born, and I am just trying - as well as I can - to make it to the end of the ride. In doing so, I always try to put things in perspective. Many of my questions, however, have so far remained unanswered.

In addition to observing and understanding people, I love writing, travelling, being creative. As a 58-year-old person I hope to have contributed to making the world a better place in one way or another. I can definitely see myself combining my interests in a creative way. For instance by becoming a documentary maker and allowing people to see different perspectives of one particular event, without actually dictating which perspective is the correct one. Sometimes many perspectives can be good at the same time. I do not want to sound utopian though, because I know that the world can be unfair. I know that there is a lot of inequality in the world. I know people can be unfair, egotistic, and unreasonable. But it is of no use for me to point at people, so I always try to look at myself first.

I think it has become sufficiently apparent that I do not have a clear-cut future plan or ambition. I am ambitious,
definitely, but that is something different.
I learned early in life that it is good to make plans, but that it’s equally good not to expect those plans to materialize exactly the way I have planned them. When faced with a big decision a couple of years ago, a friend of mine advised me: “If you do not know what you want in life, make sure you know what you do not want in life.” And that is advice that I have taken to heart ever since. Right now I am doing the things I enjoy, and as a student I have great freedom to actually discover what I want and what I do not want. But I am open to new experiences, and I want to try a lot of things before actually settling down on one particular passion. I really love writing, but do I want to write books? Become a full-time journalist/ correspondent in a foreign country? Work at an international political organization? I haven’t made up my mind yet, but if it were possible, I would like to do all these things and more, preferably all at the same time. That is what I call talent.

ZAHRA ASTITOU obtained her Bachelor’s degree in English Linguistics and Spanish (Faculty of Arts) in 2010 and is currently pursuing a pre-Master’s in Political Science (Faculty of Social Sciences)
‘LOOKING FURTHER’ IN A NUMBER OF NATIVE LANGUAGES SPOKEN BY STUDENTS AND STAFF. EVERYONE IS WELCOME AT VU UNIVERSITY AMSTERDAM
What we call the 'VU Basics' are the foundations upon which the success of VU University Amsterdam is built. They range from the physical fabric of our buildings and facilities to the policy guidelines which steer our management teams. The administrative and ancillary personnel responsible for these basics make an essential contribution to the university, its research and its education. Our policymakers, for example, have to interact with front-line staff whilst at the same time looking strategically to the future. In this section we turn our attention to some of the leading figures behind the 'VU Basics', who are far ahead of their time.
STEVEN VEEGER
CHAIR OF THE STUDENT COUNCIL VU

SIJBOLT NOORDA
PRESIDENT OF THE ASSOCIATION OF UNIVERSITIES IN THE NETHERLANDS
LEADERS PAST AND PRESENT, PRESENT AND FUTURE
SIJBJOLT NOORDA AND STEVEN VEeger ABOUT HIGHER EDUCATION IN FUTURE

The elected Student Council is the official representative body for those studying at VU University Amsterdam. Meeting regularly with the Executive Board and the Staff Council, it seeks to advocate students’ interests in such areas as the quality and accessibility of education, university facilities and financial matters. Its rights of advice and consent on such issues as institutional strategy, organization and governance are established by statute.

Traditionally, Student Council membership also provides a solid first stepping stone towards a senior leadership role in the academic, commercial or public sector. And its members have an insight second to none concerning the “hot topics” affecting their generation of students. We asked the current Chair and one of his most illustrious predecessors to compare notes on key themes past, present and future.

Sijbolt Noorda is President of VSNU, the Association of Universities in the Netherlands. Whilst reading Theology at VU University in the 1960s, he served a term as Chair of the Student Council. Noorda went on to teach and conduct research at the university. Since then he has sat on the boards of numerous institutions in the healthcare, public-service broadcasting fine arts and culture, information technology, publishing and higher education sectors. He is also a past President of the University of Amsterdam.

Steven Veeger is the Chair of the Student Council for the 2010-2011 academic year. He holds a BSc in International Business Administration and is currently reading for his MBA, with a specialization in financial management. Veeger has worked for charities in both the Netherlands and South Africa, has gained financial experience with a major multinational corporation and is a qualified fitness instructor.

Sijbolt Noorda: “It was 1964 when I first came up to VU University Amsterdam. That wasn’t here, of course. I started on Keizersgracht in central Amsterdam. The faculties of Theology and Law were there, with the other students scattered around the rest of the city. There were just a couple of thousand then. Two years later I was voted onto the Student Council Executive. We tried to consult with the university administration, but there were none of the formal structures you have today.

“The first time we approached the faculty to talk about the curriculum, I remember the Dean saying, ‘I didn’t think that was any concern of yours, Mr Noorda’. There were a couple of young, less traditional professors who were prepared to discuss some things informally with the students. But the Board had no interest in what we had to say. It was a totally different atmosphere.”

Steven Veeger: “That really was another era, wasn’t it? As chair of the Student Council today, I think we do have quite a lot of say in what the university does. Our primary aim now - our defined task, in fact - is to promote the interests of the students in university policy as effectively as possible. For me personally, the main focus is overall quality of education, and the quality of individual programmes. When you graduate, it’s important that prospective employers consider that your degree is actually worth something.”

“So what are your biggest concerns regarding educational quality at the moment?”

“The trend towards reducing contact between students and staff, and making it less intensive. I believe it’s vital that there be regular interaction with tutors about the topics you’re studying. Lectures alone are one-way traffic, but good higher education is a two-way process: discussion amongst students and with tutors. We’re losing these smaller-scale forms of teaching. Already, a number of seminar groups have been scrapped this year.”

“There’s an interesting parallel here with the 1960s. When I started, we had only lectures. And the same ones for first, second and third years. As a new student, you were plunged straight into the middle of a course. I recall that one of my very first lectures began in the middle of a chapter, read in dictation tone, at the exact point where the professor had left off the previous June. It was quite bizarre.”

“But things changed quite suddenly, by the early seventies. You had to have seminars, too, and tutorials and intensive collaboration with your fellow students. The shape of education was a hot issue. There was an influx of young academics with new ideas. I was appointed as a research assistant in 1971, so I was one of them. Our aim was to introduce exactly what you’re trying to defend now: education on a small scale. It looks like you’re fighting the same battle all over
IN THE UNIVERSITY OF THE FUTURE, STUDENTS WILL HAVE TO TAKE FAR GREATER RESPONSIBILITY TO ENSURE THE QUALITY OF THEIR EDUCATION

again, to prevent teaching becoming too remote, too anonymous.”

“Exactly. Of course, we recognize that things are different today. We have about 25,000 students here at VU University Amsterdam now, so you have to find ways of teaching them all effectively and efficiently. But even with government cuts, we shouldn’t be turning back the clock.”

“Cuts are like the weather. Wait long enough and the rain will clear. Until the end of the 1970s, we had far too much money. In the eighties we had to deal with huge cuts. In the nineties we were expected to grow massively, but without the extra funding that was required. And now we’re facing cutbacks again. Right now we are in the middle of a storm, but it won’t last forever. We mustn’t let it drive us crazy.”

“All I say is: let the universities themselves decide how they respond. VU University has a long tradition of independent thinking, so it should be able to work out what to do. Allow it that freedom and things will come good in the end.”

“But is that response adequate? Take modern advances in Information Technology. They could save money with minimal impact. But I feel that our university is lagging behind when it comes to recording lectures and putting them online. If you record lectures and post them online, for example, you don’t have to repeat them every year. Which leaves more time and resources for the more intensive forms of teaching. Digital examinations are another option. There are all sorts of new technologies and methods which have been shown to be effective. I believe that we as a university should be at the forefront of these innovations. That should be our image.”

“As President of the Association of Universities in the Netherlands, I can say that some Dutch universities are in the global vanguard when it comes to what we call open educational resources, which is what you are talking about. And you’re right, they have their advantages. But they are actually quite labour-intensive, too. As a lecturer, you have to prepare very thoroughly. Otherwise the material won’t stand the test of time.”

“Of course. The first time you try anything new, you have to take your time to get it right. But you become accustomed to it.”

“And you have to be able to do it. Not everyone who can teach is capable of presenting in a way that suits the internet. Material presented on a screen really needs to be to the point, that’s essential. In my view, what we actually need - and it is starting to happen - is more ‘blended learning’. A mix of taped lectures and digital education on the one hand, but on the other far more intensive contact with the tutor. It’s vital that students and tutors sit down around a table and talk about the subject. Combine these two forms in the right way and you can teach large numbers of people without distancing them from the essential educational experience.”

“Look at digital examinations. At first they cost much more than old-fashioned paper exams, but with time and experience they’ve ended up much cheaper. And they allow for much more frequent testing. You can test yourself every couple of weeks to make sure that you’ve understood specific material, instead of failing at the end and having to take the whole course all over again. That gives you a better insight into your progress as a student, and it’s more efficient all round.”

“What about the way society views us as a sector?”

“I do actually think it’s a good thing that higher education has come to be seen as a sort of commodity. It may sound negative, but that gives it genuine value in our society. My hope is that this will allow the leaders of universities to make that value clear to the general public: ‘This is what we do, and this is what it’s worth to you. That’s something we desperately need, because in the current political climate it’s my impression that government seems to view higher education simply as a financial burden. I find that attitude quite remarkable, because it has been shown time and again - by authoritative bodies like the Organisation for Economic Cooperation and Development - that countries which fail to invest sufficiently in education do not progress economically.”

“I really wonder what The Hague is trying to achieve with its current policy. Cutting costs seems to be the only motive. Well, if you really want to save money you could just abolish higher education. Remove all the costs as a stroke. But where would that leave you as a nation?”

“If of course we need to make sure that money isn’t being wasted, but even more importantly we have to explain properly that what we are spending is delivering a return. Valorization is essential. Not everybody goes into higher education, but the whole of society benefits from it. That’s what we need to make clear.”
“Exactly. Calculated in economic terms, the yield from higher education - both individually and collectively - is gigantic. Overall, it’s about 10 per cent. If a bank were to offer that kind of return, we’d be queuing outside to put our money in. It’s crazy that higher education is still not seen as something which generates money. It seems to be regarded purely as a social service, a financial drain.”

“A second thing people fail to realize is that we’ve been incredibly successful in making universities accessible to all. When I was active in the student organization here, and later at the national and European levels, that was one of our primary concerns: ensuring that anyone with ability could enter higher education. Not just those whose own parents had attended university. Now we’re on the way to having 50 per cent of the generation aged about 20 at either university or a college of higher education. In my day, we could never have dreamed that we would achieve that level of participation. That’s a fantastic success story.”

“Thirdly, there’s the fact that - despite having made higher education a mass product - we are still providing these large numbers of students with a good, intensive and challenging experience. So that they are able to make the most of their own potential. To do that, and to keep on doing it, requires new and different forms of education, and also enough of teaching staff. It’s essential that we academics be encouraged to devote sufficient time and energy to teaching. Otherwise it’s all too tempting to focus upon building a career through research alone, and to neglect the educational side of the job. That’s something which causes me concern from time to time in my job: that education is not always number one.”

“The Student Council was discussing that very issue only recently, and has...
Incentives need to be built into the system to make teaching worthwhile. If all the stimuli are biased towards research, then staff will naturally concentrate upon research. Most of them, anyway.”

“What we need is an incentive equilibrium...”

“Precisely. You need to have some sort of performance-related reward - a bonus, to put it crudely - for successful teaching. So that if students rate a tutor highly in their course evaluations, for example, they actually see something in return. That will encourage more academics to pursue a teaching career, or at least take their teaching seriously. At the moment, all the incentives seem to be weighted in favour of research and publications.”

“In the university of the future, I would like to see students assume far greater personal responsibility for making sure they receive a good education. It’s in their own interest to take charge of the process. Staff will then be incentivized to strike the right balance between teaching and research, and the methods they use will be a good mix of the modern and the classical. So plenty of use of the latest technology, recorded lectures and the like, but also more intensive face-to-face and group study.

“And the leaders in charge of all this - the university bosses - have to tell their story with enthusiasm. Both internally and to the wider world. Not least to make sure that the money keeps coming in. For me, that’s the ideal recipe, with everybody playing their part. A society which realizes that good education is essential and is prepared to support it, students who repay that trust by doing their best to achieve success, tutors who back them by not neglecting teaching in favour of research and university administrators who strengthen the whole package by completing the circle: persuading society of the value of what they do.”

“Tha’s all fine in theory, but it requires stability and continuity. With the right rewards, I don’t think it will be difficult to persuade students and academics to see things that way.”

“The problem is at the systemic level: the lack of a strategic vision about what higher education should be. Every government wants to make its own mark on the system, and then the next one comes along and overturns what its predecessor has done. Improvement is fine, essential even, but reform after reform just undermines what the university is achieving.”

“All the Dutch universities have their own character and personality, their own strengths and weaknesses. The government should not be trying to force them into a mould. Instead, it should be creating a framework in which they can flourish as autonomous institutions. Some other countries have been better at doing that in recent years than we have. So I have a message for the powers that be: take higher education seriously, rather than treating us as a political plaything.”

“I don’t think you strengthen our position in society by trying to please the politicians. The key is to persuade society that what you are doing is worthwhile. At the Association of Universities in the Netherlands, I talk to a lot of people about what our universities are achieving. I find that my story is far more convincing when I describe specific instances of things that are happening in practice. People respect that. When they hear about a good initiative, they support it. The days when you could convince the public or politicians with systemic stories are long gone.”

“That’s a shame...”

“It is, but it’s a fact of life. Nowadays, the human narrative is all. So we need to talk about what we’re doing with and for people. Strike a chord that way and the
taxpayer will say, ‘Fantastic, now I know what my niece is up to there at VU University Amsterdam and I support her - and hence you - in that.’ I believe that we as universities have not yet entirely understood that this is how we should be telling our story. We still tend to talk about the general rather than the specific.”

“V But the general story is important. It’s the level the policymakers work at. And they need to take a step back. They always want universities to take responsibility - by forcing students to graduate faster, for example - but without giving them the freedom to decide how. They are always on our case, always trying to direct our processes. They seem to believe they know best. And we need to persuade them otherwise.”

“When the Minister of Education goes on television and says the universities are costing too much money, so let’s cut their budgets - a very simple message - we have to be able to respond. To say clearly: this is our contribution, this is what we’re good at, these are our strengths. We’ve got to be able to explain that big story.”
DENTISTS ON THE MOVE

ALICE STÄBLER
ABOUT THE STATE OF THE ART
ACTA BUILDING
In the summer of 2010 the Academic Centre for Dentistry in Amsterdam (ACTA) moved into new premises alongside VU University Medical Center. Designed by Benthem Crouwel Architects, the building offers state-of-the-art facilities for patients, students and researchers at the only dedicated dental faculty in the Netherlands, a unique school operated jointly by VU University and the University of Amsterdam. For Managing Director Alice Stäbler the relocation is more than just a change of address: it marks a watershed in the centre’s history. ACTA is now looking firmly to the future.

“This has been a great chance to start afresh,” Stäbler explains. “Coming into a brand new building with a totally different design and layout forced us to review the whole way we organize the faculty. So we decided to behave as if we were relaunching from scratch. There are things we have had to change, but also things we have now consciously decided to do differently because the move gives us an opening to do so. We’ve been able to look again at the effectiveness, feasibility and desirability...
of all our processes. That was a real tour de force. But this was a once-in-a-lifetime opportunity. How often is an organization like ours handed a facility this impressive on a plate?”

Without discarding all the centre has achieved in its 26-year history, outdated practices have been left behind at the old site. Stäbler cites the way the clinics and departments were organized there. “Each was a little island, with its own reception, its own facilities and its own attitudes. Even the way they billed patients was different. That made them inward-looking, but also inefficient and sometimes bewildering to deal with. It was every man for himself.

TRANSPARENCY
“Here at the new building, we put the patient first. When they come in they want a warm welcome, clear directions, short waiting times, friendly staff, good treatment that’s completed as soon as possible and a bill they can understand. Whatever the purpose of their visit, they should experience the same quality and level of service throughout the centre. So we’ve reduced the number of reception desks to just four, and harmonized procedures.

“The layout helps, too. It’s very transparent. There’s glass everywhere, so people can’t retreat into their own little world. There’s no escape, nowhere to hide. That’s a very symbolic change.”

Management has also seized the opportunity to implement economies of scale. “For example, we have been able to introduce an ACTA-wide track-and-trace system for instruments, with centralized procurement, servicing and disposal of instruments. Moreover, the dentists don’t have their own chairs any more. Instead these are assigned centrally, case by case, so that people are working in a different place every day. That’s far more cost-effective, but it also makes a huge social difference. There’s a lot more contact with different colleagues, which encourages interaction and cooperation across disciplines.”

Stäbler admits that not all of these measures were welcomed wholeheartedly at first. “Change never happens without friction. For many people, the move was a wrench.” Things like the new allocation system, especially, were not universally popular. “Without their familiar surroundings, some staff felt a loss of identity. But that’s the price you pay for greater efficiency. Most people have accepted that, and the blow is certainly softened by the vast improvement in facilities.”

PHANTOM HEADS
Students at the new ACTA have access to some of the most advanced training aids anywhere in the world. They include a virtual drilling simulator, which the centre has developed in partnership with a manufacturer of flight simulators. A major improvement on the use of so-called ‘phantom heads’ with plastic teeth in preclinical practice, this ground-breaking system enables students to experience the look and feel of ‘real’ surgical work long before they see their first live patient. “The quality of the simulation is incredible,” says Stäbler. “It does everything short of crying out with pain. This is a typical example of how the research at ACTA is adding value to the education we provide. It gives us a real edge over other dental schools.”

NEW CORPORATE IDENTITY
Stäbler is keen to widen awareness of the faculty’s work in such areas. “ACTA already has a great reputation within the dental research community. But we really need to tell the world what we’re doing. We should hold our heads up high. Be proud of our achievements, explain them and celebrate them.” Again, that is an opportunity the centre has been afforded by its new premises, an architectural landmark at a high-profile location. “We are now in a position to develop a new corporate
identity, so that people recognize ACTA as a brand in its own right.

One of the primary target groups for this effort are the dentists of the future. “We want to be the best dental faculty in Europe,” Stäbler declares. “In every field. Whether for their basic training or to learn a specialization, students should naturally regard ACTA as their first choice. With all the facilities we have here, plus a great location and the depth of talent we already have in house, that’s now a realistic ambition. Like VU, we aim to look further and reach higher.”

In the future, these aspirations could see ACTA increasingly delineate its educational and patient care functions. “We are considering the idea of drawing a clearer distinction between our role as dental hospital and a dental school,” explains Stäbler. The former would be an academic centre of excellence, offering arguably the best dentistry services in the country. Its patients would be those requiring highly specialist treatment, provided by qualified dentists under the supervision of top professors. “On the other hand, the school would have an educational practice with the work done by students, overseen by their tutors. That would obviously be a basic service, with low prices to match. But this is still under discussion. Nothing has yet been decided.”

Whatever the outcome of that debate, Stäbler is certain about one thing. “Ten years from now, I believe that ACTA will be where everyone in dentistry wants to work or study. The number one choice in the Netherlands - and for many people from other parts of the world - for research or to learn a specialization. A global leader in our chosen priority areas. A highly efficient, well-run organization with staff who love working here. And the patient’s ‘preferred supplier’, too, because they know they’ll receive the very best treatment here. At this great modern building.”

ACTA IN ACTION
The dental faculty’s relocation has added new impetus to its work in the community, says Alice Stäbler.

“Since the move, we have been reflecting at length on the school’s social function. One initiative is a partnership with Kruijspunt, a medical post in central Amsterdam that provides free treatment to vulnerable people, many of them migrants without papers. A number of our students work there as volunteers, and ACTA itself donates surplus equipment.

“Another possibility for the future is a mobile clinic, which could tour nursing homes providing treatment on site for people who are unable to come to us. On a similar track, we have been talking with schools in parts of the city with large minority ethnic communities about ways to improve their pupils’ dental health. A lot of newcomers haven’t benefited from water fluoridation or learned basics like how to brush their teeth properly. We need to reach them as quickly as possible in order to prevent bigger problems later.

“Amsterdam should know that ACTA is here, and it should be pleased and proud that we are. That’s another aspect of our mission to look further.”
The Acta Building is an architectural landmark at a high-profile location.

“We want to be the best dental faculty in Europe”
GERARD NIJSTEN
Managing Director of the Faculty of Arts and Humanities
I am responsible for the day-to-day running of the faculty, and - with the dean and board - for policy and strategy. The faculty is in the middle of a fundamental process of change in which we are ‘reinventing’ ourselves. This means that we are working together with other faculties and universities in the areas of teaching and research. More than anything, the faculty is exploring new dimensions. We have started unique Master’s programmes (e.g. Design Cultures) and established alliances with partners or with wealthy, private benefactors. We have become very successful in research over the past few years. Furthermore, we have started utilizing our scientific knowledge for society. We are turning our knowledge and abilities into marketable services. This is to show society that sciences in this field are useful and practical.

MAJA GRCIC
Policy Advisor to the Executive Board.

Shortly after graduating from the University of Amsterdam, I took on a position as a research policy advisor at VU University Amsterdam - my alma mater’s chief rival. My first project was to help bolster the reputation of VU University Amsterdam, building a global name for the university as a high-quality research institute capable of attracting the world’s leading minds. Because our talented researchers are the source of our reputation, I interpreted this project to entail the establishment of stellar working conditions within which they could conduct their research. It also meant motivating, stimulating and supporting them in their efforts to attract external funding. This resulted in the so-called ‘talent policy’: a structured support scheme for those applying for research funds. And, of course, in a hall of fame of top researchers.

WOUTER HEINEN
Manager at the Administration Office of the Research programme committee.

My job is to see to it that research policy is developed and implemented in accordance with the recently published Strategic Plan 2011-2015, ’VU University: Looking Further’. I feel privileged to have been the coordinator of the Plan. Our research policy is designed to narrow the focus of our research activities - to avoid a lack of cohesion - and to encourage collaboration between various fields of research. We also want to create a more appealing environment for excellent and highly talented researchers from the Netherlands and abroad. We are endeavouring to improve our overall quality and attain a healthier financial position by forging alliances with other research institutes, universities and colleges, and certain business partners. All our efforts are in accordance with the government’s recent policy intentions.

YVONNE KOPS
Managing director of the Faculty of Law.

One of the major projects I have been working on recently is moving our faculty to a new facility with a new housing concept. In the new building, called Initium, we have various types of workspaces.
Staff members can choose a workspace that best suits the activities they have planned. No one has an office of his own. But everyone has an equal right to a suitable workspace. Initium is a stepping stone in the development of the VU campus real estate plans. If we manage to reduce the space in use substantially and at the same time create an attractive working environment, then our new building will function as a benchmark for all further campus developments.

The next step is to listen carefully to the experiences of all users and make sure that this promising start leads to lasting satisfaction.

MARGREETH VAN DER MEIJDE
Director of the Institute of Medical Training and Education at VU University and Medical Center (VUmc).

I am also the director of the Human Health & Life Science programme, which anticipates social, technological and economic developments within the H2LS domain. Employing new organizational forms to serve the needs of the community and future generations, H2LS is a unique concept in Europe - a concept with an equally strong profile in education and research.

By merging a number of transdisciplinary alliances and state-of-the-art infrastructural facilities, VU and VUmc will be leading the way in top-level academic research in H2LS. In taking these steps VU and VUmc are alert to the expectations of wider society and have a shared vision on how these expectations can best be met. Undergraduate training, graduate programmes and medical training are the strategic objectives that will be pursued at the highest international level on the H2LS campus. VU’s wide and traditionally strong range of Bachelor’s and Master’s programmes will be restructured for this programme. This will provide a unique opportunity for students to find their way in the H2LS domain and create a highly flexible and state-of-the-art environment. This programme will also help us to identify and encourage young talent early in their academic careers.

FRANC VAN NUNEN
Director of VU Campus Development.

I started my career at VU University Amsterdam in the mid-1990s. We started developing the new campus plan in 2007. One of the results has been an affiliation contract with the city of Amsterdam, which allows us to develop a new campus with 500,000 m² of floor space with various university and urban functions. In the years to come, I’ll be responsible for the development of three main investment programmes: Campus Square, ‘Beta’s’ research facilities and our current properties.

The ‘new’ urban campus will allow us to achieve the ambitions outlined in the University’s Vision for 2025. The new campus will be in a high-density urban area with mixed functions. It will be a smart, inviting and inspiring place for academics, medical professionals, visitors, businesses and our neighbours.

HESTER RADSTAKE
Educational advisor and researcher at the Higher Education department of the Centre for Educational Training, Assessment & Research.

Currently, one of my main tasks is coordinating the project on ‘diversity and study success’. In a team consisting of education advisors, student teaching assistants, lecturers and study advisors from cooperating faculties, a variety of activities are being organized that will foster study progress, especially for students who are the first ones in their families to study at university. These students receive extra attention from the moment they get into contact with VU University Amsterdam until at least the first semester of their Bachelor’s programme.

We hope that this project will help to ease their transition from secondary school to university. Empirical research into the effects of these efforts is an important aspect of the project. My ambition is to build on this research by initiating a research programme on diversity and higher education.

ALICE STÄBLER
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DERK JAN SLAGTER
Senior advisor at the department of Finance, Planning and Control.

At the moment my main projects are the university’s strategic budget planning and the development of a Management Information System (MIS). The budget planning will help the university to allocate the financial resources in the best way to achieve the goals of our Strategic Plan. The MIS will provide the financial and non-financial information to monitor progress as we work toward these goals. This includes the development of performance indicators for education, research and related subjects. The information from the MIS will help university management to make better decisions about the future of our institution. My most important tasks in 2011 will be to design the budget framework for 2012 -2014 and to implement the first stage of the MIS.

TOM DOUDE VAN TROOSTWIJK
See page 96
ENTERPRISING LAW

JAAP BELLINGWOUT

ABOUT THE ZUIDAS, A RESERVOIR OF KNOWLEDGE

The VU University campus is located just a stone’s throw from the Netherlands’ densest cluster of law firms, in the new Zuidas business district. Since 2008 the Faculty of Law has been tapping this pool of knowledge and expertise by offering a Master’s degree specialization in Business Law in collaboration with thirteen of those firms. Jaap Bellingwout, Head of the department of Notary and Tax Law, was one of the driving forces behind the initiative. Does he view this novel approach as a model for the future of academic higher education?

Why this so-called ‘Zuidas Master’s’?

“I was working as a lawyer and tax adviser at one of the Zuidas law firms, as well as here at VU University Amsterdam. But even though I could walk easily from one office to the other, I saw almost no other interaction between the two worlds. All the young blood coming into the firm was from other Law faculties, never ours. It was as if the institution had turned its back on its own next-door neighbours.”

“Ironically, I think that this was a product of the university’s traditional commitment to social involvement. In Law, at least, that meant that there was no real interest in the commercial sector. It was rather looked down on. Whereas commerce is actually an integral and important part of society.”

“Also, we hadn’t quite come to terms with having the Zuidas on our doorstep. When it was built, the campus was surrounded by open fields. Even though they were long gone - and everyone could see the
new business district from their windows - to some extent they had permeated the institutional mentality. We had remained somewhat isolated from the community around us."

“Having one foot in each world, I found that a real opportunity loss. We as a faculty – and a university – had a lot to offer the Zuidas. And vice versa. Above all, there was the chance to offer our students practical experience and high-tech challenges close at hand. And the potential to inject all the legal know-how available there into our teaching work. That provided the germ of the idea for a new kind of programme: a Master’s specialization in Business Law, provided in partnership with local law firms.”

How does the partnership work?

“The programme is a fully-fledged Master’s, with all the academic rigour that implies, but in a very strong interaction with the commercial law practice from the other side of the street. For example, every lecture is attended by a representative from one of our now fifteen partner firms, who uses the second half of the session to present and discuss relevant cases drawn from real-life experience. And the students gain a thorough grounding in commercial practice during their year with us. Not only are some classes held in situ, at actual law offices, but every student must spend eight weeks on placement at one of the participating firms.”

“Acceptance for the placement is a prerequisite for admission, so it gives the firms some say in the choice of students. It also limits the number of places we can offer. First and foremost, though, it acts as a beacon to some of the brightest and best law graduates from all over the country. The chance to get a ‘foot in the door’ at a top firm is an opportunity not to be missed, so we are able to be highly selective. That provides us and our partners with what we both want: the most highly motivated and ambitious students. Because we are presenting them on a plate, that gives the partners a huge stake in the success of the programme.”

Does that not give commercial interests too much influence?

“No, not at all. What’s more, that’s not something they want. Bear in mind that we are dealing with trained lawyers, who have all spent years at university themselves. They know what we are about and what we’re good at.

“When we asked our partners what they expect of a graduate specializing in Business Law, we thought that they would specify all kinds of exact know-how - securitization, derivatives, that kind of very precise expertise. But actually they said that they simply want the basics to be exceptionally good. As long as the academic foundations are all there, the practical skills will come. That was our role. When we first heard that, it came as a real eye-opener.”

“And they realize, too, that academic independence is important. For us as a university and for them as the employers of our graduates. The degree we offer has to be totally credible, otherwise it won’t attract the best students.”

“So we’re not selling out in any way. We can’t! What we are doing is offering our profession a say in what we do here at the university. Not undue influence. Business Law has a supervisory board consisting of senior representatives from the partner firms. That usually meets just once a year to consider how the programme is progressing. Its members have their own businesses to run, so frankly they don’t have time to interfere in ours. What they can do is make suggestions. And they do. But in my view a good suggestion - wherever it comes from - is always welcome.”

Would you advise other faculties to consider partnerships of this kind?

“Definitely. More than that, I think it’s something they’re going to have to do. If the current rumours are true and funding of the Master’s phase is to be cut back, everybody will have to find alternative models. Should the finances dry up, students could be left knocking on the doors of potential employers with a begging bowl. But I see a better future in their faculties making the approach on their behalf, with a structure that offers mutual benefits. In other words, they need to join forces with the future employers of their graduates to set up programmes that satisfy the needs of the profession, the students and the faculty alike.”
“If and when they find themselves in that situation, my advice is to be open-minded. Don’t retreat into an academic ivory tower, and don’t think that you alone know what’s best for wider society. Sure, you have a good insight into that through the education you provide and the research you conduct. But that’s no reason not to look hard at what society expects of you.”

“From day one, think honestly about how you can establish a fair relationship. A partnership which doesn’t compromise your own standards, but accepts the value of outside input. Make it clear what you stand for. Set out your quality threshold, and be clear that you are providing an academically sound education, backed by thorough research, and not just training workers. Most likely, you’ll find that your prospective partners expect nothing less.”

“Finally, work from your strengths. Whatever they may be. Perhaps surprisingly in these days of fast transport links and digital communications, for Business Law it was our physical location right on the Zuidas. Nothing beats actual proximity. Lawyers from our partner firms can stroll across to the campus to sit in on lectures, and afterwards be back at their desks in no time. And as every lawyer knows, time is money!”

NOTHING BEATS ACTUAL PROXIMITY. LAWYERS FROM OUR PARTNER FIRMS CAN STROLL ACROSS TO THE CAMPUS TO SIT IN ON LECTURES, AND AFTERWARDS BE BACK AT THEIR DESKS IN NO TIME.
Social engagement is deeply rooted in the history of VU University Amsterdam. VU was originally established as a popular grassroots initiative and, unique for a Dutch university. To this day our supreme governing body remains a public association (with more than 6,000 members). Part of that body’s mission is to build bridges with the society of which we are a part. To take this vision further, an initiative was launched to connect more effectively with the wider world.

Tom Doude van Troostwijk has a dream. “Wouldn’t it be great,” he says, “if the university was at the heart of a movement of people dedicated to applying their knowledge, expertise and experience to building a responsible, sustainable society? People who would thus help guide the institution as it makes critical choices about the kind of research, education and care it provides.”

The question is partly rhetorical, because Tom Doude van Troostwijk stands at

THE UNIVERSITY AS THE HEART OF A MOVEMENT OF PEOPLE DEDICATED TO APPLYING THEIR KNOWLEDGE, EXPERTISE AND EXPERIENCE TO BUILD A RESPONSIBLE SOCIETY
the helm of that very movement. He is Director of VUconnected, which he describes as the ‘public face’ of the VU-Windesheim Association, the legal entity ultimately responsible for the university and its two partner institutions, the VU University Medical Center and Windesheim College in Zwolle.

SOCIAL ISSUES
“VUconnected has been established to stimulate discussion and debate,” he continues. “Between the academic world and society at large. At both a practical and philosophical level. As Director, it is my job to guide the organization through that complex task. For me, the key question is how we can channel the expertise of our students, staff, alumni and associates into really tackling social issues. The challenge lies in uniting all those people around particular themes. That takes a combination of approaches, some quite traditional and some very innovative.”

As well as organizing public debates, lectures and excursions, academic symposia, Doude van Troostwijk and his team are looking to build permanent interactive networks focusing upon four specific domains: environmental sustainability, values in healthcare, the economy as ‘more than just money’ and coexistence in our complex, diverse modern society. Backed by concerted activity programmes, many of them organized by VUconnected’s regional committees around the country, what sets these communities apart is that they can explore the issues in genuine depth. “We want them to have a real social impact,” says Doude van Troostwijk. “To look at underlying meanings and to probe the human dimension. In short, to reflect upon what is really at stake in such a way that, ideally, it helps guide thinking within the university - and beyond - at a fundamental level.”

“At the same time,” he adds, “VUconnected can help the university to increase its visibility on the public stage. Not in public relations terms, but as a full participant in the national debate. As an institution that places issues on the agenda, provides them with a platform and helps them evolve as time progresses.”

The expectation is that the ‘communities’ being developed around VUconnected for this purpose will soon start generating their own momentum. “Ten years from now,” says Doude van Troostwijk, “we aim to have a substantial movement of people who are making a real contribution to these networks. By doing things, achieving things, finding things. By talking and by listening. And above all by interacting with us about
the fundamental choices we have to make at this institution, VU University Amsterdam, so that they are rooted deeply in the society around us. Not imposed from the ivory towers of academic institutions.”

**VUCONNECTED IN ACTION**

Tom Doude van Troostwijk explains how VUConnected has been connecting with corporate social responsibility.

“We were contacted by Enno Masurel, Professor of Sustainable Entrepreneurship at the Faculty of Economics and Business Administration. One of the issues he has identified in his research is that small and medium-sized businesses in the Netherlands have a real interest in the theme of ‘social entrepreneurship’, but have trouble putting their good intentions into practice. They want to know things like how best to use human resources to benefit the business at the same time as allowing their people to flourish professionally and personally within a small and medium enterprise environment. And how to put concepts like ‘serving leadership’ into practice. In short, they are interested in instilling human values into their business activities.

“Professor Masurel felt this was a topic that VUConnected could address. And for us it was a good chance to try out a new concept we have devised, the ‘social programme with effect’ or SPI. This is an attempt to synergize a broad range of activities in pursuit of a focused objective. In this case that’s not so much social entrepreneurship per se, but reflecting upon what it actually seeks to achieve. I think that distinction encapsulates what we mean by ‘looking further’. We are trying to delve that bit deeper into the issues involved...”

“Nor is our approach a conventional one. I suppose the standard response would have been to set up a whole social entrepreneurship circus, with workshops for businesspeople up and down the country. But that’s not the VUConnected way. Our strength lies is in bringing people together. So our efforts are being directed at establishing networks to propagate the concept of social entrepreneurship. Networks with members drawn from both the university community and other sections of society. From student entrepreneurs and recent graduates setting up their own businesses to alumni with practical expertise derived from applying social values to actual organizations. And hence an understanding of what contribution those values can make to performance. Not to mention academic specialists - there’s a whole fund of know-how relevant to social entrepreneurship scattered throughout VU University, at Windesheim and elsewhere - and outside professionals.”

“By combining these disparate perspectives, we are stimulating the exchange of knowledge at a level the network participants can actually do something with. We are called VUConnected, after all, so let’s connect people around this topic.”
Current developments in government education policy are causing considerable turmoil. On the one hand, the cabinet is keen to enforce measures that they deem necessary for a healthy economy and that will directly affect students and educational institutions. On the other hand, students and teachers will have to face the implications of these measures, which for some can be harsh. Students may have to cope with more critical application and selection procedures, higher tuition fees and financial consequences if they fall behind in their studies.

I do not intend to reflect on all the complexities of this situation, since there are many sides to the story. I would like to share some thoughts on the practical implications for student life in future: how can we students make the most of our time at university? I believe that I see my fair share of student life. I enjoy my involvement in student associations and study associations, educational committees, an investment club, the Honours Programme, my job and other valuable experiences. In my view there is hardly a more inspiring environment for initiatives of all sorts than at a university. It would be a true loss if such an environment were to disappear as a result of imminent developments that are aimed at efficiency and streamlining. Yet this needn’t be the case. We, as students, should make it our objective to maintain this liveliness and keep doing all the activities mentioned above, and more. Wouldn’t we then face more study delays resulting in potential financial distress? I think not.

I could support my view with purely anecdotal evidence. But being educated in the necessity of statistics and research, some real data may be called for. Hence, I would like to refer to an article in the Dutch newspaper ‘De Volkskrant’ on Monday 28 February. The article included an interview with Lilian Eggens and the headline, freely translated from Dutch, was ‘Social network good for study results’. In short, Ms Eggens found that, based on a sample of more than 3,400 students, a larger social network increases motivation and rates of study success. She argues that a social network can provide students with support, that it can help them cope with setbacks, and that it helps them to relax.

How does this translate into student life, especially student life after the budgetary reviews that we are currently facing? The solution is not, tempting as it may be, to abandon our textbooks.
and make the bar our new study hall. The findings require a more nuanced interpretation. My experience is that many opportunities at university and in student life are a valuable mix of social aspects and professional/educational aspects. Whether you participate in an educational committee, help organize a conference, work, or start your own business, each activity enhances your skills and knowledge while also broadening your social network. Doing many activities alongside your studies does not, as Ms. Eggen's research shows, have to be at the cost of study results and educational progress. Rather, participating in too few activities, or limiting your social network to one group (e.g. your fellow student association members) can have the opposite effect: bad results and a lack of motivation.

So we need to participate in activities, develop social networks, yet we seem to have less time available to do it all in. How then should we spend our time? There can be no doubt that we need to make choices. What can help is a more critical attitude. Taking advantages of opportunities to enhance our social network is not in itself a well-defined criterion, but activities differ in terms of what they add to you as a person. One activity can add to your social skills whereas another can be valuable for your professional development: should I take that pizza-delivery job or should I opt for a job as a research assistant? Should I go for membership in a second student association (I know students for whom one is not enough) or will I organize an event for my own study association? This critical attitude can lead to the best of both worlds: not only will each initiative create social bonds that are so important for motivation and study-progress; they will also help enhance your personal development and self-awareness, not to mention your competitiveness in whatever industry you choose. A final, and crucial, condition for choosing from the many activities is that each choice should be embedded in authenticity: it's never too early to start making choices that we believe in and that we enjoy.

We may not be able to change the plans of our ruling government, but we can ensure that those aspects of university life that make it such an exceptionally interesting time are preserved. The key is to ensure that you take part in many social networks. Not at the expense of diligent study, of course, but most certainly while reflecting critically on the added value of each activity: social, professional and in terms of personal development. It requires time and effort to grasp opportunities that allow us to enhance our social networks, to develop ourselves and that are authentically good choices. This is because we need to look beyond the obvious networks and choices: we need to look further.

LARS JONGERIUS is a Bachelor of Science in International Business Administration (Faculty of Economics and Business Administration) and a participant in the VU Honours Programme

A LARGER SOCIAL NETWORK INCREASES MOTIVATION AND STUDY SUCCESS
VU University Amsterdam is open to all and has something to offer everyone with the necessary qualifications. In our classrooms and lecture theatres, international students from all over the world sit alongside local peers drawn from a wide range of social, educational and ethnic backgrounds, amongst them many mature students. Because it is our ambition to be an international leader in higher education and research, we are keen to reach out to the rest of the world. Many of our students and tutors take part in exchanges, periods of work or study abroad and other international activities, and each year we welcome large numbers of good overseas scholars, scientists and academics to our campus. VU University Amsterdam is pushing back and reaching across borders in every direction. In this section we present some striking examples of that effort.
MEDIHA SAHIN
PHD CANDIDATE IN SPATIAL ECONOMICS

THIS WORK REFLECTS THE STRONG SENSE OF SOCIAL INVOLVEMENT THAT VU UNIVERSITY AMSTERDAM HOLDS DEAR
Immigrant-run businesses have become commonplace in Amsterdam and the other major Dutch cities since the 1970s. But how have they evolved over that time? What factors determine their success? Are second and third-generation immigrant entrepreneurs moving out of corner shops and restaurants into new markets? Turkish-born Spatial Economics PhD student Mediha Sahin is conducting a pioneering study into various aspects of ethnic entrepreneurship in the Netherlands.

And at the same time she is proud to be a standard bearer for 'ethnic scholarship' at VU University Amsterdam.

Sahin’s work on ethnic entrepreneurship focuses on factors that are critical to the success of businesses run by members of non-Western immigrant communities in the Netherlands. “My ultimate aim is to discover what native Dutch entrepreneurs are doing better than their ethnic minority counterparts and vice versa, so that we can learn from each other’s successes and mistakes.” It’s a field that involves many variables. “Without going into too much detail, the
model I’m using is based on business performance related to motivation, socio-economic factors, the business environment and public policy factors.” Her funding comes from a Mosaic diversity grant from the Netherlands Organisation for Scientific Research.

Community and trust
When asked what makes an ethnic enterprise stand out from any other business in the Netherlands, Sahin mentions two key concepts: community and trust. “The social network is extremely important. Many of these businesses start with money borrowed from the family. Trust is therefore essential. Personnel are often drawn from the family circle. There’s also a tendency to concentrate on customers from within your own ethnic community.”

On the surface, this might seem at odds with the idea that entrepreneurship promotes integration in Dutch society, but this is something Sahin refutes. “You have to remember that unemployment is high among ethnic minorities. You are always better off working than sitting at home without a job. Participating in the job market is bound to make you feel more connected to society.”

Generation gap
Sahin is studying the service industry and the high-tech sector, areas in which second and third-generation ethnic entrepreneurs are making their mark. “Plenty of research has already been done into bakeries, butcher’s shops and the like, so I’m moving on from there.”

While first-generation entrepreneurs tended to enter retail or wholesale, sectors which required little expertise and investment, the better educated second and third generations are branching out into other fields. The
generation gap can be seen in the way second and third-generation business operate. “Dutch is usually the language spoken in the workplace rather than, say, Turkish. Perhaps surprisingly, the younger generations also tend to make less profit but that’s often to do with the difference in business model. Second and third-generation entrepreneurs are more likely to pump money back into the company.”

IF YOU WANT TO BE PERCEIVED AS AN ETHNIC ENTREPRENEUR, THAT’S HOW THE CUSTOMER WILL SEE YOU

desire to own your own business in the culture. Many ethnic entrepreneurs here also had an entrepreneurial background in their country of origin, be it Turkey, Morocco or elsewhere.”

INTERNATIONAL COLLABORATION
While her doctorate research is focused exclusively on non-Western immigrants in the Netherlands, Sahin also has ties with international research abroad. She collaborates with Professor Tuzin Baycan-Levent of Istanbul Technical University, who shares her interest in ethnic entrepreneurship. Sahin also spent six months in the United States in 2007/2008 exploring the world of ethnic minority businesses in Washington. Research into entrepreneurship is far more advanced in the US than in Europe but she is cautious about making direct comparisons about the situation of the ethnic entrepreneur. “It’s complicated by the fact that, in certain parts of the US, immigrants can stick to their own language and hardly use English at all. They can still do well for themselves, but in terms of branching out into the high-tech or services sector, I’m not so sure.”

GIVING SOMETHING BACK
Sahin is determined to give something back to society. If anything her work is the antithesis of ivory tower academia and clearly reflects the strong sense of social involvement that VU University Amsterdam holds dear. “At the end of my study, I hope to be able to share my understanding of the success factors with ethnic entrepreneurs. It’s clear that some lack the knowledge and information that could help them make the most of their opportunities and reach the top in their field.”

Her study encompasses entrepreneurs from the main ethnic groups in the Netherlands: Turks, Moroccans and immigrants from the former Dutch colonies of Suriname and the Antilles. She sees strong ties between cultural background and business practice. “They all have their own niches. The Turks opt for hotel and catering and horticulture, Moroccans tend to set up cleaning or taxi businesses, the Surinamese are to be found in advertising or own their own driving schools and so on. So there are clear differences.” Another aspect is the importance a culture attaches to being self-employed. “The Turkish community produces the largest number of ethnic entrepreneurs and I know from what I’ve read and been told that there is a strong
“I am - together with my supervisor Peter Nijkamp - one of the few researchers in my department working on entrepreneurship - together with my research assistant. But it’s such an important area, I’m convinced the work would go on without me. The university has an entire centre devoted to entrepreneurship - called ACE@VU directed by Enno Masurel - so there is strong recognition that this is a vital area of study.” Evidence of ethnic integration can be seen in the diversity of products on the market and in the rise to prominence of people from immigrant backgrounds. But Sahin is convinced that ethnic entrepreneurship as a particular sector and focus of study will remain, no matter how successfully immigrants make their way in Dutch society. “Whether or not you are perceived as an ethnic business has everything to do with how you operate. If you want to be perceived as an ethnic entrepreneur, that’s how the customer will see you. It depends on your own approach, how you work.”

**A REAL INSPIRATION**

Sahin is not blind to the parallels between advances in ethnic entrepreneurship and her own pioneering role in the academic world. “Ethnic minorities are definitely under-represented at PhD level. I was interviewed by a young lad in my family not so long ago,” she smiles “and he was quite impressed by what I was doing. Of course that kind of thing makes you feel good. On a wider level I’d like to think I could inspire young people to go on to university and at least consider the possibility of going for a doctorate.”

“But seriously, when you see what my father has achieved in his life: coming to the Netherlands in the Seventies, working hard and eventually setting up his own business. That’s a real inspiration. It makes you feel like we should do more with all that we’ve been given. I hope he’s proud of my achievements.”
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Looking Further

MOSAIC SCHOLARS

**ZORA SOPROVA**  
**Earth and Life Sciences**

I am a molecular biologist. Three years ago I received an Mosaic grant for a PhD position to do research on the protein Haemoglobin protease (Hbp) which is involved in peritonitis.

The goal of the research was to find out how the bacterium E. coli makes Hbp and how we can prevent this. While working on my PhD I looked for courses I could take to broaden the scope of my education, since I was considering a move away from a research career. I really enjoy teaching: it’s fantastic to get students enthused about the amazing world of microbes!

**LERBY ERGUN**  
**Economics and Business Administration**

I took the Master’s in Finance and the Master’s in Economics at VU University Amsterdam.

I am currently working on a PhD at the Erasmus University in Rotterdam and at the Duisenberg School of Finance. I followed this road after I was awarded the NWO Mosaic grant and after completing an MPhil at the Tinbergen Institute. My research involves Extreme Value Theory and its application in studying financial markets. I study the unexpected, large movements in the stock market which keep us so occupied. I hope to pursue my passion for teaching after completing my PhD.

**YUVAL ENGEL**  
**Economics and Business Administration**

I’m a PhD candidate and have a Bachelor’s and Master’s in International Business Administration, both from VU University Amsterdam. I’m currently working on a four-year research project funded by a grant from the Netherlands Organisation for Scientific Research. My research deals with ways in which entrepreneurs use their career resources to enhance their company’s performance, and ultimately contribute to the economy at large. I have a tremendous ambition to succeed academically and to contribute to the body of knowledge in this field.

**MORAN COHN**  
**VU University Medical Center**

I’m 25 years of age. Since obtaining my medical degree at VU University two-and-a-half years ago, I have been working as a clinician and PhD student in the VUmc department of Child and Adolescent Psychiatry. In my PhD project I am using MRI to study juveniles showing oppositional or antisocial behaviour. By combining these brain scans with psychiatric interviews, I hope to find out why some juveniles persist in this behaviour, while others manage to get themselves straightened out. In the future, I hope to be able to combine scientific research with clinical work centering on young people.

**RAPHIE HAYAT**  
**Economics and Business Administration**

Although my parents come from Pakistan, I was born and raised in the beautiful city of Amsterdam. Currently, I’m a second-year PhD student, doing research on Islamic investing. With the recent financial crisis still in the back of our minds, many people are wondering whether we need a more ethical, sustainable and fair way of banking and investing. The answer that is often given is an Islamic version of ethical banking. But how well do these type of
investments fare in terms of risk and return? What kind of effect does a halal (permissible) label have on financial products? Are investors prepared to give up returns for peace of mind? These are questions that I’m trying to answer.

Preliminary results indicate that investing in Islamic mutual funds is in fact not really rewarding. Although the Islamic equity market as a whole has not done poorly, funds investing in it have. Presumably, Muslims are thus prepared to give up some returns for investing in a Sharia-compliant way.

I'm not quite sure what I'll do after my PhD, but chances are high that it will involve Islamic investing in one way or another. On a more general note, I hope to contribute to the body of knowledge in the field of Economics, make money while doing it and pass on my standards and values to the next generation.

DONYA ALINEJAD
Social Sciences
As the chair of ProVU - the PhD organization of VU and VUmc - I’ve had the privilege of working with a vibrant group of young researchers over the past few years. Our organization for PhDs and Postdocs from VU and VUmc truly understands the value of self-organizing and having a voice at the university.

I’ve learned a great deal while seeing our humble organization grow from a few members to a dedicated board, a burgeoning network of young researchers, and winners of multiple seats in the employee council (making us unique among PhD organizations at Dutch universities). I appreciate having been part of the efforts to help make our prospects as young researchers that much brighter.

BABAK MAHDAVIAN DELAVARY
See page 26

KATJA IACHINA
Earth and Life Sciences
I am a second-year PhD student in the department of Genetics. Under the supervision of Dr Jan Kooter, I am studying the regulation of genes and ‘junk’ DNA by small RNAs in plants. These small RNAs do not code for proteins but recruit protein complexes to specific DNA regions, thereby inactivating them.

After completing my PhD I want to pursue a career in the life sciences. It would be nice to combine research with teaching because I like to work with students to show them the fascinating world of genetics and science in general.

I’m currently studying for my PhD within the private law research group. My research examines unfair terms in public contracts drawn up after a public procurement procedure. In 2008, after taking part in a demanding competition, I was awarded a Mosaic scholarship of €180,000 from the Netherlands Organisation for Scientific Research to fund my research. Since 2006, I have been a councillor in the town of Zaanstad and environs. In recognition of my achievements in local politics, I received several awards for best female councillor and a national nomination for the best young councillor in the Netherlands. I am currently the youngest chairperson of the biggest parliamentary group in the Zaanstad region. My aims for the future are to finish my thesis, become a good politician and a better teacher.

SONGUL MUTLUER
Law
I’ve learned a great deal while seeing our humble organization grow from a few members to a dedicated board, a burgeoning network of young researchers, and winners of multiple seats in the employee council (making us unique among PhD organizations at Dutch universities). I appreciate having been part of the efforts to help make our prospects as young researchers that much brighter.

MEDIHA SAHIN
See page 106
Philosopher Arianna Betti is conducting in-depth research into the relationship between language and the world. Exploring such notions as the nature of truth and meaning, much of her work focuses on Central European thinking in the nineteenth and twentieth centuries. In a field of complex ideas expressed in several different languages, she relies heavily on detailed textual analysis and comparison to understand writers’ underlying thoughts. This intensive approach to her source material has made Betti an enthusiastic proponent of open access to academic research findings.

“People don’t normally walk around wondering how come we can use words to communicate about the world or how we are able to talk about something that doesn’t exist or something abstract,” Arianna Betti muses when asked about what she does. “But that’s the kind of strange question that philosophers ask about simple things.” Her own line of inquiry has brought her face to face with the very nature of truth itself and to the realization that concepts of truth or scientific objectivity are not the abstract notions they seem, but evolving concepts with their own history and context. “From the philosophical perspective, truth can have several different meanings. For example, you can see it in terms of consensus: we agree on something and on the basis of that agreement we can say it’s true. My focus is on correspondence - the idea that something is true when it corresponds to how things really are.”

“My work traces the history of truth from the nineteenth and twentieth centuries. One important figure is a Polish logician and philosopher called Alfred Tarski, whose key work dates from the 1930s. He set out to produce a mathematical definition of correspondence as a particular kind of truth. Philosophers since have acted as if Tarski fixed this notion of truth forever but we have shown that his work was geared towards a very specific problem and operated within a very specific scientific context. When mathematicians say something about their own theories being true - they are actually saying a very specific thing.”

Betti describes her approach as looking back at 100 years of science and philosophy through an interpretive lens. By taking a particular perspective, it is possible to identify underlying assumptions and trace valuable connections that have been lost or broken along the way. “You can see the work of someone like Tarski as an iceberg: what you want to do is to take a look underwater and find out whether anything interesting or valuable has been lost ... and it has, believe me! These writers and philosophers were operating on the basis of a particular view of science but that is nowhere to be found in their texts. It was so obvious to them, they didn’t feel the need to explain it. We uncover these things by reading...”
MY WORK TRACES THE HISTORY OF TRUTH FROM THE NINETEENTH AND TWENTIETH CENTURIES

them as part of an evolving interpretive framework.”

While Betti’s research is strong on historical perspective, she is also very much aware of the huge benefits to be gained by pushing forward the boundaries of technology. “Before Google, it was inconceivable that we would have access to the material and the search options we do today. But imagine a highly intelligent version of Google that could extract structured information - not just frequencies of words but also their context and how they relate to words used elsewhere.” Betti and her colleagues have teamed up with computer scientists to find ways of visualizing connections between concepts. “By using visuals, you can see connecting lines you don’t see in the text because there’s too much information or because it lacks structure.” It’s a collaboration Betti relishes. “I love working with non-philosophers, they’re much more normal!” she laughs. “It’s always difficult because you’re talking about the same things using very different terminology. Computer scientists work on one language at a time but our material is in nine different languages so we need combinations. They have to come up with tailor-made programs specifically for us.”

Since her work is so focused on textual analysis, the availability of texts is key to Betti’s research. “That’s problem number one: without the texts, we’re like biologists without any animals to study.” She is an enthusiastic advocate of open access, which she defines as “making all material, texts, visual information and data available to everyone online, free of charge. I don’t just mean publishing material on your own website. I’m talking about Golden Road Open Access, whereby material that would appear in a peer-reviewed journal - that is, material that has undergone a quality check - is available for free to anyone interested in reading it.” She has no qualms about making her own findings available to others online and she believes that many colleagues feel the same. “You have to ask yourself: am I doing this for my own prestige or for science? If it’s for science, then what’s the point of jealously guarding your research findings?”

Arianna Betti concedes she is something of a pioneer in this respect. “Some philosophers can be pretty conservative. For them it’s a leap in the dark but I don’t see any darkness, only bright sunshine. What’s the darkness? It’s just fear. Since my work has gone online, the number of people citing me or contacting me has risen dramatically. Colleagues can choose not to participate but in the end they will disappear from view because their work will not be available to be read.” Her convictions have support in high places: Lex Bouter, VU University Amsterdam’s Rector Magnificus is also an open access advocate. “He knows it can only increase our impact and visibility. Furthermore, publicly funded research should be available for everyone.”

The idea that publishers will conspire to hold back the open access tide to protect their own financial interests is not one to which Betti subscribes. “Let’s face facts, we’re not talking about The Da Vinci Code here! Take Springer for example: a publisher that’s offering open access to all Dutch researchers. Springer hasn’t gone mad all of a sudden. If they’re doing this it’s because the business model makes sense. It’s a different way of looking at things, comparable to the way low-cost airlines have completely transformed the aviation business.” But she also feels that it’s the researchers who hold the future in their hands: “All these journals are headed, run and written by researchers. It’s our research. We are the science. If we want it, we can do it. It’s a belief in science as something that should be open.”

Arianna Betti is optimistic. She reckons that by the time she reaches 65, open access will be the norm. Not that she has any intention of retiring at that age. “That’s the good thing about philosophers: they just get better with age.”
ALEXANDRA AUBERTIN
From France
Earth and Life Sciences
I come from the city of Nancy in Northeastern France. I am currently working on a Master’s in Environment and Resources Management. VU University Amsterdam was the only university offering a high-quality, multidisciplinary and truly international Master’s in Environmental studies in the Netherlands. I have called the Netherlands home for 12 years now. How long will I stay here? Who knows. A few more years, at least. I love Amsterdam. It’s one of the most international cities I know.

I very much enjoy studying here at VU, we have an amazingly enthusiastic and international class [27 nationalities]! This Master’s will give me a strong basis to steer my career towards environmental issues management. Then, I’d like to continue exploring global ecosystem services issues while based here and take many field trips around the world.

IVANA BIDIKOVA
See page 117

STUART DONOVAN
See page 119

CAMILLE FRONVILLE
From Belgium
Earth and Life Sciences
I am currently working on my Master’s in Environment and Resource Management. I come from the beautiful fortified city of Namur. I have a Bachelor’s in Business Administration and a Master’s in Finance from Haute Ecole de Commerce Brussels.

I chose to come to Amsterdam because of this particular Master’s. I have been here since August 2010 and will be here until August 2011 for sure, maybe longer, depending on jobs opportunities... My next big step will be to look for a job! I can’t wait to finally put what I have learned into practice. My dream career would be to merge my business and environmental expertise with my passion for different cultures to help businesses in developing countries to grow and prosper.

DWAYNE HOLMES
From the United States
Earth and Life Sciences
I am from Chicago, I chose VU’s Biomolecular Science Master’s programme because it offers extensive practical training in addition to theoretical coursework. The university has been very supportive, and I’ve gained experience in a wide range of subjects, from microbiology and astrobiology to neuroscience. I’m currently finishing my last internship of the programme, working at VUmc’s new stem cell laboratory. The goal of my internship project is to differentiate stem cells into brain cells for use in regenerative medicine.

My long-term plans are to continue working on cutting-edge biotech projects, probably in Europe, and if possible get a PhD in the process.

ARTYOM KOROTKOV
From Kazakhstan
Arts

I joined the Master’s programme in English Linguistics offered by VU University Amsterdam in February 2010. I chose to study here because of one particular specialization of this Master’s programme: Metaphor Studies. This specialization drew my attention from the
very beginning and seemed exceptionally interesting. The study process and university environment exceeded all my expectations and inspired me to pursue a research career. As for my aspirations after obtaining my degree, I plan on doing research work in the field of language and communication, possibly at VU University Amsterdam.

EVGENIA LYSOVA
From Russia
Economics and Business Administration
I come from Saint Petersburg and I am 22 years old. I am currently pursuing a Master’s degree in Business Administration with a specialization in Human Resource Management. I chose VU because I believe that this inspiring and innovative university will help me develop myself and realize my full potential. I have been here since September 2010. Both the study programme and the environment here have exceeded my expectations... they make me feel highly motivated and open to new ideas.

After graduating from the programme, I plan to continue with PhD training in the USA.

JAN PRODOEHL
From Germany
VU University Medical Center
I am a 26-year-old student. I am taking part in the Master’s programme in Oncology at VUMc. After my Bachelor’s in Aachen, Germany, near Maastricht, I looked around for outstanding programmes in oncology and found exactly what I was looking for at VU Amsterdam. When I came to Amsterdam in August 2009, I had to adapt to the different academic structure, but thanks to the excellent communication with my Dutch colleagues and supervisors I was able to make tremendous progress.

I plan to apply for positions both in private work, as a consultant, and in the academic world, as a PhD student.

SILVIA MILANOVA
From Bulgaria
Psychology and Education
I am a second-year student in the Research Master’s programme in Social Psychology. I chose VU University Amsterdam because the Master’s programme offered here has a strong emphasis on research, requiring the completion of three independent research projects over two years. The coursework during the programme was pretty condensed and time-consuming, but I was still able to conduct both independent and collaborative research while also expanding my theoretical knowledge.

After I finish this one-year programme I want to stay in the Netherlands for a job-search year, because I am not afraid to take risks and I want to use this opportunity to become successful.

I will graduate this spring and, afterwards, start a PhD in Immunology in Münster, Germany.

JUSTIN SADDLEMAYR
From Canada
Psychology and Education
I come from British Columbia. I am a second-year research Master’s student and I am studying Social Psychology. Currently, my research interests are related to how culture can shape our everyday perceptions. I learned of the programme here at VU through a professor of mine back in Canada. I was very keen to both continue my studies in psychology and have the opportunity to travel, and so VU University Amsterdam was an ideal choice for me. I have been in Amsterdam for about one and a half years, and I currently plan on returning to Canada after graduating in July. I have enjoyed my time here immensely. I felt far more inspired here than during my undergraduate years back home!
GLOBAL CROSSROADS

EACH YEAR WE WELCOME HUNDREDS OF NEW STUDENTS FROM ALL PARTS OF THE WORLD, AND DISPATCH THOUSANDS MORE ON INTERNATIONAL EXCHANGES. FOUR OF THESE GLOBETROTTERS DESCRIBE THEIR VERY DIFFERENT PERSPECTIVES.

MARCO BARAZAS
TO THE UNITED STATES

MSc Oncology student Marco Barazas is not expecting to find a cure for cancer on his own, but he is one of thousands of scientists worldwide who are working steadily towards that goal. It is a truly international effort, so in 2011 Barazas spent several months on a research placement at the prestigious Harvard Medical School and Massachusetts General Hospital.

Speaking from Massachusetts, he explains that he is part of a project led by Dr Bakhos Tannous to identify drugs that might be able to treat one of the most malignant forms of brain tumour, glioblastoma multiforme (GBM). "Using bioluminescent reporter systems, we are screening a library of 150,000 compounds for their effect upon GBM cells. Essentially, these emit light if the cancer is alive but fade if it dies, presumably due to the effect of the compound."

"After further tests and many more validations, the team here hopes to be left with five or ten compounds that can be tested on models, and if successful then trialled on human patients. All that will take several years, by which time I shall have moved on, but if the project does eventually produce an effective...then I think I can be proud of the small contribution I made."
In part, says Barazas, he owes this unique opportunity to spend time at one of the world’s most prestigious medical research centres to the reputation of his supervisor at VU University Medical Center, Dr Thomas Würdinger. “He’s a formidable networker and has worked closely with Dr Bakhos Tannous. Contacts like that really help to open doors.”

The young scientist has been making the most of that opening. “In cancer research, Boston is one of the places to be. There’s so much knowledge to be had here. It’s hard work with a lot of time pressure - everyone is incredibly competitive and focused - but then I didn’t come here for a holiday. If you really want to do something worthwhile with a placement, this is the kind of environment to be in. If possible, I want to spend a longer period abroad when I do my PhD. I don’t know if that will be here, though - there are so many other places in the world.”

ONE DAY I WANT MY BUILDING TO BE STANDING THERE

A spiring architect Ivana Bidikova discovered VU University almost by accident. Visiting Amsterdam, the young Macedonian dropped in on a friend who was studying here. “That was when I first heard about VAMA,” she says, referring to the research Master’s programme in Visual Arts, Media and Architecture. “It was exactly the combination I’ve been doing my entire life. I just had to apply.”

Armed with a BA in Architecture from her home city of Skopje, a passion for the performing arts fired by experience as an amateur musician, actress and stage designer and a VU University scholarship to fund her studies, Bidikova is now immersing herself in the modalities of cultural buildings - museums, galleries and theatres - in the urban environment. “My particular interest is the intermediality of theatre buildings and the stage concepts within them. That students on the whole programme. So the tutors know everything about every one of us. And the whole teaching concept, how lectures are organized, was completely new to me. We are given the literature to go through in advance, so that we can actually discuss it in the lecture, not just sit there and listen. That’s very different from the system in Macedonia, and in the beginning it was a shock. But I find it makes learning more active. Things are clearer.”

one day i

IVANA BIDIKOVA
FROM MACEDONIA

a friend who was studying here. “That was when I first heard about VAMA,” she says, referring to the research Master’s programme in Visual Arts, Media and Architecture. “It was exactly the combination I’ve been doing my entire life. I just had to apply.”

is, how the other arts are integrated into them to create a multimedia composite.”

After the very practical training provided by her first degree, she loves the theoretical depth being added by VAMA. And its personal scale. “There are only ten

 treatment then I think I can be proud of the small contribution I made.”

Looking further across borders
Like most research Master’s students, Bidikova intends to go on to take a PhD. After that, she aspires to put her architectural skills into practice. Perhaps back in Skopje, but possibly elsewhere. "When I first came here I was up on the eighth floor looking out of the window with one of my tutors. Spotting a large empty plot opposite the university, I said to him, 'You know, one day I want my building to be standing there.'"

CORALIE PLUIMGRAAFF TO CAMEROON

A global outlook inspired by VU University Amsterdam took Coralie Pluimgraaff to three continents, and now it has brought her back to her alma mater.

A 2004 graduate of Communication and Information Studies, in 2010 she re-enrolled to read for a second Master’s degree so much that - even though it wasn’t required - I decided to head abroad for my work placement the following year. That gave me several months in Spain. Ever since then, I have kept my focus international.”

Between degrees, that orientation has taken Pluimgraaff from the French embassy in The Hague, where she served as an economic attaché, to handling communications for a major volunteer organization in Singapore. Her latest adventure, coinciding with her return to higher education, has been a posting at the Dutch embassy in Yaoundé, the capital of Cameroon. "It was a temporary research job, investigating the professionalism of the media there. My task was to survey the journalistic landscape so that the embassy could develop a press strategy. Basically, I had to identify which media were trustworthy. The timing was great, because it immersed me in a francophone environment for three months.”

Impassioned by her first experience of sub-Saharan Africa, Pluimgraaff’s only regret is that she will be unable to develop her work there into a thesis. "Unfortunately, my survey was practical rather than academic, and Africa is still far too neglected in the European press for me to build a worthwhile study. Instead, I’ve decided to look at how the Roma are portrayed in the French media. That’s a fascinating current issue, and it has set me off in a new and unexpected direction. But that’s the kind of person I am: I’ll go wherever the wind takes me, however far away.”

I’LL GO WHEREVER THE WIND TAKES ME, HOWEVER FAR AWAY

degree, in French Language and Culture. "I decided it was time to revive my French," she explains. "A period of study abroad was a compulsory part of my original course, and that enabled me to spend a semester at the Sorbonne in Paris. It was an experience I enjoyed so much that - even though it wasn’t required - I decided to head abroad for my work placement the following year. That gave me several months in Spain. Ever since then, I have kept my focus international.”

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STUART DONOVAN
FROM NEW ZEALAND

Stuart Donovan has come half way across the world to reinvent himself at VU University Amsterdam. With the backing of his employer at home in Auckland, New Zealand, the trained engineer has taken a year out to read for an MSc in Spatial Economics.

"At work," he explains, "the problems I found most intriguing were the economic ones, not the engineering ones. An engineer asks how thick you should build a road so that it doesn’t fall apart. The economic question is who pays for the road. That’s what gets people really excited, so it naturally interested me."

Looking for a degree to help him explore that new-found fascination, Donovan left with two choices. One in the UK and one here. But my preference was for a non-English-speaking country, and after more research I decided I would definitely rather live in Amsterdam. Plus, the staff in my department were extremely well-regarded, so I applied. And they were right. The university is excellent, the department is fantastic and the research they do here is world leading."

Donovan’s chosen focus now is cities. "I want to know how they work, and how we can design them to make people happy. That sounds simple, but it’s more complicated than it first appears. Different people want different things. And cities are where resource constraints are most telling. There’s only a certain amount of land, so you have to decide what to do with it."

"Because of that, I’m investigating land values. After all, they tell you to what extent people want to be in a particular place. And how much they can afford to pay to be there. Also, they’re the only good which is in absolutely fixed supply in a city. You can’t make more land. At least, that’s what I thought until I came to the Netherlands. It seems I’ve chosen the one place in the world where that basic assumption doesn’t hold true. So I’ve already had my mind broadened here…"

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Looking for a degree to help him explore that new-found fascination, Donovan found that our MSc Spatial, Transport and Environmental Economics ticked all the right boxes. “Searching online, I was

YOU CAN’T MAKE MORE LAND, I THOUGHT. I’VE CHOSEN THE ONE PLACE IN THE WORLD WHERE THAT BASIC ASSUMPTION DOESN’T HOLD TRUE: THE NETHERLANDS

“Because of that, I’m investigating land values. After all, they tell you to what extent people want to be in a particular place. And how much they can afford to pay to be there. Also, they’re the only good which is in absolutely fixed supply in a city. You can’t make more land. At least, that’s what I thought until I came to the Netherlands. It seems I’ve chosen the one place in the world where that basic assumption doesn’t hold true. So I’ve already had my mind broadened here…”
MARCO BARAZAS
To the United States
See page 116

TOM VAN DEN BERG
Law
To South Africa
I’m 24 years old and a Master’s student at the Faculty of Law. I have a Bachelor’s in Criminology and I am currently taking my knowledge of the field to the next level on the Master’s programme in International Crimes and Criminology. It’s a fascinating and hard-hitting programme which seeks to explain genocide, war crimes and crimes against humanity. In this context I spent a semester studying in South Africa last year, to learn more about Apartheid and its aftermath.

Next year, I’m looking forward to embarking on a two-year Master’s in Philosophy combined with criminology, with the aim of approaching International Law and Criminology from a new angle.

CRISTY ELMENDORP
Arts
To England
I was born in Java in 1984 and moved that same year to the Netherlands. My passion for documenting vanishing cultural traditions through film, photography and writing inspired me to join the Bachelor of Arts programme in English Literature at VU University Amsterdam in 2008. I won a Harting Scholarship for the following academic year when I continued my studies at University College London. I am now in the final stages of completing my undergraduate degree and I am writing my thesis on Heinrich Harrar’s acclaimed travel memoir Seven Years in Tibet and the Hollywood feature film adaptation that followed.

My personal career objectives include producing educational documentaries and literary works that explore the world of nature and human experience, and which can bring tangible benefits to humanity and our planet.

JOSTA KEVENAAR
Earth and Life Sciences
To England
I’m a research Master’s student of Neurosciences. Currently, I’m finishing off my second and final year of my Master’s. I’m now working on a project for my internship which I’m doing at the Neuroscience Campus Amsterdam, here at VU. I’m trying to find out how a specific protein, called Munc18, is regulated in the brain. We expect that the amount of this protein is regulated by the so-called ubiquitin-proteasome system, which is a system that can tag specific proteins and degrades them, leading to reduced levels of Munc18.

Once I finish my Master’s, I’m planning to get a position as a PhD student and finally to become the head of my own research group.

ANNA MEES
Psychology and Education
To Morocco

After completing my Bachelor’s degree in Psychology at the University of Amsterdam, I switched to VU University Amsterdam to study for my Master’s Culture, Organization and Management. I am currently in the final stage of a thesis on intercultural communication trainings run by the training and consultancy branch of the Dutch Royal Tropical Institute. I recently participated in AIESEC’s Nour Project, which aims to create greater mutual
understanding between Arab countries and the Netherlands. I got the chance to go to Morocco’s capital Rabat, where I completed an internship at the economic division of the Dutch embassy. I would love to work in international affairs while pursuing my passion for writing, photography and travelling.

EEFKE MOLLEE
Earth and Life Sciences
To Uganda
I received my Bachelor’s in Biology from VU University Amsterdam in 2004. After completing an Ecology Master’s at the University of Amsterdam, I decided to return and take the interdisciplinary Master’s in Environment and Resource Management. I really enjoyed the multi-disciplinary approach. But my most memorable class was with Dr William Critchley, who taught the extracurricular course on Sustainable Land Management. His work with poor farmers and helping them to improve their livelihoods showed me how I could combine my interests in natural resource management. Logically I then conducted my final research project in Uganda under his supervision, and won the Rachel Carson Award for best Environmental Thesis 2010.

Upon completion of my degree I plan to continue my education by pursing a PhD, and ultimately to continue conducting research in bioscience.

WILLEMIJN VAN SUSANTE
Dentistry
To the United States
I’m a 22-year-old student of dentistry, currently in my final year of a five-year programme. Student life is not all work and no play, and I’m still able to pursue my love of music, playing the oboe as an amateur musician in a number of symphony orchestras. I recently spent one year on the board of a student orchestra, which was a great experience. It really helped me develop as a person. For dental school, I had the opportunity to go to New York last year, taking a special four-month programme at Columbia University.

After graduation, I would love to continue working in the research field of clinical exercise science. With my future work, I want to help improve patients’ quality of life.

CAROLINE WINTERS
Human Movement Sciences
To the United States
I’m a Master’s student on the Health track of Human Movement Sciences. I’m currently working on my final research project about the effect of work intensity and expiratory-flow limitation on oxygen uptake kinetics. With this project, I would like to contribute to the fundamental knowledge on oxygen uptake kinetics in relation to the clinical issues surrounding expiratory obstruction.

ANNA VAN DER RHEE
Earth and Life Sciences
The United States
I am finishing up the last few months of my Master’s degree in Biomolecular Sciences. I am currently completing an internship at the Netherlands Cancer Institute (NKI), working on a joint project with the cell biology and molecular carcinogenesis research groups to detail protein synthesis at certain points during the cell cycle. The project has so far generated interesting results and promises to be a valuable learning experience.

Looking to the future, I want to build on what I learned in New York in a postgraduate programme.
Even now I can hear myself huff those famous verses from Marsman: ‘I want to live a grand and thrilling life! Do you hear that, father, mother, world, charnel-house?’ Accompanied by a fierce gesticulation of arms, like a conductor guiding her orchestra to a crescendo. Then the abrupt pause, my index finger laid almost tenderly against my lips: ‘…Then do not go far from home…’

Across from me, in a chair: my mother. She who had wanted to become an actress in a day and age when no self-respecting Roman-Catholic girl would have ventured such a thing, now coaching her daughter for drama school auditions. Asking me to try it just once more - but toned down a notch, if you please. Any facet recalling to my mother’s mind her father - a jeweller, ardent admirer of Vondel, quick to anger, melodramatic and occasionally downright violent - had to be honed from my performance until The Greybeard and the Youth sparkled like a fine-cut diamond. And not, you understand, like a gaudy glass imitation ruby.

Try explaining that to an adolescent. And if only my mother had explained it to the instructors for whom I performed my little acts; though I made it through the first round, I was ultimately rejected. Of course: I played it much too subdued. Too unaffected. ‘Which, unfortunately, no one sitting in the farthest rows can see. The eye contractions, the contained gestures - we’re not training you for television.’ My mother’s well-intentioned offer to help me prepare had only led me farther from home. That is to say, from my goal. Two and a half years after the publication of my debut, and six months she found in need. With every cigarette she lit my mother stoked the embers of yet another dream. But no sooner had it flamed than it evaporated in smoke. That same fantasy with which my mother forged her dreams also called forth her own obstacles and adversaries. Her strict father, she said, was not the only one to have delighted in robbing her of all opportunities. Others, too - relatives, acquaintances, passers-by and even her own husband and I, her daughter - stood rubbing our hands and waiting to watch her take a fall. Of this she was certain.

Then do not go far from home...
been designed to kick her - extra hard - when she was already down. That undertone of contempt and malicious pleasure - oh, she'd heard it all right!

'And I may be just an ugly squint-eye, but I'll have you know there's nothing wrong with my hearing. It's been a fine thing for you that I've put my own interests aside in your behalf, and now that you've achieved what you set out to, it's quite nice to be able look down your nose at your uneducated mother, isn't it?' And of course I took the bait: defended myself, cried and grew angry, and in my rage did indeed say terrible things.

Not until several years after her death did I come to understand that this pulling in and pushing away, this exultation and agitation, might have been the symptoms of a condition that good medical supervision may well have made more bearable. But my mother hated doctors. It went without saying that they, too, looked down on her. Besides, how could anyone be better qualified to say what was wrong with her than she herself? The very thought! 'You all think that I'm, what... sick? That something is wrong with me?! Well! If that isn't slyly switching things around!'

Whilst clearing out the closets of my childhood home eleven years ago, my father and I came across a pile of gaily coloured Bermuda shorts. Never worn. Price tags still attached. It had been shortly before my mother's heart finally failed that she devised her plan to go to Sri Lanka and volunteer to aid the elderly; already she had adopted a couple of crones after seeing a promotional film about a Dutch-run project there. This was the same hyperventilating, in truth heavily asthmatic woman who now rarely left the house. Who suffered anxiety attacks and a thousand vague aches and pains, who had been unable to decide up until the last hour whether she ought to come to my graduation party, only to rave afterwards about how fabulous it was - her daughter, an honest-to-goodness Master.

My mother wanted to go farther than far from home. And if the grannies over there really did need her...? She didn't gather information at all. The first and only thing she did was to buy shorts - in the dead of winter, when they were sure to be on sale. It all came together so beautifully that it was clearly meant to be. At the age of sixty-six, my mother would become the new Mother Theresa. This, finally, was her chance to make up for all those years she had squandered, that she had dreamed, smoked, frittered away; in which she had withered away. Naturally, she brooked no objections from anyone. And the most important thing - the pile of Bermudas - was ready and waiting.

Not long thereafter she lay on her deathbed - she who had so long longed to escape the prison of her body and the spinning of her thoughts. Ready, now, to join her mother and father in their early graves, as she put it.

For the first time her voice bore no trace of regret. No remorse. No bitterness. No self-loathing any longer. For now, suddenly, came signs from a long line of people she had comforted and consoled, whether days or years ago. At the bus stop, in the checkout queue, chatting in the schoolyard, during a break at a lecture or drinks at my father's work - my mother had always known how to spot them: the beset, the depressed. She had a sixth sense for sorrow, for silent grief, for uncertainty and fear. And she, being candid about what stirred in her, always appeared accessible to others. On their level; never quick to call anything foolish. Those solutions that eluded her in her own life she dispensed to others with ease. Self-mocking and with a mild sense of humour that put things in their proper perspective, someone who could distinguish between the essential and the ephemeral - that, too, was my mother. Sadly, she believed that doing something good and great meant going far, far from home. Caught in the web of dreaming those enormous dreams, she never realized she had already done just that. In her own neighbourhood, her own street, up until those final hours in the hospital. 'What a lovely woman', they all said. And how fortunate that she still got to hear it, at the end.

It is this I think about when I feel at risk of being overwhelmed because I cannot shoulder all the misery in the world that I am fed daily by that spyglass of newspapers and TV. So keep things close. As close as my mother's love still is to me. And more to the point, do not go far from home. Do it here. And do not look back.

DÉSANNE VAN BREDERODE is a Dutch writer and VU alumnus [Faculty of Philosophy]
10 EXTRORDINARY STUDENTS

SIMON DOUW
Do not be mislead by its facade of reinforced concrete and safety glass: in truth VU University Amsterdam is made of firm yet pliable elastic. I am registered for three Master’s programmes at three faculties. I am also a student teaching assistant and I am constantly on the lookout for aid and assistance in starting up two social enterprises. The first, Downsideup, is a team of fifteen trainers, coaches and moderators committed to unleashing the potential in people and organizations. The second, CrowdAboutNow, is an online ‘crowdfunding’ platform, where ideas are no longer dependent on financial institutions, but are supported by inspired crowds. In all of the above, the primary objective is emancipation and empowerment; the foe usually being a combination of formalities and inertia. By publishing this fragment - in which I conform neither to guidelines nor word limit - VU University Amsterdam once more proves capable of enabling the first and overcoming the second. Like I said: elastic.

ZAHRA ASTITOU
See page 70

KIM BLANKENDAAL-TRAN
The chemistry of my life started in 2003 when I was a Bachelor’s student of Medical Natural Sciences. I’m 25 years old. Later, during my Master’s in Drug Discovery and Safety, I was able to do my major research project at the Leiden/Amsterdam Center for Drug Research, department of Medicinal Chemistry. Directly after finishing I applied for a job as a chemistry teacher and I started on the Master’s in science education. I’m currently finishing up the physics teaching module and I’m teaching both physics and chemistry in Alkmaar. It’s difficult to say right now if I will stick with teaching for my future career or get back into research. Time will tell!

AROOSA KHAN
I am currently in the final semester of my second Bachelor’s degree (Health Sciences). I run a Non Governmental Organisation which focuses on education for underprivileged children in Pakistan, and for the past two years I have also been working as a policy assistant for the VU Diversity Programme. We’ve just returned from a tour through Israel and Palestine where we engaged in dialogues with students from both sides. Another project I will soon be working on is the new student exchange programme for first-generation students from the University of California Los Angeles and VU University Amsterdam. This will be a real challenge and I’m really looking forward to getting the programme up and running!

ELSA VAN DE LOO
I’m a third-year law student at VU University Amsterdam. I was elected Dutch Youth Representative to the United Nations in October 2009. Being the UN youth representative is a full-time job. I talked to a lot of young people around the globe about topics related to the UN such as peace and security, human rights,
I finished my honours Bachelor’s degree in International Business Administration in 2010. Currently, I’m a Global Scholar at the Kauffman Foundation, a well-known American institute focusing on entrepreneurship. As part of this programme, I will receive training, followed by conferences and lectures at Stanford, Massachusetts Institute of Technology, and Harvard. Afterwards I will be working in the venture capital industry in Boston. My objective here is to promote my general development as an entrepreneur and to meet lots of interesting people. My main interests lie in entrepreneurship, finance and international relations. Although I’ve refrained in the past few years from mapping out the future in too much detail, I do see myself either running and expanding my own business, or starting my career by working for a big firm.

STEFAN VEEGER
See page 78

VEERLE VRINDTS

I am a student-journalist and an aspiring changemaker. Even after five years in the Netherlands, people can still sense my Flemish accent. I finished my Master’s in Social and Cultural Anthropology at VU University Amsterdam in 2010, but decided to add one more year to finish my second Master’s in Social Psychology. At the moment I am doing my internship at the Nicolaas G. Pierson Foundation [the scientific research office of the Party for the Animals]. In my free time I am a volunteer at the VU Fairtrade shop and at Project ‘Vooruit’, an integration project in the West of Amsterdam. Furthermore, I write articles for the VU newspaper Ad Valvas and organize vegetarian events such as the Viva Las Vega’s Festival that took place at the VU recently. I hope to find a job in the field of sustainability education, animal rights and campaigning for vegan issues in order to make the world a more friendly place for humans and other animals.

MONIQUE VAN DER VORST

I’m 26 and a Bachelor’s student of Human Movement Science. Last year was very special for me. I spent nearly 13 years in a wheelchair, but never gave up. I became a Paralympic athlete and won several world championships and two silver medals at the Paralympic Games in Beijing in 2008. While training for the upcoming Games in London I was involved in another accident just last year. After horrible months in hospital something miraculous happened. Suddenly I could feel my paralysed legs again and months later I was walking! This is really amazing, because I was told that I would never walk again. I am currently in an intensive physical therapy programme, so I am not the fastest student, but I am learning the most important thing in life: to walk again!
As children we sang fifteen million people on this very small piece of earth; as pensioners we will sing nine billion people on this very small piece of earth. To be clear, I am not suggesting that my generation of students is the first to be connected to the world outside of the Netherlands. Previous generations have always been connected to other regions of the world, living and building a trading nation. Indeed the Netherlands is even literally the exact opposite of an isolated island; our nation lies below sea level!

Still, we differ fundamentally from our parent’s and grandparent’s generations: in 2075, the world population will reach a peak of 9.22 billion. When we take over the baton, we will have to face two challenges. First, the climate, energy supplies, food, water, forest, soil fertility, fish stocks and biodiversity will be under increasing pressure worldwide, leading to shortages and all the attendant social consequences. Second, with so many people living together everything will be far more difficult than it already is; the ranks of the poverty-stricken and unemployed could potentially swell.

To face these challenges, we have to see problems as nothing other than opportunities for brilliant solutions. Interestingly, VU University Amsterdam transfers a sober idealism and a worldly identity that give students an extra sense of commitment, confidence and awareness of the need for international solidarity to find these solutions.

This soberness has to do with the location of the campus outside of the city centre. This means that students are less distracted by buzzing cafés and the city’s tourist entertainment areas. Interestingly, this makes studying less fashion and more serious business, reinforcing a not words, but work mentality. The idealism is rooted in the scope at VU for religious and ethical beliefs. Whether it is the organ music, luncheon concerts, the church on the fifteenth floor or the mosque in the basement, these are products of a culture in which people dare to believe in an ideal and a vision of the future. This culture is also interwoven in most degree programmes, from the emphasis on ethical dilemmas in medicine, to integrity in governance.

The worldly identity is derived from the 178 nationalities in Amsterdam, the neighbouring international business district and of course the students who come from all over the world. There are also many students whose parents or grandparents come from regions in Asia.
and Africa where the economic gravity will be shifting in the decades to come. These students have a relative advantage when it comes to engaging in social enterprises there, since they are familiar with the languages and cultures of the region. The meaningful international atmosphere at VU could well replace the topographic conception of the world as taught in secondary school: we could come to conceive of a global network of people, of virtue and dignity that transcends latitudes and time zones. The longer students are associated with VU, the more of the sober idealism and the worldly identity they inherit. This should encourage them to spend more time studying complex issues, to dare to believe in a better future and to be aware of the need for international solidarity, because, as my former Dean Bert Klandermans said during one of his lectures: "you cannot take a free ride on your identity". To tackle the challenges of the 21st century, we need the ability to solve complex problems, a bright vision of the future and a commitment to achieve a just and sustainable world. Although only time will tell whether these effects will play out, I will not be surprised if in 2075 many retirees who have contributed significantly to positive change, and pass their legacy on to new generations, got inspired by VU.
The VU campus of the future in an ‘architectural’ pre-VU; expected completion: 2020.
(CIIID - Architectural Presentations)
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