World class along the river
“It's about the ability to think along new lines, to think differently, to ask the questions no one has thought of before. But going off the beaten track requires a long-term approach”

RESEARCH AND DEVELOPMENT are boundless. In the quest for new knowledge, geographical distances are meaningless. It is a shared global project. Meanwhile, the most important discoveries often arise in the borderland—between different subject areas and different groups of people. So closeness is also a key factor.

As I walk across Campus Umeå, I’m generally struck by the exciting mixture of people and scientific disciplines. Inquisitive young people embarking on their first higher studies, senior researchers and lecturers driven by the same thirst for knowledge, people from all over the world having enthusiastic discussions in English.

I think the main hallmark of our campus is closeness. On a short lunchtime walk I meet med students, scientists, engineers, arts students, social scientists and trainee teachers. There’s an inherent strength in this closeness between disciplines—and we should exploit it! That’s why we are now developing interactive environments where undergrads, postgrads, lecturers, companies and public organizations can cooperate in their day-to-day work.

The Arts Campus is a clear example. It’s a creative meeting place for art, design and architecture, where interested locals as well as internationally prominent researchers, students, business leaders and artists can come together. We are also building up an incubator here where we can share knowledge, and where different stakeholders can take exciting ideas a step further, together. It’s a place where people can have the courage to go for it, and the courage to fail in order to go even further.

WE MUST BE ABLE to take risks. In fact taking risks—often major risks—ought by definition to be part of all research. It’s about having the ability to think along new lines, to think differently, to ask the questions no one has thought of before. But going off the beaten track requires a long-term approach. My greatest challenge as Vice-Chancellor is therefore to offer our researchers and lecturers—and indeed our students—a solid foundation that is sustainable in the long term. Then we can take the leaps forward in knowledge necessary to tackle the great social challenges, such as future energy supply and global health problems—sustainable use of the Earth’s resources, as well as issues relating to an aging population.

The ability to work long term and push the boundaries is also important on a personal level—when we do something we didn’t think possible we grow, and growth is something Umeå University strives for. We want to achieve the highest quality in education and research. And we are well on the way: in some areas our researchers are on the very front line.

You are looking at the first issue of Think magazine. It’s an opportunity to take a tour of Umeå University. You can read about the exciting research and education that are under way, often in cooperation with other players from near and far. You can visit the Arts Campus, read about some fascinating people, and you may even pick up some new perspectives.

Pleasant reading!

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CHRONICLE
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UMEÅ UNIVERSITY is number one in Sweden and number five in the world in the 2011 version of the International Student Barometer. The survey was conducted among 209,422 international students at 13 Swedish universities and a total 208 universities in the world. Umeå University rated best when it came to students’ total experience and had the most satisfied students in 14 areas, such as course organisation, Internet connection, learning support and opportunities for fitness activities.

Umeå is also considered a multicultural environment. Swedish schools were ranked generally high and Sweden is viewed as a safe and secure country to live in, with high quality education and research and friendly people. Weaknesses are a lack of opportunities to work on a part-time basis and for career development.

Wall Street likes sustainable design

A COMPUTER CASE OF HEAT-TREATED wood designed by students at Umeå University, was awarded the prestigious Kairos 50 prize. The Kairos 50 is an international prize awarded annually to 50 innovative student companies. The case was nominated for the sustainability concept behind it: It is made of a renewable wood that is treated with heat to produce an exotic looking grain. The heat treatment is done without any chemicals and produces a surface that looks like hardwood. The company behind the product, Wood of Sweden, is run by Jonas Lindgren and Thomas Jacobsson, students in the entrepreneur programme at Umeå University in Skellefteå. The business concept was developed in collaboration with researchers at Luleå University of Technology who are doing research on heat-treated wood. The prize was awarded in conjunction with Kairos Global Summit in February at the New York Stock Exchange. www.woodofsweden.com

Risk of heart attack can be predicted in teens

EACH YEAR nearly 40,000 Swedes suffer a heart attack. An ordinary blood test of sedimentation rate in teenage years can be used to predict the risk of a later coronary heart disease. This has been shown by Fredrik Toss, an intern at the unit for geriatric medicine of Umeå University. It was already known that there is a relationship between inflammatory substances in the blood and increased risk of heart disease among middle-aged and older persons. Fredrik Toss’ dissertation is based on data from military service conscription in the 1960s and 1970s, and includes data from approximately 400,000 young Swedish men. Despite the youth of the subjects, the connection is the same: the higher the sedimentation rate, the greater the risk of a heart attack. Fredrik Toss’ research indicates a hardening of the coronary arteries – which is the most common cause of coronary infarct – is developed over a long period of time, maybe even from birth. Since a person’s elevated sedimentation rate can have other causes than atherosclerosis, it is necessary to take several factors into consideration in order to predict the risk of a heart attack. The research team is currently working on models for the prevention of coronary infarcts.

Hip measurement is as important as waistline

BODY MASS INDEX (BMI) and the waistline measurement have long been considered indicators of dangerous fat. As it turns out this is not completely true according to an international research group led by Stefan Söderberg, Associate Professor of Cardiology at Umeå University. The risk of premature death due to overweight is underestimated when hip measurements are not included. These researchers have been studying the relationship between waist and hip measurements over a 20 year period among 8,000 people on Mauritius. Results indicate that hip fat protects against premature death from cardiovascular disease, probably due to other metabolic traits. Furthermore, broad hip measurements indicate a greater muscle mass in the body. The researchers have drawn the conclusion that narrow hips combined with a large waist are associated with the greatest health risk, while a person with broad hips and a narrow waist have the least health risk.

The study, which was published in the International Journal of Epidemiology, is based on collaboration among researchers in Australia, Sweden, Mauritius, Finland, Great Britain and Denmark.
2011 WAS A RECORD YEAR. In 2011 there were 284 people in Sweden who contracted tick-borne encephalitis (TBE) – a virus that can cause meningitis and inflicts permanent injury.

“There are several reasons for the high incidence of the virus. A reduction in the number of deer, a major peak in the rodent population and a mild climate had many infected ticks out looking for blood most of the year. And the fact that it was a good year for mushrooms meant that people were out in the woods more,” says Anna Överby, Research Leader at the Laboratory of Molecular Infection Medicine Sweden (MIMS) at Umeå University.

Anna Överby is doing research on the struggle between human immune defense and the TBE virus. When the virus is transmitted to human beings it quickly multiplies in our cells. The virus rearranges things looking for a way to hide its propagation mechanisms, which confuses the virus detectors in our cells so that they can’t detect the virus, and so it can move on to the next cell, and then the next...

“Once the cells start up a defense programme to brake the infection, but it takes too long and by the time the cells react the virus has already spread.”

The defense programme begins with the production of interferon, signal molecules that move on to other cells, warn them and tell them to start producing defense proteins. Anna Överby is studying one of these proteins, called viperin, a persistent combatant of TBE. Anna Överby thinks they fight hard against the tick-borne virus.

“While there is a vaccine against the TBE virus, there is no cure for one who is already infected. But when we know how viperin works to attack viruses we will be able to develop a drug that triggers its production or does what it does.”

Thanks to new research funding, there is a lot going on in Anna Överby’s lab. Her research keeps doctoral students, two post doctoral researchers and two project students busy. It is their dream to find a way of treating people who have been infected by TBE.

SOFIA ERIKSSON

THE BATTLE AGAINST TICKS

Anna Överby took a master of science in biotechnology engineering at Umeå University, did her doctorate at Karolinska Institutet 2007 and continued on as a postdoc at the University of Freiburg. She is originally from Älvsbyn, and is on the Swedish underwater rugby team (silver medal in the World Championship in 2011). When the Swedish Foundation for Strategic Research, SSF, awarded a research grant of 2.95 million SEK to each one of 14 innovative researchers who were returning home to Sweden, Anna Överby was one of them.
Iron deficiency a cause of ADHD?

LOW BIRTH WEIGHT is a known risk factor for ADHD among children. A dissertation by Staffan Berglund points to a possible reason: iron deficiency during the first six months of life. Staffan Berglund is a physician and MD in Pediatrics at the Dept. of Clinical Sciences at Umeå University. Berglund’s dissertation reports on a study of 285 children – healthy but with a low birth weight. Some of the children were randomly selected to receive an iron supplement and the others a placebo. The study showed that the children who received the placebo had an increased risk of iron deficiency at the age of six months compared to those who received an iron supplement – as well as a four times higher risk of behavioural problems, such as difficulty concentrating, insecurity and anxiety. The researchers have drawn the conclusion that all children who weigh less than 2,500 grams at birth should be offered iron supplement during their first six months regardless of the reason for low birth weight. This may be able to reduce the risk of ADHD.

The study was conducted in Umeå and Stockholm and headed by docent Magnus Domellöf at Umeå University, in collaboration with Chief Physician Björn Westrup, researcher at Karolinska Institutet.

The inflatable market

THE ASSIGNMENT: to design an interactive meeting place in an urban environment with space for marketing stands, exhibitions and street theatre. The winner: the Devebere project, a sales and market hall made of PET bottles, plastic bags and trash. The building can change shape as needed, be moved to various places, assembled on land and in the water and originated in Umeå.

Among the 130 entries, the first prize for this year’s Gaudi, a European student competition in sustainable architecture, went to Rodrigo García González, educated in Spain as an architect and now a student at the Umeå Institute of Design. The jury motivated its decision to award the prize to Devebere for its political importance, constructive intelligence and innovation, human commitment and profound humour. The winning proposal will be erected in a scale of 1:10 for the opening of the Architecture Biennale in Venice.

www.devebere.com

Drugs in Swedish waters

THERE ARE TRACES OF many different drugs in Swedish waters. High concentrations of the anti-inflammatory compound diclofenak, for example, flow out of wastewater treatment plants, surface water, drinking water and wild fish. As many as 92 of the 101 drugs could be detected in incoming wastewater and 85 in outgoing, treated wastewater. Seven samples with ten perch in each sample also contained as many as 23 of the 101 drugs.

Jazzy!

THERE ARE MANY JAZZ MUSICIANS and many more jazz lovers. Once a form of popular culture, it is now an established form of artistic expression. “Jazzens väg inom svenskt musikliv” (The road life of jazz in Swedish music) is the title of a new book by Alf Arvidsson, Professor in Ethnology at Umeå University. The book is based on extensive press material from magazines, such as Orkester Journalen, Estrad and the daily press as well as old recordings. It brings to life musicians, journalists, organisers, experts and audiences... and all the people who have made jazz the living phenomenon it still is.

Drugs in Swedish waters

BECOME A PHARMACIST VIA THE WEB

MEDICAL RESULTS, world class patient safety and cost-effective use of pharmaceuticals. These are some of the goals of the Swedish government’s national pharmaceutical strategy. Availability of pharmacists will play an important role in this. It is good that the Umeå University’s web-based pharmacist programme is starting in the fall of 2012 – the first such course in Sweden! The five-year Master’s programme offers the possibility to become a prescriptionist after three years. An additional two years of education leads to an MS in Pharmacy, which is not possible elsewhere. The new pharmacy education includes e-meetings and group discussions once or twice a week and two to five meetings in Umeå each semester to participate in obligatory laboratory work. The pharmacy programme is offered in collaboration with the University of Tromsø, which provides access to research competence as well as the possibility to do some of the laboratory work at the University of Tromsø.
**New alumni association in China**

OPENNESS AND free thinking. That is what Dong Yang recalls most of his studies in Umeå, where he did a Master’s in interactive technical systems. Now he works as a service engineer for Ericsson in Peking and handles technical support for Italy.

“I’ll never forget Umeå. The empty streets and the long light nights. The academic atmosphere taught me to think more freely, more in terms of ‘how’ instead of ‘what’. With the problem-solving approach I learned in Umeå I can handle jobs in many different technical domains.”

Back in Peking, Dong Yang has started a alumni association for former students from Umeå University. The first members have just joined the new association. Dong Yang plans to expand it.

“There were eight alumni at the first meeting and we really had fun. Alumni get along well and can communicate even if they haven’t known one another before. I think it’s because we all have the same “Umeå genes” in us,” says Dong Yang.

Would you like to be a member of the Alumni in China Association? Register at www.alumn.umu.se and add “Alumni in China” under “My networks”.

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**Juicy chemistry**

**THE RECIPE** for the world’s best hamburger is in the School of Restaurant and Culinary Arts at Umeå University. The school’s students have gradually developed the perfect chemistry for a hamburger, inspired by molecular gastronomists as well as the French chemist Hervé This, the one who discovered the perfect temperature (64°C) for an egg yolk.

The recipe is: Two kilos of ground prime rib of beef rolled into a pudgy sausage that is then frozen. The next day the meat is thawed and cut into 200 gram slices that are vacuum packed to preserve the flavour. After two hours in 58° C steam, the burger is lowered into liquid nitrogen, at a temperature of -192° C for 30 seconds. It is then fried in oil at +239° C, also for 30 seconds. The result: A tender interior with a perfectly crisp and golden brown crust.

The hamburger is best served with almond potato French fries, a gryure that has been aged for 16 months, crispy Swedish bacon and ketchup made from San Marzano tomatoes. Also, a mayonnaise with a taste of champagne vinegar and a pinch of sea salt. Yummy!

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**Cannabis for better or worse**

ILLEGITIMATE USE OF cannabis and synthetic compounds like cannabidiol (cannabinoids) is on the rise in Europe. At the same time, drugs based on cannabis have been approved for certain medicinal purposes, for example in Sweden, to relieve the symptoms of multiple sclerosis (MS). Intensive research is ongoing to approach the truth of the human body’s own cannabinoids, which play an important role in the central nervous system, the immune system, motor activity, reward effects and learning and memory processes. How can cannabinoids be used for medicinal purposes? And can endogenous cannabinoids be used in cancer treatment, for example? Sofia Gustafsson, researcher in the Department of Pharmacology and Clinical Neuroscience at Umeå University, has found some of the answers.

Her studies provide new facts about endogenous cannabinoids: On the one hand they protect some brain cells, and on the other they give some brain tumours and cancer cells a tough match. These findings are important to our understanding of the cannabinoid system—both of its risks and its potential.

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**Pocket-sized therapy**

COGNITIVE BEHAVIORAL THERAPY via the Internet has had a good effect on people suffering from anxiety and social phobia. Researchers at Umeå University and Linköping University are investigating the possibility of treatment via smartphones as the next step.

“More and more Swedes have smartphones, which offers great opportunities. We have them with us everywhere and they can come in handy for coaching in difficult situations,” says Per Carlbring, Professor of Psychology at Umeå University and project leader for mSofie, which the project is called.

The mSofie project is evaluating and comparing two self-help programmes for treating social phobia via smartphones. Treatment of some 50 subjects was started in March 2012. The results will be followed up 12 months after the treatment ends.

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**Why smells make some people sick**

HEADACHE FROM PERFUMES or a sore throat from detergents? Approximately ten percent of the population is bothered by everyday smells. For around two percent symptoms can be severe. Most people think it is an allergy, but symptoms can also be a sign of chemical intolerance—hypersensitivity due to an inability to get used to certain smells. This has been shown by Linus Andersson, researcher in psychology at Umeå University, who has studied the reactions of people exposed to certain smells.

“The perception of a particular smell diminishes in someone who is tolerant, while the smell persists for a person with a chemical intolerance,” says Linus Andersson.

Researchers have seen with the help of electroencephalography (EEG) and functional magnetic resonance imaging (fMRI) that people who suffer from chemical intolerance have voltage changes in the brain and unaltered brain activity over time when they are exposed to smells. The blood flow in the brain resembles that of patients with chronic pain. People with a chemical intolerance also react strongly to substances that irritate the mucous membrane of the nose and throat. This is new knowledge and an important piece of the puzzle to diagnose and treat hypersensitivity.
New methods reduce experiments on animals

EUROPEAN legislation on chemicals that are produced or imported by the ton are subject to risk assessment. Information needed for a risk assessment is often inadequate, however, and experiments on animals are thus being used to obtain necessary data, which is both costly and ethically questionable. Mia Stenberg, from the Department of Chemistry at Umeå University, has taken an important step in developing computerised models as a complement to animal experiments. She has investigated 56,072 industrial chemicals, mapped their most important characteristics and developed a visual data presentation that makes it possible to compare known and potentially harmful chemicals. Mia Stenberg’s tests can also be used to classify industrial PCB and its toxic impact. She has developed quantitative models to predict the impact and assess the risk of PCBs that have yet to be tested.

Wanted: Alumnus of the Year

DO YOU KNOW a former student who has distinguished herself or himself? Umeå University seeks two suitable winners for the Alumnus of the Year. Submit your nomination via www.alumn.umu.se.

Renewed School of Education

TEACHER EDUCATION IN SWEDEN has a new form. The Swedish National Agency for Higher Education demanded new degree applications and Umeå University – unlike several other universities – had all their applications approved. The new teaching programme started up last fall.

“Compared to other teacher training programmes, we have made one of the biggest changes in the country to offer our students an even higher quality education. For example, teachers and researchers from the entire university are involved in the education,” says Anders Fälström, Deputy Vice-Chancellor for Education at Umeå University.

The School of Education offers the four teaching degrees decided by the Swedish Riksdag: preschool, primary and secondary, upper secondary and vocational teaching.

“We can now guarantee well-educated teachers from preschool to upper secondary education for all nationwide and regional schools,” says Anders Fälström. In the fall we are also starting two completely new programmes: the vocational teaching programme and supplementary pedagogical training.
IT IS ESTIMATED THAT 350 MILLION PEOPLE in 70 different countries constitute the native populations of the world. The Sami people are one example. Another is the San people who live in the Kalahari desert of Southern Africa. They have many similarities, despite a distance of close to 20,000 km.

Last year the Centre for Sami Research, Cesam, at Umeå University initiated collaboration with the Centre for San Studies at the University of Botswana. “San people are the natives of all natives and are often described as our ancestors. But they are not recognised as an indigenous people of Botswana,” says Moa Sandström, Project Assistant.

Even if the Swedish Riksdag recognised the Sami people as a native people in 1977, Sweden has yet to sign the ILO Convention on the rights of indigenous peoples.

While the Sami people have by tradition subsisted on reindeer, hunting and fishing, the San people have led a nomadic desert life and survived by gathering and hunting what nature offers. Both in Sweden and Botswana, the traditional livelihood of the native population has been squeezed out by farming, mining, tourism and nature reserves.

“Change isn’t always a bad thing; the question is on whose terms a change is made,” says Peter Sköld, Director of Cesam.

Like most other native populations, the San people have a significantly shorter life span than the rest of the population. Social exclusion is evident. “This is not the case in Sweden. The Sami people serve as somewhat of a model for other native populations of the world. We hope that our scientific explanations will be able to bring about changes in other places,” says Peter Sköld.

Research on Africa’s indigenous peoples has been generally conducted by anthropologists from the Western World. Collaboration with Botswana provides an important inside perspective – and the universities are going to compare the significance of research in both countries.

“The traditional knowledge of native peoples, for example regarding biodiversity, is important and of immediate interest for the entire society. It would be unfortunate for all of us if this knowledge were lost,” says Moa Sandström.

WHERE IT ALL STARTED...

“VAARTOE MEANS "A MOUNTAIN WITH A VIEW FOR MILES AROUND". That’s what Cesam is called in the Sami language and furthermore it is a symbol of the kind of work that Cesam researchers wish to do: across borders, interdisciplinary and international. Cesam not only conducts research on indigenous peoples with the University of Botswana, but also with researchers in Tromsø, Melbourne, Winnipeg, Saskatoon, Moscow, Rovaniemi and Nuuk.”

KARIN WIKMAN
Design, art, architecture and digital experiments. Umeå Arts Campus is a melting-pot for new ideas and a creative inspiration for the entire region.

TEXT JOHAN WICKSTRÖM
The schools along the Ume river attract researchers and students from around the world. So what's the secret behind their success?

PIECE OF PLASTIC the size of a shoe box is lying next to the milling machine in the Umeå Institute of Design's workshop. In a few years' time, the milled prototype may change the everyday situation of miners all over the world.

“I created a new type of helmet that adjusts to the shape of the wearer's head and with a balanced weight. If the current helmets are worn too long, there is a risk of injury because they are so heavy at the front,” says Maxime Dubreucq from France, who is studying in the Master's programme in Advanced Product Design.

The project is being run in collaboration with Atlas Copco and Boliden, and Maxime Dubreucq has performed field studies in Boliden's mine at a depth of 1,300 metres in order to understand the working conditions faced by miners. His helmet has now made it to the finals in the International Design Excellence Award (IDEA) competition.

“We received 13 nominations for IDEA this year, which is more than we normally receive,” says Tapio Alakörkkö, who is Head of department at the Umeå Institute of Design as he passes through the school's laboratory-like rooms.

This example says a great deal about Umeå's study environment:

• It has an international environment.
• Its results are on world-class level.
• There is a down-to-earth attitude.

A MELTING POT BY THE RIVER

The educational and research environment at the Umeå Institute of Design provides the Umeå Arts Campus with a stable foundation on which to build - a melting pot of design, art and architecture that is going to put Umeå and its university on the world map. The campus with its golden yellow wood facades lights up the promenade next to the Ume River and opens up towards the city with a gesture of welcome.

The Umeå Institute of Design, the Umeå Academy of Fine Arts, the Umeå School of Architecture and Bildmuseet a public institution for for contemporary art and visual culture (the Museum of Contemporary Art and Visual Culture) are lined up side by side here. The Humlab-X experimental workshop is housed inside the premises, and the Sliperiet incubator will also be launched in 2013 as an important bridge between academia and the business world (read more on page 28). Together the units will form a new and creative power centre.

“The idea has existed for a long time and is based on the Umeå Institute of Design's success. People all over the world have come to understand that soft values are important, and that technology isn't all that matters,” says Göran Sandberg, former Vice-Chancellor of Umeå University and one of the venture’s initiators.

That Umeå Arts Campus was finally realised was in some ways sheer luck of events: the combination of strong departments, a university interested in creating excellence, a municipality that wanted to improve collaboration and a property owner that made a large donation at just the right time.

The Umeå School of Architecture, which was founded in 2009, was the final piece of the puzzle needed for the concept. With specialist recruitment of Nokia's Head of design research Anna Valtosen and Danish architect Peter Kjaer, everything fell into place.

The Umeå Arts Campus has cost a total of 350 SEK million. Balticgruppen, a real estate company, has played an important financial role in terms of realizing the plans. In addition to a large donation, Balticgruppen has offered a lease discount of 90 SEK million up until 2016. The university and municipality will provide the remaining funds.

Creativity may form the basis for Västerbotten's new businesses, but the business aspect is not the most important one for this initiative.

“From the very start, the aim has been to create a world-class educational setting that attracts the best talents in the world. However, I am convinced that a positive side effect will be many new businesses being launched close to the campus,” says Göran Sandberg.

The campus is an important future investment for Umeå University.

“We are very hopeful that synergy effects will arise from the campus. It will be a power centre where the whole is greater than its constituent parts,” says Kjell Jonsson, who is Pro-Vice-Chancellor and chairman of the steering group for Umeå Arts Campus.

“At the same time, it is important that Umeå Arts Campus does not take on a life of its own – it is part of Umeå University and we want to increase the level of collaboration with the other parts of the university as well. All of the different parts should benefit from the initiative.”

WE WILL IMPROVE THE WORLD

About ten people have gathered in the Umeå School of Architecture's lecture hall. Kulturverket, an organisation that works with children and creative processes, has called a press conference to discuss the upcoming European Capital of Culture year 2014.

“We are going to build a pavilion in every neighbourhood with a special theme together with the students. What would Umeå look like if 8 year olds were allowed to call the shots – we are hoping for lots of crazy ideas,” says Beatrice Hammar, Administrative Manager at Kulturverket.

The meeting develops into a discussion where the journalists themselves forward ideas. One of the people sitting at the table wonders if a dinosaur could be built, for example “yes, why not”, someone says.

The idea is for students to share their ideas with the architect students who then develop and implement them in cooperation with the schools.

“This is in line with our focus on intervention - how we talk about architecture and how we behave in the city. We want to develop architecture together with other stakeholders and discuss the role of architecture in society,” says Katrin Sten, who is Head of department at the Umeå School of Architecture, when we
Students from Umeå School of Architecture travelled to Cairo to study Garbage City.

CAIRO’S 11 MILLION inhabitants dispose of 14,000 tons of waste each day. Half of this waste is processed in Garbage City, Mokkatam village, a little Coptic district that lives by gathering, sorting and recycling waste.

Life is hard and vulnerable for the inhabitants. Children run between heavy vehicles and adults sort harmful waste with their bare hands.

In the autumn of 2011, 50 third year students from the Umeå School of Architecture went to Cairo to survey the neighbourhood. The objective was to propose architectural improvements that could facilitate life for the inhabitants. They studied the neighbourhood for four weeks.

“It was fantastic, but also overwhelming. We were invited into people’s homes and saw the way they lived. They sorted waste on the lower floor and lived on the upper. The smell wasn’t the greatest,” says Karin Olsson, one of the participants.

THE ARCHITECTURE STUDENTS mapped the physical environment—buildings and blocks—and social and cultural factors, examining the way the various factors interacted. The hierarchy was evident: there were all sorts of groups here—from Mercedes owners to homeless—even though they all had the same means of livelihood, but on different levels of the food chain.

“The aim was that everyone would work on a separate subproject. We focused on small measures that could be taken without any major investments,” says Mette Harder, the teacher in charge of project implementation in collaboration with local non-profit organisations.

“We reacted mostly to the situation for women; they are so vulnerable. They have a medieval mentality where the man owns the woman,” says Karin Olsson.

“Many of our proposals are thus about creating secure meeting places, such as a station where women leave their children to catch the school bus or a laundry. My suggestion was to build a little place on the way up to the church where one could have a chance for reflection, for a little break in the endless toils of the day,” says Karin Olsson.

Some parts of the Cairo project are on display in a corridor of the School of Architecture: a model of the brick buildings in Garbage City and the surrounding meeting places.

“The entire model will be shown at the Swedish Institute in Cairo this spring. We hope that our proposals can be further developed by the organisations on site there. It’s not so easy to gain support for our ideas directly among the inhabitants,” says Mette Harder who thinks the project has been a real learning experience:

“We got a lot more out of it than we expected and are planning similar educational trips in the future,” says Karin Olsson.

The trip offered new perspectives for Karin.

“I discovered that the role of the architect is not just to build large-scale projects and that even small changes can make a big difference. I hope our conversations and ideas got the local people to thinking on their own.”

GARBAGE CITY

“WE GOT A LOT MORE OUT OF IT THAN WE EXPECTED AND ARE PLANNING SIMILAR EDUCATIONAL TRIPS IN THE FUTURE.”

Mette Harder,
Project Manager
“From the very start, the aim has been to produce a world-class educational setting that attracts the best talent in the world.”

Göran Sandberg, former Vice-Chancellor of Umeå University and one of the initiators of Umeå Arts Campus.

The open, airy and light premises - designed by the Danish architectural firm Henning Larsen in collaboration with White - are full of wooden structures and drawings. There is a model of the Garbage City neighbourhood in one of the hallways; it is the result of the “Cairo Project” in which 50 third year students traveled to the poor neighbourhood in Cairo, Egypt, to study the situation and develop simple improvement proposals (read more on page 13).

The project is characteristic of the school: “Architecture is not a national or European matter. We want to have a much broader perspective,” says Rector Peter Kjaer who was responsible for designing the course.

Peter Kjaer, who was previously the Rector at Aarhus School of Architecture, says that the greatest architectural challenges are found in growth countries such as China and Brazil.

“It is incumbent upon architects to improve the world. We want to get out of the European comfort zone. Our architects should be able to work anywhere,” says Peter Kjaer. He believes that Umeå Arts Campus is a fantastic environment in which to work and that it reinforces research. The Umeå School of Architecture has also introduced its own research programme. Sepideh Karami from Iran, one of the school’s three doctoral students, is sitting in a separate research room.

“I am investigating the space between the formal and informal city, for example the slum areas, as well as the role of architecture in the interplay. Perhaps architecture can make a difference. My point of departure is Teheran,” says Sepideh Karami, who will travel there in a few months’ time to map out the city: that is, chart out and investigate different parts of the city that will subsequently be compared to the analyses she is now performing.

EDUCATION WITHOUT BOUNDARIES

What do philosophy and contemporary dance have in common? They can encounter each other at the Umeå Academy of Fine Arts.

“Crossing boundaries is nothing new for us,” says Professor and Head of Department Roland Spoland in response to the question of what the Umeå Arts Campus means for his unit.

“We have always crossed boundaries - that is the nature of art, but I believe this is going to be very good. It provides opportunities for cooperation and joint seminars.”

The Umeå Academy of Fine Arts was the first department to relocate to the current campus when it moved into the Scharinska wood grinding mill in 1987. And now, 25 years later, the school has just moved into its new premises next to Bildmuseet.

It is still a little disorganised when Per Nilsson, deputy Head of department, shows us around the building. Each student is given an individual studio. There are metal and woodworking workshops on the bottom floor. Art and sculpture rooms are located up one flight of stairs.

“Students can work here around the clock; it becomes a way of living,” says Per Nilsson.

Of the 300 people who apply each year, 15–20 are accepted. There are no specific areas of specialisation. As is the case with other universities, the school offers a three-year Bachelor’s programme and a two-year Master’s programme. The school used the old classical division when it first opened: art, sculpture and graphics. However, like most other institutions, the division was dissolved at the beginning of the 1990s.

“There are approximately 70 students here - and just as many
EVERY YEAR approximately 30,000 Swedes suffer a stroke. In a matter of minutes, one’s life can fall apart and change direction completely.

Emergency health care handles immediate treatment of a stroke patient, but what happens next? What kind of rehabilitation focuses on the patient and motivates him or her to continue on and rediscover the joy of living?

“Rehabilitation takes a couple of weeks, but the patient may experience functional disorders that last his/her entire life. The challenge in health care is to establish a long term and valuable relationship with the patient,” says Richard Levi, Chief Physician at Norrland’s University Hospital and Professor of rehabilitation medicine.

To obtain new creative ideas about rehabilitation of people with neurological damage, Richard Levi contacted the Institute of Design in the spring of 2011 and proposed collaborative work.

“I have worked with design in connection with the concept of rehabilitation for spinal marrow patients and know that it can generate very interesting results,” he says.

The Institute of Design liked the idea and created a ten week project for students in the Master’s programme in Interaction design in cooperation with Neurorehab Sävar from Västerbotten’s County Council and Rehab Station Stockholm, run by Praktikertjänst.

“We travelled down to Stockholm and interviewed patients, family members and employees for a couple of days. We also got permission to go home with a patient and document that person’s life,” says Ine Marie Vassøy, one of the students participating in the project.

“It was very exciting to gain insight into other people’s lives in that way. But also sensitive in regards to the maladies they had encountered.”

After the research phase, all information was categorised and structured in a mapping system, using, for example, post-it notes with quotes and information where different categories, processes and feelings were colour-coded.

“We are specialists in finding problems and discovered quickly that there was a lot that could be improved. The patient was passed around among different people, sometimes out of context. We wanted to create an overall solution.”

Ine Marie Vassøy's group, which included Sharon Williams and Linus Persson, developed a service they call CoCharge. In CoCharge, the patient receives a welcome kit from the doctor in connection with the diagnosis. The kit contains information about the disease, accounts from other persons who have the disease, a log-in to a digital network where they can exchange experience and contact health care professionals.

“It’s important that all health care personnel involved are constantly updated about the patient. But establishing a network with others who can offer tips and share experience is also vital,” says Ine Marie Vassøy.

Richard Levi is impressed by the results.

“They are creative and cost-efficient solutions. The students really identified the problems and didn’t talk about the colour of the walls.”

Will you put the results to use?

“I hope so. Discussions are being held, but it takes time to change processes in the county council. We sent one of the teachers to Washington to present their results at an international conference. It generated interest.” says Richard Levi. He has now started a new collaboration with the Institute of Design about how persons who must use electric wheelchairs can perceive the wheelchair as part of their bodies.”

The CoCharge service gives patients access to a digital network for communicating with health-care personnel and other patients. http://vimeo.com/24421790

CUSTOM CARE
specialisations,” says Per Nilsson.

As we continue, we encounter Joakim Hansson, a master’s student who is building clay figures and a van.

“I’m making an animated film about a robbery in which I was a victim while working in the armored car industry. This is a way to deal with the trauma. Around 3,000 still images are needed to produce a five-minute film. I produce about ten seconds a day,” he says.

The animation example highlights an important difference between the Umeå Academy of Fine Arts and the other two schools on the campus: while design and architecture are often instrumental and useful in relation to different users, art is free and its only point of departure is the artist.

“The nature of art is to be entirely independent and not useful. It is important to keep it free of useful aspects, even though these aspects may arise as added value or spinoffs,” says Roland Spolandér.

Research is also performed at the Umeå Academy of Fine Arts. It is here that contemporary dance comes in. Per Nilsson, who is a Ph.D, is studying the relationship between philosophy and dance together with choreographer Björn Säfsen and two dancers.

“We are examining how theoretical philosophy can be inspired by dance and vice versa. I believe our thoughts originate in our physical body, not in our head,” says Per Nilsson, who says his report will be presented both as a performance and in writing.

“At the end of the day, all art is research in that a new attitude to the world is developed.”

THE ATTRACTION OF UMEÅ

How can a relatively small town on the Norrland coast attract so many international talents?

In a survey on Swedish universities performed by Fokus magazine, Umeå University tops the list for international relations, and when strolling through the various units at Umeå Arts Campus, the language heard is often English. Just over 80 percent of the Umeå Institute of Design’s master’s students originate from outside Sweden.

The international element among teachers is considerable: “Our 20 teachers come from 13 nations. The environment is a very invigorating and gratifying place to work,” says Peter Kjaer who is now in the process of recruiting another teacher for the Umeå School of Architecture. “I have received a large number of applications from all over the world.”

And the students like Umeå: in a very recent survey conducted by the International Student Barometer, Umeå was ranked as the fifth best university in the world in the category for student satisfaction. (Umeå ranked number one in the world in the categories for housing and access to Internet.)

Long-term and purposeful efforts to produce superior education seem to have had results, and the rapid spreading of Umeå’s magnitude should not be underestimated.

“As regards design, everyone is familiar with Umeå - the study environment here is exceptional,” says Shelag McLellan who is studying one of the master’s programmes at the Umeå Institute of Design.

Rector Anna Valtonen continues: “It is the very motivated students who come here. Students in London are faced with the dilemma of the city competing with their education. In Umeå, the university is in focus - it’s like a small family around the clock here.”

WHY ARE COMPANIES LINING UP?

BMW, Audi and Philips. Companies are lining up to recruit the best talents produced by the Umeå Institute of Design as quickly as possible. The education provided by the university has been ranked as among the best in the world in many contexts - for example by Business Week magazine.

What is the secret?

“I think it is our close cooperation with the business world”. All of the projects are based on something real, and we have an ongoing dialogue with companies and organisations,” says Tapio Alaköökö, who is Head of department at the Umeå Institute of Design.

Demian Horst is responsible for Transportation Design - one of the master’s programmes:

“We work with exactly the same tools as the industry does, so companies know that our students can start working from day one. At the same time, the car industry is fairly rigid. We try to think outside normal boundaries,” he says and shows us a new control system. The model is made of foam plastic and is built on the basis of how computer games are steered. The idea is that it might be suitable for disabled persons, for example.

“However, it takes time to make changes in the industry. We send out ‘change agents’ to the companies who can take a stand for change.”

Design is not just a matter of products. The fastest growing area is, perhaps, service design.

“Design has become a much broader concept the past few years. It is a strategic process where the human or user is in focus - it’s a way of thinking. For example, one of our doctoral students is looking into how a radiology ward could be modified from a user perspective,” says Anna Valtonen who wants to develop the institute’s research.

Her background is as Head of design research and foresight at Nokia, and she is very enthusiastic about her field.

“Sometimes it seems like all national action plans have been written by an industrial designer - that is, the notion that new and innovative ideas are needed as the industrial economy continues its downward trend. The need for our students’ services is not likely to decrease in the future; rather, just the opposite is true.”

NOTHING IS IMPOSSIBLE

Our world is changing faster than ever. Old structures and business models disappear and new ones arise. Development places greater demands on innovative solutions being developed to help regions and nations cope with the competition. According to the American economist Richard Florida, it is the ability to be creative that constitutes the most important key to economic success.

In all likelihood, the Umeå Arts Campus has the prerequisites needed to cope with the challenges of the future. The challenges will vary in character - just like the larch wood found on the front of the campus buildings - but the creativity that resides within the walls will remain unchanged: boundless.

“Creative notions are entirely decisive at the Umeå Arts Campus. It is a matter of gathering well-educated and creative young people who believe anything is possible. They have no limitations - anything is possible. And every once in a while, a brilliant idea is born,” says Göran Sandberg.

An example of this is an innovative helmet for the mining industry all over the world.●
“The challenges will vary in character - just like the larch wood on the front of campus buildings - but the creativity within their walls will remain the same: boundless.”
An international art scene and a lively meeting place. Now Bildmuseet is setting its sights even higher and offering even more open activities. “We will establish the Umeå Arts Campus as a tourist attraction,” says Bildmuseet’s Director, Katarina Pierre.

Even Stories High with a façade made of larch wood and enormous glass walls looking out over Ume River, Bildmuseet towers in the centre of the Umeå Arts Campus – a building that few Umeå residents can have missed.

“I think this is the most beautiful building in Umeå. And the great thing is that the interior is even more beautiful than the exterior. It is almost as if the inside and outside blend into each other when you look out over the river,” says Katarina Pierre, Bildmuseet’s director since 2011.

The entire building smells like newly sanded wood. The three large cube-like exhibition halls have white glazed pine floors, structural concrete beams in the ceiling and indirect daylight that does not disrupt the artwork.

“It is a fantastic environment for exhibitions. Many residents of Umeå will visit us just to enjoy the architecture,” states Katarina Pierre.

Since its start at the beginning of the early 1980’s, Bildmuseet has established itself as a nationally and internationally know culture scene, with collaboration around the world – from Tate in London to the Johannesburg Art Gallery.

“We present exhibitions in cooperation with individual artists or borrow works from museums and collections from around the world. Over the years we have built up an extensive network,” says Katarina Pierre, who worked for a long time as a curator at Bildmuseet before becoming museum director.

Sometimes Meeting someone in person leads to an exhibition. While studying at Goldsmith’s College in London for a master’s in art theory, Katarina met Lisa Le Feuvre who is currently curator for the summer’s big exhibition with Italian artist Mario Merz, from June 20–September 30 (see page 21).

“Our focus will continue to be international contemporary art and other contemporary visual culture, but we will also make historical impact by highlighting important artistry of which Mario Merz is one example.”

For the past few decades, limits to artistic expression have relaxed more and more. And these changes are also visible in Bildmuseet’s activities.

“We will add influences from the Umeå Arts Campus - and expand the interfaces towards architecture and design. The premier exhibitions in the museum are student and degree work from institutions on campus,” says Katarina Pierre.

This summer the museum will also show Kirunatopia, where twelve Swedish and international artists shape Kiruna’s dramatic
“On the one hand, we are part of Umeå University; on the other hand we are a cultural institution with a network in the international art scene. It's an unbeatable combination.”

Katarina Pierre, Director of Bildmuseet.
Lebanese artist and Hasselblad prize winner Walid Raad, based on the civil war in Lebanon.

“In connection with the exhibition, we arranged lectures with experts on the history of ideas, experts on the history of literature and art historians. We want to broaden the perspective on art and the world. It is one of the best things about being part of a university: we can learn about the latest research and make it possible for researchers to present their work to a larger audience. It is a constant treasure we can draw on.”

“A setting for international contemporary art

BILDMUSEET, which celebrated its 30th anniversary in 2011, is a setting for contemporary art and art culture. The organisation is part of Umeå University. Such incorporation is rare in Sweden but occurs in the USA at universities like Harvard, Yale and Berkeley.

In the beginning, its focus was on Swedish art but since the 1990’s, a shift has occurred. Today Bildmuseet is one of the country’s most interesting settings for international contemporary art and visual culture.

Katarina Pierre is especially excited about the possibilities made available by the new premises and the Umeå Arts Campus:

“Moving closer to the university is a great advantage. We can contribute with debates about contemporary art and innovative art projects, contribute added value to the education and research carried out here on the Umeå Arts Campus. At the same time it provides us the opportunity to capture developments and trends within the schools’ respective areas. The challenge lies in establishing the Umeå Arts Campus as a public arena, and getting a broad public to feel welcome visiting an organisation that can inspire many people.”

“Bildmuseet is a bridge between the university and society,” explains Katarina Pierre:

“On the one hand, we are part of Umeå University; on the other hand we are a cultural institution with a network in the international art scene. It’s an unbeatable combination. We really have no limits,” she says and cites last year’s major solo exhibition of transformation and the recollections and feelings associated with the place (page 24).

IN TANDEM WITH ITS move to the Umeå Arts Campus, Bildmuseet is expanding its public and educational activities. Its level of ambition has increased further with more showings, lectures and evening courses. An open culture preschool and an art studio studio for all ages will also open.

Large glazing offers a magnificent view of Bildmuseet’s closest neighbour: Ume River.
“What is to be done?” Mario Merz asked this question at the end of the 1960s, and it is still relevant. Between June 20 and September 30, Bildmuseet will show the first extensive solo Merz exhibition since Moderna Museet’s exhibition in 1983.

MERZ
Mario Merz, at one point a medical student, grew up during the Mussolini era. He got involved in anti-fascist movements early on, and ended up in prison in 1945 due to his activism. He began his career as an artist while in prison.

His breakthrough was in the 1960s when he began using simple materials to produce his classic installations and sculptures—often in combination with neon lights. Some forms recur in his work. The igloo, which he started using at the end of the 1960s, is one of these.

Object cache-toi (Object hide yourself) from 1968 is an example. The work is based on a steel tube structure with a dome of linen sacks filled with wood chips that have neon lettering on the top. It is an ambiguous play on meanings. At the beginning of the 1970s, Mario Merz became interested in the mathematical sequence that mathematician Leonardo Fibonacci introduced in the 13th century: the sequence is based on each figure being the sum of the two previous figures in an infinite sequence. This pattern is repeated in nature, for example in leaves and shells. Mario Merz was fascinated with the idea of how each forward movement relates to the past.

Igloo Fibonacci (1970) is based on the shape of an igloo combined with a sequence of numbers. The work consists of brass tubes with eight legs standing on numbered tiles.

In Salamino, a rolled-up blanket looks like a salami sausage that has been pierced by a neon tube. Untitled (A Real Sum is a Sum of Numbers) from 1972 is built up numerically. It consists of ten small photographs, one after the other. The first picture depicts an empty restaurant table that is gradually filled in each picture. The last picture is filled with people around the table. The Arte Povera movement often used everyday events and simple references in form experimentation as its point of departure.

“What is to be done?” is a co-production with the Henry Moore Institute in Leeds. The exhibition’s curator is Lisa Le Feuvre.

Mario Merz (1925–2003) was one of the leading figures of Arte Povera—the Italian artist movement that questioned conventions and norms in the wake of the political and social turmoil of the 1960s. His art crossed boundaries and often used materials and events that were within easy reach. Mario Merz did not offer any answers—but he asked a lot of questions regarding the role of art in a changing society. Current economic turmoil has resulted in flashbacks to Arte Povera in different places in the world—and Mario Merz' has become topical once again.
What happens to a town and its inhabitants when areas disappear and new ones are built? In Kirunatopia, twelve artists have been invited to visualise Kiruna’s relocation. The exhibition will be at Bildmuseet from June 20 to October 28.
Iron ore trains rumble from Kiruna to Luleå 24 hours a day, all year long. Mining is Kiruna’s economic lifeline – and the most lucrative iron ore deposits in the world are found there. At the same time, though, the mine poses a physical threat to the town. The crack formations in the ground move five centimetres closer to the town every day due to the constant underground erosion. Thus in 2007, Kiruna Municipality decided to move the town and its 18,000 residents four kilometres away.

In 2010, twelve artists were invited to visualise the change. What happens when a community disappears? Which memories will be rejected and what new images will be created?

One of the participants is German artist Florian Zeyfang (1965), who is also a professor at the Umeå Academy of Fine Arts at Umeå University. Florian Zeyfang primarily works with film and photography, and often critically calls attention to the development of the global media. Florian Zeyfang produced the “Ghost Train” video for Kirunatopia, which reflects the eternal flow of the ore trains as they circulate through the vast Norrland expanses.

Artist and filmmaker Liselotte Wajstedt, who originates from Kiruna and who has taken part in several international film festivals, will also contribute to the exhibition. In her film “Kiruna – Rymdvägen”, she visualises her feelings about the departure – and rebirth of her home town.

Kirunatopia will be presented in cooperation with the Goethe-Institut Schweden, Kiruna Municipality, Umeå Academy of Fine Arts at Umeå University and Konsthall C, Stockholm. The exhibition will subsequently move to Kiruna and then Stockholm.
We are constantly connected to computers, mobile phones or things around us. At the experiment lab and meeting place Humlab-X, in the middle of the Umeå Arts Campus, researchers meet in the borderland between the digital and the analogue.

TEXT JOHAN WICKSTRÖM ILLUSTRATION CARL-ERIK ENGQVIST
A

LINGUIST, an art historian and an ethnologist are spread out, each with their own laptop. A pile of flickering, big TV sets are on the floor.

“It is an installation by a student at Umeå Academy of Fine Arts, Jonas Gazell, called ‘Surplus of Obsolete Technology’. Can it be used for anything else?” asks Carl-Erik Engeqvist, artistic leader at Humlab-X.

Otherwise, advanced flat screens will dominate Humlab-X when everything is ready this spring: sixteen 46-inch screens on one wall, an interactive floor area of 20 square metres with eight projectors underneath and a studio with advance 3D potential.

“Reality is not so simple and one sided. This is a way to connect different perspectives. You should be able to interact, form, and showcase your work here,” explains Patrik Svensson, Director of Humlab-X.

LOCATED IN THE HEART of the Umeå Arts Campus, Humlab-X is a kind of innovation hub where teachers and students from all institutions can meet, as well as the public. Humlab-X is a research lab, gallery, educational centre, stage and theatre - sometimes all at the same time.

“This is an experimental workshop, a place where people can meet. There doesn’t need to be tons of technology - people can just as well sit around a table and talk. Its location in the middle of all the institutions here is important,” says Patrik Svensson.

Humlab-X (where the x may be interpreted as extension) is a kind of extension of Humlab, located at the head campus for Umeå University. The environment in its current form started in 2000 and is a meeting place for people at the intersection between the humanities and digital information technology. Humlab-X builds upon this idea but uses the activities at the Umeå Arts Campus: design, architecture and art, as its basis.

“The starting point for our activities is that digital humanities are important. Digitalisation creates new tools for the humanities to work with - you can, for example, scan a couple a million words within a couple of seconds. But it is also about digital expressions themselves as objects for study. They affect us as people - and are therefore important to investigate,” says Patrik Svensson.

IN DECEMBER 2011, Humlab held a conference about Internet of Things, the fact that we are connected more and more, through mobile phones, computers and all the stuff around us.

Humlab invited lecturers from around the world to shed light on the topic. One of the Swedish lecturers was Jennie Olofsson, who is now sitting and making the final touches to a magazine article in Humlab-X.

“I investigate the phenomenon of hacked electronic road signs, i.e. that people break into computer systems and change the text on road signs. It is unusual in Sweden but there are many examples of this in the USA. You can, for example, write that a zombie attack is occurring. Look at YouTube and you’ll see,” she says and plays a video on the computer showing a person changing text on a road sign just by a few clicks on his mobile phone.

“The point is that we encounter screens everywhere we go and are affected by them. And in certain instances, they may affect us physically. We are connected wherever we are and that is part of the way we live,” says Jennie Olofsson, who is an ethnologist by profession and wrote her doctoral thesis about the implementation of robots at LKAB (which tells you something about the interdisciplinary aims at Humlab).

A little further away sits her American research colleague Stephanie Hendrick. She is a linguist who wrote her doctorate about blogs and digital communities. Now she studies the connection between domestic violence and social media.

“There are special sites where victims of domestic violence can communicate, for example, through digital postcards. I am studying the sites and what kind of effect they have. My hypothesis is that social media can be a tool that can help vulnerable people,” says Stephanie Hendrick.

INTEREST IN DIGITAL humanities is constantly growing and Patrik Svensson often gets to travel around the world and describe Humlab’s activities.

Since 2010, Humlab has carried out a joint research project with Stanford University in California, one of the world’s foremost universities - where, among others, the founders of Google went to college.

The project is called Media Places and will investigate how our everyday places - like offices, homes, and cafés - are changed through digital media and expressions.

“Humlab-X is unique thanks to its interactive group environment and its creative use of new technology that encourages scientific experiments among all disciplines. It is a source of inspiration for us when we build our own humanities lab here,” says Zephyr Frank, history professor at Stanford.

Zephyr Frank believes that the importance of digital humanities will increase sharply in the future:

“New methods for data acquisition, network analyses and image technology will entail both possibilities and challenges for future classical scholars. But I believe that researchers within the field of humanities, with their advanced ability to interpret and analyse, will play an important role when future scientific questions are formulated.”

HUMLAB IS NOT just designed for researchers, but also wants to be a window out to the general public. One of the projects Humlab supports is Geek Girl Meetup - where women of all ages can learn more about the Internet and digital progress. Emma Ewadotter teaches a course about developing indie games:

“After five sessions, participants can create simple computer games; it is pretty cool to see,” says Emma Ewadotter who is putting the final touches to her doctoral thesis about conceptual photographic portraits.

“I aim to be ready by the end of the year. That is when a group that I belong to will have money from the Science Council for a project regarding medieval images of the Virgin Mary in a digital environment. Digital tools provide another kind of vision. What happens if you enlarge a chalk drawing 500 times - something new emerges from it,” states Emma Ewadotter.

Yes, in the interfaces there are always new things to discover. It seems that it’s only your imagination that set limits in Humlab-X. ●

“Humlab is a source of inspiration for us here at Stanford as we build our own humanities lab”

Zephyr Frank, Professor of History at Stanford
When Sliperiet opens its doors in 2013, it will be yet another bridge to the wider world. The Umeå Arts Campus is a veritable hive of creativity and competence. But how to harness it all?

AT THE SCHARINSKA WOOD GRINDING MILL, in the middle of the Umeå Arts Campus, work is in full swing to build the new meeting-place, which will comprise three parts:

• An incubator operation for the service sector and new industries.

• A dynamic meeting-place for researchers, students, the private sector and public organisations.

• A workshop in the borderland between the digital and the physical, with 3D printers and a sound lab, for example.

“It will be a new, open innovation environment based on the areas of expertise that exist in the Umeå Arts Campus. However, the environment will also be available to the whole university,” says Agneta Marell, Deputy Vice-Chancellor for External Relations and Innovation.

“IT WILL BE AN OPEN, FLEXIBLE INNOVATION ENVIRONMENT,” says Agneta Marell, Deputy Vice-Chancellor for External Relations and Innovation at Umeå University.

“In the new industries, social contexts and human capital will be even more important in developing companies. Key areas include networking, relations, competence and creative excellence. With Sliperiet, we will also adapt the university’s innovation-supporting systems to the new business logic.”

Exactly how Sliperiet will develop in more concrete terms is currently under discussion in various work groups.

“It may be a case of creating new roles for people with ideas and researchers. Ownership may be more diversified. It doesn’t have to be the researcher who comes up with ideas, commercialises an idea or runs a company. We can also help lay the foundation for new business constellations,” says Agneta, taking the internationally award-winning design company North Kingdom in Skellefteå as an example.

SLIPERIET WILL BE an open, flexible environment, designed based on the challenges and needs that exist on the market. Students should be able to come here with their business ideas, researchers can hold seminars, and companies and organisations can put forward problems they can get help with at Sliperiet.

“This will be yet another platform for knowledge transfer, an added value for the whole university,” Agneta Marell explains.

At Umeå Municipality, which is co-funding Sliperiet, Head of industry and commerce Roland Carlsson is looking forward to the initiative:

“I think the idea is very exciting. It gives Umeå the possibility to create an innovative, creative environment in collaboration between companies, students/researchers and public organisations.

Umeå Municipality has for many years worked alongside the Institute of Design to develop services, and now hopes that Sliperiet will aid cooperation with further academic disciplines:

“The fact that there will be more spin-offs in the ‘creative’ industries is also a positive thing for the expansion of trade and industry in Umeå. I also believe that Sliperiet as part of the Umeå Arts Campus can attract companies to set up business in Umeå,” says Carlsson.

There is great interest also in the business community.

“Sliperiet will be a genuine interdisciplinary meeting-place where the academic, public and private worlds can work together. It could be a melting-pot for research, development and innovation across disciplines and areas of interest, which I don’t think you can find anywhere else in Sweden,” says Peter Kopelman, former CEO of Microsoft Sweden.

Sliperiet is planned to open in spring 2013. However, discussions are already under way with companies and organisations regarding various collaborations and pilot projects.

“There’s tremendous interest, which is great. Our aim is to make Sliperiet into a boundless meeting-place for collaboration, cooperation and knowledge transfer – there will always be something new happening here,” says Agneta Marell.

JOHAN WICKSTRÖM
Hello Umeå alumnus!

Do we have your e-mail address?

Our alumni network is superb. But how up-to-date is your information there? Please visit our webpage and update your e-mail address and other personal details.

Since 2000, more than 19,000 former students have registered themselves in Umeå University's alumni network. It is an ideal form of communication for us to stay informed what you are doing after your studies - and for you wishing to know what’s going on at Umeå University.

One problem is that many have not entered an e-mail address when they registered. Another is that they have an old e-mail address that’s no longer in use. It’s also important to update your current postal address in your home country.

Has it been a long time since you’ve updated your information in the network? You can do it now at http://www.umu.se/english/about-umu/cooperation/alumni/alumninet or e-mail us at umu.alumni@adm.umu.se

When you do this you will also receive:
* This magazine
* Up-to-date information about what’s happening at the university
* Invitations to activities in Sweden and abroad, where you can meet new and old friends

Keep in touch!
Sincerely, Umeå University

Follow us on Facebook and Linkedin
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Scan the QR-code with your smartphone, then you will be directed to our website.
Within the span of two months, Lina Schelin, Marie Frentz and Lisa Hed defended their doctoral theses in mathematics and mathematical statistics. Only 15 women have defended doctoral theses in these subjects at Umeå University.

Lina Schelin still recalls when she got back a test from the Master's programme for applied mathematics with the comment “This looks very good. Are you aware that there are few female professors?” That teacher’s name, Peter Wingren, is included in the thank you list on her doctoral thesis.

Encouraging teachers also influenced Marie Frentz and Lisa Hed and helped them take the step towards Ph.D studies. Their choice has been questioned sometimes, many people associate mathematics with boring arithmetic exercises. When they themselves describe the subject, they instead talk about creativity and logic.

“When you encounter a problem, you have to find a new solution and it feels great when you succeed,” says Marie Frentz.

Life as a doctoral student has sometimes been quite tough, especially when they got stuck in a problem. For support, they have had a network for women involved in intensive mathematical studies. But long term goals can still be difficult to live up to.

“Sometimes I wish that I was a painter, that I could say today I painted a wall instead of having read an article. But at the same time it is a very free job where I really can do what I think is fun,” explains Lisa Hed.

All three will continue their careers within academics. Lisa Hed hopes to have a post doctoral position appointment within complex analysis after her parental leave. Marie Frentz is trying mathematical didactics after achieving her doctorate in financial mathematics. Lina Schelin will apply her knowledge about mathematical statistics towards a research project about cruciate ligament injuries. But closest to hand is celebrating. They started studying together and have followed each other ever since. This year they will be conferred their doctor’s degrees.

“It is fun celebrating that we achieved this milestone. It also isn't that often one has a chance to wear an evening gown,” concludes Lina Schelin.

Karin Wikman

**READ THE DOCTORAL THESIS AT:**
http://umu.diva-portal.org
Search by the name of the author.

Every spring Umeå University confers new doctorate degrees. A conferring hands over the insignia – a laurel or doctor’s hat, a doctor’s ring and a diploma. The ceremony symbolises that the new doctor is entitled to assume teaching responsibilities at the higher educational level.
We are surrounded by boundaries. Between nations, cultures, technologies, sciences and, not the least, between people. At the same time, the most interesting thoughts often develop when we adopt another point of view. The theme for the first issue of Think is “boundless”. You will meet people who, in their work, have taken a step off the beaten path.
The result can be a different approach towards finding the antibiotics of the future, an urgent fight for human rights, or an invention that is brought to life thanks to unexpected meetings. We also investigate whether we can pin our hopes on new digital media. Are they a boundless democratic force to be reckoned with?
New digital media is often described as a boundless force for democracy. That is how the Arab Spring became a Twitter revolution. But parallel to the tributes to freedom exists a fear of control. Mapping out our habits on the Internet is not just interesting for companies and government authorities – but also for parents.

**LIBYA, FEBRUARY 17, 2011,** the first twenty-four hours after the revolution. Twitter is deluged with postings. The news reports that follow present the Arab Spring as a social media revolution. When Simon Lindgren, sociology professor at Umeå University, starts to study Twitter postings, who is the sender and who is the receiver, another image takes shape, an image he recognises from other sociological studies.

The positions of power have not changed.

“The pattern shows the traditional news organisations, like CNN, BBC and Al Jazeera, in the centre. Some assertions have been made that this is exactly the type of media structures that Twitter had overthrown,” he describes.

Even if the Internet is said to make it possible for everyone to participate and make an impact, it is still the traditionally privileged groups that are heard.

“Since the computer geeks were involved in building the Internet, the notion exists that it is a kind of free zone, that it’s very democratic, and that anyone can do anything. At the same time, you can’t just go and say the Twitter revolution is a myth. It isn’t as simple as that.”

Simon Lindgren’s studies also show that the media’s news coverage would not have been possible without the people who were on site in Libya sharing information. He believes that the pictures that currently circulate are far too simplistic. Instead he wants to go beyond the optimistic and pessimistic views in his research.

**WHILE SOCIAL MEDIA** are praised in North Africa, their dangers are discussed when adults describe how new digital media affect children. In Umeå, at the Department of Applied Educational Science, Senior Lecturer Elza Dunkels conducts research about Internet risks and safety for children.

“Parents often sidestep their own values when it comes to the
Internet. They can suddenly consider violating their children’s rights to protect them. However, very few would be willing to put a tape recorder under their child’s bed or read their child’s diary.”

She explains that many parents feel they must watch over their children to be good parents, for example, by checking the websites they have visited or putting the computer in a visible location. Two things, however, argue against this position. The first is that there is no proof that a child who is monitored would take fewer risks. The other is that most parents probably want their children to learn to act correctly even when no one is watching.

QUESTIONS ABOUT MONITORING and integrity are also something discussed a lot in regards to laws like FRA and the Data Retention Directive but also Internet giants like Facebook and Google. Per-Olof Ågren is a senior lecturer in informatics at Umeå and often participates in debates about new information technology.

“During the 1960’s and the 70’s we were afraid that authorities were gathering information about us. Today we supply data about ourselves without thinking about it. Many people therefore ask the question whether we can discuss integrity problems when we volunteer information. But today there are no equivalent substitutes to, for example, Google. Our personal data improves searches and therefore Google will always be best. The way I see it, we have no real choice today,” says Per-Olof Ågren.

In addition to violations of our integrity, Per-Olof Ågren also describes the risk of shifting purposes. Right now personal data is interesting because it can help fight crime or sell advertising. What happens when the same data becomes interesting for other purposes in the future? The only thing we actually know is that no one knows how all the data might be used.

MANY ADULTS ALSO have difficulty understanding when children and teenager openly share their experiences in, for example, blogs. The biggest fear is that an adult might make sexual advances towards the child. At the same time 99 percent of rapes committed on children are perpetrated by someone the child should be able to trust – parents, step-parents, coaches.

“What is dangerous is to abandon children, that they don’t have anyone they can talk to. Because the only thing we know for sure is that socially vulnerable children without such support are easily sucked into the Internet,” says Elza Dunkels.

Her studies show, however, that most children are good at weeding out inappropriate attempts to make contact. They see them as similar to spam and most children she interviewed don’t

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Per-Olof Ågren, Senior Lecturer in informatics
“There is nothing that says that all power structures disappear just because we have this new medium. At the same time it offers us a counterforce and a global community. We can talk back to the forces of power.”

Simon Lindgren, Professor of Sociology

see the contact attempts as anything threatening, but rather something irritating.

The amount of spam and flood of information is a problem. How are we supposed be able to select information that is relevant from an inexhaustible source? Per-Olof Ågren speaks of a trend towards personalisation where companies want to make the choices easier for us.

“The more Internet companies know about their users the more they can customize data so we just get the most interesting matches when we perform a search,” says Per-Olof Ågren.

He also speculates about other possible applications, for example, that we wouldn't have to read newspaper articles that we aren't interested in. Why read about sports if we are only interested in culture?

“The individualising trend appeals to many people... especially extremists and fundamentalists who don't want to meet other people's world views,” he says.

He believes that filtering information is nothing that benefits a democratic society, but we tend to like it since it engages us personally.

“Our own choices form the basis for selection, but the choices are also reduced since the machines make choices for us. It is unbelievably comfortable and wouldn't be possible unless it were appreciated by users,” explains Per-Olof Ågren.

PARALLEL TO THE RISKS are also possibilities when new users get access to technology that may have the potential to break through previous boundaries. That is also why Simon Lindgren studies both political networks and those relating to popular culture on the Internet. The same technological aids used in North Africa are also used by girls interested in fashion.

“Many people dismiss young girls who blog about fashion, saying that it's nonsense, that they create their own subordination and reproduce problematic images of womanhood. But a somewhat utopian thought might be that they could use their knowledge to make serious changes in the world, since they have all the skills necessary,” he explains.

It is also important to investigate the interplay between what happens on and outside the Internet instead of describing them as two separate contexts. Elza Dunkels mentions how we draw a sharp line with regard to children and net bullying.

“Many people seem to think the Internet has opened the doors to all kinds of evil forms of expression. But the fact is that net bullying has more in common with other types of bullying than with the technology. Perhaps what is most disturbing is that we can now see behavior that used to be hidden. I believe that we can come closer to a solution to bullying in general by studying its mechanisms on the Internet,” says Elza Dunkels.

Elza Dunkels adds that net bullying isn't something unique to

HANNA WEKELL one of the founders of the non-profit organisation of Ungcancer, works with design, social media and communication. She received a B.A. in Media and Communication Studies at Umeå University in 2011.

“Social media have been our salvation.”

How do you use social media in your work?

We have used social media a lot to get our message across to our target group. An important part of my job today, for example, is to keep Facebook updated so that it attracts our followers. There is a thin line between “spamming” someone and giving them enough updates so that they don't forget us.

What are the advantages of this?

Social media have been a godsend since our organisation is relatively new and our financial resources are limited. We discovered early how we could use social media to “awaken old media”, such as magazines, radio and TV. All of these aspects have been necessary to reach our audience. The advantage of social media is that it has only cost us time, since we started with an empty marketing and communication budget. One good example is the first Youtube film we made for our campaign: “It’s OK to feel”. Over 410,000 people have seen it and it has received more than 850 comments.

What difficulties can occur with social media?

One is that you never know how things are received and also that it takes a lot of time to really get something rolling. A Facebook page has to be alive in order to attract people and very few companies or organisations actually receive much response from their followers. In that sense we have the benefit of having followers who usually say what they think. I think that every company and organisation should consider the aim of their Facebook or Twitter accounts, because if you don't use them right they are no benefit.

PHOTO: JULIA MJÖRNSTEDT

PHOTO: JULIA MJÖRNSTEDT

HANNA WEKELL
He explains that people use mobile phone applications that were considered high tech just five or ten years ago to check their pulse nowadays. What happened in North Africa did not just happen in cyberspace but in physical environments where the digital was incorporated. We will live more and more in the intersection between what is happening online and offline. It isn’t science fiction, but rather quite undramatic,” says Simon Lindgren.

Simon Lindgren provides another example of how we see new digital media and the human body. "The most difficult part is handling the ethical issues."

How do you use social media in your work?
My main use of social media is in my research. I wrote my dissertation about self-injuring and identity formation and the creation of identity, and started with text material from Internet message boards on the Internet. I have been involved in a larger project, Media Places, since last year. In it, I investigate the importance of digital media to impressions of and norms around the body. I start with different forms of self-injury and body modification as examples, and my work entails that I regularly visit and use YouTube and other video sharing sites, Facebook, Twitter and a host of blogs, to collect and analyse material published there. I also use social media to get in touch with people to interview for my research project.

What are the advantages of this?
The use of social media is increasingly integrated in and has impact on people’s everyday lives. That is why it is, of course, important to study social media from different perspectives. More tangible advantages are that social media sometimes provide research material that would have been difficult to obtain in another way, also that they make it possible to get in touch with people who have interesting and important things to share.

What difficulties can occur with social media?
Certain practical difficulties can arise in conducting ethnological field work in social media, for example, regarding documentation of the material being studied. What I personally have found to be most difficult has, however, been dealing with the ethical research issues that arise. The unclear border between private and public on the Internet can sometimes make it difficult to judge whether and how social media can be used as research material.

"I reach so many more people."

How do you use social media in your work?
I use both Twitter and Facebook quite a bit. Mostly Twitter since I reach so many more people with questions and I myself can answer everyone who is wondering about the stories I am working on. On Facebook, it is more about simply mapping out people who are involved in one way or another in my reporting or a way to get in touch when I don’t have a telephone number.

What are the advantages of this?
On Twitter I have sent out requests for people who might know something about a certain issue, but also gained contacts who can help me in navigating the information jungle. A third way to use Twitter is to be very transparent when working on a story. I inform my followers of who we are meeting and interviewing, how we discuss things and what we are looking for. In addition, I carry out a good deal of business intelligence through Twitter these days. In this way I don’t need to read the papers or listen to the news any more. If anything important happens, the people I am following simply discuss it on Twitter.

What difficulties can occur with social media?
The difficulty with using social media is that I have to carefully think through everything I write. In part, it’s about my credibility as a reporter for Uppdrag gransknings, but also as a public service employee. I cannot, for example, take sides on any political issues. I must also be able to defend everything I write. I choose to think that what I write could be quoted in a tabloid without any problems.

FOLLOW RESEARCHERS’ BLOGS:
Simon Lindgren: http://www.simonlindgren.com
Elza Dunkels: http://www.kulturer.net/
Per-Olof Ågren: http://poagren.blogspot.se

young people. It occurs among all ages and is most common among people between the ages of 25 and 30.
Simon Lindgren provides another example of how we see new digital media as a parallel world disconnected from our own lives.

“What happened in North Africa did not just happen in cyberspace but in physical environments where the digital was incorporated. We will live more and more in the intersection between what is happening online and offline. It isn’t science fiction, but rather quite undramatic,” says Simon Lindgren.

He explains that people use mobile phone applications that were considered high tech just five or ten years ago to check their pulse nowadays. What attitude should we take towards this? Simon Lindgren returns to his previous argument. It is both about change and continuity, about having both a pessimistic and an optimistic approach.

“There is nothing that says that all power structures disappear just because we have this new medium. At the same time it offers us a counterforce and global community. We can talk back to the forces of power.”

PHOTO: LISA KJELLÉN

PHOTO: SVT

PHOTO: ANNA JOHANSSON

PHOTO: NIKLAS NORDMARK
Researcher Elza Dunkels handles the question box Net Nanny about young people and the Internet. This is her advice, based on scientific knowledge about young people's online activity.

1. **The right to integrity**
   It is obvious that you don't just go in and read a child's diary just because you can. In the same way, you should promise your children that you will never check their surf history on the computer. Place the computer somewhere they can sit undisturbed, preferably with the screen not facing the doorway. Then no one needs to wonder what is and is not visible on the screen. Computers and mobile phones are mainly personal media, in contrast to, for example, TV and newspapers. It is very seldom that you find people sharing their mobile phones with anyone. For financial reasons, computers are more often shared by several people but the use itself is personal. It can be considered an intrusion into someone's personal sphere to pull up a chair and look at what that person does on screen without being invited, while the same behaviour in front of the TV is natural for most people. If it is considered an intrusion to pull up a chair and take part, then we must find another opportunity to talk about the Internet. Maybe at the dinner table? It may be a discussion that neither parents or children want to have. Still, my next advice is:

2. **Talk about the Internet**
   Young people you have around you are your best and most reliable source of information, much more reliable than media. Ask what the kids are doing, ask them to show you something cool and something not so cool. Ask stupid questions and show them how little you know but respect the fact that they don't always want to answer quaint questions like “What did you do on the Internet today?”

3. **Stay calm**
   When you hear something disturbing, it's very important that you don't overreact. You may only get one chance to react in a sensible way. If you react too strongly, there is a risk that you will never be trusted again.

4. **Be interested**
   You don't need to hang out at all the online communities to be a good parent. Instead, you can talk with young people about their habits. But it helps to be familiar with the subject. Read about computers and games.

5. **You are the grown up**
   That means that you should set sensible limits, for example, regarding the amount of time spent. A sensible rule is not to sit at the computer until bedtime, since the brain needs time to wind down. A rule that doesn't make sense is that adults always have the right to interrupt computer use - you might be interrupting a match or a discussion.

6. **Focus on the body**
   Children often get computer equipment that are cast offs because it is second rate. A more sensible approach is that the youngest users get the best equipment since their bodies are growing. Get a good chair that can be raised and lowered, a good mouse and a good keyboard or adjust the height using cushions or telephone catalogues. An old screen, however, should always be put out for recycling. Start a rule that both children and adults should stop their use at least once an hour to do something else - jump on a trampoline, use the bathroom, lay down on the floor - anything to break up the monotony of sitting in front of a computer.

7. **Be unfair**
   Each child has the right to be judged from his/her unique situation and not from hard set rules. One child might do well when someone interrupts their computer use, while another does well by using the computer a lot. Fairness is not to treat everyone in the same way, fairness is to look a child in the eye and see how they are feeling. And then dare to act like an adult in response to what you see. Don't rely blindly on other people's advice. That also applies of course to the points above.

READ MORE AT: http://netnanny.wordpress.com
They are always on the hunt for something. They have ideas, present opinions and have their own voices. They don’t shy away from new knowledge and gladly share information. They get things done. They’re cosmopolitan. Seekers. Humanists. Travellers. Discoverers. Five people who make the world a better place.
SUSANNA ALAKOSKI has studied courses on power and gender at Umeå University. Her books have won prizes such as the August Prize 2006, the Gleerup’s Literary Prize 2006, the Platinum Pocket 2007 prize for paperbacks, the Swedish Finnish Delegation prize/scholarship for Sweden Finnish achievements; and the Hedenvind Plaquette 2011. Susanna Alakoski also edited the anthologies Tala om klass (2006), Lyckliga slut (2007) and Fejkad orgasm (2008). Lyckliga slut is now being dramatised alongside director Michaela Granit. The play is expected to premiere at Uppsala theatre in January 2013.

THE TRAVELLER
FROM FINNISH WORKING CLASS to Swedish cultural elite. Susanna Alakoski has made a boundary-crossing journey. She was born in Vaasa, grew up in Ystad and now lives in Gustavsberg. Author, writer, social worker, lecturer, course leader in writing - Susanna Alakoski is all these things. She has also been press secretary for Gudrun Schyman and writes chronicles and columns for newspapers Dagens Arbete and Aftonbladet.

Susanna Alakoski knew from childhood that she wanted to be an author. It was an unvoiced dream, she was drawn to words and stories. “I changed languages and countries at an early age, and as a speaker of Finnish only I had to learn a new language, Swedish. There were no daycare centres, so my world was pretty small. For several years I kept quiet, listening to the rhythm and tone of the language, and when I finally did speak I spoke perfect Swedish. That’s where my authorship originated.”

At 26, Alakoski started on the writing programme at Skurup residential college for adult education. Her first novel published in 2006: Svinalängorna was highly acclaimed and won the August Prize. It has also been made into a movie. That was followed in 2010 by Håpas du trifs bra i fengelset, which is now being made into a play.

Alcoholism, assault, poverty, vulnerable children and sexuality - Susanna Alakoski also finds her subject matter across boundaries. Alakoski’s readers are met by a literary universe that does not flinch at the private, the uncomfortable or the taboo, but that also affects and influences.

“An author should have a literary brief. Books should have a task. An author shouldn’t be a politician, but an author should expose connections that may have political consequences. At the start of a book I rarely know what I’m going to write, but I always know what matters to me,” Alakoski explains.
THE SEEKER

THE UMEÅ BAND, DEPORTEES seems to be loved by everyone – music enthusiasts as well as seasoned industry professionals.

“I believe people listen and understand that our music is important. That it is about the present and created for just the right reasons,” says Peder Stenberg, the group’s vocalist who successfully combined the role of group frontman with an academic career.

That it became music seems almost inevitable. Peder Stenberg describes his childhood in Vindeln, fifty kilometres west of Umeå, as a perfect mix of opportunity and boredom. Umeå—a bus ride away—with a music scene that was always cooking with jazz, rock, punk, hardcore and pop, became a source of inspiration and a reason why Peder Stenberg, brother Anders and friends spent most of their time in the rehearsal room.

“I am grateful that I grew up in a small community, where you have to make things happen. It probably gave me the ability to take action,” he says.

The hours in the rehearsal room increased, just like the gigs and in 2003 they created Deportees. He also dreamed of an academic career and studied theoretical philosophy at Umeå University. It continued with sociology, political science and ethnology. After twelve terms and four papers, he received a post graduate appointment.

Two dreams crowded into the same space. Deportees made it big and Peter tried to combine a life in elegant meeting rooms for recording companies with a doctoral studentship at Umeå University.

He speaks fondly of the boldness that marks ethnology as a subject— that you don’t shy away from unusual subjects. He himself has studied cultures created in a virtual world—mainly in the online role playing game World Of Warcraft— including how networks are created, the driving forces that exist, the reward systems that are used and what the creation of meaning by players looks like.

Academics and music—two separate worlds that still have points in common about how to capture a phenomenon and a feeling, how to pinpoint an area and break the code...

A tour in Sweden and maybe overseas awaits, and in the fall of 2013 they plan to release their next album. Otherwise Peder Stenberg doesn’t think too much about the future. Although the industry is pushing the band to live closer to Stockholm, members of the Deportees seem to be staying in Umeå.

“Many people who play here stay here; it is largely thanks to the people and the Scharinska stage with all the clubs and concerts that Umeå has such a unique music scene. I am not inclined towards celebrity parties. It is important to keep your feet on the ground, hang out with people you like and make the best music you can!”

THE TITLE OF Peder Stenberg’s dissertation is: “The serious game: About World of Warcraft and leakage.” Deportees were named Group of the Year by P3 Guld and received a grammy for Rock of the Year.
THE COSMOPOLITAN

STOCKHOLM, Copenhagen, London, Hong Kong. With the world as his workplace, Lars Nittve personifies the free artistic thought. Nittve’s ideas have meant a lot to museums like Moderna Museet, Louisiana and Tate Modern. Since 2011, he has led work in building Hong Kong’s new art museum M+, a gigantic project in terms of size, budget and artistic scope. The opening is planned for 2018.

“Right now we are putting together the team and building up the museum’s collection. We are in parallel preparing a temporary exhibition programme that will run in the city from May 15. It is unbelievably exciting and wonderful to be here.”

M as in many possibilities, manifoldness - and museum. When M+ is completed, visitors will encounter a 58,000 square metre art museum with a staff of approximately 400 persons. The theme is “visual culture”, which, in addition to visual arts, encompasses different types of moving pictures, design and architecture.

“Art has changed over the years. It has progressed from being limited to painting, sculpture and work on paper to a zone for investigatory, visual and cultural expressions including digital media. The boundaries between the different disciplines are not set in stone and are opening up more and more, especially here in Asia. I think that visual culture will develop exponentially. That is why we are creating a museum that crosses boundaries which can provide a natural meeting place for this.”

In 2009, Lars Nittve was conferred the title Honorary Doctor at Umeå University. Nittve served in an advisory capacity during work with the Umeå Arts Campus and Bildmuseet.

“The work put in is extraordinary! Umeå has long been prominent on the arts side. However, with the new resources it is becoming one of the leading art settings in Sweden, with the same opportunities as places like Magasin 3 and Bonnier’s art gallery. With Bildmuseet as a centrepiece, the Umeå Arts Campus is becoming a fantastic place to meet between different forms of visual culture and digital media but also between art and the public. This is something to brag about; it is something on a world class level.”

LARS NITTVE Honorary Doctor at Umeå University, received in 2009 the city of Malmö’s culture award for his exceptional contributions to both Swedish and foreign art arenas. He has been an art critic for Svenska Dagbladet, taught art history at Stockholm University and held a number of prestigious leadership positions - such as for Moderna Museet in Stockholm, Rooseum in Malmö, Louisiana in Denmark, Tate Modern in London and now for M+ in Shanghai.
Sun Nyunt Wai has made pioneering discoveries in her studies of pathogenic bacteria. One of these is *Vibrio cholerae*, an infectious organism that causes cholera, a lethal epidemic disease. Sun Nyunt Wai has published impressive evidence of her research on the characteristics of these bacteria and the way they use special vesicles in their outer membrane to spread their toxins, and affect surrounding host cells.

Sun Nyunt Wai’s thirst for knowledge began in her native country, Burma, where she graduated from medical school in 1980 and started out in obstetrics and gynaecology.

“When I was around five years old my grandparents became sick and had to pay an enormous amount for health care. That’s when I first dreamt of becoming a doctor and being able to treat patients without them having to pay so much. I became a diligent student and focused early on becoming a doctor.”

Sun Nyunt Wai’s knowledge grew as a clinical physician. There weren’t a lot of opportunities to do research in Burma, but a research grant in bacteriology took her to Kyushu University in Japan. After completing her doctorate, she went on to a postdoc at Stanford University. Sun Nyunt Wai arrived for the first time at Umeå University in 1999 as a visiting research fellow.

“It was their outstanding microbiological research that got me to apply for a position here. I returned to Japan for a while as Assistant Professor of Bacteriology but decided to return to Umeå. I saw the potential to further my academic career where it is possible to compete on equal terms, and applied for a grant to establish a research group.”

Sun Nyunt Wai has been a professor in the Department of Molecular Biology at Umeå University since January 2010. Her research group consists of some ten colleagues from France, India, Japan, China, the Ukraine and Sweden. Students from various Master’s programmes also work in her lab.

“I like working together in an international setting. When we recruit it is almost always internationally. It is such a rich learning experience to share a common interest in research with people from a variety of backgrounds, cultures and environments.

Sun Nyunt Wai’s research team continues to pursue new knowledge about bacteria and the way they infect.

“We are investigating the molecular mechanisms that come to play between microbes and host cells. We want to gain a better understanding of the reasons for infectious diseases and discover new possibilities to prevent and cure them. Cholera is one such disease.”

**SUN NYUNT WAI** Professor of Medical microbial pathogenesis at Umeå University, was the recipient of the Fernström Prize for her discoveries of the way pathogenic bacteria spread toxins. She began as a physician and teacher at Yangon University Hospital in Burma, did her dissertation in bacteriology at Kyushu University in Japan and continued her studies as a postdoc at Stanford University. She arrived to Umeå for the first time in 1999 as a visiting research fellow. Sun Nyunt Wai is a member of UCMR (Umeå Centre for Microbial Research) Linnaeus Programme, with a ten-year Linneé grant from the Swedish Research Council.
DENIS MUKWEGE was nominated in 2010 Honorary Doctor – by Ellinor Ådelroth, Professor and Chief Physician, supported by 25 other researchers at the Faculty of Medicine at Umeå University.
High pressure all year round? Is that possible?

Yes, in fact it is. The climate for the life science industry in Umeå is first-rate – all year round. You find groundbreaking research here along with the capacity to convert scientific findings into thriving businesses, as well as an environment that applauds innovation.

The result has been an overwhelming success. During the last five years, the number of biotech businesses in Umeå has more than doubled. Umeå has established itself as a centre of excellence for anti-infective research and development. Other areas in which the region excels include plant and forest biotechnology, metabolic diseases, neurodegenerative diseases, medtech and diagnostics.

Life science research and innovation in Umeå are keeping up the pressure to solve the healthcare challenges of the future.

www.biotechumea.se
A big wheel and two smaller "training wheels" make it easier to get around in rugged terrain. The construction also has less environmental impact than conventional designs, where two big wheels are always rotating against the ground.
Balanced bogie

When Vimek, a forestry machine company in the village of Slipstensjön met people from Umeå University, a problem was turned into an opportunity. Together they have developed a new wheel construction.
Bogie design. It's about a design that has less impact on the ground and can maneuver in difficult forest terrain. It's also about the meeting of two worlds: a business world that talks about soil and ground properties and machine performance, and a research world that translates all that into digits and simulations.

Let’s begin from the beginning. Lars-Gunnar Nilsson works in the village of Slipstensjön, 90 km from Umeå. He is part owner of the forestry machine company Vimek and was thinking about a new vehicle on wheels, a new kind of bogie. Since a warmer climate makes the ground softer, forestry machines must be even more gentle so that they don’t spoil the forest floor. Together with his son and colleague Johannes Nilsson, Lars-Gunnar transformed his ideas into a prototype of a bogie in a scale of 1:10, built with plastic wheels and a bike chain.

Jeanette Edlund, a doctoral student at Swedish University of Agricultural Sciences, found out about the project. She was curious, of course, since it was related to her own research on the way forestry machines damage the ground. She told Martin Servin, lecturer at the research centre UMIT at Umeå University, about the project. Martin thought it was interesting, but wondered if it was really a unique idea.

But that’s exactly what it was. As it turned out, the researchers were able to help design an even better bogie. A new full-scale model is now in the shop in Slipstensjön, mounted onto a forestry machine. With 60,000 SEK from the Forest Technology Cluster and Sveaskog, father and son were able to buy an old tractor to form the chassis of the bogie.

Initially they weren’t so sure that the university’s involvement would be a help. When they first met the UMIT researcher they were doubtful.

“We weren’t used to working together with people from that kind of profession. Furthermore, problems often crop up when too many people are involved in a development project, which is mainly for decision-making purposes. Too many cooks spoil the broth,” says Johannes Nilsson.

Nonetheless, it ended up with a visit to Umeå University. There they met postdoctoral research fellow Ehsan Keramati. Though Ehsan had never done research on this sort of machinery before, he did simulations to optimise the design of this bogie.

“It’s really exciting to work with this kind of a simulator. Science and research are intended to develop and improve the world. Being a part of the development of the forestry industry in this way is incredibly stimulating. We have learned a lot on both sides,” says Ehsan Keramati.

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Ehsan Keramati calculated the effect of changes in the bogie design. In consultation with Lars-Gunnar and Johannes Nilsson, he investigated how the bogie would perform in different scenarios and the importance of various functions.

“We are really pleased and open towards collaboration with the university again,” says Johannes Nilsson.

Now the two Nilssons are waiting for the ground to be damp enough to test and assess the bogie in reality.

“It would be good if someone who has Vimek’s original bogie could test our new bogie and tell us if it’s better or worse,” says Lars-Gunnar Nilsson.

Vimek has a patent on the solution and hopes that more people can see its advantages.

“It is necessary for small manufacturers like Vimek to obtain the support of bigger operators and other skills in order to develop ideas like this,” Johannes Nilsson continues.

The project is over now. The work has given us new experiences, new contacts and more collaboration, like the one with Vimek’s track manufacturer, Olofsfors.

“Olofsfors has become a very valuable spin-off collaboration for UMIT. Their products are world market leaders and we are going to learn a lot from them about the dynamics between machines and the forest floor. At the same time we are testing our new simulation methods on factors that are important for company development and more sustainable forestry. It’s stimulating to know that this research can have a positive effect on the environment and the job situation here in the region and in the world,” says Martin Servin.
Assignment ALS

Jonathan Gilthorpe is the guy from Derbyshire who, via London and Stanford, became an ALS researcher at Umeå. In his lab he reverses cells in their development to study what no one has seen before: how the disease begins.
In the small Petri dishes in a lab at Umeå University, it is as though time is moving backward. Researcher Jonathan Gilthorpe is taking human skin cells back through their development until they behave like stem cells in an embryo. This technique, which has only been known for a few years, is now helping Gilthorpe and his colleagues at the Department of Pharmacology and Clinical Neuroscience to understand the fatal disease that is ALS. In the long term, it is hoped that their research will help to develop effective treatments.

“We know that ALS has genetic causes, and many of the mutations involved have already been mapped. But we still don’t understand the details of what happens. Why do these gene mutations cause nerve cells to die?” wonders Jonathan Gilthorpe.

One problem for the researchers is that they don’t know what the early stages of the disease look like. Advanced ALS can be studied in deceased patients: extensive cell death and abnormal lumps of protein in the brain and spinal cord. But because the disease is detected at a late stage, and because it is virtually inaccessible to closer study while the patient is alive, no one has yet seen ALS at an early stage. No one has been able to study what makes misfolded forms of the protein SOD1, which is found in the entire body, to very selectively kill a particular type of nerve cell and leave the rest of the body unharmed.

This is where stem cells come into the picture. In simple terms, they are the way station that makes it possible for Jonathan Gilthorpe to convert skin cells from ALS patients into nerve cells. Since the cells’ DNA does not change, the result is nerve cells with a propensity for ALS. It is hoped that this will enable Gilthorpe and his colleagues to study how these cells work differently than healthy nerve cells, and what actually happens when the disease breaks out and the cells die. There are some results already, but as they have not yet been published Gilthorpe can only say that initially, the experiment has lived up to the researchers’ hopes: the cells with a propensity for ALS differ from healthy nerve cells.

“In simple terms, Jonathan Gilthorpe’s skin cells are converted into nerve cells by taking them back to the stem cell stage, where they can be switched into a different development track.”
**ALS**

**AMYOTROPHIC LATERAL SCLEROSIS.** ALS, is a disease that attacks parts of the brain, the brain stem and spinal cord, where it breaks down the nerve cells responsible for controlling muscles. This leads to muscular dystrophy in the muscles which no longer receive nerve impulses.

The disease can take several different forms, all of which gradually affect the respiratory muscles. Mortality from the disease is very high. The average survival time for serious forms of ALS is around three years. Most patients pass away peacefully in their sleep.

The disease can be found worldwide, and is estimated to affect 2-4 out of every 100,000 people per year. In Sweden around 200 new cases of ALS are diagnosed every year, and around 600-700 people in the country are estimated to have the disease. Around one in 10 patients has a previous occurrence of ALS in the family.

ALS has genetic causes. Various mutations linked to ALS have been discovered, but the underlying mechanisms have not been clarified. In Sweden, the most commonly known cause is the mutation of a gene that codes the protein SOD1. This means the protein does not fold the right way.

*Source: Swedish National Board of Health and Welfare*

**Fant, Lindquist, Hawking**

**IN SWEDEN** the death of author Maj Fant in 1995 and of news anchor Ulla-Carin Lindquist in 2004 helped raise awareness of ALS. Ulla-Carin Lindquist described the last stages of her life in a book ‘Rowing without oars’ (Norstedts), which was published soon after her death.

British cosmologist and author Stephen Hawking, who is 70 this year, lives with a rare form of ALS which he contracted in the 1960s. It is sometimes described as being related to ALS. Hawking is famous, among other things, for his Hawking radiation theory: that black holes emit energy and very slowly lose mass.

Ulla-Carin Lindquist’s Foundation for ALS Research has been awarding a prize yearly since 2006. The prize has been awarded to two researchers at Umeå University: Professors Stefan Marklund (2009) and Peter Andersen (2011).

“*We know that ALS has a genetic component, and many of the mutations that are involved have already been identified. But we still don’t understand the details of what happens, exactly why these mutations cause nerve cells to die,”* says Jonathan Gilthorpe.

**JONATHAN GILTHORPE** is British. He grew up in Derbyshire, England, and studied in London. As to how he came to be an ALS researcher in Umeå is a story that includes an egg allergy and a girl called Åsa from Gällivare, further north in Sweden. He met her in 2001 at a research conference in Colorado. She had recently finished her doctorate at Umeå University and was about to take the next step in her career: a post doctoral position at the prestigious Stanford University in California.

“We became a couple. I was researching in London at the time and managed to arrange a place at Stanford so I could join her. After the postdoctoral spell we moved back to London together.”

At the time Jonathan Gilthorpe’s research was focused on the early development of the brain, which he studied in chicken embryos. However, he was forced to abandon that line of research when it emerged that he had developed an egg allergy. Instead he applied his knowledge of nerve and stem cells to human medicine and began researching the diseases that attack and break down people’s nerve cells. These neurodegenerative diseases include Alzheimer’s disease, Parkinson’s disease, MS and ALS.

In 2008 the couple swapped the UK for Sweden and two research positions at Umeå University. Today they each lead a research group at Umeå Centre for Molecular Medicine, UCMM. Åsa, now Mrs Gilthorpe, has been recognised for her research into Chronic Obstructive Pulmonary Disease, COPD, and in 2011 Swedish business magazine *Veckans Affärer* named her one of Sweden’s 100 super talents. As for Jonathan, the move to Umeå has enabled him to further develop his research into neurodegenerative diseases in a very suitable environment.

“My colleagues Peter Andersen, Stefan Marklund and Thomas Brännström have been researching ALS since the 1990s, and it has been very rewarding for me to come to the strong environment they’ve built up here in Umeå. And with my background in embryo development and stem cell research, I’m approaching from a slightly different direction, so we complement each other well.”

He also takes the opportunity to praise the Scandinavian culture of registration. Databases, biobanks, meta data - everything is tremendously well organised and such high quality, he says.
“There’s a growing awareness of how extremely important it is to get basic researchers and clinical researchers to work more together to develop new medicines.”

“Getting hold of relevant tissue samples, which could be hopelessly difficult in London, is so simple here.”

LIFE SCIENCES ARE a fast-moving area at the moment. Rapid technological advancements in recent decades have accelerated research in many fields, particularly those linked to genetics. But the strong development in medical basic research is not at all reflected in equivalent success for the drug companies, Jonathan Gilthorpe observes. On the contrary, one could almost talk of a crisis for the pharmaceuticals industry, which is grappling with rising development costs and a high percentage of setbacks in their research portfolios. This is particularly true of the neurodegenerative diseases where, for example, the industry has been forced to close down several projects into Alzheimer’s disease.

“Society’s current model for developing drugs doesn’t seem to be working any longer. If the pharmaceuticals companies’ profits fall, they will cut down on research and technical development – with devastating consequences. Look at AstraZeneca’s closure of its entire Swedish research section - a national disaster,” says Jonathan Gilthorpe.

Even if other organisations that fund research, such as national research councils, foundations and non-profit organisations, contribute funding, Jonathan Gilthorpe finds it hard to believe this could offset the cutbacks being made by drug companies. So what can be done?

“There’s a growing awareness of how extremely important it is to get basic researchers and clinical researchers to work more together to develop new medicines. We need a system where knowledge from basic research reaches the clinic more quickly, and where at the same time basic research can learn more about what the important issues are in the clinical sphere.”

Jonathan Gilthorpe has recently started a job which is designed to contribute to just such a development. Coming from a basic research background, he will now be researching in a clinical environment: the department of neurology at Norrland’s University Hospital. The position is part of a major investment by Umeå University and the Faculty of Medicine, alongside the County
“Even during studies to become a researcher or doctor, students are schooled in one of two different languages and two different ways of thinking. And that’s a shame.”

Council, to shatter the boundaries between basic research and clinical research. They are investing a total of 75 million SEK in the initiative, which comprises four parts: more basic researchers in a clinical environment, more clinical researchers in a basic research environment, support for clinical researchers to return to Sweden after postdoctoral fellowships abroad, and a research trainee programme for medical students.

There’s no mistaking Jonathan Gilthorpe’s commitment when talk turns to the initiative.

“Even during studies to become a researcher or doctor, students are schooled in only one of two different languages and two different ways of thinking. And that’s a shame. As my children are bilingual, I’ve had reason to reflect on the value of learning more than one language early on. In a way, it’s the same thing at university: if you learn the language of research and the clinical sphere early on it becomes natural to speak them both, and easy to switch between them.

“The aim of linking research more closely with clinical practice - of making research translational - has been a strong international trend for a number of years. Everyone is talking about it and wants it to happen. Greater communication between the Swedish seats of learning about how this could be achieved is therefore a good thing,” says Jonathan Gilthorpe.

“It’s so easy to brandish the latest buzz words, but what actually is a good strategy for getting translational research to work in practice? All Swedish universities have probably established a translational environment - how has it gone, and what can we learn from each other? I hope we can get a discussion going about this.”

As to whether there were any culture clashes in moving from a British university to a Swedish one, he says that at UCMM at least, where many researchers come from other countries, there is barely any noticeable difference.

“People are very open and willing to collaborate. But this idea of ‘fika’ (coffee and buns) at work - I still haven’t got used to that.”

New investment in young researchers

NEW INVESTMENT from Umeå University and Västerbotten’s County Council afford young researchers the possibility to build bridges between basic and clinical research. External reviewers have appointed three very promising group leaders who fulfil the criteria and are doing research in areas that are of major significance to many patients. Jonathan Gilthorpe is one of these researchers, along with Pernilla Wikström who conducts research on prostate cancer at the Department of Medical Biosciences, and Constantin Urban who does research on fungal infection at the Laboratory for Molecular Infection Medicine Sweden (MIMS).
The quest for antibiotics

The quest for new antibiotics is continuing in the deep oceans off the coast of Svalbard. This is where the University of Tromsø finds the bacteria on which further research is being done at Umeå University.

“ANTIBIOTIC RESISTANCE IS one of the biggest problems in the world today. If we fail to act now, there is a risk of going back to the days before antibiotics, when the simplest bacterial infection could have devastating consequences,” according to Fredrik Almqvist, Professor in Organic Chemistry at Umeå University.

All over the world, scientists today are therefore looking for substances that could be used to produce new drugs that are hard for resistant bacteria to outwit. For that very reason, strategic partners Tromsø and Umeå Universities are working together on a project entitled “Molecules for the Future”, which is financed by Vinnova, the Knut & Alice Wallenberg Foundation and the Norwegian state.

“Our goal is to find a new substance with antibacterial mecha-
nisms or a known substance that attacks in a whole new way. It would be tremendously exciting if we succeeded,” says Fredrik Almqvist. He opens the fridge in the laboratory and takes out a Petri dish containing bacteria from the Norwegian Sea.

“The organisms live in the ocean under such special conditions that they are hard to recreate in a lab. The researchers are therefore initially concentrating on the bacteria that can actually be grown and propagated - which is apparently no more than one percent of the bacteria collected.”

“We’re investigating many different parameters to find the right conditions for cultivation, such as the salt content and temperature, and also to figure out whether or not they need shaking in order to grow,” Fredrik Almqvist explains.

THE FIRST CHALLENGE for the researchers at Umeå University was to see whether the Norwegian bacteria can produce small molecules known as secondary metabolites. These are not necessary for the bacteria’s day-to-day life, but they can be used as a defense and to build a survival advantage over the longer term, for instance.

“It was a great boost for our team when we successfully proved that bacteria from Norway could produce secondary metabolites that have an antibacterial effect,” explains Fredrik Almqvist, holding the Petri dish up to the light to show how the cultivation plate has turned completely pink by the metabolites’ activity.

The bacteria of greatest interest belong to a group called actinomycetes, which are known for producing substances with antibiotic properties.

From the small preparation tubes the Tromso researchers have sent to Umeå, Fredrik Almqvist and his colleagues have taken around 1,000 interesting extracts. The researchers use advanced analysis tools to quickly and efficiently identify the active molecules (see page 65).

ANTIBIOTIC RESISTANCE

THE MORE AN antibiotic is used, the higher the risk that bacteria develop a resistance to it. As time goes on, there may therefore be fewer and fewer preparations that have an effect. Resistant bacteria are particularly dangerous to newborn babies, the elderly and people with reduced immune defense.

The first penicillin began being used at the end of the Second World War. Several new medicines were then developed that could kill bacteria in different ways. But in recent decades, few new antibacterial drugs have been developed. Moreover, many that have reached the market primarily consist of variations on existing medicines.

There are several reasons why there are no new antibiotics to which bacteria have not developed resistance. One is that it is hard to find new ways of tackling bacteria, but another is that there is not enough profit compared to other pharmaceutical projects.

Source: forskning.se
LARS PEDER HEDBERG has a background as an editor and writer, and was honored with the Swedish Grand Journalism Prize in the Popular Press category for his Intrig magazine (1994). He is also journalistic director of Sweden’s leading restaurant guide, the White Guide. He is a co-founder of Intellecta AB, a listed communication company that owns a raft of Sweden’s leading agencies and information companies, where he works as an advisor in strategy issues and capital market communication.
IT IS NOT news that society is facing some immense challenges, both in Sweden and internationally,” says Lena Gustafsson, Vice-Chancellor of Umeå University. “They relate to everything from stressed ecosystems and a shortage of vital resources – and above all food for a global population now in excess of seven billion – to an increasingly age-heavy population pyramid with new challenges of various kinds. If we are to tackle these challenges, we must develop new knowledge. New research breakthroughs will be necessary, as well as a long-term approach!”

We are sitting in the light, modern and quite pleasant office of the Vice-Chancellor, at the top of the university liaison building at the edge of Campus Umeå. Dusk is falling, and the rain is coming down faster as if to illustrate the gravity of the threats the world is facing.

“The universities have a pivotal role in this,” she continues. “Partly because they can offer sophisticated education to provide society with knowledgeable employees who can commit to sustainable development in different ways, but also by creating the necessary advancements in knowledge through their research. The universities are the very spearheads of society's innovation systems.”

With a background as a researcher in biotechnology, Professor and Pro-Vice-Chancellor at Chalmers and Deputy Director General of VINNOVA (the Swedish Governmental Agency for Innovation Systems), Lena Gustafsson knows what she’s talking about. This collective experience provides good insight into how research, society and commerce collaborate on the front line of development.

“No risk-taking, no major gains and breakthroughs. This is true in the business world, and no less true in academic research,” she maintains. “It is clear that many of the challenges we are facing cannot be remedied with existing knowledge. We need fundamental shifts in knowledge. This means we must take risks, sometimes high risks. We must be able to offer our researchers an environment where they dare to test the unexpected, otherwise we’re on a dangerous track. This in turn calls for long-term thinking in research.”

Since becoming Vice-Chancellor in the footsteps of the legendary Göran Sandberg almost two years ago, Lena Gustafsson has emphasised what has always been an underlying theme at one of Sweden’s northernmost universities: the ability to identify and offer possibilities off the beaten track, and the courage to try out new paths to achieve them.

“Our aim is to develop Umeå University into one of the strongest international universities for research and education, and we’re already well on the way,” she says. “Many of our 2,000 researchers and teaching staff are among the national research elite – and in certain areas our researchers are on the front line internationally, in such widely varying areas as research on aging, infection biology and plant and for-
“It is clear that many of the challenges we are facing cannot be remedied with existing knowledge. We need fundamental shifts in knowledge. This means we must take risks, sometimes high risks.”

Lena Gustafsson, Vice-Chancellor Umeå University
Community and learning environments – relaxation over a game of pool in the fireplace corner of Universum and studying in the University Library.

Brännbollsyran is a big Swedish tournament festival held annually since the early 1990s.
symbiosis. With this, we are laying the physical and intellectual foundations. What’s more it’s not only about different disciplines working together, but also the interplay between the academic world and other stakeholders in society, such as the private sector. Our design education is one of the best in the world, in part thanks to very close collaboration with industry, particularly the automotive sector. In fact BMW are here today.”

**But isn’t it about critical mass, I wonder?**

“Yes, particularly in infrastructure-intensive research,” she responds. “Research like this is costly, and to remain competitive we have to take a leading position in Sweden. By acting as a Swedish node, researchers from other seats of learning can come here to use our resources, and also to seek collaborations. We have identified three prominent infrastructure nodes. Thanks to our history — we have databases going back to the 18th century — combined with the development of high-quality biobanks, we are a highly suitable partner in a Swedish network for register and biobank research. Alongside the Swedish University of Agricultural Sciences, the Faculty of Forest Sciences here in Umeå, we have a very prominent ‘metabolomics platform’ which is on the very front line, for instance when it comes to plant and forest biology and infection research. Our geographical position combined with successful research and education means we would be an ideal national centre for Arctic research, from Sami culture to fields such as climate, environment and natural resources.”

Darkness is falling fast — as is my ability for comprehension. I glance at the clock. Soon time to make the night run back to Stockholm, a long day’s journey into night will soon be over.

**I HATE THE RINGTONE,** but I’ve not found anything better in the library for the 4S (*join my Facebook group I hate my iPhone 4S*). It blares out and, terrible as it is, I note with half an open eye — the other one’s staying stubbornly closed. Not indecently late by normal standards, but I need to be up early for the first morning flight to Umeå, and I need to be reasonably bright and cheery for all my meetings.

“I can see you about two,” she says without introducing herself and in a low, monotonous, slightly rasping voice. “Corner of Storgatan and Östra Rådhusgatan.”

“I need to check my other appointments,” I say. “I’m not sure that works for me.”  

But she’s already hung up. I call back, annoyed. Twenty rings at least, maybe thirty — no answer. Fine, about two it is. About two? What does that mean? Five to two? Quarter past two? The stubborn eye is now wide open, staring fretfully. Half past? And where’s Storgatan and Östra Rådhusgatan? I barely even know where Umeå is. North of Uppsala though, that much I do know. I enter the address into my odious 4S.

Northern Sweden is a mystery to us southerners, a wonderful mystery — and I feel maybe it should stay that way, for me at least. Why spoil the fantasy by confronting the reality? Not that it’ll be the first time I’ve done that!

But a job’s a job, and when a dear old colleague asked me to write an article that captures what’s unique about Umeå University and Umeå the city, I can’t really say no. Not directly anyway. So I try, “Maybe it’s better to ask someone more familiar with the subject, someone closer...?” But she comes back with, “Maybe not.” And that’s that.

I have a book sent to me, describing all the initiatives, maneuvers and conflicts that eventually led to Umeå University being inaugurated in 1965. That’s nearly 50 years ago, and I guess that’s why there’s a lot happening right now, particularly the opening of the new Umeå Arts Campus. What’s more, Umeå is European Capital of Culture 2014 and all kinds of investments and initiatives are underway, not least magnificent construction projects — such as the new house of culture, *Kulturväven*. The past, present and future converge in an intensively charged intersection, as it tends to do on occasion. Like now and for the next three years.

Well, the book certainly gives a good insight into the political and academic struggles behind the birth of Umeå University, in stiff competition with other northern Swedish metropolises, which may have been a more natural choice for a traditional university initiative. And that’s when the first realisation occurs to me: Umeå was no traditional university initiative. It wasn’t just an initiative for something new, but for something radically different.

I start calling round to a few academic friends. Is there anything special about Umeå University, and if so, what? Oh yes, the education and research do tend to have something of an unusual angle, a different perspective, I’m told. The research reports can

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*Sara Lidman (1923–2004), Swedish author and Lappmark Doctor Einar Wallquist (1896–1985) were conferred honorary doctorates at Umeå University in 1978. Lidman was conferred by the Faculty of Arts and Wallquist by the Faculty of Medicine. Einar Wallquist, who was also an author, artist and museum director, received his first honorary doctorate in 1966 from the Faculty of Arts. Sara Lidman was awarded the title of Honorary Professor in 1999 by the Swedish government.*
A freshman hazing ritual in 1968 was to scrub birches outside the Student Union building, the Scharinska Villan.

...often go off on a tangent that bursts the bubble of the status quo. There's a radical vein, not necessarily political, well maybe political but it runs deeper than that, says someone, much deeper. Often challenging. Occasionally revolutionary.

And I also get a very tangible clue: Although he wasn't born there, author Stieg Larsson was an Umeå man, and the way he depicted his heroine Lisbeth Salander is, in a way, a declaration of love to the distinctive character of both the city and the university, my source tells me. One of the people the Salander character was based on worked at the university, try and get hold of her. I have no idea whether this is true or a rumor, and of course I can't ask Larsson himself. But it's a lead worth following up, if nothing else because she's a sharp lass, my source assures me.

A little investigation later and I have a name and a cell number. I try several times, but there's no reply. Eventually I send off a text message: I'm writing an article on Umeå University and what's unique about the idea and...
Author Stieg Larsson was an Umeå man and the way he depicted his heroine Lisbeth Salander is, in a way, a declaration of love to the distinctive character of both the city and the university.
ing long? No, not at all – just got here. She smiles with a slight curl of the mouth. Has she been studying me from inside the wall for 20 minutes? Seen my incongruous sunburn peeling onto the ground with the raindrops?

She doesn't look like Lisbeth Salander, at least not how I imagined. She's around 50, perhaps even a little older – and I suddenly realise that of course she must be if Larsson's heroine was based on her in real life. I search for a tattoo or some other visual sign, but nothing – possibly the short, asymmetric hairdo with its generous splash of gray.

"Shall we get a coffee?" I wonder. "Let's walk first," she says. "You want to find out about our tradition of ideas up here?" "Yes, it seems to be quite a strong one." She smiles:

"Yes, you could say that. And it has roots way back in time, from when northern Sweden was colonised from the south. We've always liked to go our own way. Stockholm made repeated attempts to organise a city here but nothing came of it until some way into the 17th century."

It feels like the city is still offering resistance today, as we struggle along the streets into a biting wind. "We can get a coffee here," she says. Konditori Mekka, I read on the sign. She orders her coffee black.

"There's a strong literary tradition here from when northern Sweden became Protestant," she explains. "As there were long distances involved and people couldn't get to church, they read the catechism at home. This led to strong reading skills and reading habits. Studying the bible at home also meant people had to think for themselves, play with meanings and interpretations; it wasn't all handed to them on a plate during the vicar's sermon. Free-thinkers in northern Sweden liked to head for Umeå, which has always been a more secular city. As a seat of local government, it represented the national power, while Härnösand was the episcopal see with more power over the senses."

**And the tradition of free thinking has continued to thrive?**

"Yes, in different ways. The fact is that from the beginning the university has attracted free-thinkers, students and researchers who did not feel at home at traditional seats of learning. It's quite interesting that Umeå is still the only Swedish university city that isn't also an episcopal see. Not that that means much today, but it does show that Umeå is fundamentally different. A secular environment where souls, thoughts and senses are free. In the 1970s there were strong radical currents here, and the epithet 'the red university' stuck for a long time. There are still vigorous radical groups here today, and the whole culture is more socially than individually oriented."

**So there's a red gene that still exists here?**

"Absolutely. Partly political, but above all when it comes to the tradition of ideas in general. The intellectual attitude. There's a critical commitment here to social issues. At the same time diversity is very much in evidence, and is not just a hackneyed phrase. There are all sorts here, and there's space for all sorts, not just nationalities. It's no coincidence that Umeå University is strong in areas such as gender research. Nor that a host of expressions of radical lifestyles have taken a very strong hold, even if they didn't exactly originate here. In the borderland between politics and music, a lot has happened here over the years, not least within the subculture that developed in a symbiosis between hardcore music, straight edge, veganism and some pretty militant animal rights activism in the 1990s. Hardcore is experiencing a renaissance right now, but the political content is not as clearly manifest."

**So you mean the subculture has been reborn as culture?**

"Yes, a lot tends to end up being culture in Umeå," she replies.
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Lena Gustafsson, Vice-Chancellor Umeå University

“From our perspective, a little on the edge, we can see and take advantage of the opportunities, not the least in the great challenges we face.”

“But the music scene is truly alive and kicking. There’s live music almost every night. When Refused, the legendary superstars of Umeå hardcore, recently announced that they’d be reuniting for a world tour for the first time in 14 years, it was a global sensation, almost in the same class as ABBA. And when the band did a secret warm-up at the Scharinska Villan here in the city, there was almost a riot when word got around.”

“It was damn good.” The voice comes from behind me, monotonous and slightly rasping, and I turn around. He seems to have simply emerged from the wall. A guy aged 19–25 or so, impossible to guess any closer— and he looks like my image of Lisbeth Salander, paler than the birches outside, slightly androgynous and clothed entirely in black in the nostalgic agro punk style.


LENAGUSTAFSSON IS ALSO headed for Stockholm, so I share a cab with her. I take the opportunity to ask how she and her colleagues would like to profile Umeå University.

“It profiles itself quite actively unaided,” she says. “Thankfully there are unique qualities here, and obviously they need to be emphasised and tied together into something that engages and attracts people. We operate in a competitive world, where there’s a constant struggle for funds, as well as for researchers, lecturers and students. Although we’ll soon be 50, we’re still a young university, even more so in our attitudes and in our approach to our brief. We don’t get too caught up in traditions and locked trains of thought, which is an advantage if you want to contribute to the solutions to all the challenges society is facing. We’re kind of on the fringe, and we have to exploit the benefits that this entails.”

And what are those benefits, in your opinion?

“Well, it’s not just a geographical position, but also a mental one. We can’t settle down in the calm of the storm’s eye, we have to move at great speed. From our perspective on the edge we can see and exploit the opportunities that arise, especially in the great challenges we have ahead of us. We can find new points of departure. This, combined with our boundary-crossing activities: between disciplines, between research and education, and between the academic and commercial worlds in general. It gives us advantages and furthers our competitiveness— particularly as the reality outside of university converges in a similar way. So yes, I would say we have an excellent chance of succeeding.”

“From our perspective, a little on the edge, we can see and take advantage of the opportunities, not the least in the great challenges we face.”

Lena Gustafsson, Vice-Chancellor Umeå University

Office for External Relations
UMÉA UNIVERSITY, along with the Swedish University of Agricultural Sciences in Umeå, Gothenburg University and Chalmers, has been awarded almost 80 million SEK by the Knut & Alice Wallenberg Foundation. The funds are being used for two technical platforms in metabolomics research and nuclear magnetic resonance (NMR), which enable detailed studies of life’s molecules in fields such as medical research and plant biology research. The technical platforms play a vital role in several of Umeå university’s strong research environments, such as plant and forest biotechnology, infection biology, the dynamics, structure and function of proteins, solar fuels, and the environment’s chemistry.

40.5 million SEK will be spent on equipment and operation of NMR spectroscopy, a technology that makes it possible to study the structure and dynamics of biological molecules at the atomic level – even in their natural surroundings.

38.7 million will be spent on equipment and operation of metabolite analyses, which provide detailed information on the small molecules involved in the metabolism of a cell – the metabolome – such as amino acids, sugars, hormones and fatty acids. Connections exist for example to bacterial resistance to antibiotics, cancer and neurological illnesses such as ALS and Parkinson’s.
**Silent Seas**  
*Isabella Lövin (2007)*  
“The greatest threat against the world’s fish stocks is no longer environmental pollution, but overfishing; trawling and the enormous boats that deplete fishing waters, illegally or legally. Silent Seas is a distressing account of what is happening to fish stocks in Swedish and international waters. It reveals the blatant reality of the enormous challenges we face.”  
*Bent Christensen, Senior Lecturer in Ecology*

**About architecture: from an ongoing conversation**  
“An anthology of the essence of architecture for curious beginners as well as for professional architects. The texts are written mainly by architects, from the ancient Roman Vitruvius to contemporary Rem Koolhaas. A good read on everything from the nature of space to the principles of building a community.”  
*Katrin Holmqvist-Sten, Head of the School of Architecture*

**All about love**  
*Bell Hooks (2000)*  
“A provocative and beautiful book about love as a vital force and a feminist power to change. Hooks asks herself if what frightens people most is not the impossibility of love but the possibility. A visionary journey in thought – for a loveless and longing to love era.”  
*Annelie Brännström Öhman, Professor in Literature*

**The Memory Chalet**  
*Tony Judt (2010)*  
“The British historian Tony Judt (1948-2010) was gradually paralysed by the neurological disease ALS. On sleepless nights he associated thoughts with memories that he then dictated in the morning. The book entitled The Memory Chalet was the result. Sensitive little essays based upon personal experiences unfold into reflections on everything from technology and national railways to commercialism and ethnic identity.”  
*Kjell Jonsson, Professor in History of Science and Ideas*

**In the skin of a lion**  
*Michael Ondaatje (1987)*  
“An early novel of the Canadian/Sri Lankan author Ondaatje. A captivating, exciting and affecting story of the immigrants from all over the world who built Toronto into a modern metropolis at the beginning of the 20th century. About daring to embark on the adventure of crossing borders and finding a new way of life.”  
*Annelie Brännström Öhman, Professor in Literature*

**Darwin’s idea**  
*Staffan Ulfstrand (2008)*  
“The Professor Emeritus at Uppsala University describes the exciting history of Charles Darwin’s discovery and its continuing influence on current modern research. It is a truly solid review of one of the biggest, most simple and paradoxically also most misunderstood of ideas.”  
*Bent Christensen, Senior Lecturer in Ecology*

**Kawaii**  
*Marita Lindqvist (2004)*  
“An autobiographical book by a middle-aged Swede who loves Japanese boy bands and spends (wastes) time and money travelling around Asia to listen to concerts. In an indirect way she describes the Japanese virtue of loyalty to a group, exchanging the samurai clan with the hysterical boy band fans. Kawaii describes an interest or passion that is boundless in terms of culture, geography and age.”  
*Petter Holme, Docent in Physics*

**Queer Universes: Sexualities and Science Fiction**  
“How do we think about sexuality when we imagine the future? Queer Universes investigates boundaries in sexuality and gender, as well as between time and space. A queer perspective is layered here in science fiction with analyses of some exciting novels.”  
*Josefine Wälivaara, Doctoral student in Drama-Theatre-Film*
Umeå is one of the fastest-growing places in Sweden. Industry is running at full speed and the two universities have more students than ever before (around 37,000). Umeå has been appointed European Capital of Culture 2014 and the city is seeing a real building boom. The Bothnia Line has been completed, Umeå Arts Campus – which will put Umeå on the world map as a creative centre – has just been opened and the new Kulturväven cultural centre is under construction. New residential areas and several new hotels are also being built and more commercial space is planned. All this is fantastic of course. But it doesn’t come about by itself. That’s why we’re not leaning back and feeling satisfied. We want more and we are continuing to work hard to further strengthen Umeå’s position as an attractive place in northern Europe. So that even more people can have the opportunity to discover how good it is to live and develop here.
I often get the question: “Why don’t you live in Stockholm?” And then the statement: “You have to move to Stockholm if you’re a musician.” I usually say that I like living in Umeå and that it’s a great place to make music. Sometimes I feel like saying something like: “So why don’t you live in Kiruna?” Or “You’ve just got to move to Haparanda. That’s where things will really start happening for you.”

I could also say like this: I live in Umeå because it’s my instinct, because the air is crisp and clean, because the water is good, because everyone can’t live in the same place. This is where I learned to walk. Umeå gives me discounts. I get free rides here. I live here because I want to rub down the mosaics in the Scharin Villa. I live here because the pace is a bit slower and I don’t get shoved around. I live here because I like the river, because I want to, because I can and because everything I need is here. It takes seven minutes to get to one friend and only three to another. There’s a forest just around the corner that knows everything you don’t.

I live in Umeå so I can long for other places, because it’s ugly enough, because the centre of town is so small that you can miss it. I live here because someone else can imagine living here because I live here and because of a painting I saw of two reindeer. I live here because I don’t have to take the subway or sit in traffic jams, and because I like to twist and turn maps. I live here because I care, because the graffiti under the E4 bridge is beautiful, because I like the skate park where I can dream of becoming a skateboard pro. I like it because every winter an icicle lands just an inch away from your head, your legs freeze in a tight pair of jeans on your way home at night, or because you’ve forgotten what it was you thought was so good about everything. That’s when leaves start to unfold and fragrant clusters of bird cherry blossoms dangle in front of your nose. It’s wastefully light, paradise on Earth. Birch pollen tickles me into a sweet sneeze, in the middle of which I get the feeling that I can do nearly anything here.

I live in Umeå because it seems to work, because it seems like it will last. I live here because of everyone else who lives here, I can go wherever people need me. There’s motion here, a natural draught. People come and go like oxygen and ventilate the town. Ideas are floating around. I live here because my parents are suddenly knocking on the door, because I can borrow from Umeå, because I want to change attitudes about where you have to live if you are a musician and because I don’t like small talk. I’m not particularly drawn to the idea of drinking beer with creddy critics in some bar on Södermalm. I really don’t even want to know who the credible critics are. I live here because my job and my school are my life and it’s everywhere. Music travels anyway, always, if it’s good.

I live in Umeå because of a gut feeling, because I don’t believe what’s in the paper, because Berlin is not for me. I live here because of all the UFOs and weirdos who live here, because my band lives here, because I can walk anywhere and because I understand something here that I don’t understand anywhere else. It feels like Umeå understands me. I like it because the town ultimately couldn’t sell the Scharin villa and because it’s not true that it’s better to live in Stockholm if you want have a career. It’s like one of those dot-to-dot drawings, where you gradually get the picture. You could just as well draw the lines without following the numbers or even the dots. You get the picture anyway. You might even get a picture that suits you better. That’s why I live in Umeå.

Frida Selander twists the map

Frida Selander
Musician and songwriter
Previously a student in creative music and songwriting at Umeå University

Chronicle

“...for all the UFOs and weirdos who live here, because my band lives here, because I can walk anywhere and because I understand something here that I don’t understand anywhere else. It feels like Umeå understands me. I like it because the town ultimately couldn’t sell the Scharin villa and because it’s not true that it’s better to live in Stockholm if you want have a career. It’s like one of those dot-to-dot drawings, where you gradually get the picture. You could just as well draw the lines without following the numbers or even the dots. You get the picture anyway. You might even get a picture that suits you better. That’s why I live in Umeå.”