

THE SCOTSMAN

Shot in an instant - wrong turning cost soldier his life

By Jerome Starkey

THE Scots soldier missing in Helmand may have run into a senior Taleban commander and then been shot dead by his bodyguards, according to an Afghan councillor.

He was named by the Ministry of Defence last night as 20-year-old Scott McLaren of 4th Battalion, The Royal Regiment of Scotland.

The dead soldier's family yesterday spoke of their sadness at his death, while his commanding officer described him as "the most reliable and conscientious member of his platoon" who had "a heart of gold".

While reports into the circumstances of the death of Highlander McLaren from Sighthill in Edinburgh remained confused last night, both a Taleban spokesman and a local village leader told The Scotsman that he stumbled upon the commander in the village of Kopak, a few miles from the vehicle checkpoint at Salaang where he was stationed.

Highlander McLaren finished duty at the check-point at 2:30am on Monday. General Sayed Malook, the commander of Afghan forces in Helmand, said he understood that the soldier went off with a number of Afghan soldiers for a swim in a nearby canal and later drowned. However, Nato officials are sceptical of the suggestion.

Instead, Abdul Ahad Helmandwal, a member of a district council close to where the incident happened, and Maulvi Seraj, a Taleban commander who claimed to have been involved, said Highlander McLaren was shot dead in Kopak, a village near his checkpoint.

Checkpoint Salaang is near the Nahr-e-Bughra canal and is also close to the village of Kopak, in the south of the Nahr-e-Saraj district, which has been repeatedly fought over.

Mr Helmandwal said the soldier had left his base with an unknown number of Afghan soldiers and walked south, along a main road, towards the village.

"After a while, around 10am, the British soldier walked into a lane, in the north of Kopak, and came face to face with Mullah Hekmat (a Taleban commander] and three of his guards."

He said the bodyguards shot him dead, on the spot. "Then, they took his body to Khazanadar to show the other Taleban that they had killed a British soldier." Mr Helmandwal said that the Highlander McLaren's body was ill-treated.

However, Maulvi Seraj, reached by satellite phone last night, said the insurgents had originally hoped to smuggle his body abroad, but were forced to abandon this plan as the manhunt intensified.

Highlander McLaren was reported missing shortly after he failed to return from his checkpoint duties in the early hours of Monday.

As a result, the whole of the International Security Assistance Force's available resources, including hundreds of men, Land Rovers and helicopters were deployed in the search.

Prime Minister David Cameron's travel plans were scrapped so that helicopters that would have ferried him and his party could be used in the search. As the scale of the manhunt unfolded, the local people, according to Maulvi Seraj, grew scared that they would be bombed for harbouring the body.

Nato said it scrambled all available surveillance assets to scour the skies and eavesdrop on for talk of a captive soldier.

"The local people got scared and they didn't want to leave the body where it was," Maulvi Seraj added.

The MoD refused to comment on the condition of Highlander McLaren's body, but Lt Col Tim Purbick, a spokesman for Taskforce Helmand, said earlier that the soldier "suffered gunshot wounds". He added that the "exact cause of death is still to be established".

Officials are reviewing CCTV footage from the base, but there is no suggestion that the soldier was under any obvious signs of duress.

His body was found at 7:30pm that night, in a culvert three miles from the base, by troops involved in the manhunt.

Gen Sayed Malook gave a different account to The Scotsman of how the soldier was killed.

He repeated claims made on Monday that the soldier had left his base with two Afghan comrades to go swimming in the Nahr-e Bughra canal. He said the Afghan soldiers suddenly noticed that the British soldier was missing, and presumed that he had been swept away by the current.

Nato officials are sceptical of the suggestion he went swimming, and they are investigating whether he may have been betrayed or sold out by Afghan army comrades.

In a statement issued by the MoD on behalf of his family, parents James and Ann, sister Kirsty and brothers James and Ross spoke of their pride in Highlander McLaren.

They said: "We are deeply saddened by the news that our dear son Scott was killed in Afghanistan. We were extremely proud of Scott. He loved the army and despite his short time in 4 Scots had made many friends.

"Scott was a beloved son to James and Ann and brother to Kirsty, James and Ross. His family and friends; Grandmother Evelyn, Uncle Graham, Auntie Heather and close friend Michael will miss him dreadfully. We will always be thinking of him.

"We would like to thank everybody for their support and kindness at this time."

Highlander McLaren joined the army in 2009, and was deployed to Afghanistan in April this year.

His patrol had played a key part in bringing security to the area, including being responsible for a major discovery of bomb-making equipment and Improvised Explosive Device (IED) components.

Major James Cross, Officer Commanding D Company, The Highlanders, 4th Battalion The Royal Regiment of Scotland, said: "Highlander McLaren's death has come as a huge blow to all of us who have had the privilege of serving alongside him."

Describing him as a "fit and extremely accomplished runner" Mjr Cross said of Highlander McLaren: "He was a man with a big heart and a true friend to many, whether it be taking on extra work or going the extra mile to help his friends in their time of need, he was trusted by all and genuinely had a heart of gold."

Known to his friends in the Battalion as "F1", Mjr Cross added: "Quiet and reserved, he had the true grit and determination of a traditional Highlander; when the times got tougher it was always 'F1' who was still standing at the end."

Lieutenant Colonel James de Labillière DSO MBE, Commanding Officer of Combined Force Nahr-e-Saraj (South) and 1st Battalion, The Rifles, said that the soldier would be "sorely missed".

"What is completely clear is his lasting and positive contribution to the campaign, and the reflective and determined way in which he made it," he said.

"The thoughts of every member of the Battle Group, who tried so desperately hard to save his life, rest now with his immediate family."

Mr Cameron said the incident was "a reminder of the high price that we have paid for the vital work we do in Afghanistan and in Helmand province".

Afghan president Hamid Karzai said: "I express my condolences on the very recent loss of a British soldier."

This is the first time a British soldier has gone missing and been killed in Afghanistan.

The three other servicemen who have previously been kidnapped in the country were American and were all captured or killed by the Taleban. In June 2009, insurgents captured Sergeant Bowe Bergdahl in the south-east of the country.

Since then they have released video footage of him in captivity and dressed in Afghan clothing during which he denounces the current military campaign in the country.

In July 2010, two sailors from the US Navy went missing in Logar province, south of Kabul, the Afghan capital. However, their bodies were found in the area a few days later.

The Highlanders are based near Fallingbommel in Germany. In 1994, the Queen's Own Highlanders and the Gordon Highlanders amalgamated to form The Highlanders, in turn becoming the 4th Battalion of the Royal Regiment of Scotland following the latest infantry reorganisation.

The battalion traditionally recruits in the north and north-east of Scotland, from the Northern Isles to Inverness-shire and the Outer Hebrides to Aberdeenshire.

The Highlanders are currently half-way through their tour of duty in Helmand.

They deployed in the spring for six months serving as part of 3 Commando Brigade on Operation Herrick 14, involving 6,500 servicemen and women.

The battalion had previously served in Afghanistan and had also deployed to Iraq in recent years.

THE TELEGRAPH

My crash course in bigotryBy **JOHN J. DUNPHY**

2011-07-08 18:33:32

I'm sure that many of you are familiar with the "It Gets Better" project on YouTube. Members of the gay and lesbian community, as well as prominent straights such as Hillary Clinton and Barack Obama, have posted over 10,000 videos to assure gay and lesbian youths that life indeed "gets better" for those of their sexual orientation.

Why is such a project necessary? As parents, educators and all Americans of conscience will readily attest, gay and lesbian kids frequently suffer a horrendous level of persecution, particularly in school.

While many straight kids accept — or, at least, tolerate — their gay and lesbian classmates, no small number of dim-witted bullies with an addiction to sadism subject these youths to taunts, threats and outright violence on an almost daily basis. The harassment and persecution these kids suffer would challenge the resilience of many adults. Some gay and lesbian students see suicide as the only escape from the hell of their everyday existence. An Arkansas school board member posted a venomous tirade on Facebook in which he stated that gay and lesbian youth indeed should commit suicide. Public reaction was so negative that he resigned.

I'm aware that many area residents belong to churches that teach homosexuality is wrong — even a sin. The issue here, however, isn't about gay and lesbian rights. It's about gay and lesbian kids not getting taunted and beaten up. One needn't support gay rights to condemn this kind of violence. The "It Gets Better" project is important because the testimony on these videos assures these young people that gay and lesbian adults, who also went through hell in middle and high school, now have rewarding lives.

Why do I feel so strongly about the support the "It Gets Better" project? Decades ago, during my freshman year in high school, I witnessed the persecution of a fellow student considered to be gay. Precisely why he was thought to be gay or the fact that it wasn't true doesn't matter. What is relevant and remains seared in my memory after 40 years is that this 14-year-old boy's life was made into a nightmare. Many students in our co-ed class simply chose to ostracize him. Tragically, they became the humane ones by default. A number of his fellow freshmen boys became obsessed with tormenting him. If their activities had been a school sport, all would have been awarded letters. His locker was repeatedly vandalized. He was shoved and struck in the hallways, and his books were knocked from his arms. Obscenities were written on his homeroom desk as well as on desks in other classrooms. For this boy, going to school each day became going to hell.

One incident in particular haunts me. The entire student body, for some reason I can't remember, was required to attend a service at a church just down the street from our high school. The accused boy walked to the church alone, since no one cared to be seen near him. A group of his tormentors walked some distance behind him, yelling epithets all the way. The boy never turned around the entire time, no matter how vile the insults. Once in the church, several of these boys managed to sit in the pew behind him. Their shouts were now whispers, since an important religious rite was in progress. The obscenity in their taunts, however, reached new depths of vulgarity.

If the faculty and staff of this high school ever intervened to try to put an end to this boy's persecution, I never heard about it. He managed to survive the rest of freshman year and then transferred to the public high school. I can't even begin to imagine the psychological scars he took with him.

Witnessing that boy's ordeal gave me a crash course in a subject that wasn't on the school's formal curriculum: the perniciousness of bigotry. No one — youth or adult, gay or straight — should be subjected to the ordeal that boy endured. We Americans still have much work to do as we strive to rid our nation of bigotry and discrimination. Nonetheless, the fact that thousands of Americans, including the president and secretary of state, have chosen to participate in the "It Gets Better" project indicates that our nation is moving in the right direction.

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THE TELEGRAPH

Cruising in my two-door sedan**By ANDY BATCHELOR**

2011-07-01 16:56:07

In the summer of 1966 my father finally gave in to allow me to be the proud owner of my own car. I had been saving for the entire year for a car of my own.

I had a paper route for years and finally sold it and banked the money. I also had worked at Burger Chef, the Chuck-A-Burger drive-in and I had mopped floors at Alton Memorial Hospital for a few months. I had saved up an amazing \$300, all safely stored in my savings account at Olympic Savings and Loan which was across from the Wedge Bank.

Dad finally said we could go car shopping; my idea of a car and my fathers were pretty far apart. I had little faith in my Dads ability to pick out a car. He was no mechanic, or at least that is what I thought. I did not realize he had years of experience working on cars and purchasing cars for the entire family. When I say "entire" family, I mean the entire family, his brothers, sisters, cousins and our family. He helped everybody save money on car purchases, Dad was a good negotiator.

After what seemed like years waiting, while it was only two or three weeks, Dad found a car that he liked just a couple streets from us on Omega. The man that had the car for sale was also a car guy and liked to tinker with cars. The car was a 1957 Chevy Bel Air two door sedan with a straight six-cylinder engine with a three-speed stick shift on the steering column of the car.

This was not the car of my dreams but one thing that I could see was my independence and the feel of the wind in my face on the open road cruising anywhere I please in my own ride.

Dad had negotiated the price down to \$300 from the original asking price of \$425. My father said this was a good car and that he recommended that I buy it. Reluctant as I was, I did want a car and Dad said that maybe I might fix it up a little and put a nice radio in it, so I agreed.

The next Saturday Dad and I went to the saving and loan and took out my life savings and we went to pay the man for the car. The owner went over how some of the things on the car worked and showed me where to change or add oil if needed. The Chevy had about 60,000 miles on it; a lot for the engines of its day. By the time I paid for license plates and the title fees, I was broke. I had two dollars left for gas. Dad followed me home from Omega Street, a short five blocks to our house; I did not even get a chance to drive on Milton Road before going home.

Dad went over the parking rules in the front of the house, my brother Steve and I were to share the spot in front of our house without blocking the driveway. Then I ask Dad if he had added me to his insurance policy yet; he said that he was not planning on adding me to the policy.

My older brother Steve had apparently cost Dad a lot of money with his lousy driving skills and Dad could not afford to put another teenager on his policy. He said I would need to buy my own insurance; if I drove as bad as my brother it would not affect Dad and Moms policy.

I protested sternly but did not win. Dad said he expected me to find an insurance company and pay my own way and finally he told me to hand over my car keys till I got insurance. "You will not drive until you have insurance."

I just about went into shock; I had spent all my money on the car and it might take years to save enough for insurance. I finally found an insurance company that would sell me liability insurance only for about \$300 for six months, insurance was going to cost more than the car. I worked hard that summer at Burger Chef and mowed lawns till I had permanent grass stains on my feet. I polished that car at least 20 times that summer and kept it shining but Dad still had the keys. By September I had enough to get insurance with a little gas money left over.

I was so happy to stop driving the family truckster. I was allowed to drive to school but had to come home right after school and check in with Mom.

I loved that old Chevy and I literally wore out that old six cylinder engine till it ate oil as fast as gas. I asked Dad if he would help me with paying a mechanic to rebuild the engine for me. Dad said that he would rebuild the engine with my help.

I think to myself, this is a real bad idea, Dad is the busiest guy in the world so how is he ever going to have time to do it, let alone know how to do a ring and bearing rebuild on a car. Dad even ground the valves on the head himself. Dad did a great job and I learned a lot about the mechanics of the machine and after what seemed like forever, about two weeks, my car was back on the road.

This is only the beginning of the story, after figuring out what made engines tick I was addicted for life. I made that car into one fine-tuned racing machine. I eventually put a small block V-8 engine, bored out the cylinders to the maximum, installed domed pistons, Crane cam, Edelbroch high rise manifold, headers with Sneaky Pete dumps, four barrel carb and 456 posi-traction rear end, drag slicks, air shocks all pushed by a Muncie 4 speed on the floor and a Delco Reverberator on the radio.

That car is history now but my love of a fine-tuned car still endures.

My love for a good-looking automobile turned into a good living for me for 40 years.

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THE TELEGRAPH

Psychic, aroma therapist combine forces to heal, rejuvenate

By VICKI BENNINGTON

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Whether or not you believe in the paranormal, psychic phenomenon, extrasensory perception and mediumship, there are scores of people who say they have the ability to go beyond the traditional five senses in terms of awareness.

In fact, some say there is no such thing as "paranormal," but the term refers only to our limited understanding of nature and its multiple dimensions.

Amanda Dowel of Chesterfield, Mo., says she remembers having some degree of psychic ability — or divine gift — as early as 5 years old.

"I was adopted, and my parents and my grandmother knew from the start that they had brought home a special child," Dowel said. "I always knew what my dog was thinking — hearing him say things like 'wait for me' — and I just thought that was normal."

Dowel's grandmother knew that she was seeing and hearing things that others couldn't. Her advice? "Pray to God every time you read or experience something. That way, you know you are calling to the highest power."

When Dowel was 7, her grandmother died, and for the first time, Dowel experienced mediumship, seeing her grandmother standing near her own casket.

"My Mom didn't believe me, but my second-grade teacher did," Dowel said. "She told me it was OK. After that, my grandmother spoke to me, saying that I would see things more clearly and that she didn't really leave me. Though I didn't understand her message at the time, I did begin 'seeing' things that others didn't, as well as hearing, feeling, smelling and tasting when others could not.

She continued to have "out of the ordinary" experiences, and when she was about 16, a massage therapist and Raeki practitioner sensed her abilities and helped point her in the right direction to fine-tune them and best utilize her talents to help others.

Since then, Dowel has used her "intuition" and extrasensory perception to become an intuitive counselor, radio psychic, healing touch practitioner, angel reader, medium, animal communicator, medical intuitive energy reader and healer, and a spiritual guide.

She says her psychic ability combined with energetic healing techniques is what separates her from the rest.

"My focus when working with a client is to make sure they're using a roadmap to their destination," Dowel said. "I go into prayer mode and take my energy to God. From there, I begin tuning into a person to see what comes through. I call on the guides and angels around the client and ask the divine to bring through messages of highest good."

She is a tested psychic with Best American Psychics.

"We are a team offering compassion with wonderful guidance to empower people," Dowel said.

She hosts a radio show at 11 a.m. Mondays at www.blogtalkradio.com/ggmradio and has been a guest on such radio shows as Kelley Lamm's "Deliciously Alive" on Westplex 100.7 FM. She also collaborates with a "sacred journey team" including massage therapist/life coach Sandy Moss and aroma therapist John Kluge of Bridgeton, Mo. to provide clients with a total package to upgrade their energy system (mind, body and spirit) and help them move forward on the path to enlightenment, Dowel said.

When Dowel meets people, she said she is able to see their "energy aura," consisting of colors of light radiating from their body.

"And with my healing abilities, I can determine through that aura what they need to feel better or to move forward in their journey on Earth," she said.

With 11 years of experience as an aroma therapist, Klug said working as a team is very beneficial to clients.

"I use Young Living essential oils, blended using established protocols, and then anoint (or massage) the oils into the client's hands, head (or back of neck) and feet," Klug said. "The oils are a 'booster shot' of what people need. I think people would eat, drink and smoke less if they knew about and used these kind of oils."

A fairly standard mix for a client who has normal stress and toxins common in everyday living might include frankincense, spruce, peppermint, eucalyptus and myrtle. Copa Iba is an oil that is particularly beneficial as an anti-inflammatory. For rejuvenation, ginger, orange and cinnamon might be utilized. Some oils work well for one person and not for another.

"We're aligning a person's aura with Mother Earth and upgrading it to positive energy," Dowel said. "It's like I take a snapshot of a person's energy field and know what is needed, and the client receives more benefit much faster."

"It's like taking a shower in sunshine," Klug said. "I have about 30 separate blends to choose from, each with five to 10 components."

Dowel and Klug each receive their own oil anointment about once a week, because as Dowel says, "It rejuvenates me."

Animals and children have always been attracted to her.

"It's almost like a Snow White syndrome," Dowel said. "They always seem to be drawn to me, because I understand them."

She also works as a medium, saying that it can be very important in helping people deal with grief.

"If they've lost somebody, I can help them get some answers," she said.

She said deceased people, angels and animals give her messages.

She is a tarot card reader and gives readings by telephone. She also schedules in-person appointments for the variety of services she provides.

"Many people have told me I have helped them by relieving pain; they have less anxiety and less depression," Dowel said. "I know I've made a difference, and that gives me great joy."

Dowel is in the process of becoming certified in Star Healing Intergalactic Energy, a healing system founded by Kelly Hampton that Hampton said is channeled by the Archangel Michael.

Dowel and Klug also can be booked for private parties, where guests receive readings and oil anointing.

To contact Dowel, call (301) 748-1090 or e-mail her at starwaya@hotmail.com. Contact Kluge at JohnKlugeandFamily@ymail.com. For more information, visit their web sites at www.AncestorOfLight.webs.com or www.YoungLiving.Org/JohnKluge, respectively. vbennington@sbcglobal.net

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THE TELEGRAPH UK

The secrets to a long life

By Tracey Lawson

7:00AM BST 10 Jul 2011

Come to Campodimele in the early morning, when the air is still cool and the sun spills over the Aurunci peaks. Park up near the statue of San Padre Pio, where the village starts, and follow his gaze across the valley view. And that's when the silence starts seeping into your soul, and the stillness soothes your heart. And under this wakening sun and the endless sky, it seems that you really could live for ever.

It's easy for such a notion to enter your head on arriving in Campodimele, the Italian mountain community that welcomes visitors with a signpost describing itself "Il Paese della Longevità" ("The Village of Longevity"). And not just because of the statistics, which show that its inhabitants live unusually long lives. It is the elderly villagers themselves who conjure notions of life never-ending. Because they not only live long – they live healthily and actively into old age, too.

Venturing out at first light on a summer's morning, the silence is broken by a sound like a cricket gone crazy. But I know by now that it's Gerardo, zipping around on the Vespa he's still riding at 78 years old.

“Passaggio?” he inquires as he continues the 3km tumble down the mountain. He is going to examine his field of wheat, his morning ritual in the summer months. I decline his offer of a lift and off he buzzes, slaloming around the hens that are jay-walking across his path.

This village back road is known as le galline – the hens – because it’s where the ramshackle stone hen houses sprawl, and on any morning you can catch Maria shooing her birds from their roosts, chasing them down the hillside on her 83-year-old legs. “Guarda!” she says as I pass by, opening her cupped hands to unveil two perfect, blush-brown eggs.

I wander up the road to the 11th-century walls that encircle the borgo, the medieval heart of Campodimele, and slip through the stone archway on to the old piazza. It’s a riot of staircases made from stone, geraniums tumbling from terracotta pots, and already the scent of tomatoes and basil is floating on the breeze. Assunta, now over 70, stands by her kitchen door, waving the Moka coffee pot, and beckoning me in. “Mangia!” she says, offering me a breakfast of amarena jam tart, made with the bitter cherries she has taught me how to stone and preserve.

This is the everyday stuff of life in Campodimele, the mountain-top community that has attracted attention from doctors across the globe due to the longevity of its residents. Figures released by the local council in 2009 found that the average life expectancy of both men and women at that time was 95 years. That compared to an Italian average at the time of 77.5 for men and 83.5 for women, and a European Union average of 75.6 for males and 82 for females.

Long fascinated by the value of food as preventative medicine, my love affair with the village began with the intention of writing an article about what these people eat in order to live so long. But I was so enchanted, so overwhelmed by the hospitality of its inhabitants, that in 2007 I made Campodimele my home.

In doing so, I discovered that diet is indeed a key part of longevity here – but there is much more to the equation than that. The recipe for a long and healthy life *allo campomelano* is best described as a delicious cocktail of complementary factors. Some are unique to the village – but others are transferrable to Britain, give or take a few adjustments to our lifestyle and minds. In this way, it may be possible to improve the chance of living a longer life – and, more importantly, to be sure we live well.

The simplest and quickest way to bring a health-enhancing bit of Campodimele to our lives is to recreate it on our plates. The traditional diet is that of *cucina povera*, the poor kitchen of the peasant farmer. Low in meat and almost devoid of red meat and butter, it tends to avoid saturated fats, so is an ideal basis for heart health. Protein comes largely from beans and pulses, including the *cicerchie*, a small, angular pulse, particular to the village. Known in Italy as *la carne dei poveri*, the meat of the poor, it offers the double advantage of being free from cholesterol and rich in soluble fibre, which helps lower cholesterol in the bloodstream. Pietro Cugini, Professor of Internal Medicine at La Sapienza University in Rome, who has conducted a number of studies of the village, describes the diet as “hyper-Mediterranean”; in other words, typical of what is widely accepted as one of the healthiest diets in the world.

As such, its larder happens to be bursting with fresh and raw ingredients that can help protect the heart: olive oil, oily fish, garlic, shallots, onions – and red wine to offer a daily injection of polyphenols. The diet also helps protect against cancer – rich in fruit and vegetables with their antioxidants, vitamins and minerals; high in fibre, which protects the bowel.

Campodimele is traditionally a peasant farming culture, and while many villagers hold down jobs in nearby cities, almost everyone grows at least some of their own food, be it on a vegetable patch or on a farm.

Of course, cultivating your own food requires a great deal of physical activity – which brings health advantages in itself. Prof Cugini is convinced that the regular activity required of the agricultural life plays a key role in assisting health and mobility into old age.

Investing in agriculture, on whatever scale, also means surrendering to a seasonal life – which has brought me physical, sensory and psychological joys I could barely have imagined amid the chaos of my UK city-dwelling, commuter life. The cycle of nature imposes a rhythm and a structure to the day, the season, and the year. Many harvests are celebrated with a *sagra*, a thanksgiving festival.

So the farming year imposes holidays and enjoyment upon your diary – no question of working through your annual leave here. And depriving yourself of fresh asparagus or cherries or apricots throughout the colder months makes their arrival at the table an event to be anticipated, savoured, appreciated – and missed once the crop is done.

But more than this, embracing the seasonal life means, by implication, letting go of the control we think we have in our 24/7 society – and realising that in fact we never are, and never have been, in control. In checking his wheat field every day, Gerardo is facing the fact that if it rains too much, or if it doesn’t rain at all, his

family will not have enough wheat for bread and pasta in the year to come – what better way to gain a sense of perspective of your place on earth than that?

Ogni cosa ha suo momento. Everything has its time. After three years in Campodimele, I am convinced that the agricultural life is responsible for the fatalistic attitudes that I see in so many people. They expect to work hard, and reap the rewards – but when it comes to the inherent sadnesses and tragedies of the human condition, and the apparent vagaries of fate, I have never heard anyone complain that life isn't fair. It is just itself – and the cycle moves on.

This fatalism both lends itself to, and is supported by, the religious formation that almost everyone receives. Around the age of seven, most children start a lengthy programme of preparation for their First Communion. Even those parents who do not attend church appear keen for their children to undergo this – and not for the convenience of social convention. As one Italian mother of the christenings-weddings-funeral approach to church put it to me: “This way they have to think.” About moral issues; about the purpose of life – and the fact of death; about developing their own philosophy for living, in line with, or in reaction to, a clearly defined moral framework.

It is this perhaps that helps Italian children develop a social presence which comes from knowing who you are. And a critical perspective on life. I have been astonished – and delighted – at some of the moral philosophising to come out of the mouths of 12-year-olds I know – although the one that gave me most pause for thought was from the daughter of a neighbour who, when I was newly arrived and scrabbling to find a kitchen implement she needed, smiled indulgently at me and said, with infinite kindness, “Con calma” – “Take it easy”.

The Campomelani work very hard – you do not carve Eden out of chalky rock faces without grit and sweat. But they know how to take it easy, too. And they love to be in company. So lunch is a two-hour ritual not to be missed. In the hot months, the sun dictates a siesta mid-afternoon. Evenings are for the ritual passeggiata towards the valley-view piazza and a drink at the Moonlight bar. Or gathering at the hen houses to put the birds to bed, then perching by the 11th-century walls to swap the news of the day.

Relaxation and sociability are integral to the structure of life here. Open house is the norm. And it's common to find three generations of family living side by side, or in the same household.

It is impossible to measure the contribution these factors may or may not make to long and healthy lives, but sociologists and psychologists are increasingly studying the impact of personal relations of all kinds on physical and mental health. Which elderly person would argue that it is not good for the well-being? The Campomelani are in no doubt that the stimulation of neighbourly social support and the emotional and practical support of family nearby help.

So there is much we can do to improve our chances of longevity by changing some of the environmental factors of our life.

But as life in Campodimele has taught me, some gifts only nature can bestow. Because for a few people here, longevity is in the genes. Some Campomelani benefit from a genetic disposition to low blood pressure, and this is a dominant gene. So while it's too bad for us, if you marry and make a family with a Campomelano who carries it, your offspring are bound to inherit the gene.

Many people have asked me if this is the true explanation for the average longevity of the Campomelani. The answer is, only in part. Prof Cugini suggests that the genetic factor accounts for only

30 per cent of the population's tendency towards long life. The other 70 per cent is down to how they live and eat. Which means that many of the secrets to living longer are in their – and our – hands and our heads. And very often on our plates.

'A Year in the Village of Eternity' by Tracey Lawson (Bloomsbury, £20) is available from Telegraph Books at £18 + £1.25 p&p. Call 0844 871 1516 or visit books.telegraph.co.uk. Tracey will be talking about life and longevity in Campodimele at the Telegraph Way With Words Festival at Dartington Hall, Totnes, Devon, on Thursday July 14; www.wayswithwords.co.uk

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THE NEW YORK TIMES

Cleaning the Henhouse

By NICHOLAS D. KRISTOF

The latest salmonella outbreak, underscoring the failures of industrial farming, reminds me of the small chicken flock that I tended while growing up on a family farm.

Our chickens wandered freely, and one dawn we were awakened by frantic squawking. We looked out the window to see a fox rushing off with a hen in its mouth.

My father grabbed his .308 rifle and blasted out the window twice in the general direction of the fox. Frightened, it dropped the hen. Yet the hen, astonishingly, was still alive. She picked herself up, spun around dizzily a couple of times, and staggered back to the barn.

A month later, my aunt visited our farm with her Irish setter, Toby, who was always eager to please but a bit dimwitted. We chatted and forgot about Toby — until he bounded up proudly to show a chicken he had retrieved for us.

It was the very same hen that had survived the fox. We shouted, and Toby sadly dropped the bird. She ruffled her feathers, glared at the dog, and then stalked off while clucking indignantly.

Perhaps that hen might have been ready to choose a cage over the perils of canines on the range, and, obviously, my family's model of chicken-farming was horrendously inefficient and no model for the future. But the other extreme of jamming chickens into small cages is a nightmare for the animals — and the salmonella outbreak underscores that it can be a health hazard to humans as well.

Inspections of Iowa poultry farms linked to the salmonella outbreak have prompted headlines about infestations with maggots and rodents. But the larger truth is: industrial agriculture is itself unhealthy.

Repeated studies have found that cramming hens into small cages results in more eggs with salmonella than in cage-free operations. As a trade journal, *World Poultry*, acknowledged in May: "salmonella thrives in cage housing."

Industrial operations — essentially factories of meat and eggs — excel at manufacturing cheap food for the supermarket. But there is evidence that this model is economically viable only because it passes on health costs to the public — in the form of occasional salmonella, antibiotic-resistant diseases, polluted waters, food poisoning and possibly certain cancers. That's why the president's cancer panel this year recommended that consumers turn to organic food if possible — a stunning condemnation of our food system.

The Centers for Disease Control and Prevention published a study in 2005 suggesting that in 2000 there were about 182,000 cases of egg-caused salmonella in the United States, including 70 deaths. That means that even without an outbreak in the news, eggs with salmonella kill more than one American a week.

"We keep finding excuses to keep this rickety industrial system together when the threat is very clear," said Robert P. Martin, the executive director of the Pew Commission on Industrial Farm Animal Production. "It's really a matter of when, not if, these serious outbreaks occur."

About 95 percent of American egg-laying hens are still raised in small battery cages, which are bacterial breeding grounds and notoriously difficult to disinfect. Hens are crammed together, each getting less space than a letter-size sheet of paper. The tips of their beaks are often sheared off so they won't peck each other to death.

They are sometimes fed bits of "spent hen meal" — ground up chickens. That's right. We encourage them to be cannibals.

Industrial farms also routinely feed animals low doses of antimicrobials because growers think these help animals gain weight. One study found that 70 percent of antibiotics in the United States are used in this way — even though this can lead to antibiotic-resistant infections in humans.

"Food safety has received very little attention since Upton Sinclair," notes Ellen Silbergeld, an expert on environmental health at the Johns Hopkins Bloomberg School of Public Health who is deeply concerned about antibiotic overuse. "The massive economic reorganization of agriculture has proceeded with little recognition of its potential impacts on these aspects of food. Cheapness is all."

But as Professor Silbergeld notes, unsafe foods are cheap only in a shortsighted way. The Pew commission found that industrial production produces hogs that at first sight are cheaper by six cents per pound. Add in pollution and health costs and that industrial pork becomes more expensive by 12 cents per pound.

Largely for humanitarian reasons, Europe already is moving toward a ban on battery cages. In 2008, California approved a similar ban, and other states are expected to follow.

So let's hope this salmonella outbreak is a wake-up call. Commercial farming can't return to a time when chickens wandered unfenced and were prey to foxes (and Irish setters). But we can overhaul our agriculture system so that it is both safer and more humane — starting with a move toward cage-free eggs.

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THE NATIONAL GEOGRAPHIC

TOP 10 Machu Picchu Secrets By Mark Adams, author of *Turn Right at Machu Picchu*It's not actually the Lost City of the Inca.

When the explorer Hiram Bingham III encountered Machu Picchu in 1911, he was looking for a different city, known as Vilcabamba. This was a hidden capital to which the Inca had escaped after the Spanish conquistadors arrived in 1532. Over time it became famous as the legendary Lost City of the Inca. Bingham spent most of his life arguing that Machu Picchu and Vilcabamba were one and the same, a theory that wasn't proved wrong until after his death in 1956. (The real Vilcabamba is now believed to have been built in the jungle about 50 miles west of Machu Picchu.) Recent research has cast doubt on whether Machu Picchu had ever been forgotten at all. When Bingham arrived, three families of farmers were living at the site.

It's no stranger to earthquakes.

The stones in the most handsome buildings throughout the Inca Empire used no mortar. These stones were cut so precisely, and wedged so closely together, that a credit card cannot be inserted between them. Aside from the obvious aesthetic benefits of this building style, there are engineering advantages. Peru is a seismically unstable country—both Lima and Cusco have been leveled by earthquakes—and Machu Picchu itself was constructed atop two fault lines. When an earthquake occurs, the stones in an Inca building are said to “dance;” that is, they bounce through the tremors and then fall back into place. Without this building method, many of the best known buildings at Machu Picchu would have collapsed long ago.

Much of the most impressive stuff is invisible.

While the Inca are best remembered for their beautiful walls, their civil engineering projects were incredibly advanced as well. (Especially, as is often noted, for a culture that used no draft animals, iron tools, or wheels.) The site we see today had to be sculpted out of a notch between two small peaks by moving stone and earth to create a relatively flat space. The engineer Kenneth Wright has estimated that 60 percent of the construction done at Machu Picchu was underground. Much of that consists of deep building foundations and crushed rock used as drainage. (As anyone who's visited in the wet season can tell you, Machu Picchu receives a lot of rain.)

You can walk up to the ruins.

A trip to Machu Picchu is many things, but cheap is not one of them. Train tickets from Cusco can run more than a hundred dollars each, and the entry fees are an additional \$43. In between, a round-trip bus trip up and down the 2,000-foot-high slope atop which the Inca ruins are located costs another \$14. If you don't mind a workout, however, you can walk up and down for free. The steep path roughly follows Hiram Bingham's 1911 route and offers extraordinary views of the Machu Picchu Historical Sanctuary, which looks almost as it did in Bingham's time. The climb is strenuous and takes about 90 minutes.

There's a great, hidden museum that no one goes to.

For visitors conditioned to the explanatory signs at national parks, one of the strangest things about Machu Picchu is that the site provides virtually no information about the ruins. (This lack does have one advantage—the ruins remain uncluttered.) The excellent Museo de Sitio Manuel Chávez Ballón (\$8 entry) fills in many of the blanks about how and why Machu Picchu was built (displays are in English and Spanish), and why the Inca chose such an extraordinary natural location for the citadel. First you have to find the museum, though. It's inconveniently tucked at the end of a long dirt road near the base of Machu Picchu, about a 30-minute walk from the town of Aguas Calientes.

There's more than one peak to climb.

Long before dawn, visitors eagerly queue up outside the bus depot in Aguas Calientes, hoping to be one of the first persons to enter the site. Why? Because only the first 400 people who sign in are eligible to climb Huayna Picchu (the small green peak, shaped like a rhino horn, that appears in the background of many photos of Machu Picchu.) Almost no one bothers to ascend the pinnacle that anchors the opposite end of the site, which is usually called Machu Picchu Mountain. At 1,640 feet it is twice as tall, and the views it offers of the area surrounding the ruins—especially the white Urubamba River winding around Machu Picchu like a coiled snake—are spectacular.

There's a secret temple.

Should you be one of the lucky early birds who snags a spot on the guest list to Huayna Picchu, don't just climb the mountain, snap a few photos, and leave. Take the time to follow the hair-raising trail to the Temple of the Moon, located on the far side of Huayna Picchu. Here, a ceremonial shrine of sorts has been built into a cave lined with exquisite stonework and niches that were once probably used to hold mummies.

There are still things to be found.

Should you wander away from the central ruins at Machu Picchu, you'll notice that occasionally side paths branch off into the thick foliage. Where do they go? Who knows. Because the cloud forest grows over quickly in the area surrounding Machu Picchu, there may be unknown trails and ruins yet to be found nearby. Several newly refurbished sets of terraces are being made available to the public for the first time this summer.

It has a great sense of direction.

From the moment Hiram Bingham staggered up to Machu Picchu in 1911, visitors have understood that the ruins' natural setting is as important to the site as the buildings themselves. Recent research has shown that the site's location, and the orientation of its most important structures, was strongly influenced by the location of nearby holy mountains, or apus. An arrow-shaped stone atop the peak of Huayna Picchu appears to point due south, directly through the famous Intihuatana Stone, to Mount Salcantay, one of the most revered apus in Inca cosmology. On important days of the Inca calendar, the sun can be seen to rise or set behind other significant peaks.

It may have been the end of a pilgrimage.

A new theory proposed by the Italian archaeoastronomer Giulio Magli suggests that the journey to Machu Picchu from Cusco could have served a ceremonial purpose: echoing the celestial journey that, according to legend, the first Inca took when they departed the Island of the Sun in Lake Titicaca. Rather than simply following a more sensible path along the banks of the Urubamba River, the Inca built the impractical but visually stunning Inca Trail, which according to Magli, prepared pilgrims for entry into Machu Picchu. The final leg of the pilgrimage would have concluded with climbing the steps to the Intihuatana Stone, the highest spot in the main ruins.

8

THE NATIONAL GEOGRAPHIC

Stop Food Cravings Through Imaginary Eating?

By Christine Dell'Amore

December 9, 2010

Fighting an M&M's craving this holiday season? Let that milk chocolate melt in your mind—not in your mouth.

According to new research, imagining eating a specific food reduces your interest in that food, so you eat less of it.

This reaction to repeated exposure to food is called habituation, and it's well known to occur while eating. A "tenth bite of chocolate, for example, is desired less than the first bite," the study authors note.

(See "First Chocoholics in U.S. Found in New Mexico?")

But the new research is the first to show that habituation can occur solely via the power of the mind.

"A lot of people who diet try to avoid thinking about stimuli they crave. This research suggests that may not be the best strategy," said study leader Carey Morewedge, a psychologist at Carnegie Mellon University in Pittsburgh.

"If you just think about the food itself—how it tastes, smells, and looks—[that will] increase your appetite," Morewedge said.

"This research suggests that it might be better, actually, to force yourself to repeatedly think about tasting, swallowing, and chewing the food you crave to reduce your cravings."

What's more, the technique works with only the food you've imagined, he added. For instance, imagining eating chocolate wouldn't prevent you from gorging on cheese.

Mind Over Chocolate

Morewedge and colleagues conducted five experiments, all of which revealed that people who repeatedly imagined eating chocolate or cheese would eat less of that food than people who pictured eating the food fewer times, eating a different food, or not eating at all.

In one experiment, for instance, 51 subjects were divided into 3 groups. One group was asked to imagine inserting 30 quarters into a laundry machine—which requires the same motor skills as eating M&M's, the study says—and then eating three M&M's.

Another group was asked to imagine inserting three quarters into a laundry machine and then eating 30 M&M's. Lastly, a control group imagined just inserting 33 quarters into a laundry machine—no M&M's.

All participants then ate freely from bowls containing 1.5 ounces (40 grams) of M&M's each. When the subjects said they were done, the bowls were taken away and weighed.

The results showed that the group that imagined eating 30 M&M's each ate fewer of the chocolates than both the control group and the group that imagined eating 3 M&M's.

New Anti-Overeating Technique?

The study is part of a new area of research looking into the triggers that make us overeat, Morewedge noted.

Physical, digestive cues—that full-belly feeling—are only parts of what tells us that we're finished a meal. Recent research suggests that psychological factors, such as habituation or the size of a plate, also influence how much a person eats.

Such experiments are important as obesity rates climb—in the United States, for instance, nearly 30 percent of adults were obese in 2009, according to the U.S. Centers for Disease Control and Prevention. Obesity increases chances of Type 2 diabetes, heart disease, stroke, and other ailments.

The new study, Morewedge said, may lead to new behavioral techniques for people looking to control overeating or other addictive behaviors such as smoking.

The food-imagining study appears tomorrow in the journal *Science*.

Comments (8)

Phyl 6:14 PM on December 9, 2010

I hope that before they publish it, they will read all the comments on Facebook about this article:

<http://www.facebook.com/natgeo/posts/171856576178380>

And my comment:

I disagree with the study. It is not imagining eating that prevents from eating more, but the fact of chewing the same thing. And it works only with sweet food.

Another way of reducing the amount of food is not preventing the person from eating, but make it chew more the same amount of food. That is what poor population do: they chew longer the same piece of food, which, by the way, makes the food more profitable as we all know, because digestion begins in the mouth.

But our fast consuming and quick gulping down our food to go to work society make us feel that we never eat enough. But just try to sit in front of two slices of bread with butter and jam between them for an hour, chatting and chewing as long as possible, you'd see that you would not feel hungry before the hour is over. First because the food had been chewed longer and... because the stomach starting its digestion process twenty minutes after it receives the first food prevents the absorption of more food.

Another flaw in that experiment: Have you noticed that when you eat salted food, you tend to eat more of it after a while than when you started. Take chips (US) or crisps (UK) for example. You start with one chip, biting it by bits, then you start putting two of them, and it goes by full hands after 5 or 10 minutes until the pack is empty, and it does not depend on the size of the pack. the same thing with other salted food.

Their experiment forgot one thing: the intake of sugar prevents appetite, as our moms always defended us to eat snacks like Mars or Snickers before lunch otherwise we would not be able to eat, while chips and peanuts are merrily served before a large meal especially in special occasions and they are well called: appetisers because they open the appetite!!!

So, I hope they will do better than spend money on m&m's and look at the problem where it really comes from: the desire for something comes from its existence and access to it.

I am sure nobody would like to try to eat some rumbackshed unless it is available in the sweet section, close to the cashier in the supermarket!

What do you think?

Taffjones 11:31 AM on December 11, 2010

at phly: What do you disagree with in the study - it seems like it was conducted in a reasonable way, using sweet and savoury food.

Eating slowly does work, but that's an entirely different mechanism so I don't see the connection. And as for the facebook comments, I wonder exactly how many of the commenters have read past the article headline!

2 replies

Jasminkag 4:22 AM on December 12, 2010

This study is just another proof how powerful our brain(mind)is. The better we are at using that power when making decisions and controlling certain behaviours (such as food cravings and what motivates them), healthier we will become.

manofthewild07 11:09 AM on December 12, 2010

There must be a lot of error in this, I'd like to see how they controlled for differences between each person.

Did they tell them not to eat anything before hand? What if some of them just don't like m&ms or weren't hungry or were really hungry.

Usually that's taken care of through sample size, but 51 subjects divided into three groups? That wouldn't be a good representation of a population I think...

thoughts?

9

THE NATIONAL GEOGRAPHIC

Women's Tears Reduce Sex Drive in Men, Study Hints. Scent of a woman crying may also reduce aggression. **By Christine Dell'Amore**

Published January 6, 2011

Read it, but try not to weep, ladies—your tears may lower your man's sex drive, according to a new study. Crying linked to emotions—perhaps a uniquely human behavior—is poorly understood by scientists.

However, previous research has shown that in mice, tears communicate information through "chemosignals," causing scientists to speculate that human tears could serve a similar function.

(See "Mouse Tears Are Aphrodisiacs.")

Such chemical communication would not be a surprise, since humans are already "supremely good" at expressing themselves verbally and via body language, according to study co-author Noam Sobel, a neurobiologist at the Weizmann Institute of Science in Israel.

Though it's too early to know exactly what human tears are saying, one interpretation may be that a woman's emotional tears lower males' testosterone levels, thereby reducing aggression—and by default, sexual arousal.

"Put in the bluntest of ways, we've identified the chemical word for 'no,'" Sobel said.

Cry Me a River—Of Research

In multiple experiments, male subjects smelled either women's fresh tears—collected after the women had seen a sad movie—or a control liquid of saline, which was trickled down the faces of the same women.

The scientists first determined that neither liquid has a discernible odor to men.

When the men were shown photographs of ordinary women not involved in the experiment, those who had sniffed real tears were less sexually aroused than men who had sniffed saline—as revealed by the men's heart rates, skin temperatures, and testosterone levels, among other cues. (Explore an interactive human body.)

Men who had sniffed women's tears also said they felt less turned on by the pictures than men who had sniffed saline, although the reported effect was more modest than that seen in the objective tests.

A final experiment using magnetic resonance imaging (MRI) of the men's brains backed up this finding. Men who had sniffed real tears had less activity in parts of the brain linked to sexual excitement.

The experiment was double-blind—neither the subjects nor the scientists knew which liquid was which—a technique considered especially strong in research science.

Lower Sex Drive Just Part of the Story?

Sobel cautioned that, so far, this trail of tears may be leading his team to only part of the story. For instance, it's possible that the men's lack of sex drive is just a side effect of the drop in testosterone provoked by the tear chemical—and the signal is perhaps really meant to reduce aggression. In evolutionary terms, the ability to control aggression in another animal can have major value, Sobel pointed out.

A "beautiful example" in the animal world involves blind mole rats, some of which emit tears and rub them all over their bodies—a strategy that seems to keep hostile mole rats at bay, he said.

"It's like it's protecting itself against aggression. I'm willing to bet that's perhaps a similar picture [to what] we're seeing here," said Sobel, whose study will be published tomorrow in the journal *Science*.

Sobel noted that the tear signaling is likely not tied to gender, but rather to dominance: Less dominant people may be sending aggression-reducing messages to stronger individuals via their tears.

His team next plans to replicate their study with men's tears.

Women's-Tears Study Needs "Excavating"

The tears study is a "very powerful" development, said Martha McClintock, founder of the Institute of Mind and Biology at the University of Chicago and a pioneer in human chemosignal research.

(Related: "Pheromone in Urine Spurs Mating in Elephants.")

But McClintock cautioned against speculating too early about what the tear chemosignals may be saying.

"We need to excavate it some more—you know there's something there but don't know the full shape of it and how it works," she said.

"Now let's look to see what are the effects of men's tears and babies' tears and grandparents' tears—what's the effect on people at all different stages of their lives," she added.

"Let's not just stop and say this is something that's only important in a sexual context."

10

THE JAPAN TIMES

What a waste! A human waste

By AMY CHAVEZ

Meet Ususama Myo-ou. He purifies the unclean. He hangs out in bathrooms. He's the guardian deity of the toilet. I'm thinking of inviting him to do a residency. Here's why.

As you may know, in the countryside in Japan many houses still have pit-style toilets. Almost all the houses on our small island do too. Little men in jumpsuits come around once a month to clean out the toilet in a celebrated event, repeatedly announced via the island PA system, called kumitori. This Japanese word is a combination of two verbs: kumu (to dip) and toru (to take out). So basically, "dip and take."

Every month the toilet cleaning guys come to dip and take. It's a bit of give and take.

Surprisingly, however, the bathrooms don't smell. Whereas the bathroom is down the hallway, the path your poop takes from the toilet to the pit is more like a hellway. My next-door neighbor Kazu-chan decided, after her sixth grandchild was born, to put a self-contained toilet over the pit for fear one of the youngins would fall down it. I wouldn't be so worried about that though. As long as you have cleaning materials handy, that is.

I imagine "dip and take" refers to ancient methods of cleaning out the earthen pit at the bottom of the toilet. These days they use large hoses that suck out the accumulated contents into a holding tank mounted on a truck. Think of a large stainless steel Hoover vacuum cleaner on wheels. The "honey cart" then transfers the stuff into a cesspool.

This operation is carried out twice in August because of O-bon, the traditional time for extended family to return to their ancestral homes in the countryside and thus, increase deposits.

Such a method of disposing human waste is environmentally friendly, of course. And it stinks. Not the toilets, but the act of churning up the stuff as it is transferred out of the toilets into the truck, and then from the truck into the cesspool. Let me tell you, the smell of the feces of 624 islanders, inhaled all at once, is enough to knock you out.

I can't help but think that the only reason flush toilets haven't been brought to the island is because it would put the men in jumpsuits out of work. They'd have to find cleaner, sweeter smelling jobs, such as cleaning out horse stalls.

Now, I grew up with horses and cleaning up after them, and I don't think horse poop smells that bad. As a matter of fact, there are some people who would argue that fresh horse manure smells good. Which makes me wonder if we humans are eating the wrong things. Shouldn't we be able to ingest certain herbs or grasses that would make our output smell as good as a horse's?

If that's not possible, couldn't we just call our own waste "manure?" At least it sounds better. Bigger, but better. And then we could store it in piles rather than in a cesspool. Why is it that animals have nice, fragrant names for their defecations, like "cow pies," "meadow muffins" or "doughnuts?" Hey, someone's got to think of these things! So don't feel bad that you have.

Our island sewage collection point, though small, is a type of "cesspool," (as if it's something you could swim in! I guess you could as far as the consistency goes). But it's in the ground, so you can't see it. Only if you look closely will you notice an airtight lid slightly larger than a "manhole" cover (an appropriate name). It looks very innocent, as if it wouldn't be covering anything important. But in reality, the lid is covering something mighty powerful: grenades.

This sneaky cesspool is located on the port, next to the Fishermen's Co-op. Perhaps they thought this was a good location because the fishermen are kinda smelly too. Being right on the port, the toilet boat (yes, there's a special boat to carry the toxic substance to a processing plant) can pull right up next to the hole and drop in another hose. Gosh, so many holes in this business!

If you live in a Japanese country house with a pit toilet and think you have it rough because you have to smell it once a month when it gets cleaned, you might be interested to know that I have it much worse. I live next to the cesspool and the Fishermen's Co-op.

Strange as it may seem, this cesspool does not affect the property value of my house. That's because my property has no value anyway. In Japan, "property value" is an oxymoron if you live in the countryside or on a small island. Believe it or not, no one wants to have a house looking out over the sea like I do. No one wants to live on a small island far from the mainland. No one cares that the beach is only a few minutes' walk. Or that the cesspool is right next door.

Which gets me back to Ususama Myo-ou, the guardian deity of the toilet. Do you think he does cesspools too?

The Japan Times: Saturday, July 16, 2011

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11

THE JAPAN TIMES

Going gaga for Tominaga, mori girls, eco-fashion, Final Home and the Lady herself By MISHA JANETTE

In the last few weeks, Lady Gaga used her celebrity influence to bring the world's attention back to Japan and its March 11 disaster recovery efforts with her promotion of the MTV Video Music Aid concert.

Fashion statements: Lady Gaga holds up a coffee cup with the message in Japanese "Pray for Japan" at the MTV Video Music Aid Japan press conference. The star insists on supporting Japanese brands while in the country, and for this event she wore a feathered necklace created by ROGGYKEI and trousers from Toga. AP

There's no doubt her involvement in the charity project will raise its profile, especially when you consider the extremely positive effect she has already had on local fashion.

Ms. Gaga insists on only wearing Japanese brands when she is in the country, and her fashion choices have sent massive ripples through the local high-brow fashion market. On her visit to Tokyo in May, she helped launch worldwide careers for several local designers, with shoemaker Noritaka Tatehana being the most prominent. Tatehana now has an exclusive contract to design shoes for her and garnered fans all across the globe, with his designs appearing on the covers of the industry's top magazines.

This time around, the star chose more obscure brands. She wore newcomer Christian Dada for her MTV performance and was also seen wearing items from DOG, a hole-in-the-wall shop in Harajuku. ROGGYKEI, a small, unknown brand from Osaka, was overwhelmed by the boost it got after she wore one of its voluminous feathered necklaces to meet the U.S. ambassador to Japan.

"An overseas website picked up on it and we got six times more page views than usual on our website and online shop," said ROGGYKEI designer Hitoshi Korogi. "Our clients put in more orders too. It's been incredible!"

Understandably, other brands are now rushing to create pieces to send to Ms. Gaga — but not everyone gets lucky. "I made a dress for her, but she didn't wear it," said designer Takumi Yanazaki. "It's OK, maybe I'll be a lucky one in the future.

Japanese supermodel Ai Tominaga's illustrious 14-year career is the subject of "I, Tominaga," a photography exhibition at the Gyre Building on Omotesando-dori. The show features a selection of images taken by three of her most frequent collaborators, the celebrated photographers Leslie Kee, TISCH and Mika Ninagawa.

Also on display is "#sakuramovement," a Twitter project started by Tominaga. Not long after the Great East Japan Earthquake, Tominaga tweeted to her followers: "Please submit your photos of sakura (cherry blossoms) to me." What resulted was a deluge of hundreds and hundreds of flower photos during a time when confusion and fear was still hanging heavy in the air. For "I, Tominaga," those photos have been assembled into a large mosaic of a cherry-blossom tree.

The scale of success Tominaga has enjoyed is rare in the model world. She has received numerous awards, including the Fashion Editors Club of Japan model of the year, and is also one of the few Japanese models to grace the cover of VOGUE Japan.

Tominaga is also an active member of JOICFP (the Japanese Organization for International Cooperation in Family Planning), an NPO that researches reproductive health in developing countries. At the exhibition, a documentary of her visit to Zambia for JOICFP will be playing.

For those who would like to see Tominaga, she will also be attending a talk show at the exhibition venue, along with TISCH and Numero TOKYO Editor in Chief Ako Tanaka.

"I, Tominaga" runs till July 18 at Gyre Omotesando 3F, 5-10-1 Jingumae, Shibuya-ku; (03) 3498-6990; www.gyre-omotesando.com.

While its Laforet Harajuku location closes for renovations, Japanese brand fur fur will be opening a funky temporary concept store for a month beside the Meguro River.

Along with the usual fare, the shop will carry one-off items from fur fur's archives and special pieces made in collaboration with rebel artist Ken Kagami for the current season. The shop, dubbed Riverside Apartment Shop fur fur, will also host nighttime shopping events and small soirees — things that can't be done in the Laforet complex.

Fur fur has been the authority on mori-girl (forest girl) style since before the trend even kicked off, and its unique take on fashion has made it a must-see on the Japan Fashion Week calendar.

But this past season has been hard on the brand, which decided to cancel its fashion show following the March 11 disaster.

"(Artist) Ken Kagami had major ideas for the collection. There's a large book completely filled with his sketches, set colors and lighting ideas for the fashion show," said fur fur's head of PR, Yuko Maeda. "Now I wonder if we should have done a show anyway. I guess we're just going to have to make up for it this next time."

The current collection, which will be featured at the temporary shop, takes the 1980s Japanese street punk aesthetic of teen gangs, or yankii, and adds cutesy details, such as the frills and doodle prints inherent to the brand.

Riverside Apartment Shop fur fur opens from July 29-Aug. 21; Oak Bldg., 1-20-5 Aobadai, Meguro-ku; (03) 6277-5944; www.furfurfur.jp.

Cosmic Wonder Light Source and mintdesigns get the green light

© PEOPLE TREE

People Tree, the star fashion brand for ethically conscious fashionistas, is teaming up with two Japanese brands on a few special items designed to leave you without any buyer's remorse.

Cosmic Wonder Light Source and mintdesigns have each designed two items following the People Tree ethos of using fair-trade materials, producing as locally as possible, recycling and reducing pollution.

Cosmic Wonder Light Source regularly gets kudos for its experiments in fashion and art, and for this collaboration they created an organic cotton blouse (¥8,900) and an asymmetrical color-blocked dress smattered with motifs of leaves, apples and flowers (¥12,000).

Mintdesigns is a regular on the Japan Fashion Week runway and has garnered international attention for its whimsical prints on experimental textiles. They have designed a long organic cotton dress in orange and blue (pictured, ¥13,000), and a ¥25,000 jacket sporting a flower motif hand-embroidered in

Bangladesh using the folk-art technique of Nakshi Kantha (embroidered quilt). All the new items will be available to buy from July 19.

People Tree is massively popular all around the world, but it was actually founded in Japan by entrepreneur Safia Minney in 1991 when she moved to Tokyo from London. The flagship stores sit in Ginza and Jiyugaoka and they stock a variety of fair-trade lifestyle items as well as fashion goods.

Japanese fashion brands have been cautious about opening boutiques following the March 11 disaster, so it was a pleasant surprise to find a new shop space for longtime brand Final Home at the end of June.

Final Home has actually moved from its 10-year spot in Daikanyama to a prime location right off the Meiji-Jingumae intersection on Omotesando-dori. The shop itself is cozy, its interior designed to look like a jungle campsite, complete with Astroturf and bamboo stalks. Black and orange "bats" hang from the ceiling, although they don't bite — they are in fact high-grade flashlights in nylon bat-shaped cozies, an exclusive item of the shop.

If you are not already familiar with Final Home, then you would be correct to conjecture that it focuses on fashion with an outdoors-y, "survival" spin. Along with functional fashion items for men, women and kids, Final Home also sells emergency kits that come with all the equipment you need should disaster hit. Final Home designer Kosuke Tsumura sent similar items from his brand's supplies to Tohoku following the Great East Japan Earthquake.

The brand has been on the scene since 1994 and is particularly successful in Paris, alongside Tsumori Chisato, which, like Final Home, shares a position under Issey Miyake's "A-Net" umbrella of brands.

6-4-2 Jingumae, Shibuya-ku; (03) 3499-2050; www.finalhome.com.

The Japan Times: Tuesday, July 12, 2011

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THE JAPAN TIMES

SO, WHAT THE HECK IS THAT? Japan's incompatible power grids By ALICE GORDENKER

Dear Alice,

As Japan sweats through this summer of inadequate power, many more people now know that there are different electrical supply systems in eastern and western Japan, and that the two systems are incompatible. This is such a crazy situation that I'd really be interested to know the history behind it. Can you find out how the heck it came about?

Scott H., Tokyo

Dear Scott,

You're absolutely correct that the March 11 earthquake and tsunami, and the resulting power shortage, have raised awareness of this ... er ... shocking peculiarity in Japan's infrastructure: Japan is the only advanced nation in the world with two separate power grids — one for the northeastern half of the country, which includes Tokyo and disaster-struck Tohoku, and another for Nagoya, Osaka and the rest of the southwest. The two grids operate on different frequencies, making it almost impossible to share electricity if one half suffers a supply problem.

For the benefit of readers who slept through science class, I should explain that power grids generally use alternating current (AC) rather than direct current (DC), because electricity can efficiently be transmitted at high voltage, and if it's AC, it can be easily stepped down for consumer use. An AC electricity supply will oscillate back and forth at a fixed frequency (shūhasū). The standard frequencies for AC are 50 and 60 Hz, and there's no technical reason to use one frequency over another. In most countries, 50 Hz is the standard; South Korea and most of the Americas, including the United States and Canada, use 60 Hz.

To get back to your question, Japan's bifurcated power system is a holdover from the 19th century, when early power ventures were small in scale and highly localized. In Tokyo, entrepreneurs who were already providing electric lighting in a limited area, using direct current, decided to expand their business by importing high-voltage alternating-current generators from Germany. The German equipment, purchased from the company that became AEG, worked on a frequency of 50 Hz. Meanwhile, the local power providers in Osaka brought in 60 Hz generators from the United States, supplied by the predecessor of General Electric Company. Surely no one was thinking about compatibility: Who then could have imagined that electric systems some 500 km apart might ever connect?

But the grids grew, with 60-Hz power generation emanating from Osaka and 50 Hz electricity spreading out from Tokyo, until eventually the entire country was wired. The frequency frontier is delineated by the Fujigawa River in Shizuoka Prefecture and the Itoigawa River in Niigata Prefecture. All electricity east of the rivers is 50 Hz, while that to the west is 60 Hz.

It used to be that certain appliances, including microwave ovens, electric clocks and some washing machines, couldn't be used if you moved from, say, Tokyo to Nagoya, but that problem has largely been eliminated now that most appliances are made to work on either frequency. Compatibility information is posted on a permanent label on appliances, like the one shown in the photo accompanying today's column. It's usually on the back or side. On refrigerators, it should be on the inside of a door. If you see "50-60 Hz," the appliance can be used safely anywhere in Japan.

There has been discussion over the years about unifying the country on a single frequency, including in 1939 and 1945, but it's always been dismissed as too costly. The issue came into the public eye again in March, when the Tohoku disaster knocked out roughly a third of the east's capacity, and people couldn't understand why excess power in the west couldn't simply be sent over to the east. It could have, if the country had a common frequency.

Even so, no one in government or industry is seriously trying to revive the idea of a unified national frequency, according to Hiromi Higurashi, an editorial writer at The Denki Shimbun (Electric Daily News), a trade paper that has covered Japan's electric industry since 1907. "It's seen as too expensive and too difficult," he told me in an interview in early July. "Just deciding which frequency to adopt would be a political nightmare," he declared, touching on the longstanding commercial and cultural rivalry between Tokyo and Osaka. "Do you make Osaka and all of western Japan change their system to be the same as Tokyo? Do you force Tokyo and all of eastern Japan to come into line with Osaka? It's just not going to happen."

Instead, the push is on improving the nation's ability to share power between the grids by adding conversion capacity. Currently, Japan has three *shūhasū henkan sōchi* (frequency converter stations), two in Shizuoka Prefecture and one in Nagano Prefecture, all located near the border between the grids. Those plants can convert 50 Hz power into 60 Hz power and vice versa, but their combined capacity is about 1 million kilowatts, a fraction of the current shortfall.

In April, the Ministry of Economy, Trade and Industry approved emergency funding for a study, already under way, on how to expand the country's frequency conversation capacity. That study should be completed early next year, according to an official in METI's Agency of Natural Resources and Energy. Meanwhile, Chubu Electric Power Co. is working to triple the capacity of its Higashi Shimizu converter in Shizuoka Prefecture, by December 2014.

For the immediate future, we really do need to do anything and everything we can to conserve electricity. In addition to direct damage to power facilities, approximately 60 percent of the country's nuclear power plants are currently offline for post-quake inspections, which means that the entire country — east and west — is experiencing a serious shortfall in electricity.

"If there's anything good that came out of the Tohoku disaster," Higurashi opined, "it's that the Japanese people are no longer taking electricity for granted. It doesn't just come out of the wall. The more people know about the true cost of electricity, and the challenges of providing a steady supply, the more likely they are to use it responsibly."

For more information on this topic, including Japan-specific tips for saving electricity, check out my blog at alicegordenker.wordpress.com. Puzzled by something you've seen? Ask away to whattheheckjt@yahoo.co.jp or A&E Dept., The Japan Times, 5-4, Shibaura 4-chome, Minato-ku, Tokyo 108-8071.

The Japan Times: Tuesday, July 19, 2011

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THE INDEPENDENT

Digital hurt locker: 'Serious' video games are the first step for soldiers learning how to find bombs**By Emily Jupp**

Friday, 22 July 2011

Playing with the Xbox controller and focusing on the flatscreen that dominates Bob Stone's office, onlookers would be forgiven for thinking we are messing about in a teenager's bedroom.

Action Men scale the shelves, a robot poster hangs on the wall and on the desk Daleks sit side-by-side with a model of David Tennant. Stone indicates a miniature machine gun in a British Army Action Man's hands. "I fired one of those. It kicks down."

But we are not, technically, just "playing". Stone is the chair of interactive multimedia systems and director of the four-person human interface technologies (HIT) team at the University of Birmingham, and he makes serious games. That is, games with a serious purpose, entertainment is secondary. There are several groups making serious games, but Stone's is the only one with a Ministry of Defence (MoD) contract. He is currently working on virtual bomb-disposal scenarios to prepare security personnel for the Olympic Games next year. The team's research handbook recommends that scenarios related to the event "should be considered with some urgency", so the MoD has commissioned backdrops for the game including a rural area with a forest, an aircraft and, notably, a stadium.

In the game, counter-terrorism trainees look for the tell-tale signs of improvised explosive devices (IEDs), question witnesses and police officers, create cordons (the size of which depends on the power of the possible blast) and then use a bomb-disposal robot to disarm the device. The bomb is in a different place each time you play: in the boot of a car, a skip or even a Scooby-Doo backpack, plus numerous other hiding places that Stone insists can't be mentioned here.

Despite the toys, Stone takes the work very seriously. Not only has he shot a machine gun in the name of his research, he has spent a week onboard a Royal Navy submarine, docked at Devonport Royal Dockyard, taking accurate measurements and photographing equipment to replicate in the virtual world. The resulting game is widely used to train Royal Navy personnel and prevent safety mishaps. "I wasn't allowed to stay in the normal sleeping quarters because I'm not an officer, so I slept under a torpedo," he says.

One of the team's greatest achievements is a game set in an Afghan village, which was put together in only four weeks. It demonstrates lessons about a real village in Afghanistan, so they could be passed on, quickly, to the next set of troops. Crucially, soldiers could get to know the area before they had even set foot on foreign soil.

The game lets you manipulate the time of day, as the sun slides up from sunset to noon the shadows shorten and a dead goat is revealed under a bridge. This level of detail might seem excessive, but it's vital to training the armed forces. Insurgents have been known to conceal explosives in carcasses, which can be undetectable at dusk. Walking through the village, Stone points out other seemingly innocuous signals: a mound of cigarette butts, a can of cola, a circle of pebbles. They are all potential signs of danger.

Although the graphics can display as much attention to detail as other games-for-entertainment – such as the Medal of Honour and Call of Duty series – the designers only faithfully recreate what's necessary for training. So the village's spice market is beautifully rendered, but in other games the ladders may be crudely skipped over. "If you want to train someone on how to safely use a ladder, you use a real ladder," says Stone. More important elements are accurate to the nearest millimetre.

Stone's fascination with games began with the television shows and sci-fi novels of his childhood. After graduating, he joined British Aerospace and was the first European to experience NASA's virtual reality system. "With the helmet and glove, I was standing on an escalator that didn't exist but my stomach and head felt I was moving. It changed my life. I thought 'this is an area I must get into'."

Shortly after the experience, he moved into the "human factors" field, which involves design with people's capabilities in mind, to improve safety. One of Stone's earliest inventions was a glove that allowed the wearer to feel what someone else's hand was doing. The applications for teaching things, like playing chords on the guitar, were manifold, but it didn't take off. Twenty years on, he has just been awarded a commendation from the MoD recognising excellence within the defence science and technology community. The virtual reality glove and helmet may have been abandoned in favour of a

laptop, but the graphics now are almost photo-realistic, something that was unattainable in the "bad old days".

It was unthinkable to use games for training 15 years ago, when the Army and Navy used booklets called "tabs", where all the information was written down. There was no hands-on experience until they were actually sent into action. "It was tried and proven," says Stone, besides, because of the social stigma of game-playing, "they couldn't be seen with a game". Now they've become more widespread, games are more acceptable as a training aid. A recent study, published in National Geographic news, shows that games enhance basic human skills, like reaction times and the ability to process visual information. Stone takes that fact and applies it to specific scenarios.

The team's work does not just involve combat situations, Stone is also developing games for rehabilitation. His team has made a "virtual Wembury", a coastal area of Plymouth the National Trust describes as "a spectacular stretch of coastline boasting dramatic cliffs, grazed open farmland and secluded coves and estuaries". It's a pleasant place, if the virtual version is anything to go by. Patients recover more quickly if they have a nice view to gaze at from their window, so Stone hopes recovery will be improved even further if they can explore the space without leaving their bed. Even if it does no better than looking out the window, it's likely to be an improvement on staring at a brick wall, or your fellow patients.

The next game, as with all of the team's software, will be cheap and accessible. There's no glitzy lab, no institute, it's all very low-key. "We can do it all on a laptop and take it to the people who use it," says Stone, "our approach is unique; human centred. We are on the road 90 per cent of the time, working with the real people." He is worried that this isn't the way the rest of the serious games industry is going, with money being spent on "centres of excellence" rather than research and development. "Recent history shows that very little of any substance actually gets developed within these technology mausoleums," he says.

I get a hint of the next game, which seems entirely relevant to the real world, when, in the course of playing, Stone opens a chest of drawers and sets some bottles on the table. They have labels like "freshly mown lawn", "cordite" and "spice market". The device is an early prototype for a sort of smell-o-vision; odours waft into the game at barely perceptible levels and players need to respond to them.

"Try the raw sewage," Stone insists, assuring me it has a rather pleasant odour. Gingerly, I put the bottle to my nose, and nearly vomit. Stone tells me it has matured with age. "That's really good!" he says excitedly as though tasting a vintage wine. I cough. It compounds the lesson I've learnt today; not all games are for fun.

Query: Independent.co.uk The Web

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THE INDEPENDENT

Why Versace is putting workers' health before style

By Michael Day in Milan

Friday, 22 July 2011

The glamour of Milan's ready-to-wear fashion industry may seem far removed from dangerous Third World sweatshops. But Italy's style capital has become the unlikely focus of a battle to save some of the world's poorest textile workers who campaigners claim have died from a widespread industrial technique used to make clothes for the West.

The fashion giant Versace yesterday announced that it was throwing its weight behind a campaign to end sandblasting – a manual process used to produce trendy worn-look denim – but which campaigners claim destroys workers' lungs.

This month, the firm blocked public access to its Facebook site after a cyber attack by a protest group calling for a boycott of the company's jeans, after claiming that some of its clothes had been produced by sandblasting. The company said it carried out a comprehensive review of its suppliers last year and that none of them carried out sandblasting. But it said yesterday that it had "decided to take a more proactive approach and join other industry leaders to encourage the elimination of sandblasting as an industry practice".

The statement marks a victory for campaigners, with big names such as Levi Strauss, H&M and Karen Millen also having pledged to stop selling sandblasted products. "It would send a really big message out if the influential fashion names in Italy... said they too would stop selling these products," said Laura Carter

of the Brussels-based International Textile, Garment and Leather Workers' Federation, which is leading calls for a voluntary industry-wide ban.

The technique was outlawed by European authorities in 1966. Britain prohibited the practice in 1950. But the federation alleges that sandblasting has killed dozens of workers in garment-producing countries such as Turkey and Bangladesh, where the process has been carried out manually and has been blamed for the irreversible lung disease silicosis.

It claims that by July last year, 46 Turkish workers had died due to silicosis caused by sandblasting, which became widespread in the past decade as demand for worn denim soared. Turkey banned manual sandblasting in March 2009. However, the Solidarity Committee of Sandblasting Labourers support group says that about 600 workers were diagnosed with silicosis in the country in the past decade and the total number could rise to 5,000 in the next five years.

One of the victims, Yilmaz, 31, has been reduced to relying on state disability benefits and handouts from family and friends after he developed silicosis in Istanbul sweatshops. In a statement given to the federation, he said he sandblasted jeans for several Italian designer brands, between 2002 and 2005. He worked in poorly ventilated 2m-by-2m spaces with little or no protective equipment, for 12 hours a day, six days a week.

They blast denim with a high-powered jet of silica to give jeans a trendy worn look. No one informed him about the health hazards of the work or precautions that need to be taken, he said.

Victims' lungs can become inflamed and filled with fluid, causing severe shortness of breath and low oxygen levels in the blood, according to US government scientists. Sandblasters can develop the acute form of the disease, with symptoms appearing from within a few weeks to four to five years after breathing in the particles, according to campaigners.

Amber McCasland, spokeswoman for clothing giant Levi, said that her company was urging all firms to ban the use of sandblasting for clothes production. "The only solution is an industry-wide ban. It's the only way to guarantee the safety of garment workers everywhere," she said.

Dominique Muller, of the Clean Clothes Campaign, welcomed Versace's new position as "very good news".

"I would, however, ask Versace and all other companies joining the ban on sandblasted denim to be transparent about their supply chains and to explain how they are going to enforce the ban," she said.

Campaigners note that the complex nature of supply chains, and the paucity of workers' rights in poorer countries where production usually occurs, makes it near to impossible to ensure that even minimum safety standards are adhered to. Campaigners are focusing particularly on firms with production links to China and Pakistan.

Experts note, however, that the practice tends to emerge wherever there is cheap labour and a lack of properly enforced legislation to protect workers.

Ms Carter said she hoped several other big clothes companies might be persuaded to ban sandblasted products at a meeting planned for September. In particular she said she was hopeful that denim specialist Diesel might be brought on board. The company has said it will stop selling them next year.

The Clean Clothes Campaign says it has concerns about high-profile Italian brands, which it says have "failed to address the issue or even enter into a dialogue with us".

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THE TELEGRAPH

Last space shuttle comes home, ends 30-year era

2011-07-21 06:27:59

CAPE CANAVERAL, Fla. (AP) — Atlantis and four astronauts returned from the International Space Station in triumph Thursday, bringing an end to NASA's 30-year shuttle journey with one last, rousing touchdown that drew cheers and tears.

A record crowd of 2,000 gathered near the landing strip, thousands more packed the space center and countless others watched history unfold from afar as NASA's longest-running spaceflight program came to a close.

"After serving the world for over 30 years, the space shuttle's earned its place in history. And it's come to a final stop," commander Christopher Ferguson radioed after Atlantis glided through the ghostly twilight and landed on the runway.

"Job well done, America," replied Mission Control.

The pre-dawn landing came 30 years and three months after the very first shuttle flight in 1981. It will be another three to five years at best before Americans are launched again from U.S. soil, with private companies gearing up to seize the Earth-to-orbit-and-back baton from NASA.

The long-term future for American space exploration is just as hazy, a huge concern for many at NASA and all those losing their jobs because of the shuttle's end. Asteroids and Mars are the destinations of choice, yet NASA has yet to settle on a rocket design to get astronauts there.

Thursday, though, belonged to Atlantis and its crew: Ferguson, co-pilot Douglas Hurley, Rex Walheim and Sandra Magnus, who completed a successful space station resupply mission.

Atlantis' main landing gears touched down at 5:57 a.m. sharp, with "wheels stop" less than a minute later.

"The space shuttle has changed the way we view the world and it's changed the way we view our universe," Ferguson radioed from Atlantis. "There's a lot of emotion today, but one thing's indisputable. America's not going to stop exploring.

"Thank you Columbia, Challenger, Discovery, Endeavour and our ship Atlantis. Thank you for protecting us and bringing this program to such a fitting end."

The astronauts' families and friends, as well as shuttle managers and NASA brass, gathered near the runway to welcome Atlantis home — and bid the shuttle program goodbye. Difficult to see in the darkness, Atlantis was greeted with cheers, whistles and shouts. Within 20 minutes, the sun was up and providing, finally, a splendid view of NASA's last space shuttle.

"I haven't cried yet, but it is extremely emotional," said Karl Ronstrom, a photographer who helps with an astronaut scholarship fund. He witnessed the first shuttle launch as a teenager and watched the last shuttle landing as a middle-aged man.

Mission Control in Houston also was packed, teeming with past and present flight directors. Hundreds of other Johnson Space Center employees stood outside, watching the landing on a jumbo screen.

"A magnificent and intensely personal event for us all," chief flight director John McCullough said in a note to his staff. "A finer team you will never see ... this moment belongs to you. Godspeed to us all."

NASA's five space shuttles launched, saved and revitalized the Hubble Space Telescope; built the space station, the world's largest orbiting structure; and opened the final frontier to women, minorities, schoolteachers, even a prince. The first American to orbit the Earth, John Glenn, became the oldest person ever in space, thanks to the shuttle. He was 77 at the time; he turned 90 this week.

Born with Columbia, it was NASA's longest-running space exploration program.

It was truly a homecoming for Atlantis, which first soared in 1985. The next-to-youngest in NASA's fleet will remain at Kennedy Space Center as a museum display.

This grand finale came 50 years to the day that Gus Grissom became the second American in space, just a half-year ahead of Glenn.

Ferguson — the last astronaut out — told Mission Control it was hard to leave Atlantis.

Atlantis — the last of NASA's three surviving shuttles to retire — performed as admirably during descent as it did throughout the 13-day flight. A full year's worth of food and other supplies were dropped off at the space station, just in case the upcoming commercial deliveries get delayed. The international partners — Russia, Europe, Japan — will carry the load in the meantime.

It was the 135th mission for the space shuttle fleet, which altogether flew 542 million miles and circled Earth more than 21,150 times over the past three decades. The five shuttles carried 355 people from 16 countries and, altogether, spent 1,333 days in space — almost four years.

Two of the shuttles — Challenger and Columbia — were destroyed, one at launch, the other during the ride home. Fourteen lives were lost. Yet each time, the shuttle program persevered and came back to fly again.

The decision to cease shuttle flight was made seven years ago, barely a year after the Columbia tragedy. President Barack Obama nixed President George W. Bush's lunar goals, however, opting instead for astronaut expeditions to an asteroid and Mars.

Last-ditch appeals to keep shuttles flying by such NASA legends as Apollo 11's Neil Armstrong and Mission Control founder Christopher Kraft landed flat.

It comes down to money.

NASA is sacrificing the shuttles, according to the program manager, so it can get out of low-Earth orbit and get to points beyond. The first stop under Obama's plan is an asteroid by 2025; next comes Mars in the mid-2030s.

"Children who dream of being astronauts today may not fly on the space shuttle . . . but, one day, they may walk on Mars," NASA administrator Charles Bolden Jr., a former shuttle commander, said in a statement. "I'm ready to get on with the next big challenge."

Private companies have been tapped to take over cargo hauls and astronaut rides to the space station, which is expected to carry on for at least another decade. The first commercial supply run is expected late this year, with Space Exploration Technologies Corp. launching its own rocket and spacecraft from Cape Canaveral.

None of these private spacecraft, however, will have the hauling capability of NASA's shuttles; their payload bays stretch 60 feet long and 15 feet across, and hoisted megaton observatories like Hubble. Much of the nearly 1 million pounds of space station was carried to orbit by space shuttles.

Astronaut trips by the commercial competitors will take years to achieve.

SpaceX maintains it can get people to the space station within three years of getting the all-clear from NASA. Station managers expect it to be more like five years. Some skeptics say it could be 10 years before Americans are launched again from U.S. soil.

An American flag that flew on the first shuttle flight and returned to orbit aboard Atlantis on July 8, is now at the space station. The first company to get astronauts there will claim the flag as a prize.

Until then, NASA astronauts will continue to hitch rides to the space station on Russian Soyuz spacecraft — for tens of millions of dollars per seat.

After months of decommissioning, Atlantis will be placed on public display at the Kennedy Space Center Visitors Complex. Discovery, the first to retire in March, will head to a Smithsonian hangar in Virginia. Endeavour, which returned from the space station on June 1, will go to the California Science Center in Los Angeles.

AP writers Mike Schneider at Cape Canaveral and Seth Borenstein in Houston contributed to this report.

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THE TELEGRAPH

Man helps talk woman out of bridge jump

By LINDA N. WELLER

2011-07-21 20:56:06

ALTON - A motorist stopped his truck Thursday afternoon on the Clark Bridge and raced back to talk a shaking, suicidal woman teetering on its edge from dropping down into the deadly Mississippi River.

"She kept looking down and shaking her head up and down, like she was thinking, 'Yes, I'm going to do it,'" said Roy Babcock, 53, of Moro. "I can't believe she didn't go over, she was shaking so bad."

Babcock said the woman, who police described on the scanner as being 47 years old, appeared to be under the influence of drugs.

Babcock's concerned, comforting, running conversation kept the woman from jumping off the rail until crisis intervention-trained police could arrive and continue the effort. The woman accepted a cigarette from police and eventually agreed to let officers take her into protective custody about 3:45 p.m.

The incident lasted more than a half-hour.

A reporter was unable to reach police officials for comment later Thursday afternoon.

Police had intended to take the distraught woman to Gateway Regional Medical Center in Granite City, but its Ketteler Center psychiatric facility had no available beds, a police radio transmission said. Police instead took the woman to a hospital emergency room in the city.

Another radio transmission said Alton police had three previous crisis intervention contacts with the woman.

Babcock said he was driving his truck south on the bridge about 3:10 p.m., with friend Debbie Watson, when he saw the woman on the outside rail of the bridge.

"I said, 'There isn't a bicycle or turn lane on that side' of the railing. 'She is going to jump.' But nobody else was stopping," Babcock said.

He said he drove about another "half-block," got out of his truck and ran toward the woman while Watson called 911.

"She had gone out there and caught her knee; she was trembling in the legs and could have fallen," he said.

At one point, he said the woman, who was wearing athletic shoes, had rocked back to precariously stand on her heels, high above the water.

It was then that Babcock, who studied psychology in college, went to work soothing the woman.

"I asked her if she had any children, and said no matter what, 'Your children love you and don't want you to harm yourself,'" he said. "She said she had family. I kept asking her questions. I told her the funny thing about this is, 'Two or three weeks later, you won't believe you even thought about it.' I told her God is going to work in your life."

Babcock kept talking.

He said he told her he had felt suicidal at times and told her about other serious problems he had in the past, which seemed to interest the woman.

"I told her God loves her, I love her, which sounded odd" but kept her attention, Babcock said. "I couldn't reach her. I thought about going over the (inner) rail toward her, but it might startle her. I thought I would keep talking to her until the police came, and it gave more time for the rescue boats to come if she jumped. She was really very out of it, really distraught."

Alton firefighters took the department's Marine 1 boat to the area under the bridge, and Argosy Casino's rescue boat also came to the scene.

It wasn't the first time Babcock went out of his way extraordinarily to help someone else, all the while not understanding why others choose not to do so.

"My mom raised me and my sister different than that," he said.

He said he just did the right thing - and that he is not a hero.

"If people don't get involved - if you see something and think it's wrong, go for it," he said. "You could be the one."

Babcock said years ago he tackled a naked, serial rapist in Wood River. The man had just attacked the last of about a half-dozen women in coin laundries, with Babcock holding him until police arrived.

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THE INDEPENDENT

Lost Journal: He's not an animal, he's the elephant brother By TIM MOLLEN

2011-07-16 17:10:29

Journal entry: November 16, 1980 (age 11)

I've been to a few PG-rated movies, but I had to talk my parents into letting me go see "The Elephant Man" a few weeks ago. "I'm in sixth grade now, and besides, it's a historical drama." My parents relented, and I was off to the Oakdale Mall Cinemas in the care of my four oldest brothers.

Jerry, 28, paid for my ticket and bought me some popcorn. Jim, 24, had chosen the movie, based on his preference for intellectual, art house fare. He spent the previews defending the choice to John, 21, who had lobbied for watching Jamie Lee Curtis scream for two hours in "Terror Train." But Bob, 19, seemed content with the chosen film, and made a special point of sitting next to me.

From the movie's opening frames, I was mesmerized. I had never seen a black and white film in a theatre before, and its stark atmospherics gripped me. My eyes were open wide, but as the movie went on, I began to sink into my seat. I was absolutely horrified by the cruelty unleashed on the title character, a noble soul in a grotesquely disfigured body. To watch an innocent person of such grace and goodness being subjected to a lifetime of ridicule and abuse was more than I could bear. During several especially upsetting sequences, I burst into tears of sympathy and fear.

Bob was alternately startled and amused by my visible reactions during the movie. He made a few attempts to pat me on the arm and say, "Are you okay?" But I was transfixed by the screen, and barely noticed when Bob snickered to my other brothers, who craned their necks to see their freaked-out sibling.

Walking to the parking lot afterwards, I was in a daze, shell-shocked by the experience. In the car, Bob came up with what he thought was a masterful impression of the Elephant Man. He contorted his face and body, and made disgusting slurping sounds as he said things like, "I am not an animal! I am fun at parties!" Jerry, Jim and John all laughed, but I had a meltdown. "Stop it," I screamed, "that's what they did to him!" Jerry told Bob to cool it, and he did for the rest of the ride home.

But older brothers never leave exposed nerves untouched for long. In the weeks since the movie, Bob has never missed a chance to reach out a twisted hand to me and gurgle, "My name is John Merrick, and it's very nice to meet you." Today, he was following me around the house, repeating his favorite line from the movie. It was hard to explain to Mom and Dad why his repetition of the phrase "I like potatoes" threw me into an apoplectic seizure. But I tried, and Dad, confused but dutiful, ordered Bob to stop telling me he likes potatoes.

I hope I don't have nightmares again tonight. Maybe I'll have a nice dream. Maybe I'll dream that I have a sister.

Tim Mollen is a nationally syndicated writer and actor. To contact him or read more of his work, visit www.timmollen.com.

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THE BBC

Horn of Africa drought: Why is Somalia worst affected?

By Peter Biles

Somalia is a failed state by anyone's reckoning, and while no-one is questioning the severity of the current tragedy, it is another matter assessing just how bad it is.

Gathering accurate and comprehensive information from inside Somalia has been a challenge for 20 years now. The country has been without a national government since the overthrow of President Mohamed Siad Barre in January 1991.

The latest drought in the Horn of Africa has thrown the region into even more chaos, and led to an unwelcome movement of Somalis into neighbouring Kenya and Ethiopia.

It is being called "the worst drought in north-east Africa for 60 years".

However, given the dramatic changes in the region in that time, the description is largely meaningless.

This is certainly one of the driest years in decades, but beyond that it is impossible to make comparisons about the impact on the population of the Horn.

For one thing, the population of some countries has more than doubled in the last 30-40 years.

According to World Bank figures, the population of Ethiopia in 1973 was 31 million. Today, it is in excess of 80 million.

The UN World Food Programme (WFP) says that changing weather patterns have made droughts more common in the region.

"Communities that used to have the relative luxury of several years of regular rainfall to recover from the occasional year of drought are now learning to live in an almost constant state of food insecurity due to a lack of water," said WFP head Josette Sheeran.

More often than not, though, conflict has been a contributing factor at times of hardship.

Fighting, food and famine

The 1973 famine in Ethiopia occurred against the background of a creeping coup against Emperor Haile Selassie.

The 1984 famine there came at the height of the war between the government of Col Mengistu Haile Mariam and Tigrayan rebels.

And the 1992 food crisis in Somalia occurred as the country was descending into anarchy.

This year, the food shortages in Somalia have been exacerbated by the lack of humanitarian access to many areas, and accompanied by a sharp increase in food prices.

However, the numbers in need of food assistance are not yet anywhere near the 1992 figures.

The UN says 10 million people are currently on the verge of starvation.

In 1992, prior to the US-led intervention in Somalia, the number of people needing help was reckoned to be more than 23 million.

So aid workers are trying to respond as best they can, without becoming bogged down in comparisons.

To contain the unfolding humanitarian situation in the camps in Kenya and Ethiopia, the United Nations and international aid agencies desperately need access to areas of Somalia where insecurity is rife and where the militant Islamist group, al-Shabab, is in control.

WFP says it withdrew from al-Shabab-controlled areas of southern Somalia at the beginning of 2010 because of threats to the lives of UN staff, and the imposition of unacceptable operating conditions, including the imposition of informal taxes and a demand that no female staff work there for the WFP.

Now though, the organisations which have found it difficult, if not impossible, to operate in areas held by al-Shabab, are looking at the possibility of returning to southern Somalia.

Islamist concessions

The insurgents have said that local and international aid agencies will be allowed to assist people affected by the drought.

The latest arrangements have still to be put to the test.

"Al-Shabab may be on the back foot in places," says one regional analyst.

Somalis fleeing to Kenya report that militants at checkpoints have tried to stop people leaving, but people are fleeing across the desert nonetheless.

The view from Ethiopia, one of the powerbrokers in the Horn of Africa, is that al-Shabab is desperate to use the drought as a means of regaining lost popularity and trust among local communities.

Both the US and UK describe al-Shabab, which has links to al-Qaeda, as a terrorist group.

It has fought Somalia's weak UN-backed Government and the African Union's peacekeepers since 2007.

Al-Shabab is thought to control much of southern Somalia, including the key Afgooi corridor that links the countryside in the south to the capital, Mogadishu.

It is reckoned to be stronger in the agricultural areas between the Juba and Shebelle Rivers, whereas the local clans tend to hold sway in the pastoral areas. The government claims to exercise authority in the far south, near the Kenyan border.

No soft landing

The insecurity, compounded by the drought, has led to migration in all directions in the region.

Uncharacteristically, Somalis have been streaming into camps set up in war-ravaged Mogadishu. Traditionally, city residents have taken refuge in the countryside when fighting in the capital has intensified.

Some people have been heading north to the semi-autonomous region of Puntland. Others, of course, have been crossing into Kenya and Ethiopia.

It is also thought likely that people affected by drought in the Somali region of eastern Ethiopia have headed south into Kenya.

For those on the move, there is no soft landing anywhere.

North-eastern Kenya is an impoverished part of the country, historically neglected by government in Nairobi.

Much the same can be said about Ethiopia's attitude towards its Somali Region.

The third option, being internally displaced within Somalia, holds even greater risks for those who are vulnerable.

The late President Barre would scarcely recognise the country he ruled for more than 20 years, with perhaps one exception. Drought is still a recurring feature of life in the Horn.

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THE BBC

Fernando Alonso heads Red Bulls in German GP practice

By Sarah Holt

BBC Sport at the Nurburgring Alonso's excellent form continues at the Nurburgring

Fernando Alonso set the pace in practice for the German Grand Prix to underline Ferrari's resurgence.

Alonso, winner in Britain, was more than 0.3 seconds faster than Red Bull's Mark Webber and Sebastian Vettel.

McLaren, too, are confident they can rejoin the fight at the front and Lewis Hamilton was fifth fastest, while his team-mate Jenson Button was sixth.

Sebastien Buemi survived a late incident when his Toro Rosso lifted into the air and landed in the gravel.

Alonso arrived in Germany intent on confirming the step forward in pace that helped him win Ferrari's first race of 2011 at Silverstone.

He and his team-mate Felipe Massa spent a grey morning at the Nurburgring assessing aerodynamics updates, including an upgrade to the car's diffuser.

But a run on the soft tyres saw Alonso climb to the top with a best time of one minute 31.894secs. Massa was 0.787secs back in fourth.

Button emerged from his garage with "flo-viz" paint daubed on his car as McLaren also focused on assessing updates, including a new rear wing.

There were high hopes at McLaren that they would put two disappointing races in Valencia and Silverstone firmly behind them this weekend.

Both Button and Hamilton were optimistic the decision to postpone the ban on the so-called off-throttle blowing of the diffuser to help improve downforce would help them regain lost ground on their rivals.

Hamilton was just over a second shy of Alonso's pace, with Button, who complained on the pit-to-car radio that his car's brakes were locking up, 0.366secs behind his team-mate.

Red Bull do not normally show their hand during first practice but a chance to try out a new version of the soft Pirelli tyres, which will be only available during practice, saw them set fast times.

Webber demonstrated his love of the undulating Nurburgring circuit, which gave him his first grand prix victory in 2009, by finishing 0.323secs behind Alonso with Vettel close behind.

Mercedes are keen to put on a good show on home soil and Nico Rosberg was seventh. Team-mate Michael Schumacher was 10th but he still managed to entertain the fans, waving to the crowd as his car slid into the gravel at the hairpin.

Renault had spoken before the German GP about the need to claw back ground after seeing a successful start to their season slide into mediocrity - and that has led to a radical overhaul of their car this weekend.

"The innovative forward-exiting exhaust has been dropped in favour of a more conventional Red Bull-style layout, with the gases exiting either side of the gearbox and flowing into the diffuser," explained BBC pit-lane reporter Ted Kravitz.

"On Friday, only Nick Heidfeld is running the new exhausts, while Vitaly Petrov's car has not been altered.

"Given the difficulty in swapping between the two arrangements - which require a different chassis - that is likely to be the case for the rest of the weekend."

Overheating problems for Heidfeld midway through the session left Renault with work to do although the German finished 15th with Russian team-mate Vitaly Petrov 11th.

It had been a straightforward session at the Nurburgring but Buemi provided some late drama when he lost control and slid sideways across the track and onto the grass, before briefly being lifted into the air and landing in the gravel.

"That sort of incident really takes the wind out of you," added BBC Radio 5 live F1 analyst Anthony Davidson. "He was lucky not to barrel-roll over.

"He just dipped a wheel onto the dirt and it was very rough out there."

Karun Chandhok is racing in place of Jarno Trulli for Team Lotus this weekend and the Indian finished 20th - more than two seconds behind his team-mate Heikki Kovalainen.

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THE BBC

Fossil 'is first pregnant lizard'

By Victoria Gill

A 120-million-year-old fossil is the oldest pregnant lizard ever discovered, according to scientists.

The fossil, found in China, is a very complete 30cm (12in) lizard with more than a dozen embryos in its body.

Researchers from University College London, who studied the fossil, say it was just days from giving birth when it died and was buried during the Cretaceous period.

The team reports the findings in the journal *Naturwissenschaften*.

The fossil is especially interesting to scientists because it is a reptile that produced live young rather than laying eggs.

Only 20% of living lizards and snakes produce live young, and this shows it is an ancient, if unusual, trait.

"I didn't think much of the fossil when I first saw it," said Prof Susan Evans, joint lead author of the paper, from University College London.

But when her colleague, Yuan Wang, from the Chinese Academy of Sciences, examined the fossil he spotted the tiny remains of at least 15 almost fully developed embryos inside it.

"Sure enough, when I examined it under the microscope, I could see all these little babies," Prof Evans recalled.

The fossil is so well preserved that the minuscule teeth of the developing young are visible on very close inspection.

"This specimen is the oldest pregnant lizard we have seen," said Prof Evans.

"It implies physiological adaptations, like adequate blood supply to the embryos and very thin shells - or no shells at all - to allow oxygen supply, evolved very early on."

Up until now the fossil records only contained examples of marine lizards giving birth to live young.

Scientists thought that, in extinct reptiles, live birth was restricted to aquatic species, such as marine ichthyosaurs. These creatures would have been able to move through water with relative ease, even when heavily pregnant.

Prof Evans said: "We do know that this lizard lived near to water and we think it likely that they could swim even though they primarily lived on land.

"This would make sense as a pregnant lizard would be less constrained by carrying offspring - she'd be able to escape into water if a hungry dinosaur came along."

The fossil comes from world famous rocks of the Jehol Group in north-eastern China, where the fine limestone there has been worn away to gradually reveal hundreds of exquisite specimens of dinosaurs, but also fish, amphibians, reptiles, birds and mammals, plants and invertebrates.

The mother lizard has been identified as a specimen of *Yabeinosaurus*, a large, slow-growing and relatively primitive lizard.

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THE BBC

Mum's stress is passed to baby in the womb **By Michelle Roberts**

A mother's stress can spread to her baby in the womb and may cause a lasting effect, German researchers propose.

They have seen that a receptor for stress hormones appears to undergo a biological change in the unborn child if the mother is highly stressed, for example, because of a violent partner.

And this change may leave the child less able to handle stress themselves.

It has already been linked to mental illness and behavioural problems.

The findings, published in the journal *Translational Psychiatry*, are based on a small study of 25 women and their children, now aged between 10 and 19.

And the researchers point out that the women involved in the study had exceptional home circumstances and that most pregnant women would not be exposed to such levels of stress day in and day out.

Furthermore, the researchers say the findings are not conclusive - many other factors, including the child's social environment while growing up, might be involved.

But they suspect it is the child's earliest environment, the womb, that is key.

For their study, they looked at the genes of the mums and the adolescents to find any unusual patterns.

Some of the teens had changes to one particular gene - the glucocorticoid receptor (GR) - that helps regulate the body's hormonal response to stress.

Such genetic alterations typically happen while the baby is still developing in the womb.

And the scientists believe they are triggered by the mum-to-be's poor state of emotional wellbeing at the time of the pregnancy.

Sensitive window

In the study, these mums had been living with the constant threat of violence from their husband or partner. And it would appear this continued stress took its toll on the pregnancy.

When the babies were followed up one to two decades later as adolescents, they had changes in the genetics of their GR that other teenagers did not.

This "methylation" of GR appears to make the individual more tuned in or sensitised to stress, meaning that they will react to it quicker both mentally and hormonally.

As people, they tend to be more impulsive and may struggle with their emotions, explain the researchers, who carried out detailed interviews with the adolescents.

Professor Thomas Elbert, one of the lead researchers at the University of Konstanz, said: "It would appear that babies who get signals from their mum that they are being born into a dangerous world are faster responders. They have a lower threshold for stress and seem to be more sensitive to it."

The investigators now plan to carry out more detailed investigations following larger numbers of mothers and children to see if they can confirm their suspicions.

Dr Carmine Pariante, an expert in the psychology of stress at the Institute of Psychiatry, King's College London, said: "This paper confirms that the early foundation years start at minus nine months."

He added: "Pregnancy is uniquely sensitive to a challenging maternal psychosocial environment - much more than, for example, after the baby is born. As we and others have been advocating, addressing maternal stress and depression in pregnancy is a clinically and socially, important strategy."

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THE NEW SCIENTIST

Space telescope to create radio 'eye' larger than Earth

A Russian space telescope conceived during the Cold War is set to launch on Monday. When it reaches an orbit that will extend almost as far as the moon, the RadioAstron mission will sync up with radio antennas on the ground, effectively forming the biggest telescope yet built, with a "dish" spanning almost 30 times the Earth's diameter.

RadioAstron's roots extend back more than three decades, but the mission lost momentum when the Soviet Union collapsed in 1991. "For 20 years it was always five years away," says collaborator Ken Kellermann of the National Radio Astronomy Observatory in Charlottesville, Virginia.

Now, at long last, the spacecraft is poised to launch from Kazakhstan's Baikonur cosmodrome at 0231 GMT on Monday.

At 10 metres, RadioAstron's antenna is small compared to Earth's largest radio telescopes, which span 100 metres or more. But when its signals are combined with those of telescopes on the ground – a technique called interferometry – the resulting observations are as sharp as those produced by a single telescope with a dish as wide as the maximum distance between the component antennas.

Eagle eye

This strategy has been used for decades to create radio telescopes the size of the Earth, and in 1997 the Japanese Space Agency launched the first space telescope dedicated to radio interferometry, HALCA.

With an orbit that will extend more than 10 times as far from Earth as HALCA, out to some 350,000 kilometres, RadioAstron promises to capture detail that is more than 10 times as fine. At its best, RadioAstron will be able to resolve points separated by an angle of just 7 microarcseconds, about 10,000 times the resolution of the Hubble Space Telescope.

"There has never been a radio telescope that has been sent so far from the Earth," says Yuri Kovalev, a team leader at the Lebedev Physical Institute's Astro Space Center in Moscow, Russia, which is managing the mission.

Unfolding petals

If all goes well, a Zenit-2SB rocket will help carry the spacecraft into an oblong orbit that will extend from 10,000 kilometres to more than 300,000 kilometres from Earth. Once in orbit, 27 "petals" made of carbon fibre will unfold to create the 10-metre-wide antenna. Over the course of the telescope's five-year mission, the moon's gravity will tug on the telescope, pulling it up to 390,000 kilometres from Earth.

After a few months of check-out, the team will begin to coordinate observations with telescopes on the ground, including two 100-metre radio telescopes – in Green Bank, West Virginia, and Effelsberg, Germany, and the 305-metre Arecibo telescope in Puerto Rico.

RadioAstron will zoom in with unprecedented detail on objects such as the nearby galaxy M87, which is spewing relativistic particles from a colossal black hole at its core. By some estimates, the telescope could be used to image near the black hole's event horizon – the boundary around which nothing can escape the black hole's gravity. This could reveal new information about how supermassive black holes accelerate matter to near light speed.

Precision cosmology

The telescope will also be able to register the radio waves emitted by water masers, clouds of water molecules that emit microwave radiation, in the discs of galaxies. This motion can be used to study the rotation rate of the galaxies and measure their distance from Earth. When combined with observations of how fast the galaxies are moving, astronomers can use the galaxy distances to calculate the present-day expansion rate of space and the effect of dark energy. RadioAstron may be able to pinpoint the masers' positions more precisely than previous measurements, says Mark Reid of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Massachusetts.

The telescope will also use the lighthouse-like radio emission from pulsars, the spinning remains of exploded stars, to reveal how dust and gas is distributed around the stars.

The project faces some challenges, chief among them the flood of data – some 144 megabits per second – that the dish will collect. "There's so much data coming to RadioAstron that you can't store it on board. The data needs to be transported continuously to the ground," says Kellermann, who co-chairs RadioAstron's International Advisory Committee.

So far, only one antenna, a 22-metre dish in the town of Pushchino, south of Moscow, has been set up to receive signals from the spacecraft. Unless other receiver stations can be set up, a good fraction of data the telescope will collect will be lost. The team hopes more receiving stations will be set up as the mission moves forward.

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THE NEW SCIENTIST

The human paradox that is common sense

by Duncan Watts

Even as common sense helps us make sense of human behaviour, it can undermine our ability to understand it

IN JANUARY 1998, about halfway through my first year out of graduate school, where I'd just completed a PhD in engineering, my housemate handed me a copy of New Scientist containing a book review by the physicist and science writer, John Gribbin. The book was *Tricks of the Trade* by Chicago sociologist, Howard Becker, mostly a collection of Becker's musings on how to do productive social science research.

Gribbin clearly hated it, judging Becker's insights to be the kind of self-evident checks that "real scientists learn in the cradle". But Gribbin didn't stop there, noting that the book had merely reinforced his opinion that all social science was "something of an oxymoron" and that "any physicist threatened by cuts in funding ought to consider a career in the social sciences, where it ought to be possible to solve the problems the social scientists are worked up about in a trice".

Twelve years later, and now a sociologist myself, I've learned that Gribbin is not alone in his scepticism about what social science offers. To many people, and I suspect to many readers of this magazine, it is deeply unclear what sociology has to say about the world that an intelligent person couldn't have figured out on their own. It's a reasonable question, and as a former "hard" scientist, it's one that I admit to having asked myself. But as Paul Lazarsfeld, one of the giants of 20th-century American sociology, pointed out nearly 60 years ago, it also reveals a common misconception about the nature of social science.

Lazarsfeld was writing about "The American Soldier", a recently published study of over 600,000 servicemen, conducted by the research branch of the war department during and immediately after the second world war. To make his point, Lazarsfeld listed six findings that he claimed were representative of the report. Take number two: "Men from rural backgrounds were usually in better spirits during their Army life than soldiers from city backgrounds."

"Aha," says Lazarsfeld's imagined reader, "that makes perfect sense. Rural men in the 1940s were accustomed to harsher living standards and more physical labour than city men, so naturally they had an easier time adjusting. Why did we need such a vast and expensive study to tell me what I already knew?" Why indeed.

But Lazarsfeld then reveals the truth: all six of the "findings" were in fact the exact opposite of what the study found. It was city men, not rural men, who were happier during their army life. Of course, had the reader been told the real answers in the first place, they could just as easily have reconciled them with other things they already thought they knew: "City men are more used to working in crowded conditions and in corporations, with chains of command, strict standards of clothing, etiquette, and so on. That's obvious!" But this is exactly the point Lazarsfeld was making. When every answer and its opposite appears equally obvious then, as he put it, "something is wrong with the entire argument of 'obviousness'".

Lazarsfeld was talking about social science, but as I argue in my new book, his point is just as relevant to any activity that involves understanding, predicting, changing or responding to human behaviour, from marketing to politics to policy-making.

Politicians dealing with urban poverty feel they already have a good idea why people are poor. Marketers planning campaigns already feel that they have a decent sense of what consumers want and how to make them want more of it. Economic policy-makers believe that they can do a reasonable job of getting the incentives right, whatever end they are trying to achieve. They don't expect to get them right all the time, and they would be the first to admit that it's complicated. Nevertheless, they do think the problems they are contemplating are mostly within their grasp, that they are "not rocket science".

What's puzzling about this attitude is that if we compare recent progress in the physical versus the social sciences, it should be clear that we're actually much better at rocket science than managing the economy, merging corporations, or even predicting how many copies of a book will be sold.

So why does rocket science seem hard, while problems to do with people - which in some respects are clearly much harder - seem like they ought to be just a matter of common sense?

As it turns out, the key is common sense itself. Common sense is exquisitely adapted to handling the kind of complexity that arises in everyday situations, such as how to behave at work versus in front of your children versus in the pub with your mates. And because it works so well in these situations, we're inclined to trust it.

But situations involving corporations, cultures, markets, nations and global institutions exhibit a very different kind of complexity. Large-scale social problems necessarily involve anticipating or managing the behaviour of many individuals in diverse contexts over extended periods of time. Under these circumstances, the ability that Lazarsfeld highlighted of common sense to rationalise equally one behaviour and also its opposite causes us to commit all manner of prediction errors.

Yet because of the way we learn from experiences - even ones that are never repeated - the failings of common sense reasoning are rarely apparent to us. Rather, they manifest simply as "things we didn't know at the time" but which seem obvious in hindsight.

The paradox of common sense, then, is that even as it helps us make sense of the world, it can actively undermine our ability to understand it.

Duncan Watts directs the Human Social Dynamics group at Yahoo! Research. His book, *Everything is Obvious (Once You Know the Answer): How common sense fails* is published by Atlantic Books and Crown Business

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THE NEW SCIENTIST

Read all about it: Why we have an appetite for gossip **by John Hardy**

Our disingenuity towards celebrity tittle-tattle is part of our evolutionary legacy

THERE are very few universal truths, but two relating to human behaviour are that farting is considered funny in all societies and that gossip occurs but is ostensibly always disapproved of. The evolutionary reason for the former is not clear, but the evolutionary reason for the latter becomes clear when one considers what is gossiped about.

Stripped down, gossip is largely about who is sleeping with who, who would like to sleep with who, and what the local pecking order is in terms of power and influence - which, of course, influences who is sleeping with who.

This explains the purpose of gossip and also the reason for its semi-secrecy and disapproval. In a society where there is competition for mates, it is clearly desirable to know who is available and who is not, who has power and who does not. It is also important not to convey your engagement in the process of assessing these factors since this would alert rivals to your interest. Deniability of interest is therefore part of the process.

Gossip is probably a large part of the reason for the evolution of our large cerebral cortex. In our evolutionary past, reproductive success depended in large part on our ability to navigate the complexities of tribal life. Those who were best at identifying mates without unnecessary conflict would have had a considerable advantage in reproduction.

Gossip evolved in a village society where everybody knew everybody else and successful navigation of local political complexities had a direct impact on reproductive success. In our global village, this need is now satisfied in part by the tabloid press. Our interest in the peccadilloes and misbehaviour of celebrities and politicians, and our purchase, sometimes surreptitiously, of tabloid newspapers and gossip magazines is an evolutionary hangover from a time when knowing who was sleeping with who in our village was important.

We might be ashamed of it, but our brains were designed to lap it up. In buying tabloid newspapers and celebrity magazines, we are satisfying a primal evolutionary need.

John Hardy is professor of neuroscience at University College London

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THE SCOTSMAN

Scots scientists find link between sports head injuries and dementia By SHÂN ROSS

SCOTTISH scientists have identified widespread Alzheimer's disease-like pathology in approximately one third of long-term survivors of a single head injury.

Researchers at the Southern General Hospital in Glasgow say this provides the first clear evidence of abnormalities in the brains of those surviving one head injury - and supports the growing clinical view that a head injury could develop into chronic disease.

In the study, appearing online in *Brain Pathology*, researchers suggest Alzheimer's disease-like neurodegeneration may begin or accelerate following a single injury to the head, even among young adults.

Until this latest research, conducted in conjunction with the University of Pennsylvania, neurodegenerative pathology following a traumatic brain injury (TBI) had only been documented in a small number of patients with a history of repetitive head injury, such as boxers, or more recently, American footballers.

TBIs are particularly identified as an established risk factor for later development of dementia, including Alzheimer's disease.

Over 150,000 people in the UK suffer a head injury each year.

Currently those taking part in sports such as skate-boarding, cycling and rugby are not required by law to wear protective headgear. Last night, safety and head injury campaigners said the wearing of protective headgear should not be compulsory for adults but that they would encourage parents to equip their children.

Dr Willie Stewart, consultant neuropathologist at the hospital, the study's co-senior author, said: "These are exciting results. What we have found, quite remarkably, is that a proportion of patients with a single head injury had widespread and large amounts of markers in their brains which are normally only seen in the very elderly or in patients with Alzheimer's disease.

"This study may be significant in terms of understanding dementia. Dementia is a particular challenge, especially with an ageing population. In the vast majority of cases we do not currently know what triggers the process leading to dementia in the first place.

"However, if we know when this process may begin, such as with a head injury, we can learn more about it."

In the study researchers compared post-mortem brains from 39 patients, surviving from 1 to 47 years after head injury, to uninjured, age-matched controls.

They found that brains of TBI survivors showed high numbers of amyloid-beta plaques with the majority of these displaying a particular form of plaque typical of those found in Alzheimer's disease.

Duncan Vernon, road safety manager at the Royal Society for the Prevention of Accidents (ROSPA) said: "When helmets are worn properly they are effective in reducing brain injuries.

"But ROSPA doesn't believe it is practical to make cycle helmets, or those for sports such as skate boarding or rugby, mandatory. We would encourage it but don't feel it should be enforced."

Simon Glen, project co-ordinator for Headway Glasgow, which campaigns for those who have suffered a head injury, said: "Our policy is that people should wear a helmet if they are taking part in an activity which could lead to a bump on the head. Adults can make up their own minds but we believe children should be protected."