EMBROIDERED TRUTHS
A rugby history in four jerseys

THE MIDDLE EAST REMADE
Structural shifts and the Arab Spring

Massey

definingnz

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ON THE BALL
Head of the Rugby World Cup, Kit McConnell

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA

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Cover: Kit McConnell in front of the homage to rugby commissioned by the Wellington City Council and situated on Wellington's Jack Ilott Green. All Black Victor Vito and Hurricanes Jacob Ellison and James Broadhurst modelled for the sculpture, which is the work of Weta Workshop.

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FROM THE VICE-CHANCELLOR

There is nothing better for building personal humility than standing alongside an All Black.

As the Minister of Education I once went on a Mission-On launch with former All Blacks captain Tana Umaga. The kids had lined up – hundreds of them – to welcome him into the school. I tagged alongside Tana saying hi to the kids. One of the boys finished with Tana, and he turned to me and said; "Who are you?". I was about to say: "Well, you know, I'm the Minister of Education", when he asked: "Are you Tana's hairdresser?". So I paused for a moment and I thought: "Which is the best option?". I said: "I'm the hairdresser."

That boy could have easily been me. I remember, in those far-off times when I was a kid myself, my brother and I listening illicitly, late at night, to the excited tones of the announcer and the surge of the crowd coming through the crackle of a crystal radio earphone as the All Blacks took on one or other of their opponents. We expected them to win, and they seldom disappointed.

If someone had offered me then the chance to meet Colin Meads, an Umaga-like colossus in his day – or Brian Lochore or Chris Laidlaw – I would have been utterly starstruck. A wandering politician wouldn't have got a look-in.

Nonetheless, clearly there are differences between that boy's world and mine.

I can't imagine asking someone in 1960s' New Zealand if they were Colin Mead's hairdresser. Indeed, it is hard to imagine someone with a name like Umaga as an All Black at all: the All Blacks line-ups of the 1960s were solidly Anglo Saxon with just the occasional Māori surname.

Then there is the matter of the professional game. Meads was a farmer. So was Lochore. Laidlaw was a student on his way to becoming a civil servant and diplomat.

Like Umaga, this year's All Blacks work within a professional sports environment. It's worth noting that this year's first-year university students will have never consciously known a time when All Blacks rugby was non-professional.

Although some commentators look back on the day of the amateur with a soft-focus nostalgia, the professional game has its benefits. One of them is almost certainly a better quality of play and preformance. Because today's players are paid for what they do, they can give the sport their undivided attention, and as professionals they have the benefit of a support team of specialists – nutritionists, psychologists, physiologists, exercise scientists, even image management experts – whose expertise also forms part of a team's competitive advantage.

Where is this knowledge generated? Overwhelmingly within our universities. This is why sports bodies often choose to ally their centres of excellence with universities or, as in the case of Australia's extraordinarily successful Institute of Sport, to set up the subdisciplines – biomechanics, performance analysis, skill acquisition, strength and conditioning and suchlike – that mirror those you might find within a university.

And Massey has another advantage that commends it to sportspeople. We are New Zealand's most experienced, flexible and innovative provider of distance education.

When the likes of rower Storm Uru or Fiji rugby captain Deacon Manu travel the world in pursuit of their sporting dreams, they need not abandon or defer their studies. All they need is a textbook, perhaps a laptop, some quiet time and the determination to better themselves.

They know there will be life after sport and it is prudent to prepare.

I am sure that this is the advice All Blacks coach Graham Henry, himself one of Massey's distance-learning graduates, would give any aspiring sportsperson.

Will I be following the Rugby World Cup? Absolutely. New Zealand's relationship with rugby has not always been an easy one. And, perhaps for the better, rugby may no longer hold its place as the be-all and end-all of New Zealand sport and national identity. Yet since the days when Prime Minister Richard Seddon sent a telegram to the 1905 Originals congratulating them on a victory over England that represented "the manhood and virility of the colony", there has never been any other contender in our own eyes or that of the world for the title of national game, and no other national brand compares with that of the All Blacks.

So this year, when the world turns up at our door and our nation is on show, let us make the most of it. Let's do our best to make our guests feel welcome and, as stakeholders in the enterprise that is the Rugby World Cup, throw our support where it counts: behind our national team.

Here's to the All Blacks once again doing us proud. ■

I was about to say: "Well, you know, I'm the Minister of Education", when he asked: "Are you Tana's hairdresser?". So I paused for a moment and I thought: "Which is the best option?". I said: "I'm the hairdresser."

To see images of New Zealanders engaging with the RWC, visit offthepitch.co.nz.

Talking Points

A lot of school teachers finish up as top coaches around the world. You learn how to relate to people and get the best out of them... I got a lot of satisfaction out of it. I think being a school teacher is much more important than being the All Blacks coach.

All Blacks' coach and Massey alumnus Graham Henry talks about his pre-coaching teaching career.

University is the ideal time to pursue your sporting career. Even though you think you are busy, you aren't as busy as you will be when you are working full time.

Dr Farah Palmer, former skipper of the World Cup-winning Black Ferns women's rugby team and Massey senior lecturer, offers advice to aspiring sportspeople.

E te kaiwawao, whakamaua ō mōhiti! *Māori*
¡Ponete los lentes, referí! *Spanish*
Shimpan! Doko ni me o tsukete iru no! *Japanese*
Et l'arbitre, remets tes lunettes! *French*

'Put your glasses on, ref!' as helpfully translated on a card provided by Massey for anyone associating with the Rugby World Cup teams visiting Palmerston North. Other more everyday pleasantries include 'please' and 'thank you'. Massey teaches all four languages.

7.2 points

The All Blacks' home advantage as estimated by Associate Professor Hugh Morton of Massey's School of Sport and Exercise and published in the *Australian and New Zealand Journal of Statistics*.

In recent times a new type of running shoe has arrived on the market. Called barefoot running shoes, they are substantially less cushioned than conventional running shoes and are said, by proponents, to be healthier for the feet and to reduce the risk of chronic injury. So how do you transition to barefoot running? Industrial design graduate Nicholas Couch has won the coveted James Dyson Award for his design of a five-part recyclable shoe designed for barefoot running. If you want a more – or less – padded sole, switch it for the one you want. And when part of the shoe wears out, you can choose to replace that part alone and recycle the discard. Another Massey industrial design graduate Stuart Smith was a fellow finalist with his solar-powered lawn mower. Couch's prize package includes a trip to the United Kingdom worth $3000, courtesy of the British Council New Zealand. While there he will visit Dyson's London office and meet members of the UK design community.

Countering candida

The fungal infection candidemia is estimated to kill 60 people in New Zealand annually – and globally many times this. But the numbers may soon fall: a team led by Massey's Dr Jan Schmid of the Institute of Molecular Biosciences BioMedical Research group has developed a diagnostic tool that could save many lives.

Schmid, a senior lecturer in microbiology, has discovered that one particular strain of the yeast infection *Candida albicans* is strongly associated with deaths in young immuno-compromised patients, such as prematurely born infants.

"Candidemia is a disease that is time consuming and difficult to diagnose," Dr Schmid says. "It affects patients, who are already quite sick, and by the time it is diagnosed through blood analysis it is often too late."

The Candida genotype discovered by Schmid's team is more virulent in young patients. "We analysed a strain collection in Italy with mortality data from patients," he says. "What we found is that young patients with this particular genotype were twice as likely [as those with other strains] to die from candidemia."

In response, they have developed a PCR assay – a diagnostic tool – to identify the genotype.

"The assay can be utilised as a risk management tool for compromised patients who are susceptible to candidemia," Schmid says. "It can identify, in advance, patients who are more likely to die from the infection than other patients."

They can then be preventatively treated with anti-fungal drugs.

"Anti-fungal drugs are not very good for people, especially for patients who are already compromised. Plus their frequent use leads to drug-resistant strains. So using them prophylactically on all patients at risk from candidemia is not recommended," he says. "With this test, clinicians can easily identify those patients who would most benefit from prophylactic anti-fungal treatment."

The incidence of life-threatening blood-borne infections of immune-compromised patients with Candida yeasts has increased 10-fold in New Zealand in the past 20 years.

"Candidemia is the most common fungal infection we see in our hospitals, and our calculations suggest it may kill as many as 60 New Zealanders each year," Dr Schmid says. "Based on the number of cases last year, and the recorded increase in the length of hospital stays, these infections may cost the New Zealand health system as much as $18 million annually."

Schmid's research team included other researchers at the institute, and researchers from Italy and Sweden. The research was published in the *Journal of Clinical Microbiology*.

A project to develop a calf feeder has won three Massey fourth-year Bachelor of Engineering students Julian Maggin, Rhys Knauf and Michelle Power the inaugural Innovate Manawatu award. Now they face the challenge of how best to use the $20,000 in seed funding the award carries to bring it to market. Their design, they believe, should reduce calf mortality and is more efficient and easier to clean than the existing alternatives. Further investment capital and the demands of study allowing, they intend to have a saleable feeder ready for the National Fieldays in June 2012.

In October, former All Black first-five Andrew Mehrtens will don his boots and take on the machines: robotic legs developed by Massey and Canterbury University students. Shown here is the leg being developed by engineering students and Vex Robotics World champions at the School of Engineering and Advanced Technology at Albany.

Year 13 students Amy van de Weg, Abbie Wakelin and Simone Bhagaloo (at centre, from left to right) have won bursaries worth $1000, $2000 and $3000 respectively for their science projects. They were among students from Albany Senior High School, Albany Junior High School, Manurewa High School and Rosmini College who took part in the annual Science and Innovation Symposium on the Albany campus. Simone Bhagaloo's project, which won her the $3000 bursary, investigated the relationship between food packaging unhealthy eating habits. She found that red and green food packaging in particular, with their implied messages of hot fast food for one and freshness for the other, tend to distract younger consumers from paying attention to nutritional information. At left are sponsors Bill Barwood of Dairy NZ's and Chris Sharpe of Bennetts bookstore, representing the event's sponsors, and at right School of Sport and Exercise senior lecturer Dr Ajmol Ali.

Students (from left) Kirill Makarov, Utsav Patel, Travers Biddle, Thomas Poupouare and Andrew Webb with Peter Norden wearing anti-static clean room headgear in a lab with a model of KiwiSAT at Massey's Albany campus.

It really is rocket science

It will be an extraordinary event. In mid to late 2012, all going to plan, the thrusters will ignite on a converted former Soviet SS-18 missile and a piece of New Zealand owned, designed and engineered technology will be on its way into space. The basketball-sized micro satellite called KiwiSAT will have two purposes: to pilot a small satellite Attitude Determination and Control (ADAC) system – perhaps opening up the possibility for similar low-cost, low-risk satellites to be employed in environmental monitoring – and to expand communications for amateur radio operators for a range of uses.

Massey's connection? The software KiwiSAT runs is being written on the Albany campus. Five students – four fourth-year honours students and a master's student from the School of Engineering and Advanced Technology under the supervision of Mechatronics lecturer Associate Professor Johan Potgieter – are working on the project, funded by a recently bestowed $7500 grant from the New Zealand Association of Radio Transmitters' Radio Science Education Trust.

KiwiSAT is being designed and built by a team of volunteers from New Zealand Radio Amateurs supported by Massey and various corporate sponsors.

For more information, visit www.kiwisat.org.

Livestock farms and adult blood cancers

Growing up on a livestock farm seems to be linked to an increased risk of developing blood cancers as an adult, and if you grow up on a poultry farm the risk of developing a blood cancer may be as much as three times higher than that of the general population.

These are some conclusions drawn from an analysis of more than 114,000 death certification records conducted by a Centre for Public Health research team led by Dr Andrea 't Mannetje.

The records were for the years 1998 to 2003 and covered New Zealand residents aged between 35 and 85.

The findings support those of previous studies, which suggest that farmers are at increased risk of blood cancers. The causes? The suspects are pesticide exposure and infections resulting from farm animal contact.

Most research until now has focused on exposure in adulthood. Little attention has been given to potential early life factors.

During the study period, just over 3000 deaths were attributed to blood cancers and growing up on a livestock farm was associated with a higher risk of developing such cancers.

No such association was apparent for those who had grown up on arable/crop farms, although working on one of these farms as an adult was associated with a higher risk.

The overall risk of developing a blood cancer, such as leukaemia, multiple myeloma and non-Hodgkin's lymphoma, was 22 percent higher for those growing up on livestock farms than for those who had not grown up in this environment.

Growing up on an arable/crop farm conferred an almost 20 percent lower risk of developing a blood cancer, but crop farming as an adult was associated with an almost 50 percent increased risk.

Dr 't Mannetje says further studies will be needed before a definitive cause and effect can be established, but that the study suggests that farming exposures in adulthood and childhood play independent roles in the development of haematological cancers. The team wants to test its hypothesis that biological exposures in childhood may alter the immune system's response, so increasing the risks of blood cancers in later life.

The study is part of a programme grant made by the Health Research Council to the Centre for research into different aspects of occupational health.

The findings appear in the UK-based *Occupational and Environmental Medicine Journal*.

Professor Velmurugu 'Ravi' Ravindran has been awarded the Poultry Nutrition Research Award by the Poultry Science Association. He is the first non-American researcher to be so honoured. Worldwide, more chicken is consumed than any other meat.

The Ugandan gorilla diet

We eat as much in the way of carbohydrates and fats as it takes for us to get the protein we need. They – 'they' being our primate relatives, the mountain gorillas – do things the other way around: they consume protein-rich foods until they have reached their quota of carbohydrates and fats. This is one of the findings of a study by nutritional ecologist Professor David Raubenheimer. It may, he thinks, help explain why we are eating our way to obesity.

"For a number of reasons, including the relatively high price of protein, the protein content of our diets has in the past 50 years become diluted with fats and carbs. Our craving for protein causes us to over-eat the low-protein foods, in the same way that an alcoholic would drink more low-alcohol lager to satisfy his addiction."

Raubenheimer spent time in Uganda's Bwindi Impenetrable National Park studying the gorillas, which, he found, vary their diet according to the season. In the four months of the year when fruits are freely available, they eat a diet that provides 19 percent of their energy from protein, a percentage that represents a close-to-balanced diet for gorillas and is similar to the protein requirements of humans. But in the eight months of the year when fruits are scarce in their high-altitude forest habitats, the gorillas' diet contains a whopping 30 percent protein.

"This provided us with a natural experiment in which we could test whether the appetite of mountain gorillas is more tightly linked to protein or non-protein energy [carbohydrates and fats]," Raubenheimer says. "If protein is more important, gorillas stuck on the high-protein diet will eat enough food to satisfy their need for protein, but in the process eat less than the required amounts of fats and carbs."

He and colleagues had previously found that spider monkeys in the wild, and humans in experiments, also behave in this way. "This pattern of nutrient regulation, which we call 'protein leverage', explains a lot about the nutritional biology of our own species," he says. "It means that our intake of fats and carbs, and hence of energy, is lower when we eat a diet high in protein – which is how high-protein weight-loss diets, like the Atkins diet, work.

"But there is a flipside – when we eat a diet low in protein, we over-eat fats and carbs to satisfy our appetite for protein."

The findings are both surprising and interesting, he says. "They suggest that an Atkins-type diet would not work on gorillas, and provide some potentially important information for conserving the species. But our immediate interest is to find out why gorillas differ in this way from spider monkeys and humans."

He and his colleagues intend to explore further how different evolutionary environments can lead to fundamental differences in nutritional biology by expanding their study to include several other species of primate. The study is published in the British journal *Biology Letters*.

Rescuing a 'wreck' of prions

Technically the term for it is a 'wreck', explains Senior ecology lecturer Phil Battley, talking about the phenomenon in which large numbers of birds are brought down by stormy weather.

This is what happened in early July in the lower North Island, when large numbers of broad-billed prions, a small seabird common to the islands around New Zealand, came to ground. In Palmerston North, Massey's Wildlife Health Centre found itself inundated with the cold, hungry and dehydrated birds, some of them brought in by kindly members of the public from as far afield as New Plymouth.

According to Battley, the birds were probably from islands off the south coast of New Zealand. "They come north and west in winter but we normally don't see them because they're out at sea," he says. "The problem they're having is the sustained westerly winds. They're quite a light bird and they fly downwind mainly, so they can't get back out to sea."

In the Wildlife Health Centre rooms were set aside for the birds and more staff were rostered on to help in their recovery and rehabilitation, which is more elaborate than you might expect. The problem, says wildlife veterinarian Dr Brett Gartrell, is that when kept in captivity for a period of days, the birds tend to lose their waterproofing. Hence the birds were encouraged to swim in warm pools, which induced them to preen and again become waterproof. They then graduated to swimming in a large cold pool before being cleared for release.

Master of Museum Studies student Megan Wells helps out at Canterbury Museum in preparation for its reopening ahead of the anniversary of the first Christchurch earthquake. Also helping out was postgraduate diploma student Cerys Dallaway.

The Greatest Show by Sophie Littin has been declared the winner of the Shell-sponsored Student Design Award at the Brancott Estate World of WearableArt Awards and the runner-up in the Tourism New Zealand Avant Garde section. The wins have netted Littin, a third-year fashion design student, prize monies of $5000 and $2500 respectively. Unfortunately Littin was unable to be present on the night. She is currently studying for a semester at the Academy of Art University in San Francisco as part of an AT&T- and WOW-sponsored exchange scholarship programme. Massey fashion design student Katie Collier won $2500 for being runner-up in the CentrePort Illumination Illusion section for *Exquisite Corpse*. The Student Design Award attracted multiple entries from New Zealand, China, India and the UK. Photo supplied by WOW

PUBLIC LECTURES, OPEN DAYS & EXHIBITIONS

Albany

15 Sep. (Thursday) 12 noon: **Ian Wedde** speaks as part of the Albany Writers Read series, Study Centre Staff Lounge.

11–13 Oct. Massey University's World Champion robotics team MESS1 from the School of Engineering and Advanced Technology on the Albany campus in action in the **Robotics World Cup** at the Cloud on Auckland's waterfront. The event is part of a showcase featuring home-grown technology and innovation from a range of industries.

19 Oct. New Zealand Food Awards in association with Massey University. A **Gala Dinner** will be held in conjunction with the Rugby World Cup Expo at the Viaduct Events Centre in Auckland.

Manawatu

27 Sep. to 2 Oct. The School of English and Media Studies will be performing the **Manawatu Dreaming street theatre project** as part of the **Our People, Our Place festival** running in Palmerston North during the Rugby World Cup 2011.

30 Sep. Kate de Goldi speaks as part of the Palmerston North Writers Read series. The Writers Read reading starts at 7pm in the Palmerston North City Library. Join us from 6.30pm for free drinks and nibbles and a chance to meet the visiting writer. A Q & A follows each reading.

Oct. In conjunction with New Zealand Trade and Enterprise, Massey University will offer **'rural gems' tours** to people with agribusiness interests who are visiting Manawatu during the Rugby World Cup.

4 Oct. Legends of the Game gala dinner. Massey University's Sport and Rugby Institute, Manawatu campus, will be the venue for a **dinner with All Black greats Sir Brian Lochore, Murray Mexted and Jamie Joseph** as well as triple Rugby World Cup champion **Farah Palmer**.

19 Oct. Manawatu Lecture Series with **Dr Angie Farrow**, 6pm Palmerston North Library, 4 The Square, Palmerston North.

9 Nov. Manawatu Lecture Series with **Dr Kerry Taylor**, 6pm, Palmerston North Library, 4 The Square, Palmerston North.

Wellington

Mid Sep. – Nov. Mon-Fri 10am-5pm Sat/Sun 10am-4pm **College of Creative Arts' 125th Anniversary Exhibition of Art and Design**, Great Hall, Massey University Museum Building, Buckle Street, Wellington.

21 Sep. (Wednesday) 6pm: College of Creative Arts **Iwi Creativity Public Lecture and Exhibition Opening**. The exhibition is open to the public from 21 to 30 Sep, Tea Gardens, Museum Building, Buckle Street, Wellington

28 Sep. (Wednesday): College of Creative Arts' 125th anniversary exhibition. **OLDSCHOOL NEWSCHOOL: an art and design history of New Zealand** is officially opened by the Hon Chris Finlayson, as part of the REAL New Zealand Festival during the RWC. Open to the public from 29 Sep to 5 Nov in the Great Hall, Museum Building, Buckle Street, Wellington.

29 Sep. 6pm: **Kate de Goldi** reads from her works as part of the Wellington Writers Read series. A Q & A and reception will follow each reading in Theatrette (10A02) Museum Building, Massey University, Buckle Street, Wellington, Entrance D (access theatrette from east side of building).

5 Oct. (Wednesday) **Japanese Design Today 100 international touring exhibition** opens in partnership with the College of Creative Arts, the Japanese Embassy and Asia:NZ. Open to the public from 6 to 26 Oct, Tea Gardens, Museum Building, Buckle Street, Wellington.

5–19 Nov. 2011 BLOW Creative Arts Festival, including the **Exposure Graduating Student Exhibition** (5-19 Nov in Wellington, 11-13 Nov in Auckland), the **Massey Fashion Show** (11-12 Nov), the Hall of Fame **Alumni Gala Dinner** (18 Nov) alongside events from across the university: **www.blowfestival.co.nz** for details

7 Oct. Free Rugby World Cup pre-quarter finals concert with New Zealand School of Music Brass Ensemble at the Town Hall in Wellington at 5pm.

For up-to-date information about Massey events, visit **http://events.massey.ac.nz**.

College of Education student Natalie Paterson stands with a flag signed by well-wishers before setting off for the World University Games – the second-largest global high-performance multi-sports event after the Olympics – in China. Paterson competed in table tennis; others in the team competed in athletics, men's basketball and swimming.

As it turned out, although Paterson won her first-round matches in the mixed doubles and women's doubles, she did not make the finals. Others in the New Zealand team were more fortunate. New Zealand athletes won 12 medals, and six of the medals were won by Massey University student-athletes. In all, nine Massey athletes won medals either individually or as part of a team.

Massey student-athletes also won five of the nine medals that the New Zealand team brought home from the recent World Rowing Championships at Lake Bled in Slovenia.

Looking ahead, Massey now has14 athletes who have qualified for the London Olympics next year within the 12 New Zealand teams.

Dr Nigel Parsons is a senior lecturer in politics with a longstanding interest in the Middle East. In 2009 he was declared Lecturer of the Year by the Massey University Students' Association.

The structural shift of the Arab Spring

Nigel Parsons

It is frequently observed that the events we have come to know as the Arab Spring took everyone by surprise, and in a sense this is true. The sudden overthrow of President Ben Ali in Tunisia, head of a tough police state that I have heard described as 'the East Germany of North Africa', did indeed take everyone by surprise – including him. Similarly, pictures of former Egyptian President Hosni Mubarak protesting his innocence from a hospital trolley behind bars could not fail to prompt a double-take on the part of any seasoned Egypt watcher. Just imagine how Mubarak and the Presidential Guard must have felt! The unprecedented contribution of social media to this upheaval is undoubtedly a story worth telling. But much deeper forces have also been at work. Look beneath the surface of events to the economic and social structures underpinning Arab politics and it becomes apparent that the potential for upheaval has long been there and understood for some time; moreover, this was documented by Arab research and discussed (albeit often discreetly) by Arab publics. It was also perceived on a certain level by Arab regimes, and we know this because they took extensive measures to compensate for it; witness the various political roles afforded police forces, intelligence services and militaries across the region. Built upon uncertain foundations, our Arab regimes were compensating for a legitimacy deficit.

The concept of legitimacy offers us one of the more tried and trusted tools in the political science toolkit. Economic and social structural factors are essential when accounting for the rise of the revolutionary tide in the Arab world; legitimacy can then help explain why that tide swept through some political regimes to such devastating effect while others survived relatively intact.

Structural origins of the revolutionary tide

The Arab uprisings of 2010-11 are commonly traced to problems of economic and social development, principally a much-remarked-upon 'demographic bulge' that has corresponded with high rates of youth unemployment. To give some credit to Arab states, the demographic challenge is in large part a measure of earlier success. In 2002 the United Nations Development Programme (UNDP) published the first Arab Human Development Report (AHDR); it found that during the 20th century, the Arab world witnessed "dramatically reduced poverty and inequality", that life expectancy "has increased by 15 years over the last three decades, and infant mortality rates have dropped by two thirds" (UNDP, 2002: 11). The problem is that progress has faltered; the recent past has been hard on much of the Arab world.

Long-term socio-economic phenomena such as those recorded by the AHDR did not take anybody by surprise; the data had been gathered by competent professionals for years. But post-9/11 and driven by Arab initiative and expertise, the AHDR did find a wider audience and it carried a certain authority. I was in Cairo when the first one was published and I remember well the interest and controversy it generated. Key findings included an observation that, considering the Arab world in comparison with the Asian Tigers, "per capita output was higher than the average of this group in 1960. Now it is half that in Korea". In addition, "growth in per capita income was the lowest in the world except in sub-Saharan Africa" (UNDP Presskit, 2002: 1). It was clear that the Arab world had been losing economic ground; and of course, this level of economic performance had social implications. Prefaced by incumbent UNDP Administrator Helen Clark, the latest AHDR (2009) reports that, "about 30 percent of the youth in the Arab States region is unemployed. Considering that more than 50 percent of the population in Arab countries is under the age of 24, 51 million new jobs are needed by 2020 in order to avoid an increase in the unemployment rate" (UNDP, AHDR summary online). Neoliberal reforms have stimulated a modicum of economic growth but the benefits have been highly uneven; market reforms routinely prompt deteriorating conditions for workers alongside spectacular consumption by the upper-middle class. This feeds an appreciation of inequality.

Structural challenges such as these would stress-test any political system, but the Arab world has typically capped society with opaque


Photo - Jonathan Rashad

state structures that are neither responsive nor accountable to ordinary people; how might an angry Arab get their voice heard, let alone expedite change? One answer developed in Egypt: beginning in 2005, the prospect of an ailing Mubarak engineering the succession of his son led to the formation of the kifayya (enough) movement. In parallel with that, from late 2006 strikes and demonstrations in the unfashionable Nile Delta town of Mahala saw textile workers and their families increasingly ready to confront the state. The findings of the AHDR and industrial action in provincial Egypt were just two indications that the tectonic plates of Arab society might be preparing to shift.

Why did the tide knock over some regimes and not others?

The political discontent that has swept through the Arab world has shaken and in some instances toppled those regimes most lacking in legitimacy. The holy grail of politics, legitimacy is that priceless capacity to transform power into authority; the authority that legitimacy bestows on a government is valuable because it makes governing so much easier. Modern scholarship has pushed and pulled the concept in various directions, but back in 1918 Max Weber identified three basic mechanisms through which legitimacy might be generated: charisma, tradition and legal-rational mechanisms such as elections. Keeping in mind the broad socio-economic strains outlined by the AHDR, Weber's century-old take on legitimacy can still gain some traction on the politics of the Arab Spring. There are three more-or-less distinct parts of the Arab world to consider: North Africa, the Gulf and the Levant.

North Africa

North Africa has been the scene of much of the action, so let's start there, specifically in the far west with Morocco. The Sunni Alawi monarchy (quite distinct from the Shia Alawi sect in Syria) has been in situ for three and a half centuries in one form or another; it has a firm claim on tradition and a residue of nationalist credibility. Under pressure, King Muhammad VI has looked to shore that up through proactive constitutional reform, principally devolving powers to the Prime Minister; in short, the monarchy has looked to expand its legal-rational legitimacy. In neighbouring Algeria, wracked by civil war until 2002, the Government response has been to lift the 19-year-long state of emergency whilst increasing subsidies on basic commodities; expansion of political space thus adds to a modicum of legal legitimacy, and provision reinforces it. The Algerian regime cannot be deemed out of the woods yet, but recent memories of civil war mean there is less appetite for radical upheaval than might otherwise be the case. That the Arab Spring would be triggered in the Stasi republic of Tunisia was a genuine surprise. But we do find that the Tunisian regime under Ben Ali enjoyed little legitimacy in any form: the President had long spent whatever personal kudos might once have been his, and the republican regime did not draw overtly on monarchical tribal or religious tradition. It also struggled to provide, and the police state permitted little scope for elections to function. Next door in Libya Colonel Qadhafi could certainly lay claim to charisma, but only of a cartoonish (and frequently violent) sort that routinely embarrassed at least some of his own people. Besides charisma, Qadhafi appear to have tradition and provision covered too: tribal alliances provided channels for oil revenues to be distributed amongst a small population to some effect. Finally, the popular committees of The Great Socialist People's Libyan Arab Jamahuriyya (State of the Masses) provided in theory for the classical popular participation of direct democracy. So what went wrong? Like Mubarak, Qadhafi was an aging despot and there seems to have been a limited appetite amongst Libyans for a continuation of Qadhafi family rule. Reintegration into world markets had raised the stakes. Propaganda aside, the direct democracy of the popular committees did not compare favourably with the ideals of Rousseau or ancient Athens. Qadhafi's characteristically violent response to protest and a lifetime spent making enemies then briefly put the Arab League and NATO on the same page: an opportunity to expedite regime change unfolded. All of which brings us back to the big show in Egypt. The

lynchpin of North Africa has enjoyed (and endured) charismatic and flamboyant heads of state in Nasir and Sadat; right to the end, Mubarak endeavoured to portray himself as the father of the nation, but this most professional of military dictators never invested much in charisma. Now in his early 80s, Mubarak might well have been permitted to die in office if he hadn't tried to secure the succession of his younger son Gamal (said to have been primarily his mother Suzanne's project). The Syrian Asad family appeared (for a decade at least) to get away with it, but republican family succession was not a legitimate tradition in the Arab world. Moreover, a diminished welfare state and demanding economy found many working and middle-class people holding down two or three jobs in an exhausting struggle to keep their families afloat. The remaining source of legitimacy for Mubarak was the electoral system. Dominated by the ruling National Democratic Party, elections provided for a typically minimal level of political engagement, but no-one was fooled into believing that the regime enjoyed much in the way of a real democratic mandate. The tremors that brought down Ben Ali in Tunisia found Mubarak similarly vulnerable.

The Gulf

In contrast to North Africa, the impact of events in the Gulf has been limited. There are good reasons for this, rooted in the oldest and perhaps most reliable form of legitimacy: traditional patriarchal provision. For the Gulf, tribal rule is shored up by the provision of welfare through petrodollars and augmented, as noted by Professor Tim Niblock recently, by entrenched privilege over expatriates (Niblock, 2011). Six states in the region are members of the Gulf Cooperation Council (GCC); Bahrain, Kuwait, Oman, Saudi Arabia, the United Arab Emirates and Qatar. Each country is governed by a monarchy and each – to a varying extent – has enjoyed a flow of petrodollars. The GCC states also typically host large expatriate communities that contribute much to the economy but without enjoying the benefits of citizenship. Prof. Niblock observed that in the wealthy and often smaller populations of the Gulf, more money circulates around the system; furthermore, handsome public sector salaries for individuals keep extended family networks on side. The partial exception of Libya aside, our Gulf countries enjoy an advantage that North Africa typically cannot match. Insurance can be gleaned from maintaining religious credentials and merging the ruling dynasty with the military.

The Gulf is of course neither uniform nor uniformly stable. Saudi Arabia, Bahrain and Yemen have all been struck by protest that reflects a respective legitimacy deficit. The Saudi kingdom is a profoundly Sunni affair based on a sort of Islamic Calvinism. But it retains a large and restive Shia minority that cares nought for that and is strategically sat on oil-rich territory to the east. The nervous Saudi response to any hint of protest has combined quick repression with a readiness to throw money at the politically critical public sector. It is not a long-term solution. Tiny Bahrain finds a Sunni monarchy governing a similarly fed-up Shia majority. Demands for a constitutional monarchy – one means of expanding legal-rational legitimacy – were spurned in favour of a bloody crackdown backed by Saudi military invasion. Impoverished Yemen found another aging despot in Ali Abdullah Saleh; in power since 1978, he too appeared tempted to try to engineer family succession. Under familiar structural pressures and particular problems of poverty and looming drought, Yemen's complex mosaic of religious and tribal elements fractured. Completing our round-up of the Gulf, Iraq presents a potentially fascinating study of political legitimacy or the lack thereof: a Stalinesque cult of personality under Saddam coupled with elaborate tribal alliances and the technical exercise of elections under the near-totalitarian Ba'th Party regime. Quite a combination, but the United States military invasion blew all that to bits in 2003. Elections and oil notwithstanding, the post-invasion Iraqi Government surely has legitimacy problems. But given the turmoil already present in that system, any additional energy generated by the Arab Spring has somewhat dissipated.

The Levant

In common with Iraq, one of the interesting features of the Arab Spring is the way in which two of the typical hotspots, Palestine and Lebanon, have remained relatively quiet. Each has plenty of unspent potential for change, but both systems routinely vent pressure as a matter of course: neither Palestine under Israel nor Lebanon's wobbly sectarian democracy has been allowed to calcify. The same cannot be said of Bashar al-Asad's Syria. Entrenched since the 1960s, the Ba'th Party regime keeps the Shia Alawi minority atop a Sunni majority. Regime founder Hafiz al-Asad combined a cult of austere personality with a Soviet-style welfare state that did deliver on at least some of its ideological promise. Regime heir Bashar, lacking his father's political history or nous, has permitted the state to degenerate; ordinary Syrians glean little benefit from it while the elite maintain an institutional platform for gangsterism. The Hashemite monarchy in Jordan completes our survey. In a somewhat unlikely tale, this ancient tribe chased from the Arabian Peninsula by the Sauds continues to govern a resource-poor patch of the Levant with some success. To keep it so, King Abdullah II attends to legitimacy: he himself manages a certain rough charm, tribal networks are entrenched in the military, and Western aid finances a modicum of state provision for this durable client of the West. Moroccan-style reforms have permitted a carefully limited expansion of legal political space.

Conclusions

The tectonic plates of economic and social structural change continue to grind away beneath the Arab world. The upheaval of 2011 has released some of the tension: the least legitimate of political structures have been shaken and in some instances heads of state have been toppled. But addressing the deep causes of instability, including demographic growth, unemployment and inequality, presents a truly Herculean challenge for any government. The political challenge for Arab regimes is to deal with that whilst navigating demands for meaningful political representation; the Arab world increasingly expects transparent, accountable government that is responsive to the popular will. Palestinians have been demanding that for years.

Further reading

The range of AHDR findings can be accessed online: www.arab-hdr.org/.

For a sample report from Mahala, see Dena Rashed, 'Strike for Now', *Al Ahram Weekly*, online at: weekly.ahram.org.eg/2009/942/feature.htm.

Prof Niblock's paper was delivered to the New Zealand Institute of International Affairs, details online at: www.victoria.ac.nz/nziia/events/seminars/prev_seminars/2011/The%20Arab%20Spring%20August%202011.pdf.

For an introduction to legitimacy, see Andrew Heywood, *Politics* (3rd edition), (Palgrave 2007).

To share your thoughts, go to www.definingnz.com.

Hoping for a victory, coping with defeat

Historian Geoff Watson on the stories we tell ourselves about New Zealand's Rugby World Cup record.

New Zealand's victory in the first Rugby World Cup in 1987 happened at just the right time. In the previous two decades, rugby's primacy had been challenged by controversy over sporting contacts with South Africa and by critiques linking the game to male chauvinism.

So this represented more than a sporting triumph. This was the rehabilitation and restoration of the game as an unsullied emblem of national pride, and a validation of a national narrative: rugby is our national sport and we are exceptionally good at it.

The emphatic All Blacks victory – the 29-9 defeat of France in the final was the closest margin in any of their games – raised hopes that New Zealand would dominate future tournaments.

Unfortunately, this hasn't been the case, and the result has been a series of morality plays in which, at four-year intervals, sports-based and society-based explanations have been advanced for New Zealand's failure to regain the trophy.

What rationale do we turn to when the other side wins? Generally we have blamed ourselves. The notion that the opposing team may have been better on the day has been consistently downplayed.

In 1991, New Zealand lost its semi-final 16-6 against the eventual winner Australia. How did we explain this to ourselves? Many player biographies attribute the failed 1991 campaign to declining player performance and an undercurrent of disharmony within the team, exemplified by the late decision to make John Hart and Alex Wyllie co-coaches (which, as Hart was a former Auckland coach, reflected wider concerns at the then dominance of Auckland rugby).

The defeat in the 1995 Rugby World Cup final to South Africa, 15-12, has been variously attributed to food poisoning and to a failure to change tactics in the final, when the expansive approach was not working. In keeping with a longstanding tradition in All Blacks rugby, some commentators asserted that while the All Blacks had been defeated on the field, they had won a form of moral victory. After all, New Zealand had had the best team at the tournament, maintaining spectacular form up until the final, and one All Black, Jonah Lomu, had emerged as perhaps rugby's first international superstar.

Expectations were again high for the 1999 tournament, despite five successive defeats in 1998. This time the All Blacks were defeated 43-31 by France in the semi-final, after leading 24-10 at half-time.

In his book *Tackling Rugby Myths*, Greg Ryan identifies both sports-specific explanations, notably the alleged failure of the All Blacks to deal with provocations from the French forward pack (unlike previous All Blacks teams, perhaps most notably during the 1956 series against South Africa) and societal explications (purportedly an education system that failed to instil the competitive spirit in children) for the 1999 defeat. An alleged lack of 'hard men' from rural New Zealand, supposedly the heartland of our rugby (despite the fact that the strength of New Zealand rugby has historically been concentrated in the main centres) was also cited as a factor in the defeat.

In 2003, when New Zealand lost 22–10 to Australia in the semi-final, much criticism was directed at the omission of experienced players such as Andrew Mehrtens, Anton Oliver and Christian Cullen.

When an All Blacks team that had dominated international rugby since 2005 lost to France 18-20 in the quarter-final in 2007, the policies of 'rotation' and 'reconditioning' (the resting of All Blacks from the early rounds of Super 14) were, along with selection issues, officiating, and the failure to attempt a dropped goal from close range late in the match was held responsible for the All Blacks' defeat. A perception that professionalism had undermined the commonsense, pragmatic traditions on which All Blacks successes had been founded underlay these concerns.

In both the 2003 and 2007 campaigns, perceived preparation errors were the dominant explanations for defeat.

What purposes do these morality plays serve? Attributing the failure of the All Blacks to internal factors creates an imagined history in which victory could (and should) have occurred had the 'right' things been done. Such narratives give us hope that we have the capacity to learn from the past and restore the All Blacks to Rugby World Cup supremacy.

With luck, perhaps that is what we will witness this year. If not, it will be interesting to see how we interpret events. ■

Geoff Watson is a lecturer in the School of History, Philosophy and Classics. He teaches a paper on sports history and is working with Greg Ryan from Lincoln University on a general history of sport in New Zealand.

The spin on the ball

Kane Hopkins

Every time the Manawatu Turbos run out onto their home ground, they are supported by public relations students from Massey University's School of Communication, Journalism and Marketing. They have provided media services for the Turbos since 2006. During the 2011 ITM Cup season the students supplied the media with a range of stories as well as writing for the team's website, and created video content for TurboTV and anything else needed to get the Turbos and individual players into the public's consciousness as well as creating value for the Turbos' sponsors.

But this is nothing compared with the PR activity that is already taking place, and this will go into overdrive during the actual Rugby World Cup (RWC) game period. The investment by the official RWC sponsors is in the tens of millions. Brands such as Heineken, Emirates Airlines and MasterCard will be looking to recoup this investment by pushing their products in front of our faces at every possible opportunity. With the stakes so high you can expect brands to hijack events with stunts or through stealth acts. There are the infamous scenes of 36 attractive women wearing orange mini-dresses being forced out of a stadium, and threatened with six months in jail, at last year's FIFA World Cup all because the dresses they were wearing had been issued by a Dutch beer company that wasn't the official sponsor. There were spontaneous online campaigns supporting the women, along with an amount of international media coverage that would have had FIFA with its head in its hands. All the while the official sponsor Budweiser, having done nothing, was being demonised as a bully. It is exactly the kind of thing marketing managers will be having nightmares about. The introduction of the Major Events Management Act 2007 shows how seriously the Government and business are taking the matter. Anyone in violation of the Act could find themselves fined up to $150,000. Even off the field, rugby is a competitive environment.

It is often said that good PR goes unseen, which is probably one of the reasons the practice has such a bad rap. To give you an example of this, New Zealand is holding an event that will attract an estimated 95,000 visitors and players to our shores who are expected to spend upward of $700 million, yet the RWC is anticipated to lose $60 million. Two-thirds of this will be covered by the taxpayer. Now, I'm not too good with numbers, but this doesn't seem good business to me. If you were to read back through the media coverage from when New Zealand won the right to host the competition, there is little in the way of concern or criticism of this point. The overwhelming positive coverage is all about opportunity and development. Cameron Brewer of the New Market Business Association said at the time, "I can almost hear the cash registers ringing in anticipation. This will be worth hundreds of millions to the regional economy." But this was also those heady days before the world's financial system went down the toilet. And yet the costs of the tournament remain far from the public discussion – because of PR efforts.

Admittedly, there have already been a number of PR disasters leading up to the competition. Adidas' attempts to block overseas websites selling All Blacks jerseys to New Zealanders and Telecom's Abstain for the Game campaign brain explosion saw a strong, if not unreasonably vitriolic, public backlash, but these were just domestic issues and in the long term will prove insignificant. I doubt anyone changed mobile providers because of the Telecom debacle. The price-gouging associated with accommodation, that's a different story. That made the news overseas. I'm sure anyone in the UK who read that a hotel had increased its room rate from $50 per night to $590 during the RWC would have reconsidered flying 30 hours to pay crazy money for accommodation. I suspect it was a factor in decision making for countless numbers of people on whether or not to come.

Dr Kane Hopkins is a lecturer and researcher in public relations in the School of Communication, Journalism and Marketing on the Wellington campus.

Public relations students and Turbos volunteers Daniel Walraven, Lucy Townend and Sara Renall.

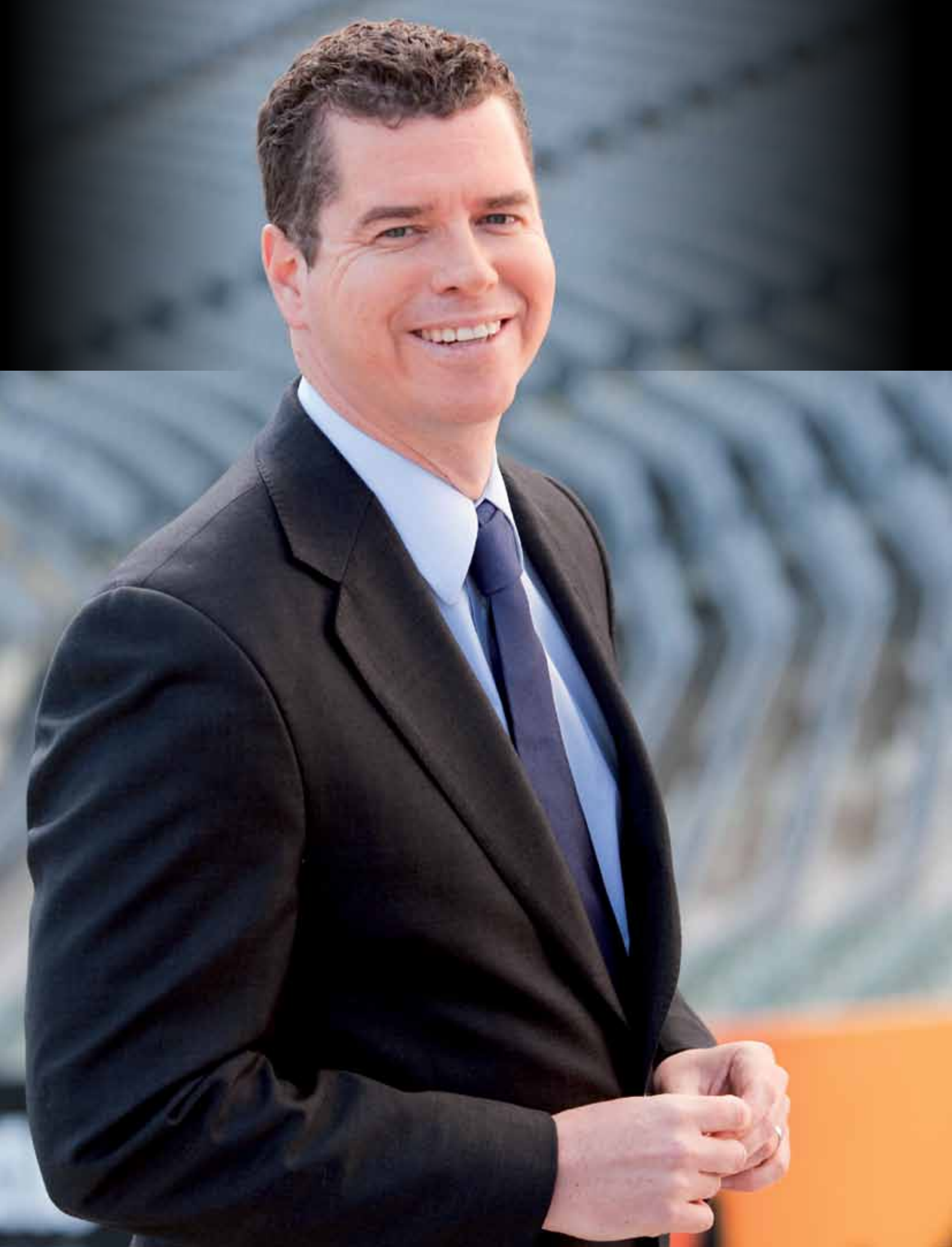
Despite the anguish of the many worthwhile non-profit organisations at the prospect of taxpayer money being spent on the RWC, there are long-term opportunities for New Zealand. The RWC will attract 1500 international journalists from more than 200 media organisations coming to cover the tournament and agencies like Tourism New Zealand will be working overtime to ensure there is a lot of positive coverage for the New Zealand brand. It is here that we will get a return (if any) on the investment and where public relations will save the day by creating connections between New Zealand and overseas audiences. If this whole thing is about selling beer or smart phones, we're stuffed. Tourism is a vital part of our economy that sees on average 2.4 million visitors and annual revenues of around $9.5 billion – making it our biggest export earner. The timing of the RWC couldn't be better. Coming off the back of a massive economic downturn and the Christchurch earthquakes, we need New Zealand to be viewed positively and as a place you would want to visit. There are more people in the world who would be happy to come here and not watch any sport. If the RWC is used to show off all we have to offer, like the international campaign that was associated with the release of *The Lord of the Rings*, and passive rugby viewers are converted into active, money-spending tourists in the future, the government's gamble will have paid off.. Conversely, if it is astronomical hotel prices and tourists being robbed that are hitting the headlines overseas then PR will be more important for RWC success than Dan Carter. If things do go wrong at any stage – and there is a good chance they will – all the marketing and advertising isn't going to help the situation. Remember Adidas and the jerseys? It was PR people working with the media and key stakeholders who killed the story, not the billboards and posters.

Like my students working to get the Manawatu Turbos in the spotlight, so too will be the companies and brands that are officially linked to the competition. You can expect to hear quite a bit about Land Rover and BlackBerry in the coming weeks as these sponsors feed stories to the media. To entice journalists DHL has employed ex-All Blacks captain Sean Fitzpatrick as a global ambassador and it's working. A story in *The New Zealand Herald* back in June on Fitzpatrick's role in the RWC was littered with references to DHL.

Part of the problem we are facing is that globally, rugby doesn't have a high profile. The idea that there are billions of people around the planet who will be tuned into New Zealand during the competition period is just not true. Outside New Zealand the only countries that identify rugby as their national sport are Fiji, Georgia, Samoa, Tonga and Wales. Like it or not, football is the king of sports. To give some perspective, RWC 2007, held in France, had a total audience of 4.2 billion people; however, a year earlier when Germany hosted the FIFA World Cup, a cumulative audience of nearly 30 billion viewers tuned in throughout the tournament. The final alone had an audience of 715.1 million people.

There is never a problem getting rugby stories into the New Zealand media. I have also worked in PR for other sports and I know that unless there is something of significant news value, getting the media interested in a story on, let's say, basketball, is hard work. A sports journalist will tell you that there's not enough interest, or "we did a story on basketball a couple of weeks ago". Talk to any communications person working for a minor sport and they'll tell you of their frustration at watching rugby effortlessly get more than their share of the column inches and broadcast minutes (some evenings you could be forgiven for thinking the TVNZ sports news was run by the New Zealand Rugby Union).

In the end it's not what New Zealanders see and think that is important, but the impression of New Zealand that readers and views from overseas take away that will make the difference to whether the RWC will be a long-term success for New Zealand. ■



On the ball

Kit McConnell is one of a new breed: New Zealand-educated sports managers who are pursuing international careers. Back in New Zealand this year as the IRB's RWC Tournament Director, he talks to **Jane Tolerton.**

When Kit McConnell was finishing his Master of Business majoring in management he wrote to a number of major sports organisations around the world – including FIFA, the New York Yankees, the International Olympic Committee (IOC), Manchester United and the International Rugby Board (IRB) – asking about job prospects.

There was only one reply. But it was a good one. It was the IOC: they wanted an intern, and they specifically wanted one from Oceania.

Perfect timing.

As a result, in 1996 – his year of graduation – McConnell was catapulted halfway around the world from the green fields of Massey's Albany campus to Lausanne, Switzerland.

He's been a part of the sports stratosphere ever since. On finishing his internship, he stayed with the IOC, becoming first the Manager Sport Competition for the Sydney 2000 Organising Committee for the Olympic Games and then the IOC's Manager Sports Operations. Then followed his 2002 appointment by the IRB as Operations Manager – which meant moving to Dublin, Ireland – and two years later his elevation to Head of the Rugby World Cup (RWC) and RWC Tournament Director.

McConnell has also had his share of geographical good fortune. Oceania has been well favoured. The 2000 Olympic Games were held in Sydney, the 2003 RWC was held in Australia, and now this year's RWC is taking place in his home country. Few people could be better qualified to help the RWC succeed. "I was able to blend knowledge of major events and of New Zealand," says McConnell.

When New Zealand bid for the tournament, his professional self took control, and he stood back emotionally – although he thought New Zealand put the best case. "I didn't take it in until my father said, 'Isn't it fantastic we won'." Then he realised how important it would be for the country.

McConnell grew up in Auckland in a very sports-minded family. His father lectured in sport management and was, for a time, on staff at Massey's Albany campus.

"Dad talks about getting me up in the middle of the night as a young kid in the 1970s to listen to games in South Africa.

"My parents encouraged my sister and me to take part in sport. I played everything from tennis and soccer to cricket and rugby - and backyard hybrids with friends and cousins."

Although he played both rugby and cricket for Auckland Grammar he was not good enough to play professionally, he says. But he laughs at the suggestion that he went into administration as a result. "Not everyone in sports administration is a frustrated athlete. You need to have a love and understanding of sport, but the skill set is different."

McConnell gained his first degree, in history and politics, from the University of Auckland, graduating in 1994 and immediately enrolling with Massey for his masterate.

He had arrived at the right place at the right time. The Albany campus had opened in 1993, and the sports management programme was then the only one in the country.

McConnell remembers it as an exciting time: "Albany was very much still under development. The academic staff were doing something new – and special. For me, there was a good balance between having enough structure and learning about the elements of the industry and having freedom within the curriculum to explore what interested me."

There were only three students in the programme – McConnell, Matt Rimmer and Cathy Martin.

Rimmer had never met anyone as passionate about sport as McConnell. "He loved sport – any sport – more than anyone I've ever known."

The pair spent a lot of time together in the Lockwood house that was the department's headquarters on the Oteharohe campus. "We had our own office. It was really laid back. I used to take my dog – a German shepherd called Nelson – into the office. Kit and I would sit in there and do our research and we became good friends."

Rimmer is now based in London working in marketing for a liquor company, but he and McConnell get together whenever they are in the same city. "When he comes to see the All Blacks play we go to Twickenham."

He says McConnell had a clear goal of where he wanted to go. "He knew what he wanted and the steps he had to take to get there."

Dr Trish Bradbury who taught in the Master's programme remembers McConnell as a "high-quality, thorough student who had a lot of drive. You could see he was going to achieve. There was no doubt about it, he was going to do well."

His thesis was on the impact of the professionalisation of the game in the Auckland Rugby Union – a window into the way rugby had changed in the previous couple of decades. >>>

In spite of the cracking pace and the responsibility, McConnell says he loves the job – because of its variety and because, "You see the final product on such a big stage".

"New Zealand has embraced the professional era," says McConnell. "The All Blacks' branding has been successful. So the framework you come through now is different, but you still play for the love of the game – and to win.

"There's a huge amount of talent coming through our system. We've got a small playing population compared with those of England, South Africa and Japan. But the amount of talent that continues to come through is testament to the framework. It can't be luck. It must be the structures that are in place. And an abiding love of the game."

McConnell says he is indebted to his supervisor Dr Chris Salvarajah: "I owe him, and the department, a huge amount of gratitude for pushing me. When I submitted what I thought was a final draft, he didn't think it was. He said, 'It's not the best work you are capable of', and encouraged me to make more of an effort.

"That's a lesson I've taken forward: that I could achieve more than I had achieved. I had to learn to judge myself, to see if this was the best work I could do, and to push myself to make sure it was. Chris saw the scope where I didn't."

The result was first class honours.

McConnell says the Massey qualification provided a bridge between academic study and his chosen profession. "It gave me something tangible. It set me up for the transition into a career and opened doors," he says.

His ability and willingness to market himself, evident in the letter that secured him his internship with the IOC, was also a key factor in his success.

"You need to create opportunities and then, when they are available, make the most of them. Being proactive is something we worked on at Massey with the academic staff.

"In my industry, having the confidence and the motivation to go out and make things happen is important – having both the knowledge base and the attitude. Not being overconfident, but having the desire to learn more about something by putting yourself in a difficult position. Don't be scared to ask the question, contact the people and try to open doors."

How do people react to his nationality? "Having worked in Europe, people are very aware of how far away and relatively small New Zealand is but also of how many New Zealanders they meet. Particularly in rugby. You can go to almost any developing country and and you're likely to find a New Zealander involved in coaching or administration. And within New Zealand the way rugby has changed has meant that a huge number of New Zealanders are actually making a living out of the game today."

After six years with the IOC, and having worked on the Sydney Olympics, McConnell was perfectly placed to become part of the IRB team working on the 2003 RWC in Australia. And from there he developed the RWC department within the IRB and took it forward to the 2007 competition in France and then this year's in New Zealand.

It was in Sydney during the 2003 RWC that he met his wife Anne Louise Williams, who was working for the global sports and media business IMG, the commercial agent for the RWC, and whose own sports administration degree comes from Southern Cross University in Lismore.

Their work lives had a lot of overlap, McConnell remembers. "On the way to work one of us would say, 'I've got a meeting with so-and-so' and the other would say, 'Could you remind him to give me a ring?'."

Williams now works for Velocity Brand Management, her particular client being the New Zealand Rugby Union. While her husband has been organising the international tournament, she has been close by in Wellington working on the licensing and merchandising of products carrying the All Blacks logo.

Williams describes her husband as professionally extremely conscientious and efficient. "He complements me well and we work well together. We both like being organised and ticking things off the list."

The couple are expecting their first child in November.

But they won't be going back to Dublin, which has been McConnell's home for the past eight years.

They're going straight on to London to start work on the 2015 RWC to be held in England.

An office is being set up in Twickenham while McConnell is still flat out preparing for this year's games in New Zealand.

In spite of the cracking pace and the responsibility, McConnell says he loves the job – because of its variety and because, "You see the final product on such a big stage".

This year the final product, the RWC 2011 final will be held in Auckland's Eden Park in October. McConnell will be there. So will the eyes of the world – the event is expected to be viewed by an estimated four billion people worldwide.

This is New Zealand's national game. This is McConnell's home turf. He wants to do us proud.

Six questions for Deacon Manu

New Zealand-born Fijian Deacon Manu completed his Bachelor of Business Studies (Management) degree in the nick of time, handing in his last assignments just before taking on the captaincy of the Fijian national team in the Rugby World Cup. He talks to Kathryn Farrow.

What are Fiji's chances?

My expectations of Fiji are to make it through to the quarter-finals as we did last tournament. But we are in the pool of death and it provides us with more challenges than the previous Rugby World Cup. Being grouped with South Africa, Wales, Samoa, and Namibia is a formidable challenge, but we need to qualify to replicate our past achievements. Once you make the play-offs anything can happen and usually does.

How are you preparing?

To compete on an international stage is tough financially and because many players are dotted all around the world. So preparation is tough for all island teams, especially Fiji, which will go into this tournament with no major sponsor. We are based in Fiji for the duration of the Rugby World Cup and there couldn't be a more scenic place to be preparing – although the weather can be a bit much when doing fitness training.

Why do you love rugby?

That's a good question. When you think about it, it's two guys running full tilt at each other for 80 minutes and as for scrums that's a different issue altogether. I guess I was blessed with talent in rugby, although I would have loved to be a professional golfer as it is easier on the body and you can play professionally until you're a granddad, but God blessed me with rugby talent and I have to use it to the best of my ability.

How do you combine sport with study?

Whether or not you are a professional in sport, education and up-skilling are vitally important, as you are always one injury away from not playing rugby again. In a way, it gives an outlet and release from the tension and high-pressure work environment that professional rugby brings.

What are your long-term goals?

I would ultimately love to get a few years in the environmental management department in a council or business – specialising in marine sustainability – and work my way up to an area of responsibility before going into consultancy both in New Zealand and worldwide.

What have you learnt at Massey that you will take to the Rugby World Cup?

The leadership and sports psychology paper was excellent. Understanding the processes involved and the practical implications of poor leadership enabled me to come up with a checklist that enabled me to follow a framework to successful leadership. I hope to use some of these tools in preparing Fiji for the Rugby World Cup.

Photo supplied by *The New Zealand Herald*

TOOLS OF TRADE

Analysing physical exercise in its many aspects is sweaty work at the Human Performance Laboratory. Here, researchers from the School of Sport and Exercise put the human body through its paces to better understand how it responds to the physical stresses associated with sports such as cycling, running, rowing or weightlifting.

Matt Barnes runs the Human Performance Laboratory, coordinating research and teaching into areas such as exercise physiology, prescription and therapy. His own research is focused on the acute effects of alcohol consumption on recovery and performance.

This rowing ergometer is used to test rowing-specific fitness as well as being an excellent form of training for cardiovascular fitness.

Forces are measured in three dimensions using the force plate – allowing for analysis of force, gait and balance and the measurement of vertical jump height.

Data is collected wirelessly from a heart rate strap placed around the athlete's chest during exercise testing, providing an indication of exercise intensity and physiological stress.

Lower-body maximal strength is measured using the squat in the confines of a heavy-duty squat cage.

A modified leg press allows for precise control of the load and type of contraction used during exercise by way of an automated hydraulic system.

An athlete's vertical jump is measured on the force plate.

This electronically braked cycle ergometer applies resistance specifically to stress an athlete during an exercise test or training session.

A modified Smith Machine, which sets a barbell between two fixed rails, allows for the measurement of power during an assessment of skeletal muscle function.

Expired gas is analysed for volume as well as oxygen and carbon dioxide concentrations. The data provides accurate measurements of resting and exercising metabolic rates and VO2 max – a measure of aerobic capacity – during fitness testing.

A history of New Zealand rugby in four jerseys

Malcolm Wood writes.

Stephen Berg

For a man whose principal interest is sport, Stephen Berg has spent a lot of time worrying about clothes. As the Director of the New Zealand Rugby Museum, Berg is the steward of an astonishing collection of clothing, dating from late Victorian times up until the present: 1250 or so ties last time a count was done; 500-plus rugby jerseys; 300-plus caps catalogued; around 250 blazers; and emblems and insignia almost beyond count.

They are made of cotton, wool, silk, linen and, more lately, synthetic fabrics, and they include three of the museum's greatest treasures: a handstitched golden fern frond insignia from a jersey worn by Harry Roberts as part of New Zealand's first internationally touring rugby team in 1884; Jimmy Hunter's jersey from the 1905 Originals, the first true All Blacks team; and Jock Richardson's jersey from the 1924 Invincibles, the All Blacks team undefeated in its tour of the UK, Ireland, France and Canada.

None of these heritage items can be handled; they are too precious and fragile.

Just how fragile the museum realised when, in preparation for moving itself and its collection of 40,000 catalogued and 13,000 uncatalogued items to Te Manawa Museum of Art, Science and History, it enlisted the help of specialist conservators in paper, wood and, of course, textiles.

The verdict on the condition of the 1905 and 1924 jerseys was not good. They were perilously delicate and aging beyond their years. In photographs of the 1905 jersey, the cause of the problems is clearly apparent: a shoulder yoke is quilt-stitched to the top of the garment, making it look almost armour-like.

The body of the 1905 jersey is of a fine, flexible, stretchable wool. The yoke, on the other hand, has no 'give', and has become dry and brittle. The two fabrics are antagonists: the wool flexes; the linen breaks. The 1924 jersey, though of coarser wool, has the same problem, although here it is hidden – the yoke is stitched inside the jersey.

In the interest of conservation, these jerseys – made to endure brutal treatment, and worn through tackles and tries, mud and rain – should never again be so much as touched.

The thought was anathema to exhibition planner Bettina Anderson, to whom the soon-to-be-upgraded Rugby Museum, with its mementos-behind-glass approach, seemed distinctly dated and two-dimensional. Elsewhere museums were actively putting objects from their collections into the hands of their visitors – and failing access to the physical things themselves, to near facsimiles.

Te Papa, for example, in its natural history discovery centre, lets children step inside a replica dinosaur footprint, inspect an insect under a microscope, or find a fossil.

There is no more physical pursuit than rugby. It is not a 'look, don't touch' affair. So one of the sections of the reborn Rugby Museum is to be called 'Have A Go'. Here visitors will be able to kick a rugby ball or test their prowess at jumping, sprinting or taking on a scrum machine.

Deb Cumming and Robertina Downes with the 1905 Originals replica jersey, constructed in 2x28 worsted wool, plain lockstitch-sewn linen and lambskin with hand-embroidered satin-stitch fern motif in antique pearl silk.

So far, so good, but why not take it further? Imagine the thrill and pride of pulling on one of those legendary All Blacks jerseys – or if not the jersey itself then something as close to it as humanly possible. The idea of creating replicas seems to have emerged organically. Anderson approached Deb Cumming and Robertina Downes of Massey's Institute of Design for Industry and Environment for help.

Neither is a rugby follower. For Downes, whose broad vowels mark her northern English upbringing, rugby is the game played with a "funny-shaped ball", and Cumming, though a keen sportsperson and someone whose master's research examined sports dress for women during colonial times, is little better. When the tall, elegantly built Cumming casts around for a personal experience that resembles that of a true believer trying on an All Blacks jersey, she turns to high fashion, imagining "the deep inner happiness of trying on a Prada woollen jumper or a *Comme des Garçons* coat".

But for understanding how it is that garments are constructed – the ins-and-outs of yarn sizing, of cut and manufacturing techniques – it would be hard to find anyone more expert or qualified. Before turning to academia, Cumming, who has degrees in design and psychology, worked in commercial fashion design and production for various national apparel companies and ran her own independent fashion design label. Downes has worked in the apparel industry in England, China and New Zealand.

Downes' next project? Work on one item of rugby uniform that is unlikely to make its way into street fashion any time soon: rugby caps.

1884 Harry Roberts

He is 84 and largely blind, but in his suit and bowtie Harry Roberts stands ramrod straight, face-on to the camera, alongside his more solid former All Black son Teddy, who clasps a steadying hand in the crook of his father's elbow. It is 1946 and a state reception is being held for the Kiwi rugby team in Parliament Buildings. Present is a gathering "representative of all sections of the sporting, military and political life of the Dominion as well as of other parts of the British Commonwealth of Nations". Prime Minister Fraser presides, in his speech congratulating the team on the "grand manner" in which they accepted defeat at the hands of the Scots.

Harry, as the only surviving member of the first representative New Zealand rugby union team, which toured New South Wales in 1884, is there as the guest of honour, and in the photograph in the *Dominion* newspaper account you can see his badge of distinction: pinned to his very wide lapel and occupying its full width is a 10cm embroidered fern frond, with the surrounding cloth scissored to its margins.

What happened to that snippet of fabric after 1946? Nobody gave it much thought until 2009, when Stephen Berg of the New Zealand Rugby Museum, pursuing an enquiry from a researcher, came upon a photocopy of the fern in the museum's archives. It dated from 1994 when one of Harry's grandsons had shown the fern to the museum's curators during a visit.

Berg knew that the museum already held an embroidered fern from Harry Roberts, but this was the black-and-white affair from his blazer pocket. If Berg could trace the fern frond from the 1884 jersey, he could be on his way to solving one of New Zealand rugby's enduring mysteries – the nature of the blue of the jersey itself. For as contemporary accounts reveal, the 1884 uniform was not an inky black but a vivid blue – a colour that may say something of the team's strong

connections to Otago, whose provincial uniforms are dark blue still.

After some sleuthing, Berg discovered that one of Harry's great-grandsons, Maurice Roberts, had inherited the fern, and when contacted he generously sent the fern to the museum on a 12-month loan, with the possibility that this would be extended.

The fern proved, in the analysis of Massey senior tutor Tina Downes, "to be worked in a five-strand gold mercerised cotton with hand flystitch and stem stitches" with a linen backing behind the wool of the jersey providing support. It was in good condition. The material onto which it was embroidered, however, was not. Its colour? A dull and disappointing brown. The mystery was not solved but deepened.

What was the explanation? With Maurice Roberts' permission some very small fibres were taken from the side of the fabric remnant and sent to Massey's Brian Caughley, of the Institute of Food, Nutrition and Human Health, for analysis. He found that the surface of the fibres was highly degraded. Time and repeated washing, perhaps with ammonia or alkaline soap, had eroded the surface of the wool, robbing it of any visible trace of the original dye.

(The exact blue of Roberts' jersey is likely never to be known. For producing the replica, Cumming and Downes have used as their reference the blue in an illustration set on a menu card from a dinner reception held for a British rugby team in 1904.)

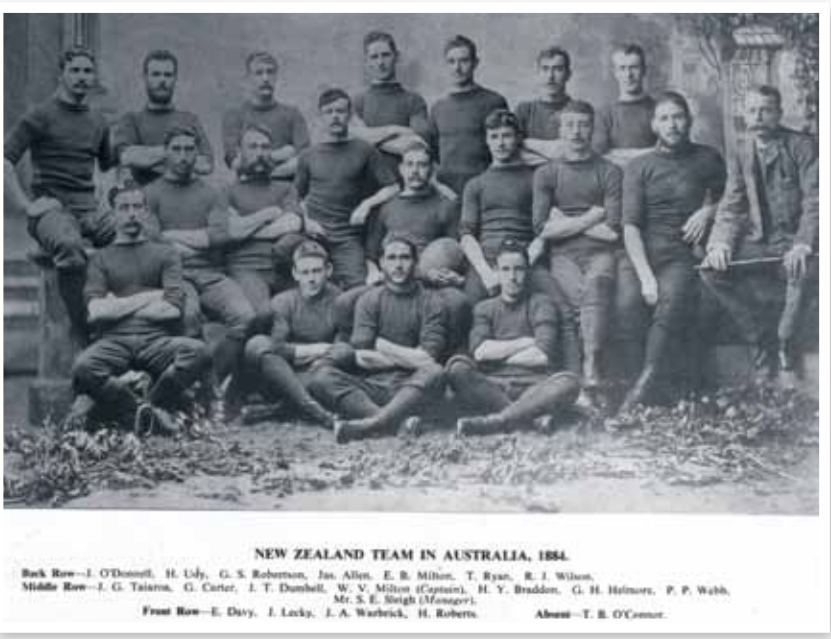
Perhaps almost as interesting is the fact that none of the jerseys from 1884 remains, when a number of jerseys from the 1905 team and its successors survive as revered collectors' items.

Photographs show that this was a very non-uniform uniform; no two jerseys were the same. "It is not like the static line-up you have today when everyone looks like they have been popped out of a mould, and must be the same, must wear the same," says Robertina Downes, a senior tutor in the Institute of Design for Industry and Environment. There were square, turtleneck and boat necklines; various sleeve lengths; and fern frond motifs of various sizes and in various positions. There were even – as can be seen even in the black-and-white photographs, and making the choice of blue for the replica jersey still more problematic – a number of shades of blue. The jerseys were probably sourced from various small businesses that turned to different knitting mills, and the fern frond motifs, although based on a template, were individually sewn to the jerseys, perhaps by the players themselves or, perhaps, given the times, some helpful mother, sister or aunt. In fact, replicating the irregular 'naive' needleship of the Roberts' fern was to prove a challenge for Downes, who is an accomplished – and by nature perfectionist – embroiderer.

Out on the field, individual choices also prevailed in how the jersey was worn. "If you look at the line-up of the 1884 team, you can see that some team members have cut the sleeves off, some have cut the neck out, some had the neck pinned over to the side. Can you imagine Daniel Carter cutting the neckline out of his jersey to come out and play?"

What happened to the jerseys when the tour was over? It is likely, says Downes, that the players saw them more as functional work-a-day items of clothing than as future memorabilia. As working garments, they would have been worn until there was no more wear left in them. The end of life for an 1884 jersey was most likely not a glass cabinet but a rag bin.

The replica 1884 New Zealand rugby jersey is constructed of 2x35 2 end lamb's wool yarn. Manawatu Knitting Mills knitted the fabric using a 6-gauge Shima (six needles per inch). The fern frond motif has been handstitched to a template taken from a tissue-paper rubbing of the Harry Roberts original.



The 1884 New Zealand rugby team that toured New South Wales. The team played and won eight games. Harry Roberts is cross-legged on the right of the front row.

1905 Jimmy Hunter, the Originals

"Hunter was the most destructive medium on attack and his personal tally was five tries. One half of this little wonder's tricks have not been told yet and the Oxford men were simply paralysed by his tenacity." This was New Zealand's Jimmy Hunter at work during the 1905 rugby tour of Britain, France and North America as described by the *Morning Leader*.

Stephen Berg, of the New Zealand Rugby Museum, which holds Hunter's jersey from the tour, holds Hunter in similarly high esteem. "He was a significant player on the tour. He's got a remarkable try-scoring record, something like 44 tries from 36 games. He stacks up well against the players of today."

He was also quite literally a 'little wonder': at 165cm (five feet, five inches) he was the shortest member of the team. (See pages 28 to 29 for some detail of how the physique of the All Blacks has changed over time.)

But for a still-disputed disallowed try by All Black Bob Deans in a test match against Wales – a piece of sporting folklore in both nations – the team would have won every one of its games.

It was during this tour that the New Zealand rugby team gained the name All Blacks – by one account a newspaper had described them as "all backs" and a typographical error did the rest, but the all-black team uniform is a more likely explanation – while the team itself would be forever known as the Originals.

When had the jersey become black? The blue of 1884 seems to have been an anomaly. According to an *Encyclopaedia of New Zealand* published in 1966:

> In April 1893, when the New Zealand Rugby Union was established, it was resolved that the New Zealand representative colours should be "…Black Jersey with Silver Fernleaf, Black Cap with Silver Monogram, White Knickerbockers and Black Stockings…". At some point between 1897 and 1901 there was a vital change, concerning which the records of the New Zealand Rugby Union are silent. But by 1901 the New Zealand team to meet New South Wales wore a black jersey (canvas top, no collar), silver fern (now neater and smaller), and black shorts and stockings.

The 1884 team had jaunted across the Tasman to play a neighbouring colony. Undertaking a 40-day ocean voyage to the heart of the Empire to play against the mother country was a much more significant undertaking. On the British side, the pomp and ceremony surrounding the matches included commemorative medals struck to mark a number of the club matches. The New Zealanders, for their part, proved great collectors of match memorabilia – and the jersey itself was the best memento of all.

"Our research has shown that there are something like eight or nine of those jerseys still surviving around the world," says Berg. "There is George Nicholson's one up in Ponsonby, Duncan McGregor's one down in Wellington and Steve Casey's one is in Sydney. Bob Deans' one is still with the Deans family in Christchurch – and we believe it is unscathed after the earthquakes. There's one in Twickenham; there's one in Cardiff."

The 1905 Originals during the famous test against Wales. The All Blacks were defeated, but may have deserved to win. A try claimed by the All Blacks was disallowed by the referee.

Another reason for so many of the 1905 jerseys remaining may be that they are striking garments, combining an almost Icebreaker-fine wool, a brownish-black leather neckband and frontlaced opening with either six or seven sets of eyelets, and that distinctive – and in conservation terms problematic – deep-grey linen shoulder yoke treated with a water-repellent coating and quilted to the wool beneath.

To set about creating the replica of the 1905 jersey, Cumming and Downes began by examining the Hunter original. In doing so they discovered a quirk: knitted into the jersey at the hem was a small 'M'. A similar 'M' had been noted by Te Papa conservators examining the 'Originals' jersey held by New Zealand Rugby Union headquarters in Wellington, but it had been supposed that this was the 'M' of Duncan McGregor, the jersey's original owner. Now the 'M' turned up in every jersey examined. Its origin? It may be to do with the manufacturer. According to former Palmerston North Mayor and researcher Jill White, the order for rugby jerseys for the 1905 All Blacks was fulfilled by J. Stubbs, Hosiery Manufacturer – later to be known as Manawatu Knitting Mills – which was founded by John and Mary Stubbs in 1889 in Palmerston North. The 1905 order was filled during a period when the business had temporarily relocated to Wellington. The 'M', it is speculated, may be the 'M' for Mary, who had imported a Griswold hand-operated sock circular machine and later a Harrison flat machine to serve her family needs and bring in income.

Oddly enough, the discovery of the common 'M' settled another question. Were the seven- and six-eyelet jerseys produced by the same manufacturer? On the evidence of the 'M', they must have been.

To construct the replica jersey, Downes and Cumming turned to Manawatu Knitting Mills, which revived the same – now largely outmoded – techniques and similar machinery to that which it had used to make the 1905 original. Downes replicated the original embroidery stitch for stitch in an antique pearl silk thread apparently identical to the original.

Perhaps the most striking thing about the 1905 replica is the reaction it provokes: 'I want'. This is a garment people hanker to own – and not just own, but wear. Somehow the designers of the 1905 jersey produced something that could easily pass as contemporary semi-rustic chic. It looks like something that could bear the label of Calvin Klein.

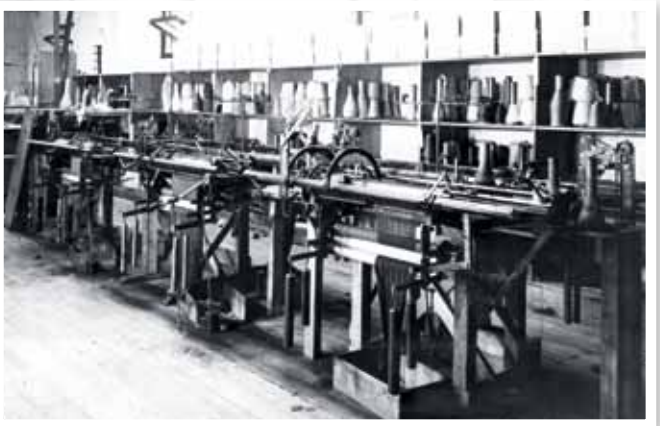
Stephen Berg of the New Zealand Rugby Museum knows this first-hand. "The demand is out there. I said to a guy it might be $1000, or it might be $1500 so you are probably never going to want to wear it. And he said, 'If I paid $1000 for it, I still would wear it'."

Creating a line of commercially available replicas, he says, "is just something that we have to do".

"I said to a guy it might be $1000, or it might be $1500 so you are probably never going to want to wear it. And he said, 'If I paid $1000 for it, I still would wear it.'" Stephen Berg of the New Zealand Rugby Museum

A 1905 'Originals' replica jersey, constructed in 2x28 worsted wool, plain lockstitch-sewn linen and lambskin with hand-embroidered satin-stitch fern motif in antique pearl silk.

The 1905 Originals.



Inside Manawatu Knitting Mills in 1905.

1924 Jock Richardson, the Invincibles

Clockwise from right: Jock Richardson replica 1924 jersey; detail of Jock Richardson's jersey; the Invincibles immediately before the test against England.

Officially the vice-captain of the 1924-25 All Blacks tour of the UK, Ireland, France and Canada, Jock Richardson stepped into the captaincy part-way through the tour after captain Cliff Porter was prevented from playing owing to injury.

Jock Richardson's team won each of its 32 games and four test matches – and was known thereafter as the Invincibles. But its members may not have been very comfortable when playing.

His 1924 jersey, which is held by the New Zealand Rugby Museum and now exists in the form of a faithful replica, is made from a relatively rough wool, such as you might find in a farmer's work jersey. "You want to take it off after about five minutes. Horrible, scratchy, itchy," summarises the museum's Stephen Berg.

Nor is the 1924 jersey as distinctive as the 1905 version. The linen yoke of the 1905 jersey is still there, but sewn to the inside of the garment. There is a certain rough-and-ready quality. "[The British] garment was very very structured, as if you had gone to a tailor. Our collar was a square of fabric that was falling over and stitched on; theirs was a proper tailored collar," explains Tina Downes. In many ways, she says, its pattern and construction resemble the Canterbury-brand-era All Blacks jerseys – and indeed that of the present-day jerseys worn by provincial rugby clubs.

The next major change to the All Blacks jersey would be the replacement of wool by cotton – always the material of choice in Britain – then, when Adidas became the major sponsor of the All Blacks in 1999, the replacement, in turn, of cotton by high-tech, lightweight, tough, breathable synthetics.

2011 Richie McCaw

In 2011, marking the Rugby World Cup, the All Blacks have adopted a new jersey, featuring bonded seams to reduce chafing and irritation, a lighter-weight fabric incorporating Adidas' patented ClimaCool technology, which has helped reduce the total weight by 45 percent, and a design giving full play to a player's natural range of motion – arms out from the body to catch or pass a ball or set up a tackle.

Aesthetically the jersey builds on the All Blacks jersey tradition, sporting the traditional embroidered All Blacks fern on the left chest, which now has an echo in a new stylised fern frond motif embossed onto a side panel.

Also new – though in fact drawing on a long tradition – is the white collar. For much of the 20th century the All Blacks jersey featured a white collar – as the many New Zealanders who followed the extraordinary success of the 1987 All Blacks side will remember.

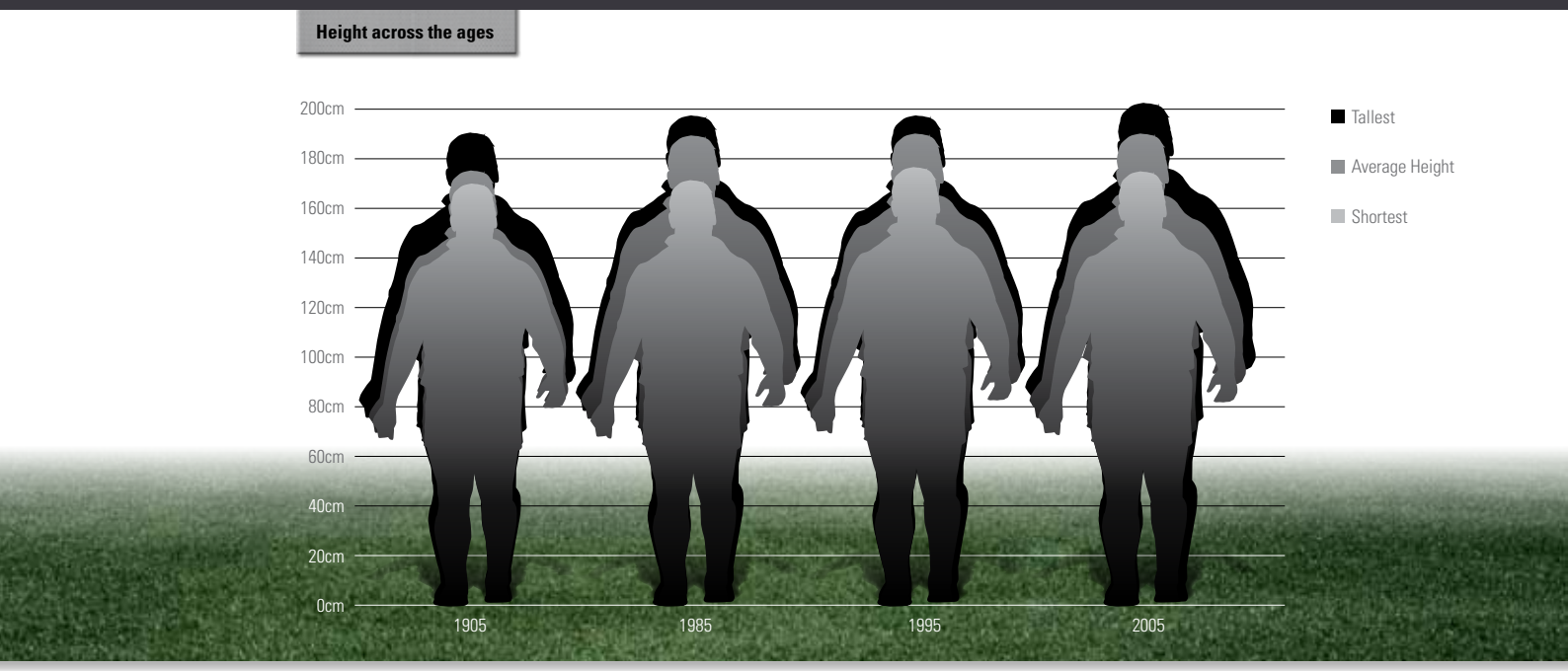
The technology in the 2011 jersey is so advanced that, according to Adidas there is only one machine in the world capable of making it – a machine to which adidas has secured exclusive rights. This has allowed the torso of the jersey to be created as an anatomically shaped tube, giving a perfect seamless fit. ■

Photos supplied by Adidas

Also new – though in fact drawing on a long tradition – is the white collar. For much of the 20th century the All Blacks jersey featured a white collar – as the many New Zealanders who followed the extraordinary success of the 1987 All Blacks side will remember.

From S to XL: The changing physique of the All Blacks, 1905-2005

Jeremy Hapeta and Steve Stannard
School of Sport and Exercise, Massey University.



Jimmy Hunter, a member of the 1905 All Blacks Originals, was not a big man. Standing 165cm/5ft 5in and weighing 74 kilograms, he was the smallest member of the team. When the made-to-measure replica of the jersey he wore is passed around the eager hands of visitors to the New Zealand Rugby Museum, most of the adults who would like to experience the thrill of pulling on an All Blacks jersey are going to be disappointed. The replica, constructed to the measure of the original, will be too tight.

But then even a replica made to the measure of a player who had the average height and weight for the team – 175cm (5ft 9in) and 81kg – would be too tight a fit for a large part of today's population.

As for the other end of the 1905 height and weight distribution, that belongs to George Nicholson, who stood 187.5cm tall (6ft 2in) and weighed 88kg.

Today Nicholson would still stand out as tall if you saw him in a crowd. But among the ranks of present-day All Blacks his height would be unremarkable. Richie McCaw, who is also 187.5cm tall, is of average height in the team he captains.

Here are some other telling statistics that illustrate the differences between now and then. On average, a team member in the All Blacks who toured the UK and Ireland in 2005 was 187cm tall, or 12cm taller than the 'average' 1905 Originals player. His weight, at 102kg, was some 7.5kg greater than the heaviest of the Originals. Indeed, the lightest player in 2005, at 84kg, was still 3kg heavier than the 'average' Original.

So what has been happening? People are generally bigger now. The reasons for this are various: fewer illnesses during childhood; better nutrition; even the better health of the generations that have gone before affecting the physical characteristics of the generations that follow (a field of study called epigenetics).

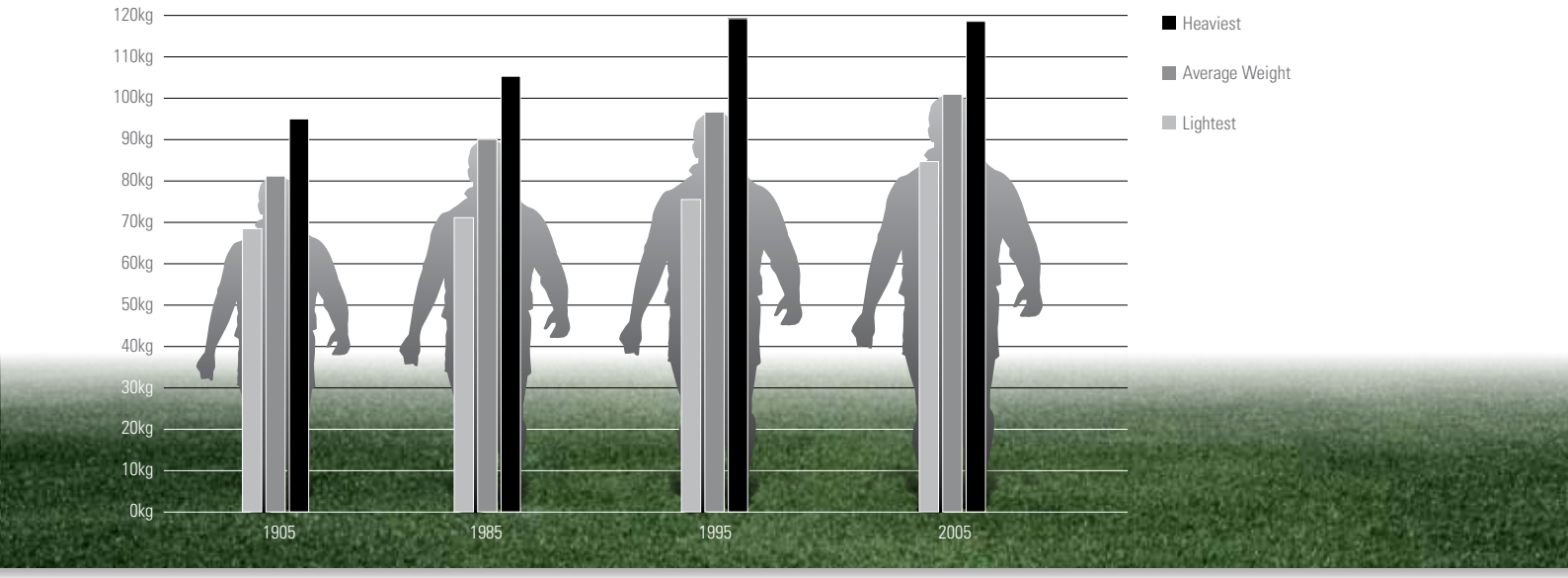
All else being equal, we would expect the size of players in every sport to have risen, and in sports like rugby, where it helps to have heft as well as agility and speed, we would expect the height, weight and body mass index (BMI) increases to be greater still.

But there is another factor: the rise of professionalism. From 1905 through to 1985 an amateur ethos prevailed in New Zealand rugby. The event that changed matters was the 'unauthorised' Cavaliers' tour of South Africa, then a virtual pariah republic because of its apartheid policies.

The Cavaliers were a virtual All Blacks team. Twenty-eight of the 30 players selected for the cancelled 1985 All Blacks tour of South Africa (the absentees being David Kirk and John Kirwan)

They are paid to train and, perhaps more importantly, paid to rest. Without the competing demands of secondary employment, they train hard and recover well. They bulk up at the gym and the best of sports science and nutritional knowledge is applied to making them bigger, faster and stronger.

Weight across the ages



were members of the Cavaliers – and they were paid for their time away from work and home (Palenski, Ron. *New Zealand rugby: stories of heroism & valour*, published Auckland, N.Z. : Cumulus for Whitcoulls, 2002).

By 1995 – 10 years, three Rugby World Cups and millions of dollars in sponsors' money later – players were vastly fitter and larger. One of those players was the phenomenon Jonah Lomu, who then seemed exceptionally large and fast. Many rugby followers will remember the moment when Lomu steamrolled over the English rugby team's Mike Catt at a crucial semi-final, dashing England's Rugby World Cup hopes.

In 2005, by which time the sport was unabashedly professional, a number of members of the All Blacks squad were Lomu-sized or larger.

For the players, the generous salaries that have come with the professional game mean that their rugby careers can be full time. They need not turn to other sports or forms of employment to make an income. They are paid to train and, perhaps more importantly, paid to rest. Without the competing demands of secondary employment, they train hard and recover well. They bulk up at the gym and the best of sports science and nutritional knowledge is applied to making them bigger, faster and stronger.

So far we have looked at height and weight, but BMI may be the most interesting measure of all. BMI – the individual's body weight divided by the square of their height – is often used as a proxy for an undesirable percentage of body fat. For upper-echelon athletes, however, BMI is more about muscle mass.

In 1905 the difference in BMI between players was small: their physical sizes and shapes were all quite similar. If a player mislaid his jersey, he could probably borrow a near fit from a team member.

In the 1985 'pre-pro' and 1995 'semi-pro' teams, the variance in BMI was more than double that of the Originals, meaning that players were much more varied in absolute size.

Step forward to 2005, and the variation in BMI is decreasing again; the build of the players is becoming more uniform. It is interesting to speculate why.

What happens from here? In the 2011 Rugby World Cup we will witness extraordinary performances from players who seem to be at the apparent limits of physical size, weight, speed and skill. They are the Lomus of our day.

Yet if the emergent trends seen in the past few decades are anything to go by, we are not yet approaching the limits of the possible. You can lay odds that the All Blacks jerseys of the future will come in yet larger sizes. ■

V&V at the Palmerston North Library

I stack Vita
on Virginia and slip
over to a chair by Literature
where Virginia invents
the pushed-back sheets, the light
the exact crisp of air and Vita
she invents the mud and the advent of blue
under early Spring trees.

I was there early spring one year, at Sissinghurst,
when it was closed and I stole
through the small door
and walked with them in the garden –
Virginia's face a lovely question mark under
her floppy hat and Vita's
heavy coat flap flapping against her boots, her stride,
until a gardener, at a distance,
leaned on his shovel, or spade, and looked
questioningly, almost lovingly.
I was reluctant to leave.

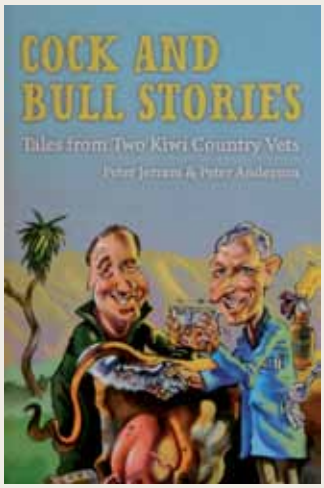
The fire alarm rips along my arms and I am
keen to leave. I slot
books back in the remembered gap and follow
a man down stairs and others follow me.
We grow clumsy hooves instead of feet
and stumble-bump towards plains
toward the plains from there
to look back, shyly, at what might kill us
now or one day
and here in Palmerston North or
Pukerua Bay

not on her streets of London
where it is best to walk in winter
because the air the air
and the cold of the black railings
and the not quite home and not quite
there. Our hooves
turn back to hands and feet
we lift our faces
the better to smell
the damp yellow-black daffodil
winter
Virginia invents
along with the pushed-back sleeves, the light,
the exact crisp of air
and Vita.

Massey's current Writer in Residence, Lynn Davidson is the author of three collections of poetry, *How to Live by the Sea*, *Tender* and *Mary Shelley's Window*, and a novel, *Ghost Net*.

Animal kingdom

Cock and Bull Stories:
Tales from Two Kiwi Country Vets
Peter Jerram & Peter Anderson
Random House, RRP:$39.99
Reviewed by Natalie Lloyd



When asked to write this review I thought I might be in a fairly good position to both enjoy this book and empathise with its authors. For one thing, like Peter Jerram (one of the two authors) I am a small animal veterinarian, and, for another, as my husband's parents were born and bred and still live in Blenheim, I have a reasonably good working knowledge of Marlborough where the tales are set.

Peter Jerram and Peter Anderson, the co-authors, are known within the small New Zealand vet fraternity as incredibly experienced, innovative, all-round good guys who are very generous with their time. This comes across in the book. Their practice in Blenheim is modern and successful and a tribute to their hard work. It is certainly an advance on the enterprise they originally set up 30-odd years ago, which they originally proposed to christen Pete and Pete's Pussy Parlour!

The book is a lighthearted, retrospective view of their amazingly varied careers. It is written as a series of short, easy-to-read chapters, alternating between the two authors. They seem to have put their hands to an incredible array of veterinary jobs, including being a vet assisting the now-abandoned live sheep exports to Saudi Arabia, helping to educate the farmers in Kosovo after the conflict in Yugoslavia, and assisting with the set-up and veterinary care of the animals at the now-defunct Marlborough Zoological Gardens. Somehow along the way, Pete Jerram became one of New Zealand's foremost experts on artificial insemination for dogs.

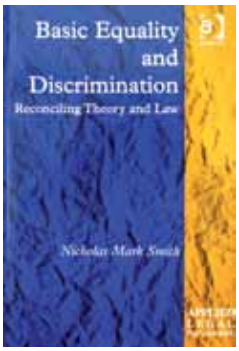
They have approached their work open-mindedly (something that is critical to survival as a vet!). To avoid non-income-generating time on the road, Peter Anderson learned to fly, in doing so fulfilling a boyhood dream, and took to flying between some of the practice's high-country-station clients. His flying career has resulted in a few hair-raising stories and some hilarious anecdotes!

The small animal side of things is equally warm and entertaining. I think most good small animal vets will have amassed a set of 'James-Herriot-like' tales. That is the nature of the job. You become an advisor, friend and sometimes confidante to people who bring their pets to you, seeing them through exciting ('meet my brand new puppy/kitten'), traumatic (dealing with acute illness or injury) and sad times (that inevitable final goodbye). The relationships we build with people and the beauty of the little heroes we treat every day mean we end up with a wealth of hilarious stories to share – and Pete Jerram's collection certainly does not disappoint.

All in all, this is a highly enjoyable read and easily recommended. The two Petes are humorous and smart witted and their prose is conversational and relaxed. You certainly don't need my background in either local or technical knowledge to thoroughly enjoy it!

Natalie Lloyd owns the Tasman Street Vet Centre with her husband David. She has been a vet in Wellington for 15 years, with a two-year stint in the UK. Natalie has two young children and between them, the practice and battling sleep deprivation she loves it when she can find 'spare' time to read.

Students hard at work in a studio in the Wellington School of Design in the 1890s. The School of Design is the original forerunner of Massey's College of Creative Arts, which is this year marking its 125th anniversary.



All things being equal

Basic Equality and Discrimination: Reconciling Theory and Law
By Nicholas Mark Smith, Ashgate

As a teenager growing up in apartheid-era South Africa, senior business law lecturer Nicholas Smith was intensely aware of the pernicious effects of inequality. In subsequent years his moral condemnation of apartheid has led him to an engagement with discrimination law and the conundrums it sometimes poses. In *Basic Equality and Discrimination: Reconciling theory and law* he examines equality as a moral, political and jurisprudential concept and sets out to explicate exactly what is meant when the term is employed.

The book includes chapters on the value of basic equality, on what happens when equality is denied, and on affirmative action.

Smith argues that human rights lawyers should step back from trying to steer courts towards vague equality goals informed by conceptions of equality that are either empty or even more abstract than the notion of equality itself. This is a good source text for students and researchers who are interested in legal philosophy, political theory, and public and human rights law.

Coming up
In our next issue we review the landmark publication **New Zealand by Design** by Massey alumnus Michael

MIXED MEDIA

"In some concerts I had to be particularly conscious of the sound of the shutter opening and closing, which was due to the acoustics of the theatre. I was then only able to photograph when the audience was applauding, or at high-volume periods, and of course without flash."

In November 2010, photography graduate Olivia Taylor took to the road with the New Zealand Symphony Orchestra on a tour that took in venues in China, Germany, Austria, Switzerland and Slovenia. A slideshow of images from her exhibition, 'In Golden Halls: On tour with the NZSO', can be viewed at www.definingnz.com. Taylor is now a first-year lecturer with Massey's School of Fine Arts.

At right: Violist Julia Joyce rehearsing in Hamburg, Germany. Below: Section Principal flute Bridget Douglas and woodwind colleagues in rehearsal, Shanghai World Expo, China; First violinists Rebecca Struthers, Beiyi Xue and Kristina Zelinska in dressing room, Frankfurt, Germany.

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