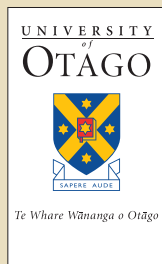




Pacific Voices III

Pacific Postgraduate Symposium
29-30 September 2006

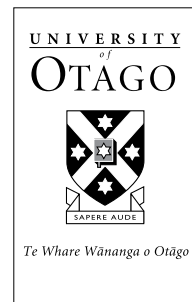


Otago
Pacific Islands Centre

Pacific Voices III

PACIFIC POSTGRADUATE SYMPOSIUM

29-30 SEPTEMBER 2006





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Pacific Voices III: Abstracts for the Pacific Postgraduate Symposium

FOREWORD

Pacific Voices goes from strength to strength! When I was asked to write the Foreword to this publication for the first symposium in 2004, little did I know that it would become such a regular and popular event. So it is really wonderful to see it occur for the third time.

This publication of research abstracts is again impressive and inspiring. As the reader will note, the research represented here spans a lovely diversity of disciplines including theology, history, health sciences, tourism, education, sport, politics and marine science.

The University is proud of its Pacific Island students and the substantial contribution they make to the research endeavours of the University. While we may have over 1,500 graduate research students at the University this year, it is the effort at the individual and small group level that really counts.

Pacific Islanders, we appreciate your valuable research and the enthusiastic role you play in the growing of knowledge for the benefit of the wider society and your own communities. At the end of the day, this is what research is all about. You should not underestimate the vital contribution that you make in this regard.

Congratulations again to Nina Kirifi-Alai, the Manager of the University's Pacific Islands Centre, for enthusiastically ensuring the success of yet another *Pacific Voices* symposium. And a big thank-you to the editors of this publication, Claire Matthewson and Mele Taumoepeau, for the many hours of work that they have invested again in this admirable publication.

I would like to end this Foreword by quoting from Nina's conclusion in *Pacific Voices I* (2004): "I am sure that the beautiful aria and tenor of 'Pacific Voices' will resonate for many moons to come, a poem in their own right: a gift to be cherished."

We look forward to *Pacific Voices IV* in 2007!



Dr Charles Tustin
Director, Research Higher
Degrees & Scholarships

CONTENTS

Foreword: Dr Charles Tustin	3
The roles of women in the Gospel of John: An exegetical analysis of women in light of the denial of women's ordination within the Methodist Church of Samoa	
Tualagi Ah-Yek	6
Rainwater chemical composition at four sites in Samoa in 2006	
Patila Amosa	8
Reflection on research procedure: Researching in the South Pacific	
Rajni K Chand	10
Jesus and destigmatization in Matthew's Gospel	
Alesana Eteuati	12
Inside-and-outside-school scaffolding of a child's mathematical explanations	
Philippa Fogavai	14
The behaviour and attitudes of the Tongan people towards HIV/AIDS	
Peni Havea	16
Parapoxvirus vascular endothelial growth factors: Variations in the genus	
Marie Inder	18
An exploration of the effects of ethnicity and culture within church ministry	
Tokenau Joseph	20
Minimising flight crew fatigue through magnetic therapy interventions during layover stops prior to long-haul travel	
Stephven Lemalu Kolose	22
Western democracy and culture in the Samoan Islands	
Malia Lameta	24
The uses of health, welfare, education and justice services by Pacific and Migrant people in Dunedin	
Maria Lucas	26
The 28th Māori Battalion of Moana-nui-a-Kiwa: Pacific Islanders in the 28th Māori Battalion	
Louise Mataia	28
The protective effects of melatonin on mitochondria function in a stroke-induced model of brain damage	
Shiva Nair, Rosanna Rahman, Andrew Clarkson, Alexandra Tramaoundamas, Ivan Sammut, Ian Appleton	30

Reproduction biology of Selenka's sea cucumber <i>Stichopus horrens</i> in Tongan coastal waters	
Poasi Fale Ngaluafe	32
Transgelin: Discovering its role in prostate cancer progression	
Priya Prasad, Jo-Ann Stanton, Stephen Assinder	34
Motivation and burnout in elite Pacific Island sportsmen and the interface between Tangata Pasifika and New Zealand sports	
Matani Schaaf	36
Notions of the Pacific Island female body and the impact on Pacific participation in the sport of netball	
R. Michelle Schaaf	38
A history of the transmission of Fa'aSamoa and Gagana Samoa in the Dunedin Catholic Samoan Community 1950s -1990s	
Pesamino Tili	40
Assessing willingness to pay in the context of communal land values: The case of backpackers in Fiji	
Filipo Tokalau	42
Hō'ike i Nā Ikena Pakipika: A pathway to incorporating Pacific epistemologies in environmental education	
K.L. Nālani Wilson	44
<i>Faafetai tele lava</i>	
Nina Kirifi-Alai	46



TUALAGI AH-YEK

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THE ROLES OF WOMEN IN THE GOSPEL OF JOHN: AN EXEGETICAL ANALYSIS OF WOMEN IN THE LIGHT OF THE DENIAL OF WOMEN'S ORDINATION WITHIN THE METHODIST CHURCH OF SAMOA

Tualagi Ah-Yek

Women's ordination is denied in the Methodist Church of Samoa. As a biblical response, the thesis examines Jesus' attitude towards women. Interpretation of selected texts from the Gospel of John reveals Jesus' attitude as positive, transformative and implicitly supportive of women's ordination.

In the first chapter, John 2:1-11 is exegeted, highlighting the transformative nature of Jesus' ministry at Cana. Interpretative emphasis is given to the involvement of Jesus' mother, the wedding as the sign's background and the stating of the hour. The exegesis proposes that Jesus' transformation of existing values and ways into a new God-created community includes transformation of the place and roles of women.

In chapter two's exegesis of John 20:11-18, Mary Magdalene is emphasised as the ideal woman of the new community inaugurated by Jesus' resurrection. The narrative is set at the hour foretold to a woman (John 2:4). A woman is the first witness of the resurrection. This is also the hour when the Lord establishes the new community of relationships where everyone, men and women, are equal in faith and love. Chapter three analyses women in the "un-transformed community", drawing on other narratives lying between the Cana and resurrection narratives. These stories supply evidence of the place and roles of women, as well as Jesus' response to them.

Following an overview of women's place and roles in the Methodist Church of Samoa, the study's exegesis concludes that women's ordination is supported through Jesus' enabling women to be: facilitators of revelation (his mother, Mary); apostles (Mary Magdalene); disciples who carry the good news (the Samaritan woman); and followers of discernment (Martha). Moreover, the equality of men and women within the post-resurrection faith community supports removal of the only discriminating barrier within the Samoan Methodist Church - the ineligibility of women for ordination as ministers.

Key words: gospel, ordination, women, Methodist, Samoa



PATILA AMOSA

Patila is working towards her Master's degree in Environmental Science, having recently completed a PGDipSci in Environmental Science at Otago. She is at present the Head of the Science Department at the National University of Samoa (NUS). In addition, she has served as a National Examiner for science and a Regional Examiner for biology in the Pacific Senior Secondary Certificate (PSSC). Patila is supported by a University of Otago Division of Sciences/NUS Scholarship.

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RAINWATER CHEMICAL COMPOSITION AT FOUR SITES IN SAMOA IN 2006

Patila Amosa

Determining the chemical composition of rainwater is vital to an understanding of variations from normality and the consequences of any changes on humans and natural ecosystems. The variations are due mainly to increased emissions of pollutant gases into the atmosphere by anthropogenic activities. Research in many countries has identified deviations below normal rainwater pH of 5.65 and changes in the normal ionic composition of rainwater. Research on rainwater chemistry in the Samoa region has focused mainly on American Samoa. This research focuses on rainwater in independent Samoa.

The concentration of major ions Na^+ , K^+ , Ca^{2+} , Mg^{2+} , Cl^- , NO_3^- and SO_4^{2-} was analysed in rainwater samples from rain events in a six-month period in four sites across the island of Upolu. The first three months of the research (January - March) represented the wet season while the second three-month period (June - August) represented the dry season. The four sites were at coordinates $13^{\circ}50'W$ & $171^{\circ}45'S$, $13^{\circ}51'W$ & $171^{\circ}44'S$, $13^{\circ}53'W$ & $171^{\circ}46'S$ and $13^{\circ}59'W$ & $171^{\circ}50'S$.

In the wet season, Sites 1, 2 and 3 had slightly acidic pH while Site 4 had a slightly alkaline pH of 8.1. All sites had high sodium levels for cations and high average chloride concentrations for anions. The highest average conductivity was measured in rainwater from Site 2, which also had the highest average ionic concentration. Winds were predominantly north-easterly or north-westerly. The wind pathways were confirmed by back trajectory analysis using the HYSPLIT4 modelling system. Winds travelled mostly over the ocean, hence the high concentrations of marine aerosols in the samples. This period was also marked by an active South Pacific Convergence Zone (SPCZ) which brought heavy rains to Samoa.

Key words: rain event, rainwater chemistry, trajectory analysis



RAJNI K CHAND

Rajni is in the third year of her PhD in Applied Linguistics. She is supervised jointly by Dr Elke Stracke and Dr Antonie Alm. Before coming to the University of Otago, Rajni was a lecturer in the (then) School of Humanities at The University of the South Pacific, Laucala Campus, Fiji.

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REFLECTION ON RESEARCH PROCEDURE: RESEARCHING IN THE SOUTH PACIFIC

Rajni K Chand

This paper presents a researcher's reflection on researching for her study on "Listening Needs of Distance Learners: A Case Study of the University of the South Pacific".

The researcher spent three months in 2005 communicating with participants, organising the field work and undertaking data collection in the region covered by the University of the South Pacific (USP). Part of the field work required the distribution of questionnaires, interviewing teachers and learners at USP, and undertaking classroom observations. This paper reflects on that regional research experience and presents the researcher's thoughts on how the research procedure could have been improved.

The South Pacific, as a region, means many different things to people. For some, it is a holiday destination; for others it stands for friendliness, warmth and a relaxed atmosphere incomparable to that of any other place in the world. It is also, however, home to many races, cultures and languages. The paper will first present the researcher's views on the region based on her observations during data collection. Second, the paper will provide details which may be beneficial to others planning to do research in the South Pacific region. It also includes the researcher's reflection on her research procedure.

Key words: listening skills, University of the South Pacific, reflection on research



ALESANA ETEUATI

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JESUS AND DESTIGMATIZATION IN MATTHEW'S GOSPEL

Alesana Eteuati

In the New Testament, Jesus is portrayed as a *mamzer*, a person of a questionable birth. In Matthew's Gospel, the birth narrative contains a reference to Mary's being pregnant while betrothed to Joseph. Why does Matthew maintain this explanatory clause if Jesus is to be presented subsequently as the Son of God?

Being deemed to be a *mamzer* influences or determines one's value in the social world into which one is born. It is a label that certainly excludes a person from various activities and requires the stigmatized person to reinterpret his status against the ideological perceptions that maintain the world view of a particular social order.

This research intends to explore the concept of destigmatization, from the typology of Roger and Warren¹, to bring to light 'the fight back' against the stigma that Jesus went through in his ministry. The main modes of adaptation, 'evasion and reinterpretation' play a major role in understanding *what* Jesus went through, *why* Jesus went through what he did, and *how* he went through it.

As a conclusion, I plan to explore the following hypotheses:

- ~ that the Son of God was a deviant in the eyes of the society of his time and Matthew, in particular, intends to pass that along;
- ~ that Jesus was a deviant right from his birth;
- ~ that Jesus' association with the outcasts of the society was his mode of adaptation. Jesus struggled together with his new community (disciples and the multitude/crowd) to change the perception of deviance to which the social world of his time subscribed.

Key words: mamzer, Jesus Christ, deviant, destigmatization

¹ Rogers, J. W. and M. D. Buffalo (1974). *Fighting Back: Nine Modes of Adaptation to a Deviant Label*. *Social Problems* 22, 101-118.



PHILIPPA FOGAVAI

Philippa (née Uluilelata) was born and raised in Porirua; both her parents are Samoan. With a BA(Hons) from Victoria University of Wellington, Philippa is a trained secondary school teacher and has taught in New Zealand and Samoa. She also holds a GradDipSLT from the University of Otago. Philippa is working part-time as a Research Assistant and studying part-time for a PGDipArts in Education, slowly working towards a Master's degree. Her main area of interest is Teaching English as a Second Language.

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INSIDE - AND OUTSIDE - SCHOOL SCAFFOLDING OF A CHILD'S MATHEMATICAL EXPLANATIONS

Philippa Fogavai

This study looks at a child's use of mathematical language in the home and in the classroom.

By looking closely at the child's interactions both in the mathematics lesson and in the home, we can identify instances of scaffolding. After analysing recordings of the child's mathematical conversations (from the mathematics lesson and the home environment), we can then compare the types of scaffolding found.

The instances of scaffolding will reveal whether or not the child's acquisition of the mathematical register is achieved. How this is achieved is what we are interested in. The comparisons between home and school scaffolding will reveal the reasons why home 'methods' of scaffolding should be adopted in the mathematics classroom - to help children learn mathematical language more successfully, and then also to assist them in communicating and learning mathematics in general.

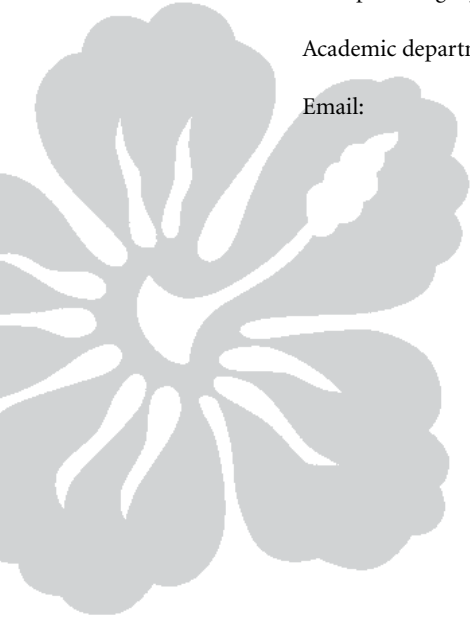
Key words: mathematics, mathematical register, scaffolding



PENI HAVEA

Peni is currently undertaking a Postgraduate Diploma in Public Health (DPH) leading to a Master's degree in Public Health (MPH) at the University of Otago in the Faculty of Medicine. Peni served as a Tutor Sister Graduate in the Ministry of Health in Tonga for almost three years and is now a recipient of the NZ Aid scholarship under the Open category.

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THE BEHAVIOUR AND ATTITUDES OF THE TONGAN PEOPLE TOWARDS HIV/ AIDS

Peni Hausia Havea

Tonga is a very small community of just over 100,000 people spread across some 176 islands. Since 2000, there have been only two recorded cases of AIDS with no HIV. This may give rise to a sense of complacency within the Ministry of Health.

Although HIV/AIDS infection rates are relatively low, Tonga has all the necessary ingredients for a serious epidemic. These include poverty, illiteracy, the sexual exploitation of children and the prevalence of unsafe sexual practices (including multiple partners and a reluctance to use condoms). Reflecting the commonly held belief that HIV/AIDS does not really exist in Tonga, the Ministry has done little to prevent the spread of the virus.

To address the issue, this study will explore a window of opportunity to reinforce existing efforts by finding the right approach in presenting a uniquely informed view on this very serious public health problem in the Tongan community.

The objectives of this study are:

- ~ to promote advocacy and support for people with HIV/AIDS;
- ~ to inform the public about, and to encourage, choice of healthy lifestyles and appropriate behaviour;
- ~ to enhance surveillance systems and strengthen collaboration on expanded coverage of risk-reduction activities among vulnerable groups;
- ~ to increase access to AIDS care, including antiretroviral treatment.

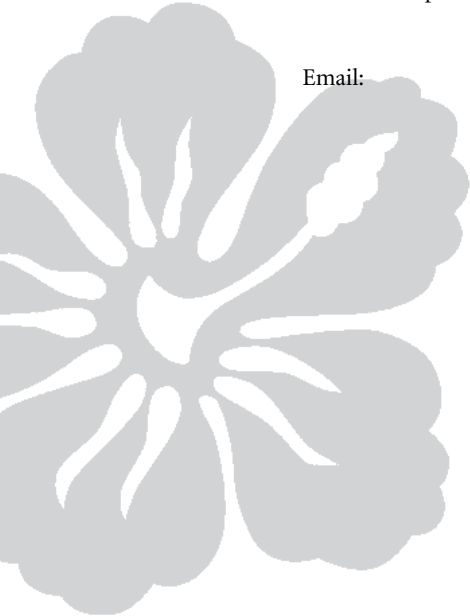
Key words: HIV, AIDS, Tonga, behaviour



MARIE I N D E R

Marie is of Samoan and New Zealand descent. She is a Science Tutor for the Pacific Island Academic Tutor initiative and the Convenor of the Pacific Island Postgraduate Reference Group. Marie is in her second year of PhD study.

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PARAPOXVIRUS VASCULAR ENDOETHIAL GROWTH FACTORS: VARIATIONS IN THE GENUS

Marie Inder

Established members of the Parapoxvirus genus are *Orf virus* (ORFV), *Pseudocowpox virus* (PCPV), *Bovine papular stomatitis virus* (BPSV) and *Parapoxvirus of red deer in New Zealand* (PVNZ). Parapoxvirus infection results in pustular lesions characterised by increased blood vessel formation, dermal swelling and vascular dilation. The large, vascularised lesions may be explained by the presence of a homologue of mammalian vascular endothelial growth factor (VEGF) that was first discovered in ORFV and which has been recently discovered in the other members of the Parapoxvirus genus. The VEGF family of molecules exert their biological activity via tyrosine kinase receptors, VEGF receptor-1 (VEGFR-1), VEGFR-2 and VEGFR-3. Previous work has shown that viral VEGFs differ from mammalian VEGFs by binding and cross-linking VEGFR-2 but not VEGFR-1 or VEGFR-3.

In this study I have carried out functional analyses of the VEGF-like proteins from BPSV and PVNZ compared to PCPV, ORFV strains NZ2 and NZ7, and mammalian VEGF-A. I have shown that the VEGF-like protein from PVNZ shares the distinct receptor-binding profile, but that BPSV differs from other viral VEGFs, due to its strong affinity for VEGFR-2 and slight affinity for VEGFR-1. The biological implications of the differences in receptor-binding for viral VEGFs may be related to VEGFR-2's role in promoting endothelial cell proliferation and the role of VEGFR-1 in inflammatory gene expression. These results indicate that both PVNZ VEGF and BPSV VEGF are biologically active members of the VEGF family and are likely to contribute to the highly vascularised and proliferative nature of PVNZ and BPSV lesions.

Key words: virus, vascular, microbiology



TOKERAU JOSEPH

Tokerau is a first-year PhD student in Theology. He was born in the Cook Islands and was New Zealand-raised in Otara, South Auckland. Tokerau is married with children and currently working part-time at First Church of Otago.

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AN EXPLORATION OF THE EFFECTS OF ETHNICITY AND CULTURE WITHIN CHURCH MINISTRY

Tokerau Joseph

This research examines how the ethnicity and culture of people within congregations of the Presbyterian Church of Aotearoa New Zealand (PCANZ) affect the way they relate and participate together. There is a particular focus on the clergy/congregation member relationship. Although different ethnic groups are formally brought together in PCANZ by various means, they appear increasingly to be choosing to organise themselves congregationally in culturally specific ways that they perceive to be more meaningful and appropriate. This may be seen in the way ethnic-specific and multi-ethnic congregations have evolved within PCANZ.

Recent studies in the United States show a growing interest in the dynamic of homogeneous and heterogeneous churches. Much research has focused on issues such as racism, ethnocentrism, and generational concerns. This study explores the clergy/congregation relationship to see how ethnically and culturally 'matched and mixed' relationships affect ministry.

The research hypothesis is that **the differing cultural worldviews of clergy and congregation members contribute to the trend of their choosing to belong and associate together in more culturally specific ways.** Research questions include:

- ~ What difference is made to the pastoral relationship if the minister and congregation members were ethnically and culturally matched, as opposed to being mixed?
- ~ Does this matched or mixed dynamic affect participation within the congregation?
- ~ Does it influence the choice that ministers and members make for the type of congregation they wish to belong to and serve in?

The methodology will comprise questionnaires for parishioners (200) and ministers (70), and interviews (25 members, 10 ministers). Respondents will be adults of European, Māori, Asian and Pacific Island descent from various congregations. Data will also be sought from different congregations to gauge their ethnic composition including subgroups.

Key words: PCANZ, congregation, participation, culture



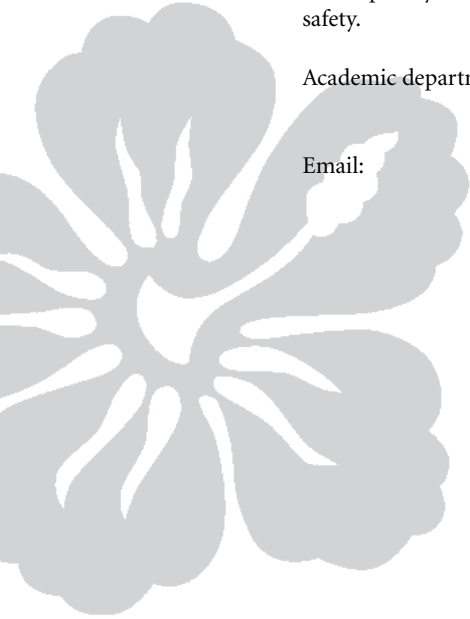
STEPHVEN LEMALU KOLOSE

Stephven was born and raised in Dunedin and is of Samoan descent. After completing a BSc in Psychology at Otago, he studied towards a PGDipErg and PGDipAv at Massey University. In 2007, on a Loughborough University International Scholarship, Stephven will be in Leicestershire, England, studying towards an MSc in Ergonomics, and hopefully continuing to research human factors in Aviation safety.

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MINIMISING FLIGHT CREW FATIGUE THROUGH MAGNETIC THERAPY INTERVENTIONS DURING LAYOVER STOPS PRIOR TO LONG-HAUL TRAVEL

Stephven Lemalu Kolose

The current focus of my research is the effect of sleep deprivation and fatigue on the performance of pilots travelling on successive long-haul flights. Fatigue often results in performance decrements¹ which can range from minor to major errors that may potentate into disasters. Fatigue has been a common causal factor in many air accidents.

My research began with a literature review identifying symptoms and characteristics of fatigue, and the physiological and psychological mechanisms relating to pilot performance. One important finding was that the quality and time of sleep is as detrimental to flight performance as its duration². Overall the review identified that air accidents and incidents related to fatigue cannot entirely be attributed to human error alone and, rather, may include the natural limitations of human nature.

The aim of my research is to enhance sleep quality using pre-flight interventions. Previous research utilised an on-board cabin crew rest facility² and melatonin interventions³. The proposed intervention will use magnetic therapy when pilots are resting prior to long-haul flights or during layover stops. Sleep patterns will be monitored via polysomnography (EEG) and data collected using post-flight pilot interviews and psychological and physiological rating scales⁴.

It is hypothesised that the magnetic intervention will promote increased vigilance and cognitive performance among pilots in the intervention group as opposed to the control group (no intervention). Attaining good quality sleep during layovers may improve flight performance and thus minimise the effects of fatigue.

Key words: fatigue, ultra long haul, magnetic therapy

¹ Broughton, R.J. & Ogilvie, R.D. (1992). *Sleep, Arousal, and Performance*. Boston: Birkhauser, p 7.

² Signal, L., Gander, P. & Van den berg, M. (2003). *Sleep during Ultra-Long Range Flights: A study of sleep on board the 777-200 ER during rest opportunities of 7 hours*. Massey Sleep Wake Research Centre.

³ Petrie, K.J., Conaglen, J.V., Thompson, L., & Chamberlain, K.C. (1989). *The effect of melatonin on jet lag after long haul flights*. *British Medical Journal*, 298, 705-707.

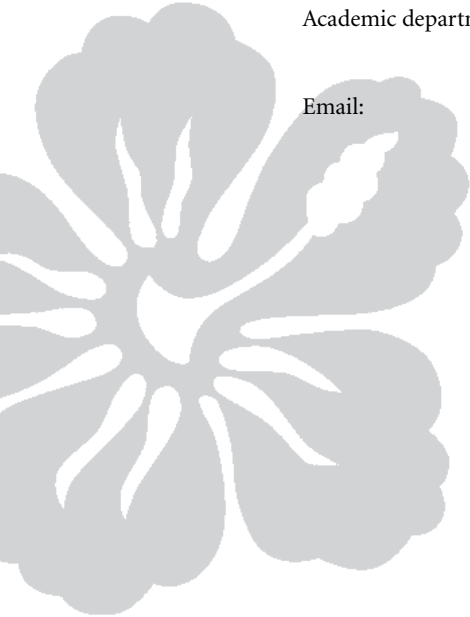
⁴ Petrie, K.J., Powell, D., & Broadbent, E. (2004). *Fatigue self-management strategies and reported fatigue in international pilots*. *Ergonomics*, 47, 461-468.



MALIA LAMETA

Malia is of Samoan and New Zealand European descent. She is completing a Diploma for Graduates in Pacific Island Studies. Malia's undergraduate degree was in Political Studies. She is studying under the combined supervision of Political Studies and Te Tumu School of Māori, Pacific and Indigenous Studies.

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WESTERN DEMOCRACY AND CULTURE IN THE SAMOAN ISLANDS

Malia Lameta

As global networking increases, issues that surround governance and the Pacific are becoming increasingly and more fervently debated. This research is dedicated to recognising the issues that arise from the collision or friction between the ideals of culture, democracy and forms of government in the Pacific.

The Samoan people have a colourful history of being both the colonised and the colonisers. Notwithstanding the close ties, inter-marriages and histories shared with many neighbouring communities, Samoa perhaps remains the most full-blooded of the Pacific nations. In response to the imperative to understand the conflict between Pacific culture and Western forms of Government, this study will take an in-depth look into the effects and influence of Samoan culture upon politics and the political process.

Looking also at traditional Samoan authority or 'Pule' and the current rule of law, I will not only draw conclusions on how Western forms of democracy have changed and adapted traditional Samoan social structure or hierarchy, but will also comment on the adaptation of Western democracy itself to the institutions and ideals of Samoan culture.

This paper will briefly outline Samoan history from creation mythology to pre-European contact; from colonisation to independence and, finally, to present-day politics. Concepts of culture and their role today in Samoan government and society will be critically assessed to measure the validity of claims by the Western world of political corruption and illegal process in Pacific Island governments.

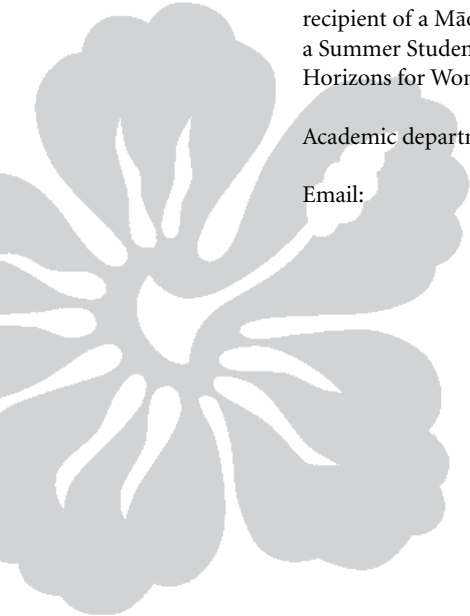
Key words: Samoa, culture, politics



MARIA LUCAS

Originally from Kiribati, Maria came to New Zealand in the late 70s and completed a BA and DipTchg at the University of Auckland and Teachers College. After raising a family, Maria returned to study in 1999 and completed a BCAPSc and PGDipSCWk. Maria now works for the Otago Pacific Peoples Health Trust and is a member of the Dunedin Multi-Ethnic Council's executive committee. She is the recipient of a Māori and Pacific Teaching Assistantship scholarship, a Summer Studentship from the Health Research Council and a New Horizons for Women Trust/Society for Research on Women award.

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THE USES OF HEALTH, WELFARE, EDUCATION AND JUSTICE SERVICES BY PACIFIC AND MIGRANT PEOPLE IN DUNEDIN

Maria Lucas

This research project was initiated by the Otago Pacific Peoples Health Trust (OPPHT) in response to a lack of available information on the welfare, health, education and justice needs for Pacific and Migrant people in Dunedin.

The main aim of this project is to gain detailed information on the use of services from different sectors by Pacific and Migrant people in Dunedin. Such information will help the OPPHT to know what is happening with Pacific and Migrant people, which services are being used, which service are lacking, and what their views are of the services.

The sample consists of 150 Pacific people and 50 non-Pacific migrants. The 200 participants have been interviewed using a semi-structured type questionnaire. All interviews were conducted predominantly in the language and/or cultural protocol preferred by the participants. Both the quantitative and qualitative data obtained are now being collated and analysed. Some emerging themes include the lack of, or inadequate knowledge about, existing services and the participants' preference to have a support worker from a cultural background the same as, or similar to, their own.

The OPPHT is hoping that the information gathered will be used to plan better services for Pacific and Migrant families in Otago. It also hopes that the information will be shared with policy makers and service providers working with Pacific and Migrant people to ensure improved, culturally appropriate services for these groups.

The research project is a joint venture between the Otago Pacific Peoples Health Trust, the Dunedin Multi-Ethnic Council and the University's Department of Social Work and Community Development.

Key words: health, welfare, Pacific people



LOUISE MATAIA

Louise arrived from Samoa on a University of Otago Division of Humanities scholarship last year. She is currently doing her Master of Arts degree and will complete at the end of this year. Louise obtained her Bachelor of Social Science degree in history and geography, as well as her Diploma in Teaching, from the University of Waikato. Since then she has worked as a secondary school teacher in Samoa and, more recently, taught foundation-level history at the National University of Samoa.

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THE 28TH MĀORI BATTALION
OF MOANA-NUI-A-KIWA: PACIFIC
ISLANDERS IN THE 28TH MĀORI
BATTALION

Louise Mataia

This presentation is a general overview of my current MA in History research. The thesis will examine the significant experiences of Pacific Island men who were involved in the New Zealand 28th Māori Battalion during World War II.

This facet of the New Zealand war-time experience is an important part of New Zealand's heritage. The research examines how Pacific Islanders came to participate in the Māori Battalion, the nature and the extent of their service, and how it shaped their lives and the lives of their families. These aspects of individual soldiers are absent from the official regiment histories. The objective of this thesis is to identify and discuss the personal histories of these Pacific Islanders as soldiers and the effect of their contribution to their adopted society.

Overall the research is an exploration of unwritten, or rarely dealt with, aspects of New Zealand's military history in the hope of shedding a different light on the significance and presence of Pacific-born or -derived personnel. Pacific Islanders are the third largest ethnic group in New Zealand and are part and parcel of the social fabric which makes New Zealand a multicultural society. Despite their obscurity in the widely read New Zealand military history, the contribution of Pacific Island soldiers through their involvement in the 28th Māori Battalion must be celebrated as it continues to enrich New Zealand heritage and in fulfilment of the ideology behind the official New Zealand military history that 'Something of them is here recorded'.

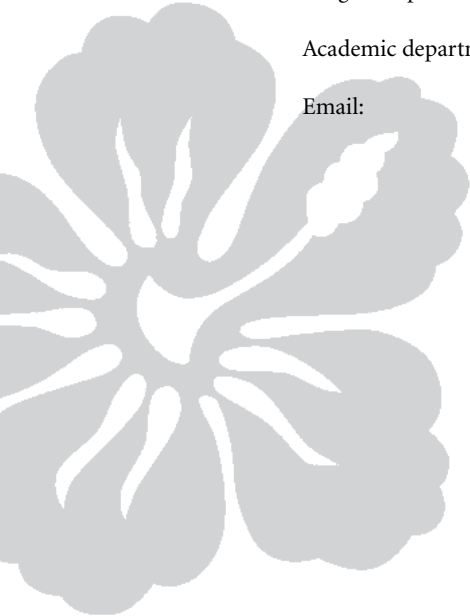
Key words: 28th Māori Battalion, Pacific Islanders, military



SHIVA NAIR

From the Fiji Islands, Shiva was enrolled in the Bachelor of Science programme at The University of the South Pacific until 2000, prior to coming to the University of Otago. Concurrently enrolled now in the MBChB and PhD programmes, Shiva has also been extensively involved in the Pacific Island student affairs at the University of Otago campus.

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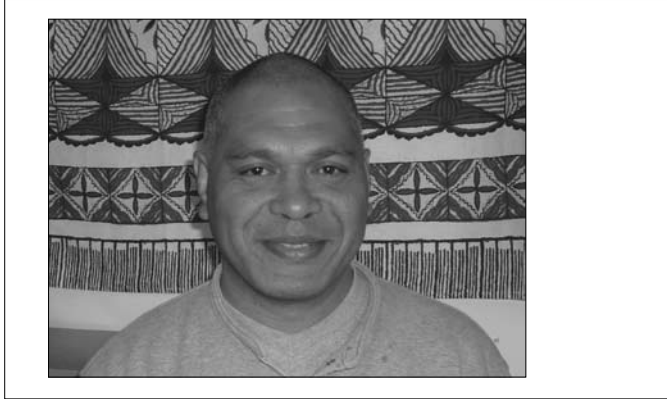
THE PROTECTIVE EFFECTS OF MELATONIN ON MITOCHONDRIA FUNCTION IN A STROKE-INDUCED MODEL OF BRAIN DAMAGE

Shiva Nair, Rosanna Rahman, Andrew Clarkson, Alexandra Tramaoundamas, Ivan Sammut, Ian Appleton

Mitochondria are pivotal to neurodegenerative diseases including stroke. Melatonin, a pineal gland-derived hormone, has been well established in numerous physiological processes. Recently, melatonin has also been shown to have neuroprotective effects against acute focal cerebral ischaemic damage. However, hitherto, the mechanisms of these neuroprotective effects have not been determined. Therefore, this study explored the neuroprotective mechanism(s) of melatonin in stroke, focusing on mitochondrial function.

Male Sprague-Dawley rats, 285 ± 15 g, underwent a 2-hour transient middle cerebral artery occlusion by filament insertion (the “gold standard” of *in vivo* stroke research). Based on previous observations, rats were treated with 5mg/kg i.p. melatonin, or vehicle for three days. Activities of several mitochondrial complexes of the electron transport chain (ETC), Aconitase (a marker of oxidative stress), and citrate synthase (indicator of mitochondrial membrane integrity), were measured in cerebral homogenates. Two-way ANOVA followed by Student Newman-Keuls’ multiple pair-wise comparisons were used for post-hoc comparisons. There were significant ($P < 0.05$) decreases in activities of all the ETC complexes measured: that is, complexes I, II/III, and V, with vehicle treatment in comparison to non-intervention controls. Melatonin administration significantly ($P < 0.05$) restored activities when compared to controls. In addition, both citrate synthase and aconitase activities were decreased significantly ($P < 0.01$; $P < 0.05$, respectively). Melatonin treatment restored the citrate synthase activity significantly ($P < 0.01$) in comparison to controls. Similarly, aconitase activity was normalised after melatonin administration. This study has demonstrated, therefore, for the first time, that the neuroprotective effects of melatonin are, in part, due to its effects on preservation of mitochondrial functioning.

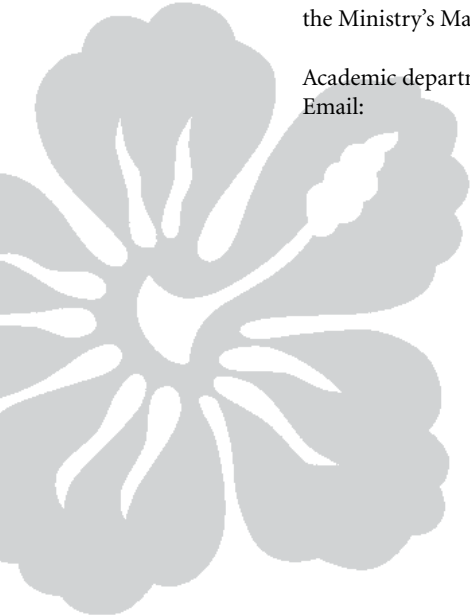
Key words: stroke, melatonin, mitochondria



POASI FALE NGALUAFE

Poasi was born in Tonga (Neiafu, Vava'u) and, after leaving secondary school, he worked for the Ministry of Fisheries as a Laboratory Technician. He holds a Diploma in Applied Science from the University of Tasmania and a BSc in Aquaculture and Marine Biology from James Cook University. The highlight of his career in fisheries was the establishment of the cultured techniques for giant clams at the Ministry's Mariculture Centre.

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REPRODUCTION BIOLOGY OF SELENKA'S SEA CUCUMBER *STICHOPUS HORRENS* IN TONGAN COASTAL WATERS

Poasi Fale Ngaluafe

The intestine of *Stichopus horrens* or *S. variegatus* (curryfish) is collected in the Pacific, mainly by women, as part of subsistence fisheries. Normally women obtain the intestines just by making a small slit in the underside of the animal. The sea cucumber is then thrown back on to the reef area in the belief that it would regenerate its internal organ¹.

This rarely documented or researched practice is most common in Samoa, Tonga, Cook Islands, Palau and Pohnpei. The present study's objectives are: (i) to determine the regenerative period that the harvested animal takes to recover (the cut part and the internal organs) in both habitat and non-habitat sites; (ii) to consider a better management approach to sustaining this resource. To achieve these, three treatments (three cages per treatment) were set at the habitual fishing ground and one treatment at a land-based ground. Each treatment had a control (uncut) animal. Each cage (2 x 2 m) contained 20 specimens. Observations were carried out daily. Most cut animals recovered and totally healed within five to 10 days. Some animals expelled the cut part the day after they had been thrown back into the cages (attributed to more stress and water temperature factors).

Intestinal regrowth started from day 15 and completely regenerated within 30 to 40 days. Binary fission processes also were observed in the control (uncut) animals within 10 to 14 days, with regeneration evident after two to three weeks. This result is consistent with other studies in which invertebrates take 10 to 120 days to perform binary fission as their reproductive mode.

A rotational regime would be a better approach for fisheries to maintain the sustainability of this subsistence resource in the Pacific. Given that women are the principal harvesters, they should have a role in management and strategic planning for the future.

Key words: curryfish, sea cucumber, subsistence fisheries

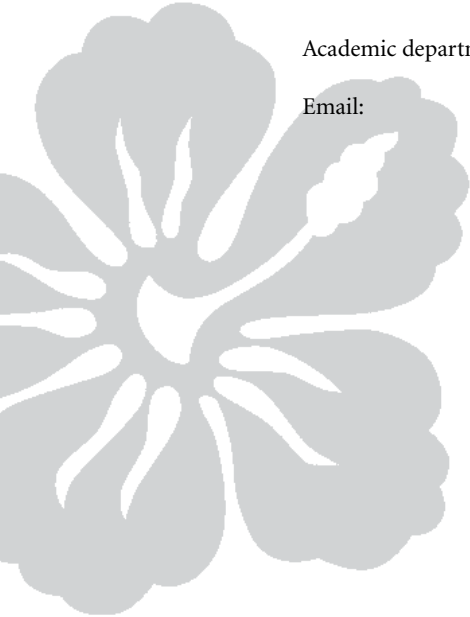
¹ Lambeth, L. (1999). The subsistence use of *Stichopus variegatus* in the Pacific islands. SPC Beche-de-Mer Bulletin, 13.



PRIYA PRASAD

Priya was born in Fiji and has grown up in Dunedin. She is currently enrolled in the MBChB and PhD programmes. Priya's doctoral studies are being supervised by Dr Stephen Assinder and Dr Jo-Ann Stanton in the Otago School of Medical Sciences. The research is supported by the Otago University Medical Faculty Bequest Fund.

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TRANSGELIN: DISCOVERING ITS ROLE IN PROSTATE CANCER PROGRESSION

Priya Prasad, Jo-Ann Stanton, Stephen Assinder

The actin-cytoskeleton regulates cell function including proliferation, anchorage-independent growth and motility. Changes in the actin-cytoskeleton are recognised features of oncogenesis and are accompanied by alterations in the expression of actin-associated proteins. One such actin-associated protein is transgelin. In normal cells transgelin arranges actin filaments into a viscous gel, contributing to cytoskeletal stability. Transgelin has been shown to be downregulated in breast and colon cancer. This study aimed to investigate if transgelin downregulation occurs in prostate cancer.

Analysis of public databases suggested that transgelin is downregulated in prostate cancer. To confirm this prediction, human prostate cell isolates and whole human prostate tissue obtained by transurethral resection of the prostate were studied. Immunohistochemistry on whole tissue showed transgelin expression in normal human prostate acini. Transgelin expression was also investigated using normal prostate epithelial and stromal cell isolates and the LNCaP prostate cancer cell line by reverse-transcription PCR (RT-PCR) and Western blot analysis. RT-PCR carried out on RNA extracted from cell isolates showed a two-fold decrease of the transgelin transcript in the LNCaP cell line compared to the normal phenotype. Western blot analysis showed transgelin protein expression in normal prostate cells but loss of expression in LNCaP cells.

It is concluded that in prostate cancer there is a reduction in transgelin gene expression and loss of the transgelin protein. The role of transgelin in development of prostate cancer cell phenotype is currently being investigated.

Key words: prostate cancer, transgelin, actin-cytoskeleton



MATANI SCHAAF

Matani (aka Marty) is a PhD student in Te Tumu School of Māori, Pacific and Indigenous Studies. On completion of a BA (Hons) in 2003, Matani enrolled for a MA thesis in 2004, which was upgraded to a PhD in 2005. Matani's ethnic affiliation is Tongan.

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MOTIVATION AND BURNOUT IN ELITE PACIFIC ISLAND SPORTSMEN AND THE INTERFACE BETWEEN TANGATA PASIFIKA AND NEW ZEALAND SPORTS

Matani Schaaf

This proposed research explores the motivation and ‘burnout’ in elite Pacific Island sportsmen, and the interface between Tangata Pasifika and the changing New Zealand sporting culture.

To date, sport motivation researchers have not yet examined the participation motivation and causes of ‘stress’, which lead to burnout specific to minority populations including Pacific Island elite sportsmen. This research will also examine the interface between the New Zealand sporting culture and Tangata Pasifika, especially with regard to the ethnic transformation of sports in New Zealand or to what has been commonly referred to as the ‘browning’ of New Zealand sport.

The research methodology comprises archival research, two sets of questionnaires, and in-depth interviews with research participants. The archival research provides background information on Pacific Island sportsmen’s experiences of playing elite sports in New Zealand. The archival research should provide data, which will allow for a complex analysis of the counterpoints that have occurred between elite Pacific sportsmen, their Pacific Communities, and New Zealand’s elite sporting contexts.

The two sets of questionnaires will provide quantitative data on the research participants’ motivation and burnout. The in-depth interviews will provide invaluable insights on the research participants’ experiences of motivation and burnout. Utilising both qualitative and quantitative methods, this doctoral research will create an appropriate model that will provide a unique, comprehensive and holistic tool (non-existent till now) for assessing and validating elite Pacific Island sportsmen’s experiences of motivation and burnout.

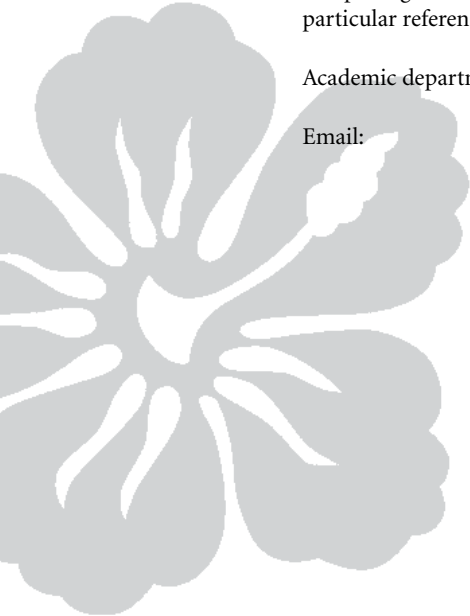
Key words: motivation, elite, burnout, stress



R. MICHELLE SCHAAF

Michelle is of Samoan and Tongan descent. She is a Lecturer in Te Tumu School of Māori, Pacific and Indigenous Studies. After BA and BCom degrees, Michelle completed a MA thesis which examined the role of Indigenous Samoan women and the transmission of Samoan culture and knowledge between generations. She is currently completing a PhD entitled, 'Sport, Culture, Race and Gender with particular reference to Polynesian women'.

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NOTIONS OF THE PACIFIC ISLAND FEMALE BODY AND THE IMPACT ON PACIFIC PARTICIPATION IN THE SPORT OF NETBALL

R. Michelle Schaaf

Pacific women who now reside in New Zealand and other Westernised societies are increasingly aligning to negative Western perceptions surrounding the 'abnormality' of their Pacific bodies. Due to competitive pressures, New Zealand-based Pacific sportswomen are susceptible to the same conformity issues as other female athletes face regarding body-shape. Many endure a constant battle with their body-shape within a competitive ideology that demands high performance; within this ideology 'abnormal' body shapes are often seen to be hindrances to performance, especially in certain sports which have traditionally emphasised low body weight.

This paper represents a significant part of a PhD project. The presentation is based on interviews with 16 research participants who currently participate, or have participated, in the sport of netball. To locate this analysis within the contemporary diasporic milieu, the participants' interviews will be used determine the impact of notions of the Pacific Island female body on Pacific participation in netball.

The research participants' interviews suggest that Pacific sportswomen are expected to strive for an athletic physique, and to look sexy and feminine, while also being expected to meet Pacific cultural expectations, which view the Western ideal body-shape as 'unhealthy'. Athletic uniforms and, in particular, netball uniforms are becoming tighter and shorter, thus, making them more revealing than ever before¹. The connection between sex and sports is cultivated through appearances by sportswomen, scantily clad, in men's magazines, and spreads in fashion magazines. The messages within these representations are both subliminal and powerful.

Key words: Pacific Island, female, body, notions

¹ Personal communication with ex-Silver Fern, Auckland, June 2004.



PESAMINO TILI

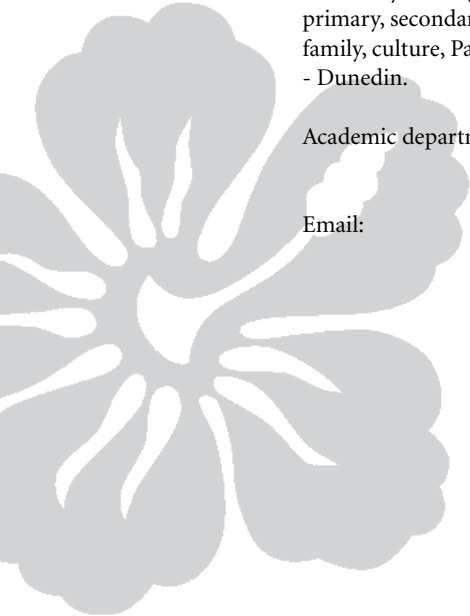
Pesamino is a Tutor and Programme Officer in Te Tumu School of Māori, Pacific and Indigenous Studies. He was born in Samoa and raised in Dunedin. As a qualified teacher and Catechetical instructor from the Dunedin College of Education, he also holds a BEd and a Graduate Diploma (in Māori and Theology) from the University of Otago. Pesa has worked in all sectors of Education: primary, secondary and tertiary. He has a great passion for his faith, family, culture, Pacific dance and this beautiful city of New Zealand - Dunedin.

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A HISTORY OF THE TRANSMISSION OF FA'ASAMOA AND GAGANA SAMOA IN THE DUNEDIN CATHOLIC SAMOAN COMMUNITY 1950S - 1990S

Pesamino-Solomona Moananu-Tili

This paper is based on a Master of Indigenous (MIndS) online dissertation proposal. The proposed project will explore the experiences encountered by founding members of the Dunedin Catholic Samoan Community in their migration to and their settlement in Dunedin. It focuses specifically on their transmission of Fa'aSamoa¹ and Gagana Samoa² within the Dunedin Catholic Samoan Community.

The intended research methodology will comprise collecting information through interviews with research participants. Their stories will then be compared and also considered in relation to the general literature on Pacific Islanders and on Samoan language and cultural transmission.

I also plan to look at the archival material of the Ministry of Education and the Dunedin Catholic Samoan Community both:

- ~ to compile a written history (currently non-existent) of the Community and
- ~ to compare educational policy on the status, teaching and maintenance of the Samoan language with the language's transmission within the Community of Fa'aSamoa and Gagana Samoa.

Key words: language, revitalisation, Catholic, Samoan, Dunedin

¹ *Samoa way of doing things*

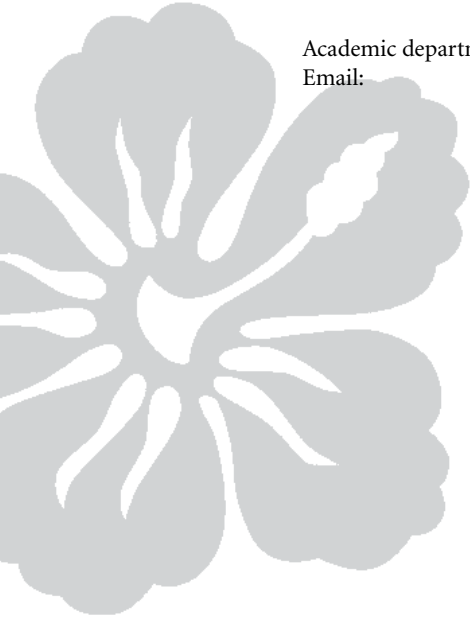
² *Samoa language*



FILIPO TOKALAU

Filipo was a student in the Department of Tourism while undertaking his PhD. He is a staff member of the School of Economics at The University of the South Pacific in Suva, Fiji. Previously Filipo was employed by the Fiji Government in the Departments of Education and Agriculture. One of his primary research interests is the economic impact of tourism.

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ASSESSING WILLINGNESS TO PAY IN THE CONTEXT OF COMMUNAL LAND VALUES: THE CASE OF BACKPACKERS IN FIJI

Filipo Tokalau

[Thesis submitted for the degree of Doctor of Philosophy]

The thesis is a study of travellers', specifically backpackers', willingness to pay for the passive use of resources in the tourism context. An understanding of travellers' motivations for paying may lead to better management of scarce land resources, upon which many indigenous Fijians still depend on for survival.

Contingent Valuation (CV) surveys were undertaken in Fiji for five months in 2003 in which 383 respondents participated (54.7% response rate). In addition, semi-structured interviews with 31 backpackers were conducted from February to March 2005 to elicit their knowledge, feelings, perceptions and attitudes regarding their willingness to pay for the communal use of land.

Results showed that 88 and 84 percent of CV respondents and interviewees respectively were willing to pay for communal land values. The average willingness to pay per day was US\$3.25 and US\$ 32,136 for six months for a 10-acre block of land. Respondents were willing to pay for communal use of land because of financial, social and egocentric reasons, and the fact that they value highly the communal use of land. Reasons for not being willing to pay were: (1) that they did not consider themselves responsible for the loss of communal use of land, (2) that paying would be considered a double-payment, (3) that traditional skills can co-exist with tourism, and (4) dissatisfaction with their experiences of communal use of land.

The results convincingly suggest that qualitative research can improve the robustness of the CV method and that the backpacker concept may need to be re-examined because backpackers were not as budget-minded as has been previously suggested. Moreover, willingness to pay for communal use of land can be a mechanism for improving the management of tourism in Fiji. This pioneering research on passive values for traditionally owned resources may be applied more broadly in other parts of the Pacific, taking into account local circumstances.

Key words: Fiji, communal land, tourism, willingness to pay



K.L. NĀLANI WILSON

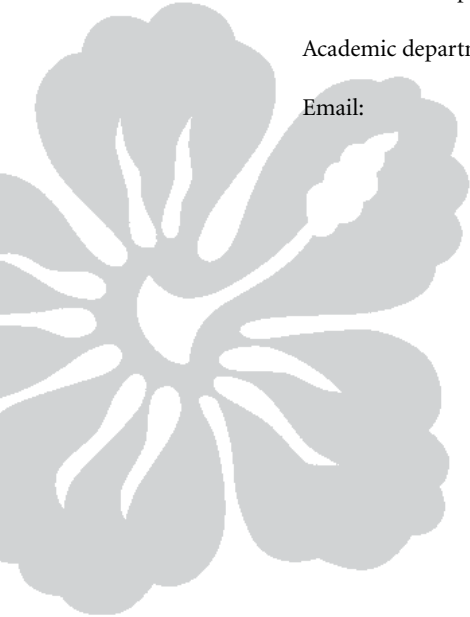
Nalani links her genealogy to the Hawaiian archipelago and Colorado Rocky Mountains of North America. She is of Kānaka Māoli, or Native Hawaiian, and European American descent and feels a deep affiliation to both of her homelands. She would like to humbly acknowledge the Prince Kūhio Hawaiian Civic Club for helping fund her educational pursuits in Aotearoa.

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HŌ'IKE I NĀ IKENA PAKIPIKA: A PATHWAY TO INCORPORATING PACIFIC EPISTEMOLOGIES IN ENVIRONMENTAL EDUCATION

K.L. Nālani Wilson

The goal of this research is to explore how outdoor, environmental education programs can provide a forum for Kānaka Māoli, or Native Hawaiian, and, in the case of Aotearoa, Māori epistemological perspectives. It is appropriate to precede discussion of how outdoor education is beneficial to Kānaka Māoli and Māori culture with an historical deconstruction of the dominant educational discourses that have occurred in the Hawaiian Islands and New Zealand from colonisation to the present. This process will establish how dominant discourses within educational institutions paved the way for Western social and political control over Kānaka Māoli and Māori, the Indigenous peoples of Hawai'i and New Zealand.

The historical analysis sets the scene for the primary research conducted for and by Indigenous voices. Before highlighting the contemporary educational movements created by Indigenous peoples, it is vital to address that the development of Indigenous education as a response to two hundred years of colonial domination and to illustrate how missionary schools and their instillation of Western values attempted to separate Indigenous peoples from our cosmology, genealogy, ancestral lands, sense of place and, ultimately, our spirit and identity.

Outdoor experiential education challenges traditionally dominant Western paradigms in education and is in the process of developing new ways of incorporating diverse epistemological views of the world and, more specifically, the natural world. The purpose of this study is to honour the first peoples of our island homes by incorporating Pacific ways of knowing and connections to place.

Key words: Native Hawaiian, Kānaka Māoli, indigenous, epistemology, environment, education

FAAFETAI TELE LAVA

The Pacific Postgraduate Reference Group was established in late 2002 to support our research students via monthly seminars - where they could bring their frustrations and ideas, seek support from one another, and offer support. This concept led to the idea of an annual symposium, 'Pacific Voices'. The first symposium was held in 2004.

'Pacific Voices III' has come together through the kindness of many people. Once again, I thank the editorial team, Dr Claire Matthewson and Mele Ma'ata Taumoepeau, for working tirelessly to maintain the dream; the Director of Student Services, David Richardson, for his constant encouragement; Dr Charles Tustin for his words of wisdom in our Foreword; and Associate Professor Rex Ahdar and Dr Tai Sopoaga for their continuing support. Special thanks also to Professor Gareth Jones, Deputy Vice-Chancellor (Academic and International) and Chair of the University's Pacific Peoples Reference Group, for his opening address.

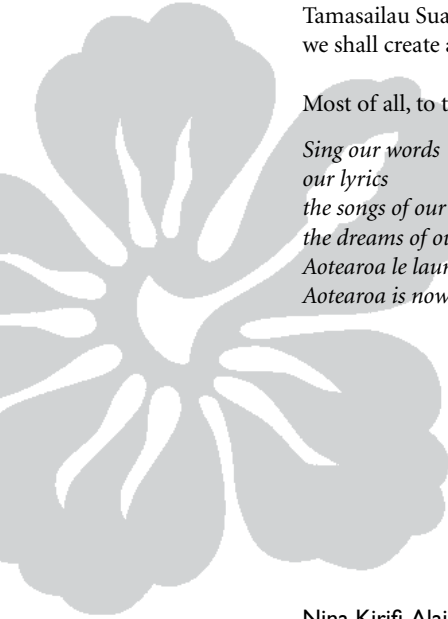
Warm alofaaga to Professor Konai Helu Thaman, UNESCO Chair, Teacher Education and Culture, at The University of the South Pacific - our invited guest, a poet and academic leader - and to Dr Tamasailau Suaalii-Sauni from the University of Auckland. Together we shall create a future for our communities.

Most of all, to the stars - our students: Thank you.

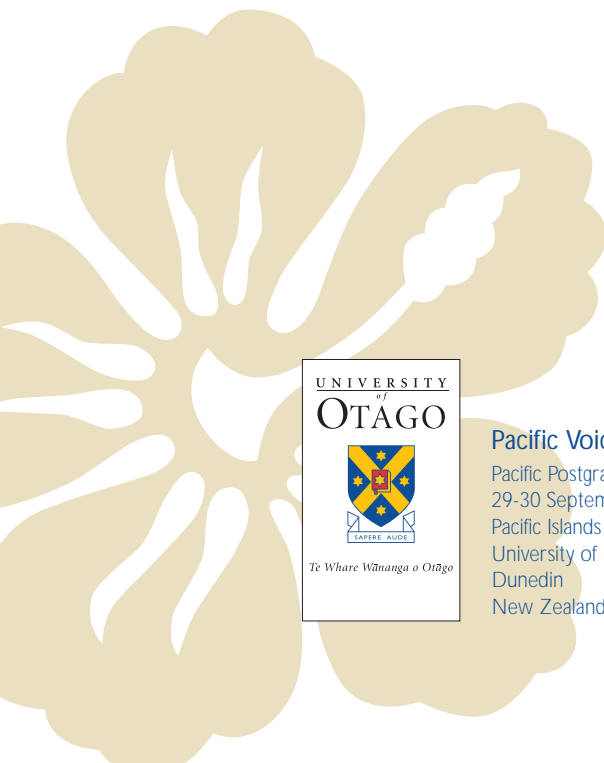
*Sing our words
our lyrics
the songs of our parents
the dreams of our fanua
Aotearoa le laumua
Aotearoa is now home*

*Set high the tune
for our generations to come
Set high the standard
I le fua ua taatia
Weave the afa
the fala
the songs
to our lyrics
Sing louder
O Aotearoa o lau lea
Pese ma le loto
Laga la ta pito laau
High the tune
let it be heard
louder and louder
listen...oh what beauty*

Nina Kirifi-Alai
Manager – Pacific Islands Centre







Pacific Voices III

Pacific Postgraduate Symposium
29-30 September 2006
Pacific Islands Centre
University of Otago
Dunedin
New Zealand