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EDITORIAL

Research Culture Comes of Age at Unimas

Since its establishment in 1993, Unimas has held the distinction of being open and contemporary in its approach to provide the best possible education, training and research for its community. We take pride in our high-calibre staff and researchers, our modern research facilities and campus-wide computer networking and services.

Our level of commitment to research in a broad range of areas can stand up to the keenest scrutiny. Unimas' newness and smallness offers the prospect of focusing on quality and assertively seeking for a culture of excellence. Our institutional commitment to research is reflected in the recognition and high profile accorded by the international community to some of its research achievements shortly after its establishment in 1993. In creating a research culture, Unimas has been very pragmatic in its approach. To emerge as a research university, Unimas' growth must be fuelled by a massive investment in research activities. As knowledge expands, new resources are needed to fund research in these new areas of knowledge. Already, even the great research universities in the world have begun to experience a gap between the expanding knowledge base and the capacity to do high quality research in all of these new areas. The constraints have been both in financial and human resources. Thus there is widespread recognition that universities of today can no longer afford excellence in all areas of knowledge.

As a new university, Unimas will not be able to live with the illusion that it can grow and remain viable without taking cognisance of this universal constraint. It must make the many difficult choices about which new areas of knowledge to delve and achieve true distinction. Through creative and strategic decisions, Unimas has identified those areas in which it has comparative advantages in developing and maintaining true distinction. It concentrates on building its research strength through promotion of real cross-disciplinary work and in areas that are unique to the region. Strong support has been given to research areas that promote interdisciplinary and cross-faculty interactions and partnership. This has resulted in the creation of a pool of high-quality researchers looking at specific issues or problems through a variety of perspectives. Central to this is the building of partnerships and the establishment of a critical mass that is much needed in optimising a small pool of expertise currently available during these formative years of Unimas.

To achieve pre-eminence in research and become a world-class university requires that we be fully engaged in high quality research. Our researchers too must have the ability to interact fully and openly with other researchers, both nationally and internationally. The high quality and international character of our research has been reflected in the recognition and high profile accorded by the international scientific community to some of our activities; especially in areas related to the molecular medicine of dengue and coral reef research.

In setting the research agenda, Unimas has moved forward by also addressing the fundamental questions on research significance and relevancy. The choice of research areas has focused on issues that play a central role in the achievement of national economic and social goals.

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ARTICLES

IDENTIFICATION OF ENTEROVIRUS 71 STRAINS

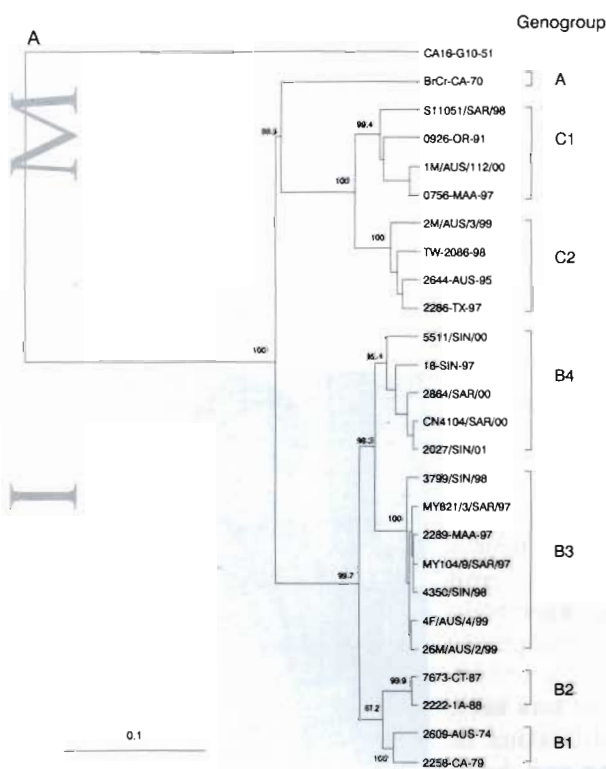
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Enterovirus 71 (EV71) infection is frequently manifested as a mild childhood disease known as hand, foot, and mouth disease (HFMD). Occasionally however, a small proportion of acute EV71 infections are associated with severe neurological

disease. A recent study of EV71 evolution done by researchers from the Center of Disease Control (CDC) in the United States, has demonstrated the development of three independent genogroups (A, B, and C) over a 30-year period. Genogroup A includes a single virus, the prototype strain BrCr-CA-70. All other EV71 strains so far identified belong to either genogroup B or C, which are divided into two subgroups, B1 and B2 and C1 and C2, respectively. Since 1997, several

large epidemics of EV71 associated HFMD have occurred in the Asia-Pacific region. A large outbreak in Sarawak in 1997 saw numerous cases of HFMD with twenty-nine fatal cases reported during this period. In peninsular Malaysia in the same year, a smaller outbreak with twelve reported fatal cases was recorded. In 1998, a small outbreak of EV71 associated HFMD occurred in Singapore. This was followed by a larger outbreak in Taiwan which recorded 78 fatal cases and a number of severe neurological cases. In 1999, a large epidemic of HFMD due to EV71 occurred in Perth, Western Australia and included several cases of severe neurological disease, although no fatal cases were identified. EV71 epidemic activity has continued in the region during 2000-2001, with EV71 isolation from cases of HFMD and encephalitis in Sarawak, peninsular Malaysia, Singapore and Western Australia. Researchers at the Institute of Health and Community Medicine (IHCM) in Unimas together in collaboration with researchers in Singapore and Western Australia investigated the molecular epidemiology of EV71 outbreaks in Malaysia, Singapore, and Western Australia between 1997 and 2001. The VP1 gene that codes for the major capsid protein of EV71, was amplified from EV71 strains and sequenced. Complete VP1 gene sequences were obtained from EV71 strains from all three countries spanning the 1997-2001 EV71 associated HFMD outbreaks, and used in phylogenetic analysis to investigate the molecular epidemiology of the virus. Phylogenetic data using sequences produced in this study and published sequences used in an earlier CDC study revealed that the majority of Asian strains belonged to genogroup B based on the CDC classification. However, these viruses formed two new subgroups that the authors decide to called genogroup B3 and B4 respectively. Genogroup B3 viruses included Sarawak strains from 1997, Singaporean strains from 1998, and Western Australian i-strains from 1999. The majority of EV71 strains from Sarawak and Singapore, from outbreaks in 2000 and 2001, formed genogroup B4. Some strains from Western Australia in 1999, appeared



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to be genogroup C2 viruses whereas some strains from Sarawak and Singapore in 1998, and some strains from Sarawak and Western Australia in 2000, belonged to genogroup C1. Comparing sequences obtained from this study and sequences published previously by other researches, the authors showed that genogroup B3 and B4 EV71 viruses have co-circulated in the region. It was also apparent from the phylogenetic analysis that severe neurological disease was strongly

linked to genogroup C2 viruses. Amino acid sequence comparison of VP1 protein sequences from strains associated with mild HFMD and strains associated with severe neurological disease showed that a single amino acid substitution could be implicated in disease severity. In conclusion, this study showed that EV71 strains belonging to several different genogroups (B3, B4, C1, and C2) have been associated with HFMD outbreaks in the Asia-Pacific region during the period 1997-2000.

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POTENTIALS OF SAGO STARCH IN THE BIOPLASTIC INDUSTRY IN MALAYSIA

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Lactic acid fermentation is one of the world's most important fermentation processes. Utilising renewable substrate such as starch will certainly render this process more attractive since production cost can be minimised and availability of the substrate can be substantiated at all times. Lactic acid production gained significant attention within the last decade or so predominantly as a raw material for the synthesis of polylactic acid (PLA), the basic substance for biodegradable plastic.

Kopli Bujang together with his group have shown that the enzymes termamyl-120L and dextrozyme at pH6.5 for liquefaction and pH4.5 for saccharification, can be utilised to achieve a 98% recovery of glucose from 20%DS sago starch, far higher than reported elsewhere (Bujang *et al.*, 2000). Utilising the cell recycling

method, a lactate yield of 57% to 66% has been obtained at 0.33hr⁻¹ and 0.11hr⁻¹ dilution rates, respectively (Jolhery, 2001). A further improvement of the lactate yield to over 96% at 0.25hr⁻¹ dilution rate has been achieved through modification in glucose feeding (Bujang and Jobli, 2002, *In Press*). These results are comparable to our counterpart using similar method at the Kyushu University, Fukuoka, Japan (Zakpaa and Ishizaki, 2000). Lactic acid obtained from the fermentation process (using *Lactococcus lactis*) needs to be purified prior to conversion into polylactate and inevitable, bioplastic. Partial purification was achieved using electro dialysis. Our initial experiments have shown that maximum separation was achieved at 10V, at 200rpm using one layer of ionic membrane with over 90% lactate



recovery (Bujang *et al*, 2002, *in press*).

Several key factors attract the use of sago starch in the lactate industry in Malaysia where more than 90% of all sago-planting areas are found in the state of Sarawak. The productivity per land area of sago is the highest among the starchy crops of the world at approximately 25tons/ha per year (Ishizaki, 1997). Sago starch is fermentable by most micro-organisms and easily hydrolysed into glucose and this can be further converted into lactate by bacteria. The total amount of sago starch exported in 2000 from the

state of Sarawak was 61,000 tons procuring a total income of US\$9.15 million (Dept. of Statistic, 2001). Assuming that only 50% of the total export tonnage is hydrolysed into sugars, a 98% recovery of hydrolysis from 30,500 tons of sago starch would have produced 29,890 tons of glucose. A fermentation capacity of 96% would have generated 28,694.4 tons of lactate. The current price for lactic acid is at US\$1.00/kg. Valued at US\$28.694 million, this is more than three times the income from the total export of pure sago starch in 2000. With adequate supply of sago starch, Sarawak should have a distinguished

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ERGONOMIC DEVELOPMENT OF AN ASSISTIVE DEVICE FOR INCREASING THE RATE OF UNION IN OPEN FRACTURES OF THE TIBIA

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The number of motorcycle accidents in Malaysia is on the rise (National Police Statistics, 1998). This has led to an increase in the number of patients admitted with open fractures of the lower limb, especially the tibia. With the use of external fixators and plastic surgical techniques, many of the severe

fractures have been salvaged when they would have been amputated previously. However, this has led to an increase in the rate of non-union and delayed union of the bone.

Studies on animals have shown that one of the main factors affecting healing is through increasing an axial load on the bone. Bone heals

faster when there is an increased weight loading or axial compression at the fracture site. This has led doctors to recommend patients to bear weight on the fractured leg while it is immobilised with an external fixator. However, patients have difficulty in controlling their movements, sometimes resulting in the bending of the fixators and loss of alignment.

This study is aimed at developing an ergonomically designed mechanical device that can help to increase the rate of union in the healing of open fractures. The device is based on specifications of user and functional requirements of a purposive sample of accident patients as well as expert verbal input of orthopaedic surgeons. The requirements were mapped on to design parameters (e.g.

material type, weight, size, shape, colour, etc.) in order to produce a prototype that is usable, cost-effective and safe. The prototype will be designed in CAD and tested prior to use.

It is hypothesized that if patients on external fixators are put on a graduated controlled stress of the fractured leg, the time taken for it to unite will be shortened. The rate of non-union will also be reduced. This is because when stress is put on a fractured limb, there is an increase in blood supply to the muscles surrounding the fracture and this will bring in the necessary nutrient components for healing. Furthermore, the rate of infection may be reduced due to an increase in the efficacy of the tissue defence mechanism from the increase of blood supply.

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- Device exhibited at Expo 2001, Kuala Lumpur as part of Unimas research exhibits.

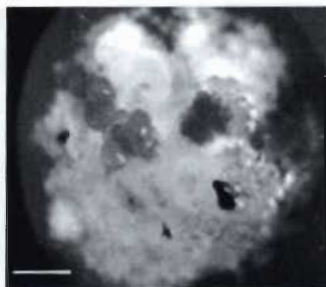
PLANTLETS DEVELOPED FROM SOMATIC EMBRYOS OF SWEETPOTATO

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In the development of a plant-based vaccine, three technologies viz. gene cloning, plant transformation and plant tissue culture are essential. First the target gene must be cloned into a suitable plant vector for transformation into the target plant species and finally an *in vitro* plant regeneration system must be in place for the development of the transgenic plant. Among these three technolo-

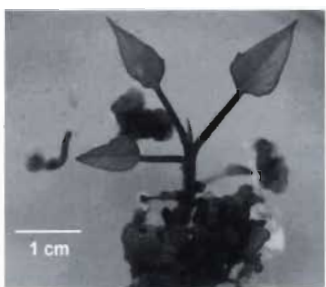
gies usually the last one is the most difficult and time consuming to develop. Sim Soon Liang and Mary Jane Cardosa attempt to develop an edible plant-based vaccine for the protection of JE (Japanese Encephalitis) infection in swine, sweetpotato is used as the target species. After working with twelve sweetpotato genotypes grown in Sarawak, they have successfully



Embryonic tissue embedded in mucilage (bar=1mm)



Globular and cotyledonal embryos



A complete plantlet (bar=1cm)

regenerated plantlets from somatic embryos of a particular genotype. The result is in agreement with others that somatic embryogenesis in sweetpotato is genotype specific. Protocol developed elsewhere for other genotype is not necessarily applicable to our local genotype.

In their study, somatic embryogenesis was induced from the shoot apex of genotype 'Zishu' grown in the dark in MS (Murashige and Skoog) medium containing a plant growth regulator 2,4-Dichlorophenoxyacetic acid (2,4-D) at 2 mg/l. The purplish-red coloured, compact and globular-shaped embryogenic callus

developed from the apical dome as well as the leaf primordia below it. The embryogenic callus developed into globular- and heart-shaped embryos in the induction medium. When transferred to a medium containing Abscisic acid (ABA) at 0.03 mg/l in light they turned green and further developed into torpedo-shaped and cotyledonary embryos. Complete plantlet were obtained in MS medium with both ABA and N6-(2-isopentenyl) adenine (2iP) supplemented at 0.02 mg/l or in the basal medium without plant growth regulator.

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BIDAYUH WORKING MOTHERS IN A CHANGING WORLD

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As in many parts of Asia which saw an unprecedented rate of economic growth before the recent crisis, the expansion of job opportunities has drawn women and men from the rural hinterland to the urban centres. Hew Cheng Sim started off by asking if women's engagement in paid work in the cities has altered their gender contract with men. The processes that she uncovered were far more complex than she at first envisaged.

The great disparity of earnings in Malaysia's heavily segmented labour market, and the lack of meaningful state welfare support, were pivotal to women's experiences of changing gender relations and the meanings that they gave to their participation in the labour market. For married women, the new forms

of marriage and family in the urban centres herald a new dependency on men. Although many women that she interviewed have more years of schooling than their husbands, the gender segmented labour market led to women earning less than half of their husband's monthly pay. Without a welfare safety net, their anxieties over and vulnerability in marriage was a direct consequence of their entry into the urban capitalist labour market, and equally, a significant factor in women becoming entrenched as wage workers. With the arrival of children, their dependency was compounded. In the absence of kin in the city and state supported child-care services, a new form of Bidayuh family based on a male breadwinner and a dependent housewife has emerged. The frag-

mented employment histories of working mothers as they enter, leave and re-enter the labour market is yet another reason for inequitable wages and working the mother's continual dependence on their husbands. The majority of the women that she has interviewed confronted this new dependence on men with much

ambivalence. Divorce and abandonment would mean renewed dependence on their natal village households as they returned to take stock of their situation. Thus, women walked a tightrope between both worlds, depending on the outcome of their relationship with men.

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IT SUPPORT FOR MANAGEMENT AND DEVELOPMENT: SUCCESS AND FAILURE

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Malaysia has undergone radical social, economic and political development over the last four decades. The information systems put in place to provide informational support for managing development projects have also changed from manual systems in the 1960s and 1970s, to computerised systems based on batch and on-line processing and networking in the 1980s and multimedia in the 1990s. The year 2001 saw Malaysia leaping even further into the IT world with a determination to be the centre of IT excellence. The stated achievements remain questionable: How many of the implemented programmes have been able to meet its objective or manage to take-off successfully? The study presented in this article is a land-related IT programme named for the purpose of this article as CALIS (Country Land Information System). The planning for CALIS began in 1987 and in 1994

it was officially endorsed as a national programme. The main objective of CALIS was to provide the government with an information and technology infrastructure to support interrelated aspects of strategic planning and land-use management, resource management, environmental management, and physical infrastructure planning management. As of 2000 CALIS has not been able to meet its initial objectives – to share, to exchange and to lessen information collection duplication among major land related agencies. Two theoretical frameworks, the web models and structuration theory, guided collection of information and the subsequent analysis of that information. The study concludes by demonstrating how organisational behaviour, and socio-political culture influenced by economic interests and personal ambition can complicate information systems development.



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CONTRADICTIONS IN LAND DEVELOPMENT SCHEMES: THE CASE OF JOINT VENTURES IN SARAWAK, MALAYSIA

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Landowners and private investors often have contradictory interests in joint ventures. Although development planners sometimes believe that government can harmonise these contradictions, State interests in development often lead them to support the interests of private capital. While joint ventures may be useful ways of pooling human, material and financial resources, this article draws on a case study of two pilot joint-venture oil palm schemes in Sarawak, Malaysia to show that the legal construction and adminis-

tration of native customary land rights produce lesser results for landowners than they do for the private sector. Information and power asymmetries constrains the ability of affected natives to realise fair benefits under a joint venture arrangement. When institutional constraints that give a measure of protection to native rights and interests are dismantled in the rush to establish commercial plantations, untrammelled market forces can be detrimental to landowners' rights and long-term interests.

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TECHNICAL INEFFICIENCY OF MANUFACTURING INDUSTRIES IN MALAYSIA

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Efficiency is a very important factor in productivity growth, especially in developing economies where opportunities for using better technologies are limited. Contemporary empirical works on productivity have focused considerably on overall effects. Few have attempted decomposing productivity effects. While aggregate studies on productivity are useful, efforts to study efficiency can offer important insight onto sources of productivity. This will not only

encourage better understanding of the role of economic agents, but also assist policy-making. It is for these reasons that this paper examines the technical efficiency of Malaysia's manufacturing industries.

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AN ANALYSIS IN THE IMPETUS OF ONLINE EDUCATION: CURTIN UNIVERSITY OF TECHNOLOGY, W. AUSTRALIA

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The Internet provides a venue for several purposes. One of them is being able to disseminate information. Compared to other infrastructure, Internet is one of the most cost-effective ways of improving a country's educational system. Online education is growing in popularity as it provides accessibility and encourages collaborative communication among student peers. As such, the main purpose of this paper was to analyse the impetus of online education through the perception of adult learners at Curtin Business School. The majority of the respondents valued the direct interaction of traditional classes and easy access to information on subjects being offered in the online courses. A combination of both methods proved to be the more comprehensive solution, as students were able to

increase their interpersonal skills and computer literacy. Based upon the conducted survey, the three main impetus to the development of online education were identified as information technology, education brokers (Universities) and market demands. The main implications of technology to universities were identified in its changing roles and organizational structure and being able to form partnerships with other business counterparts. Simultaneously, this trend would produce a new generation of knowledge workers with new expectations on career advancement and learning opportunities. It becomes imperative that universities and information communication technology (ICT) based organizations form a symbiotic relationship to meet the expectations of the new e-generation.



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THE EFFECTS OF SHARE REPURCHASE ANNOUNCEMENTS IN K.L. STOCK EXCHANGE

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Existing studies offer a number of reasons why firms may want to repurchase their shares. These include, *inter alia*, managers repurchasing shares to rationalize capitalization, to increase dividend yield and earnings per share, and to support share prices. Generally, these

reason assume that the value of the firms will increase after the repurchase. This is well substantiated by recent empirical evidence which reports that market participants react positively to share repurchase announcements. Although these studies provide

various explanations for such positive response, the most prevalent explanation appears to be the information-signalling hypothesis. This hypothesis argues that market participants treat a repurchase announcement as a positive signal, which conveys the message that the announcing firm's shares are under valued. Using an event study and a sample of repurchasing announcements made by 34 KLSE listed companies, Mohd. Jais and Jimmy Y.F. Chin of Unimas examine this hypothesis in an emerging-market context. Consistent with the prevailing literature, they find that KLSE investors react positively to open market share repurchase announcements. However, the gains made one day after the announcements are temporary and are relatively small. The analysis indicates that such temporary gains may be attributed to the market participant's ability to gauge the reliability of the signals (repurchase announcements). While false signal seems to be ignored by

the market, abnormal returns earned by the firms that follow through with the repurchase program appear to be permanent. As firms that repurchase their shares have to notify the KLSE authority of the transactions, and such information is available publicly on the same day, they believe market participants can rapidly identify these firms. Meanwhile, the magnitude of the cumulative average abnormal return recorded after the announcements is noted to be relatively small. Somehow, one should note that is earned in a volatile and uncertain environment. Such positive market reaction endorses the Malaysian financial market regulator's initiative in introducing the share repurchase scheme after the occurrence of the financial crises. However, other financial regulators should note that the effectiveness of such programs is much dependent upon the announcing firm's commitment to follow through with the repurchase program.

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PRELIMINARY SURVEY OF MAMMALS AT CROCKER RANGE PARK (PARK HEADQUARTERS) SABAH, MALAYSIA

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A preliminary survey of the mammal community was conducted in the secondary and primary forest along the Keningau-Kimanis road (near Park Headquarters) from 16-22 October 1999. Traps and mist nets were used to capture small mammals while observational methods were

used to record large mammal present. From a total effort of 316 trap-days, 35 individuals representing 15 species of small mammals were captured. Half of the animals caught were bats. Five species were common to both secondary and primary forest, six

species were caught in primary forest only and four in secondary forest only. Capture rates were 0.08 animal/trap-day for mousetraps in both secondary and primary forest habitat while the capture rate for bats was 0.39 and 0.13 bat/net-night in secondary and primary forest, respectively. In general, the primary forest seems to be more diverse com-

pared to secondary forest in terms of the number of non-violent species. Bearded pig is the most common large animal in the secondary forest but no sign of this animal or any other large mammals were detected in the primary forest. None of the mammals are classified as threatened or endangered by IUCN.

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HYDRILLA TASIK UNIMAS: POTENSINYA SEBAGAI KOMPOSISI GERLIS ABU TUMBUHAN

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Hydrilla Verticillata merupakan sejenis rumpai air tawar daripada kategori bawah permukaan air (submersed). Rumpai ini berasal daripada negara beriklim panas seperti Asia Tenggara, namun *Hydrilla* juga didapati membiak di merata pelusok Eropah, Afrika, Australia dan Amerika. *Hydrilla* mudah tumbuh membiak adalah merupakan satu ancaman besar kepada penduduk setempat. Kehadirannya menyebabkan sektor ekonomi dan sosial lumpuh. Pelbagai kaedah dan teknologi digunakan untuk mengawal pembiakan rumpai *hydrilla*. Namun demikian, sehingga kini usaha tersebut didapati masih kurang berkesan.

Tasik Unimas juga tidak terkecuali daripada menghadapi masalah pertumbuhan dan pembiakan rumpai *hydrilla*. Kerja-kerja pembersihan rumpai *hydrilla* menelan kos yang tinggi. Manakala,

rumpai yang banyak di keluarkan daripada tasik dibuang begitu saja tanpa dimanfaatkan dengan sebaiknya. Penyelidik tertarik untuk mengadakan kajian bukan kerana faktor pembaziran tetapi kerana keupayaan rumpai *hydrilla* yang mampu menghasilkan gerlis untuk seramik tanpa kos yang tinggi. Penyelidikan terhadap rumpai *hydrilla* sebagai komposisi gerlis sudah tentu dapat mengubah persepsi serta pandangan awam tentang ciri-ciri negatifnya. Hasil penyelidikan ini merupakan satu penemuan baru tentang kegunaan rumpai *hydrilla*. Rumpai *hydrilla* dapat memberi sumbangan yang bermakna kepada industri seramik tempatan.

Menerusi ujikaji XRF (X-ray Fluorescence) yang telah dijalankan di Jabatan SIRIM, Shah Alam telah membuktikan bahawa abu rumpai *hydrilla* mengandungi bahan kimia

untuk pembentukan gerlis yang sempurna. Proses penyediaan gerlis abu *hydrilla* amat mudah dan ringkas. Terlebih dahulu, rumpai *hydrilla* perlu dibakar menjadi abu kemudiannya dicampur dengan bahan gelas dan fluk. Kadar peratusan fomula gerlis dibina dengan menggunakan kaedah *tri-axial blending*.

Keistimewaan rumpai *hydrilla* adalah kemampuannya untuk membentuk gerlis yang sempurna dengan hanya menggunakan abu *hydrilla* semata-mata. Permukaan gerlis ini mempunyai lapisan berkaca yang baik di samping warna kekuningan yang menarik kerana kandungan besi (Fe_2O_3) yang tinggi. Gerlis abu *hydrilla* juga amat ekonomikal kerana penyelidik hanya menggunakan tiga bahan kimia termasuk abu *hydrilla*, berbanding formula gerlis lain yang menggunakan tujuh atau lapan bahan kimia. Kos harganya lebih murah.

Abu rumpai *hydrilla* yang diujikaji bersama pelbagai bahan kimia dan pewarna seramik terbukti mampu menghasilkan gerlis-gerlis yang cantik dan sempurna sifatnya. Gerlis abu *hydrilla* mempunyai potensi yang besar untuk dikomersialkan sebagai sumber ekonomi.

Sebagai usaha untuk mempopularkan penggunaan gerlis abu *hydrilla* ini, penyelidik telah menggunakan gerlis tersebut keatas produk ciptaanya. Begitu juga dengan pelajar-pelajar yang mengambil kursus seramik turut diajar cara penyediaan gerlis abu *hydrilla*, seterusnya mengaplikasikan kepada produk seramik mereka. Penyelidikan ini telah menyertai Pameran Penyelidikan IPTA 2001 di PWTC Kuala Lumpur pada 25-27 Oktober 2001. Sebagai pengiktirafan di peringkat nasional, penyelidikan gerlis abu *hydrilla* telah memenangi Anugerah Merit IMM-IPTA 2001 dalam kategori inovatif bahan.

Penyelidik berpendapat setiap tumbuhan mempunyai keistimewaan tersendiri, begitu juga dengan *hydrilla*. Rumpai ini banyak dan mudah membiak tanpa penjagaan yang rapi. Rumpai *hydrilla* haruslah dimanfaatkan kegunaanya dengan sebaik-baiknya. Hasil daripada ujikaji yang telah dijalankan oleh penyelidik telah membuktikan bahawa gerlis abu *hydrilla* sungguh cantik, sempurna dan sungguh ekonomik.

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'KERTAS PUTIH'

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Album sulung keluaran Universiti Malaysia Sarawak (Unimas) ini merupakan sebuah album pop komersial yang pertama diterbitkan di

Kuching, Sarawak termasuk keseluruhan proses rakaman dan penciptaan. Projek ini mendapat sokongan padu dari Unimas yang jelas menampilkan

identiti sebuah institusi pengajian tinggi yang peka terhadap kemasukan bidang seni ke dalam konteks akademik, di mana pameran, pementasan dan penerbitan muzik diterima sebagai satu bentuk penyelidikan dan penerbitan.

Perlambangan 'kain putih' sering dikaitkan dengan bayi yang baru lahir. Ia membawa erti sesuatu yang *bersih* dan *suci*, yang belum diceramahi. Begitu juga album 'Kertas Putih' Afeez Askiak, ia merupakan sesuatu penerokaan yang baru dan pertama...masih *putih*. Album ini kelak akan dicorakkan dengan berbagai komen, kritikan, sokongan dan pujian. Segala respon yang diperolehi akan diolah menjadi satu formula untuk memantapkan kualiti penerbitan yang seterusnya.

Sekian lama muzik menerima imej yang begitu sempit, hanya dikaitkan dengan hiburan, dan bukan kepada perkembangan ilmu. Ada juga beranggapan kelahiran sesebuah album lagu juga adalah sekadar sebuah penerbitan hiburan. Sudah tiba masanya imej ilmiah didedahkan kepada khalayak. Setiap penerbitan album memerlukan gabungan berbagai bidang ilmu sebelum ia dapat direalisasikan. Komposisi, vokal, gubahan muzik, jurutera rakaman, jurutera bunyi, pereka kulit album, fotografi merupakan antara bidang ilmu yang

terlibat dalam penerbitan album. Ini tidak termasuk bidang ilmu pengurusan, promosi dan pemasaran. Jelasnya, penerbitan album lagu lebih berunsur ilmiah jika diteliti dan difikir secara terbuka. Para penuntut pengajian muzik seharusnya peka dan sedar akan peluang kerjaya masa hadapan yang luas ini.

Di samping itu, penerbitan bukan sahaja melibatkan perlaburan wang, tetapi ia juga memerlukan curahan ilmu, idea, bakat dan kreativiti. Oleh itu, secara psikologi, kelahiran album pertama yang diterbitkan oleh universiti di Malaysia ini akan dapat meningkatkan kesedaran khalayak untuk memiliki dan menghargai album yang asli, serta memerangi gejala cetak rompak.

Album ini menampilkan sebanyak 13 buah lagu ciptaan Mohd Hafiz Askiak (Afeez Askiak) yang juga menampilkan gaya nyanyian seriosa dalam lagu pop. Penerapan ini melahirkan satu kelainan yang menarik dan unik dalam situasi rasa lagu tersebut. Antara lagu yang diterapkan dengan teknik vokal seriosa ini ialah *Rindu*, *Pewaris Jiwa* dan *DemiMu*.

Akhirnya, tidak lengkap perjuangan seorang komposer, vokalis dan ilmuan jika tidak berkongsi ilmu dan idea kepada khalayak. Harapan, semoga perjuangan ini memperolehi kejayaan dan menjadi ikutan yang sihat.

RUJUKAN

Afeez Askiak (2002): *Kertas Putih* (Audio CD). Kota Samarahan: Universiti Malaysia Sarawak, 2002.





THE VANISHING FRONTIER: A PHOTOGRAPHIC AND VIDEOGRAPHIC DOCUMENTATION OF THE BIODIVERSITY OF THE FRAGILE ECOSYSTEM OF THE CROCKER RANGE, SABAH

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The Unimas Crocker Range Expedition in Sabah was undertaken from the 15th of October until 24th October 2000. As a part of this broad ranging expedition, the Faculty of Applied and Creative Arts undertook a photographic and videographic documentation of the biodiversity of the fragile ecosystem of the Crocker Range. The team has successfully recorded on film and video the fascinating natural habitat of the Crocker Range. A variety of flora and fauna of the mountain range were documented.

The Crocker range, is one of the world's fragile and fast diminishing rainforest ecosystems. This documentation project allows the preservation, visually, of this diverse and rich ecosystem. Although much scientific research has been done on the Crocker Range, very little video footage or photographic documentation has been made of the many species of plants and animals which are increasingly under threat from human encroachment and industrial pollution. The research was led by Zulkalnain Zainal Abidin and there were two teams; one documenting with still photography while the second team was responsible for recording using beta videotape. Zulkalnain Zainal Abidin led the still photography assisted by Anuar Ayob while the video team was led by Riezal Dim assisted by Mohd Hafiez Othman and Jeremy Endok.

A resource of 5,000 slides and 3 hours of video footage (Beta tape) has been generated documenting the habitat in and around the gazetted parks of the Crocker Range. The team covered wide area including

Mahua, Tambunan, Ulu Sengang, Tandulon, Ulu Kimanis and Tikolod, focusing on a wide range of themes including how the human population has become dependent on the natural environment for materials such as rattan and bamboo to support their livelihoods; the dark forest underside of fungi, fern, pitcher plant and the *rafflesia*; the abundant invertebrates such as the longhorn beetle, woodlice, centipedes, millipedes and snails, and the wide variety of birds, snakes, plants and wild fruits. The team was not restricted to daytime activities. During the night, they documented the wildlife units tracking and trapping nocturnal animals such frogs, toads and bats.

From the many hours of video footage generated, the team has produced a 7 minute video presentation (compact disc format) revealing the fascination of small insects—how they strive to survive the hostile environments, and how they play a part in maintaining the balance of nature. *The Vanishing Frontier: The Small Wonders* is an aesthetic-oriented presentation, with the aim of sensitising the public to the moral responsibility of maintaining the ecosystem for future generations. The setting is the extremely beautiful and tranquil atmosphere of the new day in the rainforest, with its delight of light falling among the swaying leaves and the shimmering sunlight reflected from their surfaces, creating a musical feast for the eye. In this visual and musical interpretation of the daily struggle for survival in the ecology of the Crocker Range, no verbal narrative was used. Hafiez

Askiak composed the original musical score and the interplay between the visuals and the soundtrack helps to create a sense of the 'push and pull'

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**INSHIRAH:
THE ART OF SULAIMAN ESA FROM 1980 TO 2000**

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Inshirah: The Art of Sulaiman Esa from 1980 to 2000 was a major exhibition at the Petronas Gallery, Kuala Lumpur, held early in 2001. This retrospective of the leading practitioner of Islamic modernism in contemporary Malaysian art, presented a selection of works from a period of 20 years focusing on the artist's Islamic practice. Although modernist painters had utilised motifs from the Islamic alphabet and calligraphy much earlier, it was not until the 1980's that Islam came to the fore in Malaysian Modern art. At the 1971 National Cultural Congress, it had been established, as a matter of principle, that Malay culture and Islam should form the basis of our national culture and, then, in 1982 the Malaysian government began its Islamisation programme by which it sought to inculcate Islamic values in various facets of the life of the Malaysian Malay/Muslim. As an artist and theorist in this period, Sulaiman Esa led the call for an adherence to Islamic principles in the production of contemporary art. Indeed, throughout the 1980's and 90's Sulaiman pursued a purely abstract art, integrating Islamic geometry

of the harmony and tension of the fragile ecosystem of the Crocker Range.

with Malay craft traditions in an attempt to recast Malaysian Modernism within the sanctity of Islam and in terms of the cultural imperatives of the resurgent Malay nationalism.

The exhibition opens with the figurative work *Waiting for Godot* (1979) from an open plate print series produced in the wake of the artist's colour-field, constructivist and conceptual experiments and his collaboration with Redza Piyadasa in the controversial *Mystical Reality* exhibition (1974). In *Inshirah: The Art of Sulaiman Esa from 1980 to 2000*, this print acts as the point of reflection and inflection that enabled the flowering of the *Tawhids*, *Nuranis* and the *Gardens of Mystery and Truth* of the period concerned. Situated at the heart of this exhibition was *Penghormatan Untuk Nakula* (1983-2000). This painting is a tribute to the late Ustaz Nakula, a *guru agama* and cultural theorist, whose writings on the relationship between Islamic principles and Malay aesthetics have been inspirational to Sulaiman in his articulation of Islamic and *pribumi* elements in the context



of modernist painting. The exhibition closes at another point of inflection—Sulaiman's self-portrait *Doa* (1999) which was produced for and presented at the *Aku* self-portrait exhibition at the Petronas Gallery. This work is striking because of its analogous construction with the *Waiting for Godot* print and because it marks a departure from the strict abstraction of Sulaiman's work of the previous 20 years. Indeed, the new *Last Supper* and *Convergence and Divergence* series show Sulaiman to be, once again, responding to the social, political and spiritual conditions of the time. If his early Islamic period can be seen as a response to the urgent Malay nationalism of the 1970's, in the last two sections of the exhibition Sulaiman reveals his response to the crisis of national psyche caused by unprecedented divisions in the Malay polity and the re-emergence of Islam as a political force in the Malaysian scene of the late 1990's.

Inshirah: The Art of Sulaiman Esa from 1980 to 2000 was curated by Assoc. Prof. Niranjan Rajah. The exhibition features a curatorial essay that sets Sulaiman's Islamic inspired works in the context of a holistic approach to his spiritual, intellectual and artistic development. Sulaiman's ideas are

discussed in terms of the writings of Ismail Rajai Al-Faruqi, Seyyed Hossein Nasr and Ustaz Nakula and his work of the period concerned is categorized and analysed in terms of eleven sections arranged in loosely chronological order—*Waiting for Godot*, *Pribumi*, *Tawhid*, *Garden Of Mystery*, *Penghormatan Untuk Nakula*, *UMNO Mural*, *Doa*, *Alam & Alam*, *Last Supper* and *Convergence and Divergence*. The catalogue also includes a text by the artist entitled *Islamic Roots Of The Malay Philosophy Of Beauty*. This is a chapter from Sulaiman's doctoral dissertation, completed at Temple University in 1996 and is published for the first time in the exhibition catalogue. This text is essential to an understanding of Sulaiman Esa's position with regard to the practice of modern art in the Malay/Islamic context. In it Sulaiman discusses how the Qura'nic doctrine of Divine Unity (*Tawhid*), as understood and interpreted by the Sufis, has shaped the philosophy of beauty, the symbolism, and the content of traditional Malay art. He also discusses the Islamic work ethic, and its influence on the Malay craftsman's approach to art and creativity.

REFERENCE

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SINOGRAFI: SENI VISUAL DAN KOMUNIKASI DALAM TEATER

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Sinografi merupakan terminologi yang tepat untuk digunakan sebagai mewakili keseluruhan bentuk seni visual yang dapat dilihat dalam sesebuah produksi, iaitu rekaan pentas dan kostum, pencahayaan, susunatur ruang lakon, penggunaan ruang untuk aktor, dan termasuklah persekitaran rekabentuk dalaman sesebuah panggung. Kepentingan sinografi boleh dianggap sama setara dengan teks – bila dialog mencipta seni percakapan dan tingkahlaku di pentas, sinografi mencipta seni visualnya. Sinografi mengingatkan bahawa perkataan yang lahir dari sesebuah teks tidak cukup untuk menghuraikan dengan sempurna makna sesebuah persembahan. Alam keseluruhan pentas bukan hanya membina sebuah tempat yang pasif untuk aksi dramatik tetapi perlu menyediakan tempat yang fleksibel, mempunyai elemen-elemen dinamik untuk nilai-nilai teaterikal dan elemen itu mampu meluahkan maksud sesebuah persembahan.

Disiplin sinografi adalah salah satu bahagian yang penting dalam bidang seni persembahan, tanpa pengetahuan yang terperinci mengenai sinografi sesebuah penerbitan produksi seni persembahan tidak dapat dilaksanakan dengan berkesan dan berkualiti. Pereka-pereka yang terlibat secara profesional dalam merekacipta visual untuk persembahan perlu mengetahui proses sinografi dengan betul. Penyelidikan ini bertujuan untuk membentuk garis panduan kepada pereka-pereka artistik yang terlibat dalam perekaan sinografi teater Malaysia. Penyelidikan yang telah dijalankan menggunakan 6 elemen kajian yang penting iaitu—*Naskah,*

Ruang, Pengarahan, Warna dan Komposisi, Pelakon dan Penonton. Elemen-elemen ini mesti bersatu, seragam, berkait, seimbang dan lengkap untuk memberi keberkesanan dalam pementasan yang mantap.

Garis panduan ini telah diuji pengaplikasiannya ke atas sebuah pementasan teater iaitu teater *Raden Galoh*. Teater ini telah dipentaskan di Oditorium Dewan Bandaraya Kuala Lumpur pada 24 Feb – 5 Mac, 2000. Teater *Raden Galoh* berlandaskan kemegahan kerajaan Majapahit di Kepulauan Jawa Indonesia pada abad ke 17. Penghasilan sistem penyelidikan sinografi di dalam produksi *Raden Galoh*, dapat dijayakan dengan sempurna. Melalui proses visualisasi, lakaran dan pengaplikasian rekaan melalui komputer telah memberi penjelasan yang terang kepada pereka-pereka artistik yang terlibat. Keberkesanan sinografi *Raden Galoh* dapat dinilai melalui keratan-keratan akbar yang memberi kritikan terhadap produksi ini, Diantaranya ialah:

Paling menarik, latar set dan tata busana memperlihatkan ketelitian yang baik dan wajar diberi pujian. Latar set walaupun nampak rumit dihasilkan tetapi ianya adalah paparan yang tidak kompleks dan berjaya maksudnya dengan suasana dalam istana, bilik tidur, taman larangan dan hutan.

Akmal Abdullah

Berita Harian, Selasa 29 Feb.2000

In fact, besides the breathtaking makeshift palace interior with signature Javanese designs adorning its walls complete with a carved wooded throne and all, there

are also other mobile backdrops on wheels used such as the royal garden compound and moveable grand palace gate. Praise should be given to the lighting men for the clever play of coloured lights which created effective moods, particularly for the bedroom and fighting scenes, and also creating the eerie jungle ambience.

Azman Ahmad

The Malay Mail, Isnin 28 Feb.2000

"Pentas, set, props dan kostum Raden Galoh memang menakjubkan bagi sebuah produksi yang dipentaskan di Auditorium Dewan Bandaraya Kuala Lumpur. Ia

kelihatan gah. Kemudahan dan kemewahannya sehebat Keris Sang Puteri dan Rubiah yang menjadi kebanggaan Istana Budaya. Memang inilah yang diimpikan oleh mana-mana sutradara pentas kerana ia akan membangkitkan lagi kreativiti"

Siti Rohayah Atan

Mingguan Malaysia, Ahad 3 Mac.2000

Hasil penyelidikan ini merupakan satu garis panduan sinografi untuk prereka artistik di Malaysia dan telah menyertai Pameran Penyelidikan IPTA 2001 di PWTC Kuala Lumpur pada 25-27 Oktober, 2001.

RUJUKAN

Hamzah Mohamed (2001). *Pameran Penyelidikan IPTA 2001 di PWTC Kuala Lumpur pada 25-27 Oktober, 2001.*



KAUL: SUATU INTERPRETASI SOSIOBUDAYA

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Tujuan kajian ini adalah untuk menginterpretasikan upacara *kaul* daripada pelbagai aspek, dengan tumpuan khusus terhadap aspek sosiobudaya. Pendekatan bersifat multi disiplin digunakan untuk mengkaji, persoalan sekitar *kaul*. Pendekatan ini membolehkan pengkaji menerokai dan mendalami persoalan *Kaul* iaitu, untuk lebih memahami tujuan, perlambangan ritual, aspek sosiobudaya dan *weltanschauung* masyarakat Melanau. Pendekatan yang digunakan termasuk pendekatan sejarah dan psikologi, teori struktural-fungsional sebagai asas analisis kajian. Kajian ini juga mengahwinkan makna mengikut pemahaman pengamal dan pengkaji

bagi mencapai objektiviti dan kebolehpercayaan yang diinginkan.

Pada awal sejarah upacara *kaul*, ia dilakukan oleh Melanau Pagan. Melanau Pagan ialah kaum Melanau yang tidak memeluk agama Islam mahupun agama Kristian. Apabila kedatangan agama Islam dan kristian berlakunya perubahan kehidupan. Masing-masing penganut mempunyai pandangan yang tersendiri. Paganisme kian pudar dalam pengaruh upacara *kaul*. Malah yang lebih 'autentik dan asli' upacaranya ialah upacara *Kaul* yang diamalkan oleh kaum pagan kerana upacara ini wujud dan terbentuk hasil daripada kefahaman paganisme yang berakar umbi dalam

masyarakat Melanau tradisional.

Kaul diraikan pada bulan *pengejin*. Terdapat 12 bulan dalam takwim masyarakat Melanau. Mengikut kiraan mereka yang arif dalam takwim Melanau, bulan *pengejin* kononnya dikatakan membawa rahmat. Di sebaliknya amat bulan tersebut kita dapati bahawa bulan *pengejin* yang biasanya jatuh pada bulan April ialah tandanya bermulanya musim panas dan berakhirnya musim tengkujuh (*suloh*).

Wilayah amalan dan upacara *kaul* agak terbatas. Upacara ini hanya diamalkan di kalangan Melanau di Mato, Mukah, Bintulu. Ini juga merupakan identiti kelompok masyarakat Melanau yang terbina dari sejarah petempatan awal ciri masyarakat Melanau. Aspek yang agak terbatas pada mulanya ini menjadi suatu identiti masyarakat Melanau tradisional yang kini bertebaran di mana sahaja di wilayah Sarawak. Di wilayah Mukah dan Dalat misalnya merupakan tempat yang terkenal dengan upacara *kaul* berbanding dengan di kawasan-kawasan lain. Ini cukup memberikan identiti yang cukup luas dalam masyarakat Malaysia yang terdiri daripada berbilang kaum.

Kini nilai-nilai kepercayaan tersebut telah menurun dan mengalami kemerosotan yang nyata dari sudut ritualnya. Fungsi *kaul* kian dikalahkan oleh pembangunan semasa yang semakin mengasak dan hebat dalam sistem sosio-ekonomi hingga upacara *kaul* dikenali sebagai pesta *kaul*. Istilah ini memberikan pengertian sesuatu yang lebih bersifat hiburan, ringgan dan terkandung budaya popular dalam ciri-ciri tertentu. Peredaran zaman pada masa-masa akan datang tidak mustahil juga istilah pesta *kaul* bertukar istilah menjadi 'hiburan' *kaul*.

Apabila *kaul* dikomersialkan bermakna *kaul* kini dianggap sebagai projek budaya yang berkepentingan sesuatu seperti juga projek seperti globalisasi yang digunakan sebagai alat untuk mendapatkan keuntungan, dalam dunia kapaitalis ini. Sekiranya hal ini berterusan dan tidak diambil kira, status pesta *kaul* juga akan menjadi salah satu bentuk budaya popular; dikeluarkan secara komersil.

Penyelidikan ini dilakukan melalui peruntukan Geran Kerajaan Negeri Sarawak.

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BOOK REVIEWS & PUBLICATIONS

A STUDY OF IBAN SHAMANISM

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While a great deal has been written about Iban shamanism, going back to the late nineteenth century, until now a detailed ethnographic account of the ritual practices of Iban shamans, or *manang*, has been largely lacking. Particularly lacking has been attention to the songs sung by the *manang*, which Iban shamans call the *leka pelian*, meaning, literally, the 'seeds' or 'gist of ritual', and their use in healing rituals.

The book, *Seeds of Play, Words of Power: An ethnographic study of Iban shamanic chants*, is meant to provide such an account. Based on ethnographic research begun in the Sri Aman Division of Sarawak in 1975, the first eight chapters of the book describe the social and cultural context of Iban shamanism, the role and career of the *manang*, representations of the shamanic cosmos in ritual, concepts of the self in relation to illness and

health, and an analysis of the use of poetics, imagery, and rhyme in the songs, and the song's staging and significance in healing rituals. The final nine chapters each deal with a specific ritual, ranging from a simple stage-setting performance to the Gawai Betawai, the most complex ritual



Seeds of Play, Words of Power Sather

*Seeds of
Play
Words of
Power*



Clifford Sather

formerly performed by Saribas-Saratok shamans. Each of these nine chapters contains a complete song text, in Iban, with interlinear glosses and full English translation.

cont. p.22

IBAN COMIC TALES

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Probably in the past there was no figure of Iban imagination better known to longhouse audiences, or looked upon with greater affection, than the chief comic character of traditional Iban folktales, *Apai Alui*.

Apai Alui, or 'Father-of-Alui' appears in a vast body of oral tales as both a trickster and a fool, a figure of contradiction and paradox, whose actions characteristically transgress both common sense and everyday social conventions, with hilarious, although, for himself, in the end,

often disastrous, consequences. Traditionally, *Apai Alui* stories were told by parents or grandparents to youngsters, usually at night, just before bedtime, although adults also enjoyed telling and hearing these tales. In most stories there is a moral lesson to be learned, as *Apai Alui* is frequently punished for his misbehaviour or stupidity. In others however, he appears as a hero, who, because of his wit and cunning, triumphs over adversaries far more powerful than himself.

cont. p.22



from p.21

The essential narrative thread of each song is described by Iban *manang* as its *jalai*, meaning, literally, its 'journey' or 'pathway'. This journey, which is memorized primarily as a sequence of identified places, always begins and ends with the longhouse in which the shaman is singing. Each *pelian* is thus firmly anchored in the here-and-now, as experienced by the shaman's audience, but moves outward, in the course of a night's performance, into

increasingly remote sites of encounter between the shaman's soul and the inhabitants of the invisible world. Finally, each *jalai* returns full-circle and re-enters the longhouse by way of a series of increasingly familiar landmarks. In this way, the journey trope structures both song and ritual, reflects on everyday Iban experience, in which travel looms large, and at the same time, represents ritual therapy, in multiple ways, as a "pathway" from illness to well-being.

...a study of iban shamanism

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- Clifford Sather: *Shamanic Journeys and Other Travels: Interplaces and the importation of distant landscapes in Iban constructions of community and self*, in *Departures: How societies distribute their people*, Jukka Siikala (ed.). Helsinki: *The Finnish Anthropological Society, TAFAS* 46: 144-78, 2001.

from p.21

In 1982-83, Clifford Sather had the extreme good fortune to be able to live for several months in a longhouse in the Paku River region of the Saribas District, and there was able to collect a large number of *Apai Alui* stories (*en sera Apai Alui*) from a well-known Paku storyteller, author, and former school teacher, Henry Gerijih anak Jabo. A small collection of ten of these stories has

been brought together in a book, and, with two other folklore volumes, published by the Institute of East Asian Studies, Unimas, as part of a newly inaugurated Dayak Studies Oral Literature series. The stories in this book appear in both Iban and English translation and are illustrated with eleven humorous line drawings by the Sarawak musician and artist, Gerarld Oscar Sindon.

...iban comic tales

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TUNTUT – Kumpulan Cerpen Orang Asli – by AKIYA

edited by Wan Zawawi Ibrahim.

Dewan Bahasa & Pustaka. Kuala Lumpur 2001

TUNTUT represents the first ever indigenous / Orang Asli writing on their own community. Akiya, the author, whose real name is Mahat anak China, is a Semai from Tapah, Perak, who in this pioneering work, presents eight short stories each revolving around a particular Orang Asli real life social theme including culture, land, exploitation, leadership, gender, love and death, all of these represent the discourse on contemporary Orang Asli identity in the Malaysian nation-state. The strength of this collection is the ability of Akiya to exploit his “insider” status to full vantage by “telling stories” based on real-life

indigenous characters by fusing social realism with fiction, to render this contribution akin to an anthropological ethnography albeit in a literary form.

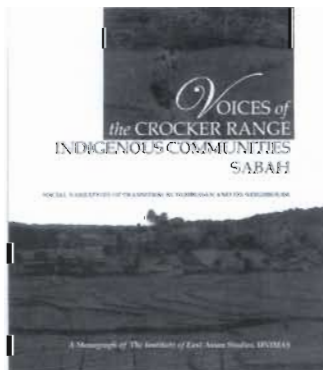
The editor, Zawawi Ibrahim, a social anthropologist, currently Professor of Sociology in the Faculty of social Sciences at Unimas, has had a long personal relationship with Akiya from the time when he was based at Universiti Malaya. He has researched and written extensively on Orang Asli society, and contributes an important introduction in TUNTUT on the question of indigenous literary writing as identity (*jatidiri*).



VOICES OF THE CROCKER RANGE INDIGENOUS COMMUNITIES SABAH: Social Narratives of Transition in Tambunan and Its Neighbours

by Zawawi Ibrahim.

A Monograph of the Institute of East Asian Studies, Unimas, 2001



The monograph attempts to capture the “peoplespeak” dimension of the people-environment relationship of the Sabah Crocker Range society. Whilst the main social actors are those from the KadazanDusun community of Tambunan, voices of the KadazanDusun of Ranau and the Muruts of Tenom are also present. These are “social narratives” of transition of indigenous peoples and communities caught between tradition and modernity representing a journey of identity in the making.

As opposed to the normal anthropological and authored form of “writing culture”, the ethnography presented here articulates both centred and decentring voices of authority juxtaposed in differentiated ways in the evolving Sabah society of the Malaysian nation-state. The monograph is based on research conducted as part and parcel of the Unimas-led international Crocker Range Expedition end of 1999.

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