They aren't normally packaged quite as eclectically as Professor Stephon Alexander, an associate professor of physics at Haverford College. The man from Moruga has brought a distinctly Trini flamboyance to theoretical physics. Although he is a serious researcher, who has gained international recognition for his work—the young scientist has been named a National Geographic Emerging Explorer and has won the National Science Foundation CAREER award, and just days ago, was invited to deliver the annual John Wesley Powell Memorial Lecture Keynote address for the American Association for the Advancement of Science—Professor Alexander has applied a musical premise to sound out his theories on how galaxies were formed.

Trini Physicist looks to the stars to find a theory of sound

We feature him today as one of our outstanding Caribbean offspring, as we pay tribute to another who has departed this life: Professor Emeritus Rex Nettleford, whose achievements can scarcely be listed in one space, so vast, varied and monumental they are. Indeed, the region has heard many voices lifted in his praise, voices that have emanated from such disparate quarters, that that alone conveys the wide stretch that he covered in his extraordinary life.
CAMPUS NEWS

If you enjoy what you do, you will never have to work a day in your life. This was one central message from Derek Chin, Executive Chairman of MovieTowne, who delivered a presentation titled “An Adventure in Entrepreneurship: My Story” at The University of the West Indies’ (UWI) annual World of Work (WOW 2010) Seminar.

The WOW 2010 Seminar, which was held at the UWI Sport and Physical Education Centre on Saturday 6th February, 2010, was sponsored by Republic Bank Limited and held in conjunction with the Trinidad and Tobago chapter of The UWI Alumni Association. Based on the theme of entrepreneurship, Chin’s presentation challenged students to become “independent thinkers” and learn how to manage risk strategically. Using principles from his own life story, he gave students valuable personal insights into the entrepreneurial mindset and the hurdles that can arise in the local business context.

More advice would come from Giselle La Ronde-West, Corporate Communications Manager, Angostura Limited, who shared personal grooming tips with the UWI 1200-plus final-year students in attendance. In an interactive presentation titled “Dressing for Success”, La Ronde-West advised the emerging graduates to maintain a professional look throughout the job interview process.

La Ronde-West gave tips that spanned the gamut from advice about the length of skirts to reminders about matching belts with socks and shoes. Accessorising for the job interview? Eyeing that chunky jewellery? Forget about it, and stay away from glittery clothing too, she said. While emphasising the importance of making a powerful first impression, she also encouraged the WOW 2010 participants to stay true to the promise of professionalism demonstrated by a sharp outfit in the interview.

Designed to equip final year UWI students with some of the necessary tools for long-term success in the globalised work environment, WOW is an annual programme with several components, each of which is intended to develop a targeted skill set. The programme has become one of the most highly anticipated events on the University calendar.

WOW 2010 started on February 4th with an Interview Preparation and Resume Writing Workshop designed to teach participants how to prepare competitive resumes for the global job market. The programme resumed after the Carnival period with Mock Interview sessions on February 27th and one scheduled for March 6th, allowing each student to hone their interview skills with real business professionals. The programme culminates in a Recruitment Fair on March 11th and 12th, where UWI students can meet with prospective employers from a variety of industries across the Caribbean region. The Recruitment Fair will take place over two days with one day open to all returning students and the other restricted to final-year students.

Interested companies are asked to contact
UWI Office of Student Services at (868) 662 2002 Ext. 2360.

FROM THE PRINCIPAL

THE ST. AUGUSTINE CAMPUS
Fifty and Forging Ahead

In just under two weeks, on March 12, the St. Augustine Campus of The University of the West Indies will launch its 50th anniversary celebrations. These celebrations are planned to encompass a year, marked by a special week of activities from October 10-15, to commemorate the formal merger between the University College of the West Indies (UCWI) and the Imperial College of Tropical Agriculture (ICTA) on October 12, 1960.

At the launch, the building that has become the iconic symbol of the UWI St. Augustine Campus, the Administration Building, will be rededicated. The Admin Building, as it is fondly called, has undergone a significant makeover to bring it in line with ergonomic design, but its exterior has not been changed, save for the colours that convey a distinctive Caribbean warmth—quite removed from the cool off-white shade it carried since it was completed in 1925.

Then, it had been designed as the home for ICTA, and was meant to be the primary training centre in the British Empire for all things related to tropical agriculture. In 1960, when the UCWI took over the St Augustine Campus, ICTA became our Faculty of Agriculture, and with the subsequent establishment of the Faculty of Engineering, the process of building this Campus into the Caribbean institution it is now, began in earnest.

Fifty years on, thousands of our graduates have emerged as leaders and professionals in countless fields in Trinidad and Tobago, the wider Caribbean and across the globe. The distinctive UWI graduates we produce are our ambassadors of academic quality, excellence and service, values that define our institution and the UWI brand we cherish.

In contributing to the development of our country and region, the St. Augustine Campus has also been shaped and nurtured by society and the people we serve.

As an academic institution proud of its history, traditions and recognition, we can rightfully celebrate this significant milestone.

CLEMENT K. SANKAT
Pro Vice Chancellor & Principal

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SUNDAY 28TH FEBRUARY, 2010 – UWI TODAY
When square watermelons hit the market some years ago, it caused a stir. The novel pumpkins were re-shaped for packaging purposes—many more could fit into boxes—which reduced production costs. Not to be outdone, local researchers at the Central Experimental Station, Ministry of Agriculture, Land and Marine Resources (MALMR) have developed a pumpkin variety that bears uniform 20-25 pound fruits, globular in shape, but flattened at both ends; and attractively coloured brilliant peach to orange when ripe.

Unlike the square watermelons, which were obtained by meticulously placing each fruit into a square plastic box (a time-consuming task) and allowing them to grow within the confined space, these pumpkins’ shape and size were developed through genetic manipulation.

“This allows pumpkins to be readily packaged into the packaging bags and boxes used for export,” said Albada Beekham, the researcher who headed the pumpkin breeding programme at MALMR. “The flattened top and base allows the uniformly sized pumpkins to sit snuggly on top of each other in a cylindrical bag.”

At the research seminar series of The UWI’s Faculty of Science and Agriculture in early December 2009, she explained that the work was prompted by a market study that showed the large variability in size, shape and colour within local pumpkins was a major deterrent to international marketing.

“Breeding was the most practical way of solving the problem,” she said. The breeding of the new variety has been a long and arduous journey, particularly in a crop such as pumpkin, which needs considerable space to plant the large number of progeny plants, but it has been worth the effort.

“It will not only add value to the product, but also reduce shipping costs,” said Beekham. “All of this has been achieved without compromising the yield or quality.”

The area under which pumpkin is grown in Trinidad and Tobago has fluctuated between 600 to 1500 ha during the past decade, with the production volume varying from 2-5 million kg, according to figures from the Central Statistical Office. Most of the pumpkin produced is exported. The export volume during the past decade has fluctuated between 1-4 million kg, bringing in revenue of TT$ 8-15 million. Most of the pumpkin is exported to the USA, according to NAMDEVCO.

The local pumpkin belongs to a species called Cucurbita moschata L. (moschata pumpkin), which is distinct from the North American pumpkin, which belongs to a species Cucurbita maxima L. Moschata pumpkin is believed to have originated in Columbia and has a distribution spanning Venezuela, the Guianas and the Caribbean. Despite the considerable variability for the species within the Caribbean, moschata pumpkins have largely remained unexploited.

“Moschata pumpkins show considerable variability from “the warty Crappo-back to the smooth types; the heavily grooved to non-grooved; the round shaped to acorn, flat or elongated; the peach-coloured to yellow, orange, black or blotchy and small through to extremely large. There is also variation in internal texture, fibrousness, sweetness, colour and smoothness upon cooking, etc,” said Beekham.

Breeding is about capturing the variability to fashion new varieties.”

As to the future of the pumpkin variety, Beekham, is very optimistic. She hopes that MALMR will soon apply for variety protection under the Plant Variety Protection Act, which will give it exclusive rights to produce and market the variety or to license the variety to a third party to produce and market.

“The MALMR can possibly commercialize the variety in Trinidad and Tobago and beyond,” she concluded.

The MALMR’s efforts to continue important developmental work despite the odds, need encouragement and support. More importantly, these are innovations based on which sustainable industries can be built, and should be taken seriously. Often as a nation, we look for illusive Nobel prize-winning discoveries, while ignoring the small innovations that are taking place all around us. As one of our calypsonians put it: “the journey now start.”

The ball is now in the court of the Ministry of Agriculture, Land and Marine Resources to take this innovation to the market.
Several years ago there was a move by the Caribbean engineering fraternity to establish an engineering accreditation agency. A lot of groundwork was done through a project funded by the Canadian International Development Agency (CIDA) and executed by the Jamaica Institution of Engineers (JIE) and the Professional Engineers Registration Board (PERB), in which the Council of Caribbean Engineering Organizations (CCEO) was involved in the context of regionalizing the accreditation issue.

Finally, at a meeting in Puerto Rico on November 26, 2009, the Caribbean Accreditation Council for Engineering and Technology (CACET) was officially established.

CACET’s main function is to accredit English-language baccalaureate and master-level academic programmes in engineering and engineering technology offered by institutions in the Caribbean. The meeting in Puerto Rico approved CACET’s Charter and Operations Manual and its Accreditation Manual. Thirty prospective programme evaluators and team chairs also participated in a training workshop facilitated by IEEE (Institute of Electrical and Electronic Engineers) volunteers Moshe Kam and Pramod Abichandani. CACET has been established with financial and technical support from the IEEE Educational Activities Board and it is envisaged that fees from accreditation activities will largely cover its operational costs.

The establishment of CACET is a significant development in the field of engineering in this region and it augers well for the future of specialised accreditation in the Caribbean. CACET will collaborate with existing national and regional accrediting bodies within CARICOM to ensure that there is harmonisation and sharing of information and resources to the benefit of the community. CACET will develop a portfolio of accreditation activities so that within five years, it can become a member of the Washington Accord. This would ensure that all programmes accredited by CACET would have mutual recognition by Washington Accord member countries.

The CACET declaration must now be formally adopted/ratified by CARICOM and the funding mechanism for its operation be agreed to. In the interim, CACET will be located in the offices of the Association of Professional Engineers of Trinidad and Tobago (APETT).

CACET’s main function is to accredit English-language baccalaureate and master-level academic programmes in engineering and engineering technology offered by institutions in the Caribbean.
On Friday 29th April, 2009, Professor Nettleford received the Chancellor’s Award from The UWI, at the St Augustine Campus, and he expressed the sentiment that ruled his life’s work.

He believed that ‘The UWI was responsible for the growth and development of the Caribbean region, “for,” he stressed, “a university is not a trade school. The preparation to make a living is paramount. But no less so is the preparation for life … Study and experience have taught us that development begins with people, with a release of the creative potential in an individual or society.”

Professor Nettleford’s writings, speeches and interviews show that his main concern was with the development of the Caribbean by educating its youth, particularly through fostering creativity. He understood the Caribbean’s value and stressed that, as a people, we should abandon feelings of hostility stemming from slavery and colonialism, embrace the culture that it has brought us and show the world the great entity that we have become in spite of our historical struggles.

“We have actually learned to live together, rather than live side by side,” he said in an interview with Gayelle The Channel’s Judith Laird, in 2009, when he visited Trinidad and Tobago to take part in the Commonwealth People’s Forum. “We are part African, part European, part Asian, part Native American but totally Caribbean … I think that this is a challenging locale for the Commonwealth Heads of Government to see how people can live peacefully.” Thus, the typical West Indian, he said “is a textured animal, which is what the global world must be about in the 21st century.”

He believed that the key to demonstrating the Caribbean’s worth to the world, was in the region’s youth and education and his 50-year commitment to The UWI, is that testament. A teacher first, Professor Nettleford never relinquished this post as he ascended the academic hierarchy to become Vice Chancellor of The UWI. Always committed to students, he sought to nurture creativity and show them the compassion he felt necessary to foster a stimulating learning environment.

In a 2006 interview with David Scott, Editor of the Caribbean journal Small Axe, he warned against his “beloved UWI,” becoming “a degree factory” which simply graduated students without offering them a space where “learning is treasured, where in fact, free discourse is encouraged.” “This place should be preparing its graduates to cope with the texture and diversity of human existence,” he said.

At the Chancellor’s Award, he continued in this vein, saying that “the real resources of our regional university lie in the people who teach, conduct research and reach out to the wider society which it was set up to serve.”

He urged fellow professors to “double their efforts, work harder than many of us admittedly now tend to do, to bring to our students (the next generation) the caring and compassion which a true centre of learning must afford its wards, and foster the sense and sensibility that will have the region fully prepared to engage the globalised challenges no one of us can handle on one’s own.”

Professor Emeritus Rex Nettleford

Although he was christened Ralston, it is no surprise that the world came to call him Rex—‘the king’—seeing in his regal bearing and outlook that this man was never destined to anything but leadership at the most profound level. As tributes poured in at the news of his passing earlier this month, the range of adjectives and titles bestowed upon him was so expansive that if a Caribbean person had never (unforgivably) heard of him, it would have seemed that there had been many Rex Nettlefords in our midst. The titles vied to fully express his stature—Quintessential Caribbean Man, Renaissance Man, Maximum Son, Cultural luminary, Cultural Icon—and though they were varied, they settled on one point of commonality: the superlative. For that was the way he would have wanted to go.

remaining true to his word, Professor Nettleford continued his labour of love for his beloved UWI until his dying day, spending his last hours in service to the University as he prepared to leave Washington, DC, to attend its fund-raising gala in New York. Those who know him believe it is the way he would have wanted to go.

Long live his memory.
PROFESSOR
EMERITUS
REX NETTLEFORD
called the Large Hadron Collider. Essentially, this LHC is extensively, including a project that seeks to stimulate the neutrino masses, for instance. He’s probed the Big Bang of dark energy, the origin of matter over anti-matter and for Theoretical Physics at Stanford University.

Night after night, Stephon scanned the sky, dreading yet hoping to get a glimpse of Miss Coker flying by. He lived in the village of Basse Terre in the fishing district of Moruga on the southern end of the island, a rural community still unspoilt by city lights and pollution, and perfect for stargazing. Though he would later discover that Mayaro, just around the corner facing east, offered a uniquely unfiltered natural observatory, the six-year-old was more intrigued by the prospect of seeing Miss Coker in her soucouyant form as a ball of fire than any twinkling constellation.

All that changed when two years later his family migrated from Trinidad to New York City in the USA. Stephon carried his terror of soucouyants with him, but discovered that the Bronx skyline offered no galactic views to fuel his imagination, so he had to create a whole new universe. Old monsters were left behind as new adventures came.

He got hooked on video games and comic books, immersing himself in the world of the imagination, walking neighbourhood streets, listening to guys on the school bus battle it out with their rap and hip-hop, and taking piano lessons to keep it real. His father, Keith, was a computer technician and one day he brought home a second-hand computer (a Commodore), and Stephon, ever the adventurer, began designing programmes to enhance his video games. One thing led to another; in a library seeking information, he discovered the words: Quantum Mechanics. It opened the portal to the physics universe and took him to hitherto unimaginable places. Stephon was a ball of fire.

He did a BSc and a PhD in Physics and then did postdoctoral research at the Imperial College in London, at SLAC National Accelerator Laboratory and the Institute for Theoretical Physics at Stanford University.

As a theoretical physicist, his research has primarily been to help understand large issues such as the nature of dark energy, the origin of matter over anti-matter and neutrino masses, for instance. He’s probed the Big Bang extensively, including a project that seeks to stimulate the moments right after it occurred, using a particle accelerator called the Large Hadron Collider. Essentially, this LHC is on a quest to find the Higgs particle that will theoretically complete the standard model (a theory that unifies the forces, except gravity). It must be the Eureka moment for physicists, though it might end some research careers.

In all its complexity, it is fascinating to try to grasp the concept that without Higgs there’d be no explanation for mass movement, and all substance would travel at the speed of light. To the untrained mind, it can either mean nothing, or too much.

Fortunately, Stephon is a natural performer, so when he explains what he is about, he communicates in simple, graphic terms but with such a high degree of intensity and passion that one is swept along. And it helps that he plays the saxophone to illustrate his theories.

It is because of his highly entertaining presentations that Professor Stephon Alexander was asked to lecture at the 31st International School for Young Astronomers (ISyA) which was hosted by the Physics Department of The UWI in December 2009. Head of the Physics Department and co-chair of ISyA 2009, the indefatigable Dr Shirin Haque-Coplah said that because they particularly wanted to get young people excited by the study of physics and astronomy, they felt Stephon was the perfect choice.

He did not disappoint. From the time he landed at Piarco International at 1.30am and had his regulation doubles and Carib, she said, he was like the man at the speed of light who’d never heard of Peter Higgs and his particle theories.

At the Daaga Auditorium to deliver his lecture on Music and Cosmology, Stephon recounted his childhood relationship with the village soucouyant while his orhni-clad great aunt waggled her finger delightedly at him and the incorrigible MC, UWI entomologist, Christopher Starr explained for the benefit of foreign students that a soucouyant was a “woman who sucked the happiness out of you.”

Supporting his presentation with still and moving images, Stephon took listeners on a voyage through space and time. Having set the foundation that the universe is made up of galaxies and empty space, and that cosmology studies the formation of galaxies and can now do so more precisely with satellites that take fossil snapshots of the early universe, Stephon built to the premise that the universe expanded from a “hot and dense big-bang into the large and structure-full universe we currently inhabit.”

Explaining it later, he said, “We find the startling picture that the young universe was permeated, not with these structures, but a smooth space with radiation energy. Somehow the radiation cooled as the universe expanded and waves of the radiation swirled into forming the galaxies that we are a part of.”

His lecture was meant to demonstrate that these “initial or primordial waves are actually sound waves.” Using John Coltrane as his musical motif, he invited the audience to imagine the universe as a giant instrument vibrating sound, and that its resonance created patterns that made the galaxies. Obviously his presentation was more complex than that, but Stephon used the Coltrane connection seamlessly (a facility he learned at De Witt Clinton High School in NY, where his Physics teacher was also the music teacher for their jazz ensemble). According to Stephon, Coltrane, the ultimate jazzisimo, used “sheets of sound” on the saxophone (a monophonic instrument) to produce the illusion that...
Coltrane and the Cosmos

Physicist says sound waves explain galaxy formations

different notes were sounding at the same time—the concept of non-linearity. Using a space map from NASA's Cosmic Microwave Radiation space mission WMAP, Stephon talked about the radiation patterns that fit into the Big Bang theory, but which he could also translate using the concept of sound waves to explain the patterns in the satellite data. It was a fascinating journey, ending rather sexily at 220 Hz, the musical note A.

But then Stephon pulled out his saxophone and played the sounds that he had been speaking, and in that crescendo one could see how music feeds the abstract nature of his mind.

Afterwards, a casual poll of the students in the audience suggested that Stephon's approach had struck the right chords. Setting up an interview was tricky given conflicting schedules, but with his departure imminent, we agreed to talk over dinner at Satchmo's. He was thrilled to find trumpeter Errol Ince performing, and quickly went over to pay his respects.

As the evening went by, several things became clear. Stephon is a musician at heart; not only does he play regularly with a jazz ensemble, but he produces music (a recent combination of soca, samba and jazz is called Toco) and he devotedly explores music to relate it to music theory and physics.

He seems to spend his time living life like there's no tomorrow. It makes sense if you are a theoretical physicist engrossed in matter spanning billions of years. He engages everything with considerable energy and focus and his plate is always full. high on his agenda is this homeland.

He's designed his lectures with a high entertainment component to attract young minds and he knows the music gives him a global edge. But simultaneously, there is a heavy consciousness of the land of his birth and the razor edge upon which his people often sit and it lends a crusading air to the confident aura he exudes with such Trini aplomb.

“One of my main goals in life is to play a key role in science in Trinidad and Tobago,” he says. His focus is on helping young people to make career choices, to see possibilities, and to enable them by guiding them through scholarships to achieve their goals. This was why he jumped at the ISYA invitation. As a youngster at high school, his guidance counsellor had warned him that he would never get into an Ivy League University. He doesn't explicitly connect the two, but something about his fervour to empower youth, particularly from “home” carries the resonance of that incident.

It isn't all talk. More than five years ago he was trying to set up a collaborative of scientists to encourage a “cross pollination” of study mainly by and for Caribbean people. Calling it CARIAS (The Caribbean Institute for Advanced Studies) he proposed that it serve as a convergence point for scientists and their work as well as a teaching centre collaborating with institutions such as The UWI to provide mentoring and training. It has not yet taken off, but undaunted, he keeps trying to forge foundational links. He's hoping to arrange for more lecture exchanges between The UWI and his affiliates.

If we are serious about developed nation status, he says, “How will this happen without us doing science on our own terms, with our style?” The musician in him adds, “like the way Shadow did his music.”

Asked how he goes about trying to help young people, he says it is in different ways: (I) “directly contact my colleagues and lobby for talented students, (because) these colleagues usually have access to their own funding, and I invite students to visit and give talks so that they can be exposed. If CARIAS existed then we would institute a scholarship fund and target prominent scientists to spend time in Trinidad,” he adds optimistically.

He's designed his lectures with a high entertainment component to attract young minds and he knows the music gives him a global edge. But simultaneously, there is a heavy consciousness of the land of his birth and the razor edge upon which his people often sit and it lends a crusading air to the confident aura he exudes with such Trini aplomb.

Sitting with him is like being caught in a flurry, and as we drop him off, he invites us in to hear a song on the sax. It is past midnight when he puts his horn to his lips and energy fills the space.

"One of my main goals in life is to play a key role in science in Trinidad and Tobago."

STEPHON HAIGH-SOLOMAN ALEXANDER is an associate professor of physics at Haverford College. He did his BSc at Haverford College and received his Ph.D. in physics from Brown University in 2000, with a dissertation titled “Topics at the Interface between String Theory and Cosmology.” From 2000 to 2002, he held a postdoctoral fellowship from PPARC (the Particle Physics and Astronomy Research Council of the United Kingdom). He has won the National Science Foundation CAREER award and was elected a National Geographic Emerging Explorer. His research has focused primarily on theoretical cosmology at the interface with particle physics, string theory and quantum gravity. This has included Baryogenesis, CMB Physics, Dark Energy/Cosmological Constant Problem, Topological Defects/Solitons, Non-Perturbative QFT, Physics Beyond the Standard Model and Dark Matter.

Earlier this month, he was invited to deliver the annual John Wesley Powell Memorial Lecture Keynote address for the AAAS (The American Association for the Advancement of Science), and he plans to feature Trinidad in it. Previous Powell lecturers have included Oliver Sacks and Carl Sagan.
The announcement that steps are being taken by the Minister of Education with the National Parent-Teacher Association to meet parents and other relevant parties to discuss current Ministry initiatives to enhance the schooling process is a very welcome one. This move signifies the belief that a collaborative effort between the home, community and school would benefit our students. This belief has long been held, but the results of a recent research project have provided some empirical evidence for it.

The study, using data from the 2006 national Test, was conducted by a consortium of researchers from the School of Education, UWI, St Augustine, Canada, and the Ministry of Education. Strong positive relationships were identified between student perceptions of parental engagement in school-related activities and student achievement in both Language Arts and Mathematics at the Standard 3 level. Not only that, but students who reported higher levels of teacher engagement and caring, tended to have higher levels of achievement than students who reported lower levels of teacher involvement in their learning at school.

Further, higher levels of adult engagement with student learning were related to more positive student views of themselves—they felt more competent and also tended to have higher levels of achievement. The bottom line is that adults can have a substantial positive role in a child’s success in school.

We found that both student and parent attitudes and perceptions predict achievement in both Language Arts and Mathematics.

Although these findings may not be surprising they are important, particularly since they focus on student performance in the early years of schooling in the foundational domains of Language Arts and Mathematics—which will have a lasting influence not only in school but life chances in general.

These results suggest that by knowing something about a student’s self-concept and perceptions of parent and teacher engagement we can better predict success in school. This can lead to informed policy initiatives and instructional enhancements developed and implemented to improve student achievement and overall school performance. By knowing about relationships of parent encouragement and parents’ attention to the academic performance of their children, schools could encourage parents to attend to their child’s reading and other school-related activities, and even encourage positive parental attitudes towards reading in general. Through the development of better communication between schools and parents these attitudes and activities could be enhanced, leading to improved achievement by the students.

Given that these findings were obtained for students at a very early stage in their school career (Standard 3), it is possible that a significant impact can be made on student achievement in the long term if attention is paid to the factors identified above as contributing to student achievement.

Further, enhanced focus on the affective dimensions of schooling (teacher care and encouragement, parental support, attitudes) could also lead to better perceptions of the value of education in later life and decrease the current levels of drop-out and under-performance, particularly by male students in Trinidad and Tobago.

In summary, many of the factors significantly related to student achievement in this study have a fair degree of commonality in that they are centred on the attention given by students and parents to what could be termed the general elements of schooling: reading engagement; student self-regard for their own abilities; parental encouragement of student engagement with their studies; student perceptions of teacher caring and encouragement; and parental perceptions of feeling welcomed to and engaged with the school. Steps could be taken that would help build positive influences on student achievement. These would include helping students attend more closely to school-based learning activities, promoting teacher behaviours that are likely to be viewed by students as caring and encouraging, and having the school consciously take steps to further parental participation in the child’s school life.

The adoption of an evidence-based approach to policy development and curricular implementation could be a positive step toward better education in Trinidad and Tobago: higher achievement, more equitable schooling, and more enhanced access and engagement by students, teachers and parents are some of the likely outcomes. The full report on this research can be found in a recent edition of Caribbean Curriculum, an academic journal published by the School of Education at the University of the West Indies, St. Augustine campus.

For students the following traits are positively related to their academic achievement:

- **TEACHER ENGAGEMENT AND CARE** – the extent to which students perceive their teachers as engaged in their school work.
- **READING SELF-CONCEPT** – students’ perception of self as a reader.
- **PARENTAL INVOLVEMENT** – the extent to which students report that their parents care about their school-related activities.
- **ATTITUDE TOWARDS SCHOOL** – students’ interest in school.
- **WRITING ACTIVITIES** – the extent to which students report that they are actively involved in writing in school.
- **READING ENGAGEMENT** – students’ reported levels of being engaged in reading activities.

This article was written by Professor John Anderson of the University of Victoria, Dr June George (Senior Research Fellow) and Dr Susan Herbert (Head of Department) of the School of Education, UWI, St Augustine, the three researchers engaged in the project.
From the Inside Pages (Part I)

As the 11th edition of Campus Literature Week begins, Professor Funso Aiyejina, describes its birth and the first decade of its life (1999-2009) under his stewardship.

Campus Literature Week was initiated in 1999 by the Department of Liberal Arts. Professor Kenneth Ramchand, then Head of Department, had proposed that the university bring the Barbadian poet, Kamau Brathwaite, who was on an extended stay in Barbados, to the St. Augustine campus to give a reading, since he had never done so before. I suggested that rather than have only Brathwaite reading, we should consider establishing a Campus Literature Week as an avenue for showcasing the literary talents of students, staff and the wider society, with Brathwaite doing the gala reading to round off the week. This suggestion was accepted by the department and, since I was the one who opened his big mouth, I was assigned the task of coordinating it. I initiated contact with Brathwaite, with the help of his good friend, Professor Gordon Rohlehr, and got him to agree to come as a guest writer. Professor Ramchand oversaw the process that culminated in an official invitation to Brathwaite from the then Pro-Vice Chancellor and Campus Principal, Professor Compton Bourne. Unfortunately, just before the appointed date, we got word that Brathwaite had had eye surgery and had been ordered by his doctor not to fly. As fate would have it and because I am always a one-part pessimist, I had put Earl Lovelace on standby, in case, for one reason or the other, Brathwaite could not accept our invitation or, having accepted, had to cancel at the last minute. That then was how Lovelace became the first guest writer for Campus Literature Week in March, 1999. Lovelace, because of his generosity and his embrace of the vision behind Campus Literature Week would return a couple more times and become the most regular of our guest writers.

In the original design of Campus Literature Week, the Guest Writer, in addition to giving public readings, was required to talk about his/her writing and about literature with our students; to give television and print interviews to sensitize the public to his/her work; and to generate public interest in literature. The noontime readings created the opportunity for a cross-section of the spectrum of literary talents available within and outside the campus, especially for those writers desirous of audience feedback on their work, to share their work with the public. The Main Library was chosen as the venue for the noontime readings as an affirmation of the synergy between the library and the Faculty of Humanities and Education as well as the centrality of the library to the primary business of the university as a centre of learning.

In the first decade of Campus Literature Week, we hosted the following writers: Earl Lovelace (1999, 2005, 2008); Olive Senior (2000, 2003); Ian Carew (2001); Austin Clarke (2002); Lawrence Scott (2004); Erna Brodber (2006); John Stewart (2007); and Rachel Manley (2009). On the occasion of the inaugural Campus Literature Week in 1999, those present were called upon “to witness the planting of a seed which we hope to see grow into an inevitable part of our annual calendar.” Not only has Campus Literature Week grown into an event that many look forward to every year, but its success inspired the introduction of the Master of Fine Arts (Creative Writing – Fiction) programme in the 2002/2003 academic year.

With the introduction of the MFA programme, the position of Guest Writer was re-engineered into that of Writer-in-Residence, with an expanded scope to include the facilitation of workshops for the students in the MFA programme and the length of stay was extended from two weeks to a maximum of two months. Olive Senior, who had visited as a Guest Writer in 2000, was the inaugural Writer-in-Residence in 2003 and worked with me to establish the foundation for the MFA programme. Also, with the introduction of the MFA, Campus Literature Week took on an additional significance as the platform for the MFA students to perform before an audience, in lieu of the...
One of the most heart-warming achievements of Campus Literature Week is the way it has made it possible for our students to hear writers who are resident on the campus but most of whom we, unfortunately, hardly ever acknowledge as writers, let alone celebrate them. This list includes names like Merle Hodge, Cynthia James, Elizabeth Walcott-Hackshaw, Jennifer Rahim, Godfrey Steele, Barbara Lalla, Claudius Fergus, Christopher Starr, and Gordon Rohlehr, all of whom would have been known to students as lecturers but hardly as creative writers. Even more heart-warming is the excellent crop of student participants in the programme. These include Rhoda Bharath, Carolyn Harnanan and Sharon Syriac who have gone on to become fine writers in their own rights, and Muhammad Muwakil and his U-WE Speak Poets who are set for a bright future as performance poets, proud descendants of the poetic tradition of the Midnight Robbers of Trinidad and Tobago Carnival and the rapso tradition.

A programme like this succeeds only with the goodwill of many. I wish to put on record my gratitude to the various office holders during this past eleven years: heads of the Department of Liberal Arts (Professor Kenneth Ramchand, Mr. Vishnu Singh, Professor Barbara Lalla, Professor Valerie Yousser, and Dr. Paula Morgan), deans of the Faculty of Humanities and Education (Mr Vishnu Singh and Professor Ian Robertson), and Campus Principals (Professor Compton Bourne, Dr. Bhoe Tewarie, Professor Bridget Breretton, and Professor Clement Sankat) whose support for Campus Literature Week has been unwavering. I wish too to thank all the student assistants and administrative assistants (especially Abel Bain) and the staff of the Humanities Division of the Main Library who worked tirelessly behind the scenes over the years to make Campus Literature Week a success. To all our faithful supporters over the years, thanks.

In the March Issue

PART II: THE WRITERS IN RESIDENCE

Professor Funso Aiyejina was Coordinator of Campus Literature Week from 1999 to 2009. He is a Professor of Literatures in English, and Dean of the Faculty of Humanities and Education, The University of the West Indies, St Augustine Campus.
Two Petroleum Studies programmes at The University of the West Indies (UWI) have recently earned accreditation from the Energy Institute (EI). This is in addition to previously earned accreditation by the Institute of Materials, Minerals and Mining (IOM3) and the Geological Society of London (GSL) respectively.

The University’s Master of Science (MSc) in Petroleum Engineering and Bachelor of Science (BSc) in Petroleum Geoscience were awarded accreditation by the UK-based Energy Institute (EI), which has accreditation facilities for degrees for Chartered Engineering, Chartered Petroleum Engineer, Chartered Environmentalist and Chartered Science status.

The BSc Petroleum Geoscience at UWI became the first geological programme of any nature to be accredited outside the UK, when it was awarded accreditation by the Geological Society of London for a period of six years from March 2004, following a February 2004 visit by the President of the Society. The programme has now been re-accredited to 2016. Membership in the Geological Society of London brings many benefits, including professional recognition. Fellows are entitled to the letters FgS after their name and Chartered Geologists can add the postnominal CGeol.

The MSc Petroleum Engineering at UWI has been accredited by the IOM3 for graduates entering the programme from 2004 to 2011. As a result these graduates will be able to go forward to become internationally recognised and chartered professionals by IOM3 after 4-6 years suitable experience and responsibility. Accreditation also provides peer-reviewed certification of the standard and scope of professional and scientific training offered by MSc programmes, giving universities, grant-awarding bodies and employers confidence in the value of the programme in producing well-trained graduates for employment in the geosciences. In addition, the recognition of an MSc programme by accreditation is a valuable aid for students choosing their locus of study, particularly for overseas students.

The EI accreditation, for graduates entering the programme from 2009 to 2013, was awarded after an official visit to The UWI to examine facilities, meet staff and students and assess against the Energy Institute criteria for accreditation. The visiting EI team met with Professor Richard Dawe, TTMC Chair in Petroleum Engineering in The UWI Chemical Engineering Department, who explained the history and organisation of the Unit and the nature of its courses. The team also met with other members of academic staff and with a selection of students.

A report from the visiting team described the teaching staff as “supportive and accessible” and “committed and enthusiastic, with a well developed involvement with the local and international oil and gas industry.” The report further described students as “very enthusiastic about the courses.”

Departments applying for accreditation must demonstrate that their programmes introduce students to the major aspects of their degree subject and specifically, that appropriate skill levels are attained in certain highlighted topics. They must also demonstrate that teaching in these subjects is carried out by appropriately qualified staff with relevant post-graduate research and/or professional experience as appropriate, and a record of continuing professional development. This applies particularly to fieldwork where the teaching of mapping skills is considered to be of very high importance.

UWI ENGINEERING PROGRAMMES GET ENERGY INSTITUTE ACCREDITATION

UWI HOSTS EDULINK TRAIN THE TRAINERS WORKSHOP GLOBAL GRADUATION

“Jean Monnet, one of the founding fathers of the EU today used to say that building Europe is not about putting different states together. It is about putting peoples together. This is precisely what EDULINK is doing,” said Stelios Christopoulos, Charge d’Affaires, Delegation of the European Union to Trinidad and Tobago.

Mr. Christopoulos was one of the main speakers at the EDULINK “Train the Trainers Workshop,” graduation ceremony and luncheon, which recently took place at The UWI, St. Augustine Campus.

On Thursday January 21st, 2010, participants from The UWI’s seven partner universities in the South Pacific, Mauritius, Belize, Guyana, Suriname, Jamaica and Warwick, as well as from the other UWI campuses, Mona, Jamaica and Cave Hill, Barbados, gathered at The UWI Faculty of Social Sciences Louge to celebrate their completion of the EDULINK “Train the Trainers Workshop.” This workshop provided the trainers with a professional development programme in resource mobilisation, which would enable them to contribute to the creation of a critical mass of knowledge and the development of a network of Higher Education Institution (HEI) staff trained in revenue generation. Among the training modules presented were Resource Mobilisation in African, Caribbean and Pacific (ACP) Countries, Fundraising and Resource Mobilisation in Higher Education, Commercialisation of Research and its Contribution to the Knowledge Economy, Business Development in a University Context, and Grantsmanship in Higher Education.

The UWI St. Augustine Campus Principal Clement Sankat, also a main speaker at the event, expressed his pride in the University’s role in this initiative, the outcome of which he stated, would be to “enhance and strengthen our research capacity, allow for more effective teaching, encourage the use of technology and intensify the management of intellectual property.” Principal Sankat went on to say that, when participants returned to their respective countries and institutions at the end of the workshop, the next phase would be for them to each to train ten academic and administrative staff members “in resource mobilisation and to produce one proposal each, for donor support.”

This workshop was a part of an EDULINK funded project, titled “Capacity Building for the Financial Sustainability of ACP HEIs,” led by The UWI, in collaboration with other HEIs in the ACP Group of States.

EDULINK is an initiative that funds cooperative projects between ACP HEIs and the 15 EU member States that are signatories to the 9th European Fund (EDF).

COMING SOON: ARCHAEOLOGY, GIS AND CULTURAL RESOURCE MANAGEMENT IN TRINIDAD

A new book by Dr Basil Reid entitled Archaeology, GIS and Cultural Resource Management in Trinidad will be released in March. Published by Lambert Academic Publishing, this volume explores the use of Geographic Information Systems (GIS) in the cultural resource management of precolonial archaeological sites in Trinidad, the Caribbean’s southernmost island.

The book produces predictive models of selected watersheds in Trinidad based on GIS. It also addresses important issues relating to GIS data input, access, retrieval and data management within the context of Trinidad’s archaeology. Also included is a discourse on the history of archaeology research in Trinidad, the island’s physical environment and the role of GIS in settlement archaeology and cultural resource management.

Dr Reid is Senior Lecturer in Archaeology in the Department of History at The UWI. He is the author of Myths and Realities of Caribbean History and the editor of both Archaeology and Geoinformatics: Case Studies from the Caribbean and A Crime Solving Toolkit: Forensics in the Caribbean.

Copies can be pre-ordered from Arnaud Cathan, the Acquisitions Editor of Lambert Academic Publishing; e-mail: a.cathan@lap-publishing.com • The book is also available at UWI Bookshop.
Social insects are that peculiar minority (about 1-2%) of species that live in durable, structured groups known as colonies. Everyone is familiar with at least a few species of social insects. You have certainly noticed the abundant, dark-brown termite nests that adorn many trees (and you may on rare occasions be chagrined to find these or other termites invading your house). Jack Spaniards are among the social wasps that you have learned to respect (if not necessarily to love). Some bees, including the much appreciated honey bee, have highly-developed social organization. And ants, such as the bacchacs that you can see in your garden every night, seem to be everywhere.

Life in a colony is a very different matter from that of solitary insects. For one thing, it is a cycle of almost constant interactions among nest mates. For another, there is a more or less striking distinction among different kinds of individuals (known as castes) according to their roles. The primary caste division is between the few reproducing individuals (queen and king in termites, queens only in all others) and the non-reproducing workers.

For a biologist, life in an archipelago has an extra dimension that can make it extremely attractive. Each island is, in a sense, a world of its own, and the distribution of plants and animals among islands is a source of endless questions, answers and fascination. Island biogeography draws on a key distinction between two types of islands. Continental islands are those with a previous dry-land connection to a continent. Trinidad and Tobago were once parts of the South American continent, isolated by rising sea levels an estimated 14,000 (Tobago) and 10,000 (Trinidad) years ago. The rest of the West Indies—the Greater Antilles and Lesser Antilles—are oceanic islands, without such a previous connection. While Trinidad and Tobago began their island existence already with a full complement of plants and animals, then, the Antilles started out with nothing and have only become populated by species that could cross stretches of open sea.

My own particular interest is in the comparative diversity of social insects on islands. If two islands have much the same habitats, the larger one is expected to harbour more species, whether of social insects or anything else. The relationship is conventionally expressed as $S = kA^z$ or $\log S = \log k + z \log A$, where $S$ stands for number of species, $A$ is the size of the island or other area, and $k$ and $z$ are constants. The constant of interest is $z$, which defines how rapidly the number of species (species richness) rises with increasing land area. This is best seen in a double-log graph, in which $z$ is the slope of the line. Studies of different groups of organisms in various parts of the world show that $z$ tends to be between 0.25 and 0.35.

However, continental and oceanic islands are plainly not comparable in this regard. In any given group of plants or animals, an oceanic island will almost always have fewer species than a continental island or a part of the continent of the same size. We can illustrate this by reference to social wasps. The second graph shows the species-area relationship for islands of the West Indies and some continental areas of Central and South America. Two things are apparent in this pattern. First, continental areas and islands have markedly more species than do oceanic islands of similar size. You will note, for example, that Trinidad has several times as many species as does (oceanic) Jamaica.

Second, if we plot the slopes of the two groups separately we find that they are both very similar, slightly over 0.30 in each case. There is more to biotic differences between continental and oceanic islands that this difference in species richness. Not all species are equally able to cross sea barriers and establish themselves on oceanic islands. For example, it is not surprising that bats are much better represented on such islands than are non-flying mammals, relative to their numbers on the continents from which their ancestors emigrated. And large mammals, like deer and quenk, are virtually absent unless introduced by humans. This pattern of differences in composition is known as disharmony.

Unlike solitary insects, social insects seldom disperse to new areas except in the course of founding new colonies. This process takes different forms in different species. In Jack Spaniards, for example, a single queen can found a new colony. Dispersal from the mother colony, then, is limited only by how far a wasp can fly (or be blown by the wind) by herself. In the other main group of social wasps, maribons or marabuntas, in contrast, it takes a group of several queens and many workers to start a new colony, and the group must remain intact, so that maximum dispersal distance is necessarily much less. Not surprisingly, while Trinidad and Tobago are home to about equal numbers of species of the two groups, the social wasps of the Antilles are almost exclusively Jack Spaniards. In fact, only one maribon is found in any of the Antilles and only in Grenada.

Arising out of this observation is my general hypothesis that The mode of colony founding is the main factor in the relative dispersal ability of social wasps onto oceanic islands.

The various testable predictions arising out of this hypothesis are largely corroborated by results from the West Indies, with one striking exception. I predicted that the higher termites (family Termitidae) would be better represented than the lower termites (all other families) in the Antilles, relative to their numbers in northern South America. I reasoned that the overall greater size of the flying queens and kings and the huge numbers that emerge in the founding season would make them more likely to cross sea barriers to new islands. It was a fair prediction but, in fact, exactly the opposite is true. The lower termites are much more prevalent up the islands. The most likely reason is that their colonies have a much greater chance of being carried on floating logs, an accidental process quite different from normal colony founding.

It is my firm conviction that social insects are the most interesting feature of the known universe. Islands make for some of the world’s most interesting places. Together they are an irresistible combination.

By Dr Christopher Starr

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UWI Today wants to hear from you

UWI Today welcomes submissions by staff and students for publication in the paper. Please send your suggestions, comments, or articles for consideration to uwitoday@sta.uwi.edu.

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