

The University



in a Garden

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THE UNIVERSITY IN A GARDEN



PENERBIT UNIVERSITI SAINS MALAYSIA
PULAU PINANG

Celebrating Diversity

Between April and August 2003, a team of ten lecturers, one staff and a volunteer spent countless hours photographing the campus and then shortlisting, retaking, discarding, replacing, and laying them out with an electronic publishing software. More than five gigabytes of digital photographs were captured but only about half a gig made it into this book. During those five months, teams members debated various concepts for the book, researched and wrote scripts to enliven and enlighten the reader. Drafts were circulated by email, commented, edited and then electronically laid out. Numerous scheduled and unscheduled meetings, discussions, email "chats", arguments and disagreements were held, and consensus reached and overturned. A draft was also printed for comments by the Vice-Chancellor which triggered further evaluation and review. Throughout this process, the Team not only recognised but valued the diverse talents, interests, background, beliefs, likes and dislikes, and expertise within the group. We have sought to tap and nurture this diversity and this is evident in the selection of photos and various styles of writing in this book. We expect the readers to be just as diverse but we are sure that they will be inspired and enthralled by the beauty within the campus portrayed in the following pages.

All photographs in this book, unless otherwise stated, were taken by the Coffeetable Book Team. The third photograph from the top in the *Foreword* and the photographs in six cells on page 147 are courtesy of USM's Public Relations Office.

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Notes

- cover Rain trees along approach road from Minden gate
this page Closeup of the symbiotic relationship of a parasitic plant with a Rain tree at Desasiswa Damai nurtured by energy from the sun
preface An elegant branch of a strangling fig tree along approach road from Minden gate
- p 12 Desasiswa Damai building along Jalan Penggawa softened by landscape
16 Courtyard garden at School of Art
18 Koi pond at Eureka Building
24 Angsana trees in bloom opposite the Guest House overlooking Padang Minden
32 A strangling fig tree along approach road from Minden gate
34 Blooming creeper on a Rain tree at the Experimental Theatre
45 Angsana and The Flame of Forest behind the Guest House
49 Luxurious bloom of The Flame of Forest tree at School of Social Sciences
50 Delicate Tecoma flowers in full bloom at The Oval
67 Padang Minden after a heavy shower creates a bird bath
76 Modern and heritage architecture of Desasiswa Cahaya
79 Eagles in morning flight over VC's Residence
80 Top and bottom right photo, swimming pool built in 1941; Bottom left photo, The Red House next to the swimming pool
81 Water tower which housed the first office of the USM Vice-Chancellor
89 Bottom photo, USM post office
102 Lecture Halls A, B & C, first lecture hall complex in USM
106 Her Majesty the Queen, who is also USM Chancellor, in the lobby of The Great Hall at the August 2003 Convocation
110 School of Physics through a vista
113 Courtyard herb garden, School of Chemical Sciences
132 VC (hands pointing) with the Coffeetable Book Team and guests near the Guest House
138 Top left photo, Penang Governor and State dignitaries at the Penang International Bridge Run 2003 held at Minden Padang
150 Daybreak at VC Rock overlooking the Penang Bridge
158 Postcard view of Main Library I
161 Vista enclosed by Schools of Computer Sciences and Mathematical Sciences building on the left and School of Chemical Sciences building on the right
164 Worm's eye-view of the towering King of Fruits, the durian tree, on the hillslopes on the western side of campus
167 Peace Poles in seven languages at the Graduate School roundabout
168 Ant's eye-view of Olympic-size swimming pool surrounded by majestic trees
172 The first cerebral palsy undergraduate in Malaysia
173 Scenic view and vista of Desasiswa Aman in foreground and new hostels on the hillslopes in the background
174 The Coffeetable Book Team
176 Bird's eye-view directly down from the sixth floor of the Chancellory building. The building on the right is occupied by a section of the Bursar's Office dealing with students.

Foreword

Nature and knowledge are quite inseparable. Through nature, knowledge evolves. In turn nature is enriched by the appropriate application of knowledge. This book highlights this close relationship which has existed in USM since its establishment three decades ago. When it was first established at Minden in 1969, it was only a small campus tucked in a lush green environment. Indeed, learning then took place in close proximity with nature, beyond the lecture halls and tutorial rooms. That was the environment that I was introduced to in my early years as a student in this campus.

As the university grew rapidly the landscape was transformed. Natural landmarks which used to be icons have been replaced by new buildings. Though efforts were made to preserve much of the heritage and natural surroundings, invariably some had to give way. And the smooth green Minden skyline became punctuated by jagged unfamiliar concrete structures.

It is important that the transition which took place in the Minden campus be documented. This book is not only a record of the richness and beauty of the early campus but also the beginning of the realisation that we are endowed with a *garden*. It showcases the peace and harmony that exudes from its panoramic scenes, the blend of diverse architecture, artscape, people, flora and fauna, heritage as well as the vistas therein.

And as we journey to create an atmosphere for academic and intellectual excellence, we will nurture and cherish it as part of the USM legacy. Through it we will become a community of excellence – one that seeks to understand and enrich the symbiotic relationships which exist all around us as depicted in each of the following pages.

On behalf of the University, I would like to express our utmost appreciation to Dr. Lee Lik Meng and every member of his dedicated team. Their enthusiasm and painstaking efforts have in many ways brought to life the vision of *The University in a Garden*. To those who have in one way or another assisted in transforming this dream into reality, USM salutes your invaluable contributions.

As we celebrate the 35th Anniversary of USM in 2004, I hope this book will continue to reinforce our commitment and ideals of *The University in a Garden*. This will be the best gift that we can bestow on the University.



Dzulkifli Abdul Razak
Professor Dato'
Vice-Chancellor USM

*From space came the realisation and inspiration
that humans are one people
living on a wonderful small planet ...*

*Mahathir Mohamad
Prime Minister of Malaysia 1981 - 2003*

With Compliments From





Preface

The University in a Garden conceptualises the vision of a garden campus first expressed by the Universiti Sains Malaysia Vice Chancellor, Professor Dato' Dzulkifli Abdul Razak in 2001. The vision encapsulates the interrelationships between the roles and functions of an institution of higher learning located within a garden-like environment. It is not merely an expression of the physical elements of the beauty of nature but also includes a touch of human sensitivity which would enhance the enjoyment of beauty and the creation of a healthy community within and outside the campus.

It is hoped that this publication would inspire a deep appreciation of nature and instill awareness through the conservation of assets within the university campus. A team of researchers had worked together to portray the captivating beauty of the campus grounds. The team comprised academics from various backgrounds, thus providing a rich multi-disciplinary perspective to the concept of the garden.

The University in a Garden illuminates the essence of various elements in the USM campus captured entirely through a modest digital camera. The product is presented as the Garden of Nature, Garden of Heritage, Garden of Knowledge, Garden and the People, Garden of Vista and The Garden Tomorrow.



Contents



1 Introduction 11



2 Garden of Nature 29



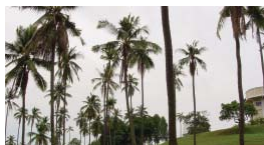
3 Garden of Heritage 75



4 Garden of Knowledge 101



5 Garden and the People 125



6 Garden of Vista 149



7 The Garden Tomorrow 163

Introduction



*Everybody needs beauty as well as bread,
places to play in and pray in
where nature may heal and cheer
and give strength to body and soul alike.*

John Muir





The USM main campus is situated strategically at one of the most important gateways to Penang Island. It stands majestically on its site, extending a warm welcome to visitors arriving through the Penang Bridge and fond farewells to those leaving the island. The university grounds has been claimed as one of the most beautifully landscaped campus in Malaysia. The campus trademark is its unique location set amidst undulating terrain overlooking the sea and hills. The site is further enriched by the habitats of exotic flora and fauna protected by gazette as a bird sanctuary with more than 20 endangered species. The numerous natural assets such as trees, flowers, lakes, wildlife, tropical forest and orchards set the tone for the formation of a garden-like ambience accentuated by breathtaking panoramic views.



As USM was formerly a British military camp, this nurturing ground has inherited numerous elegant legacies including heritage buildings, green acres and majestic trees. The beauty of the garden is much enhanced by the distinctive colonial structure as well as modern architecture.



Geographically, the campus is divided into two large sections by Bukit Gambir Road. The original section of the campus including the heritage enclave is situated on the eastern side, while the extension, which is set amidst the forest on hill slope reaching up to 200 meters above sea level, is located on the west. A major portion of the west side remains forested although some areas have been cultivated as fruit orchards for several generations. The forest is an environmentally sensitive area which should be conserved and protected.

The USM campus, rich with tropical plants and forest habitats, can be classified as a tropical garden. The hot and humid climate encourages an extraordinary rate of growth for plants and flowering trees, which in turn attract various species of fauna as their desired habitat. The setting of a typical tropical forest has transformed USM into a unique garden campus. The USM garden campus is

actually made up of many small gardens. Some of the gardens are deliberately left untouched while others have been landscaped elaborately. Some gardens are open courtyards while others are indoor gardens.

Blessed with treasured natural assets contained within a lush green park and commanding views overlooking the hills and sea, the campus reveals the intrinsic values of a garden environment which inspires human creativity and imagination. The interplay of ecologically rich assets within the campus sets the stage for intellectual discourse amongst the students, academics and the general public.



*Flowers always make people better,
happier and more helpful.
They are sunshine, food and medicine to the soul.*

Luther Burbank



Gardens are the result of a collaboration between art and nature.

Penelope Hobhouse

The Early Garden

The garden is not a recent phenomenon. Its origin can be traced back to the ancient Greeks where gardens were dedicated to the Gods. The Kings of Persia were presented with gardens of aromatic shrubs and blossoming fruit-trees commonly associated with the notion of “paradise”. The earliest recorded private endowment was during the reign of Julius Caesar when he presented his own gardens to the public of Rome. It was also during the Roman period that gardens such as the Poticus Livia were laid out for public indulgence. Islamic civilization has contributed much to the development of gardens with the introduction of water canals and the use of geometric forms in garden design.

Gardens are also known as grove, paradise, park, landscape, wilderness and orchard. Undoubtedly the first gardens were not man-made but discovered. A natural spot - a clearing in the forest, a valley opening up in a barren mountainside, an island in a remote lake - is made pleasant by a belt of trees, flowering, fragrant and bearing fruits. The humming of the bees harmonises with the tinkling fall of water as a stream winds across the tranquil scene. A green pasture fills the centre space rich with flowers. These are how views of the early garden were like.





A garden is much more than its trees, plants and flowers. It incorporates other elements of interest such as pathways, ponds, furniture, accents and lighting. The completeness of a garden depends very much on its harmony with nature.



A garden is analogous to a book. Walking through a garden is like reading an engaging story. Each part tells a tale of its own but it is the combination of these parts that create an exotic experience for the guests in a garden. The garden hence plays an important role as a public park.

A garden is one of man's greatest achievements in landscaping. A garden provides for places to rest, shady recesses, picturesque vistas and expansive splashes of colour that create a contemplative setting for self-rejuvenation and enjoyment.

*He who plants a tree, he plants love
Tents of coolness spreading out above
Wayfarers he may not live to see
Gifts that are best.*

Lucy Larcom



Garden Design

The designing of a garden is a somewhat personal and emotional matter. The image of a garden and its interpretations differ from person to person. Natural garden designers usually rely on some inborn senses of what is deemed appropriate to be in a garden. Yet, there are qualities shared by almost all gardens - that of an unconscious elegance unaffected and in harmony with nature.

The design of a garden essentially entails a unique association of horticulture, art and architecture. The

natural grace of the plants themselves with contrasting foliage and habitats along the meandering path by the corner of a wall give movement and unity in a garden. Pattern, colour, texture and rhythm are integral components of a garden design.

The design of gardens also involves the manipulation and division of space. The spatial variations - enclosures,



green meadows, turrets, terraces, fountains, arches, sculptures - create a continuous series of harmonious objects that unfold new and delightful scenes at every step, giving an illusion of a much larger garden to be explored. The division of space determines the way in which the garden works. A garden that feels right and comfortable is one that truly reflects its owner's needs. Design encourages control. It allows you to plan the spaces and components in a way that suits you and also others who come into contact with the garden.



*When I am working on a problem,
I never think about beauty.
I only think of how to solve the problem.
But when I am finished,
if the solution is not beautiful,
I know it is wrong.*

Buckminster Fuller





Garden Styles

There are three basic design styles in a garden, *formal*, *asymmetric* and *free form*. Whatever the style maybe, a garden is basically a space dotted with trees and shrubs. Trees and shrubs are necessary to provide the vertical element that makes a garden a 3-dimensional place, a place to be in rather than a place to be on. Without trees, a garden becomes monotonous and uninviting.



Trees are important as they provide shelter from the wind and shade from the sun. Trees form the basic structure of a garden around which the flowers, fruits and foliage grow and bloom to nourish the birds and butterflies, and other insects. At the same time, the mood of a garden changes as the trees cast intriguing shadows and patterns changing with the movement of the sun throughout the day.

The USM campus is a blend of various garden styles. The reminiscence of an English garden is obvious in the heritage enclave around the Guest House, while the more recent courtyard garden at the School of Art boasts the elements of a Japanese Zen Garden. Nevertheless, USM is dominated by gardens featuring Malay and tropical characteristics, as exemplified by the existence of many *wakaf* and pergolas.

*... though 'copying' nature is impossible,
by observation, its 'motives' can be translated into
garden spaces in esthetic terms.*

Penelope Hobhouse





The Concept

The University in a Garden

The concept of *The University in a Garden* epitomises the basic foundation of life and being - that of the intrinsic relationships between Man, his Creator and Nature.

Throughout human history, man and nature have existed symbiotically. Evidence of man's respect for the natural world is embedded in the various cultural myths and traditions. In this complex interconnected web-of-life, all God's creatures, human and nonhuman, are deeply bound together in reverence of each other. Enlightened by Divine Revelations, humans shall not cease from exploring and understanding the place that they live in.

The concept of *The University in a Garden* embodies the essence of human nature which is forever in search of their self-identity and their mission in this world. The University symbolises the roots of wisdom and the everflowing sources of knowledge. Questions of what we know and how we know through time, space and light always remain as a central argument. The freedom to know and the capability to follow knowledge wherever it might lead is an honour to the privileged thinkers and observers amongst us.

The Garden on the other hand represents the art of nature or genuine art whose beauty and charm defy mere words. The sense of knowledge associated with the experience of genuine art - smiling babies, rainbows, sunsets, blooming flowers in a garden - often reveals the world in wholly new and meaningful ways, if only we stop to look and see and appreciate. The Garden as a work of art can



be the vehicle for critical thinking as it uses a language of its own that codifies inner experience.

The concept of *The University in a Garden* adopted by USM delineates the interlinkages between the roles and functions of the institution of higher education within a garden environment. The elements of the garden - fauna, flora, water bodies and other man-made fixtures - provide a dynamic and nurturing setting for the inhabitants.



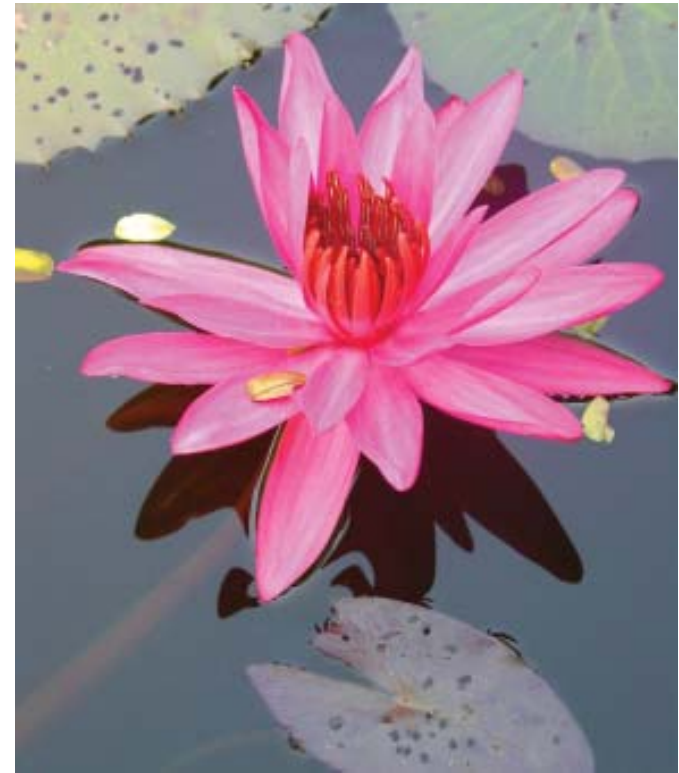
Gardens are more than just amenities. They are ultimately about improving the quality of life. Each section of the garden is designed to incorporate signatures, or themes to complement the appearance of the whole campus.



The concept promotes the preservation of green areas as integral to the development of the intellect. We need to inculcate the spirit and practices of nature conservation among the campus community so that the love and appreciation of nature and ecology is deeply embedded in our minds and hearts. Awareness of the importance of maintaining the green should be promoted. Any destruction of the surrounding environment must be prevented. The campus designers must keep an eye on the balance between physical and spiritual development to ensure a continuous search of knowledge and wisdom.

To realise this vision, several major elements need to be considered, as they play pertinent roles in accentuating the campus and its surroundings. These elements are the hard to soft surface ratio, the exotic flora and fauna, water bodies, vista and views, design and architecture, the people within, and practices and activities. An insightful combination of design and organisation of these elements would in time reflect the true colours of academic and research excellence in this thriving tropical garden campus.

The benefits of a beautiful garden extends beyond the seasonal shrubs and colourful flowerbeds to help people feel more connected to nature and the world around them. The best of Nature nestled within the USM garden celebrates healing, wholesomeness and the richness of the human spirit. USM is a living model of a university in a garden that others can learn and emulate. The harmonic atmosphere of a campus in a garden provides an ideal place for intellectual discourse in search of the roots of wisdom - who we are, how we know, and how we should live.



*Ponder a while in a moment's silence,
The soul is empty, without spirit,
In life, it is felt as if enslaved,
Only the voice rises high.*

Usman Awang

Garden of Nature



*Nature is often hidden, sometimes overcome,
seldom extinguished.*

Francis Bacon



What is a garden of nature? There are natural gardens but a garden of nature is much more than just a garden. It is an accumulation of all things natural that makes a place look and feel like a garden. It is the combination of trees, flowers, birds and insects, terrain, water and natural growth in a harmonious and symphonised manner, not dictated by the will of man. Each element plays its role in the creation of a garden of nature. Trees and flowers provide the form, texture and colours to a garden. Water, birds and insects contribute to the motion and sounds and all have a close relationship with plants. Terrain influences the views, vistas and mood of the garden. The garden of nature is not structured yet controlled, not wild yet grows without restraint. It is where nature interacts with man and its surroundings without formalising the space between nature and man as found in the formal and informal garden setting.



Nature's most industrious worker



Magnificent Trees

Trees play an important role in the garden of nature. They provide great visual value and amenity. Trees literally bring nature into the built environment, improving the quality of air and providing shade from the sun. There are many mature trees in the USM campus planted for their widespread crown. They line the roadsides to create dramatic “green tunnel” effects.

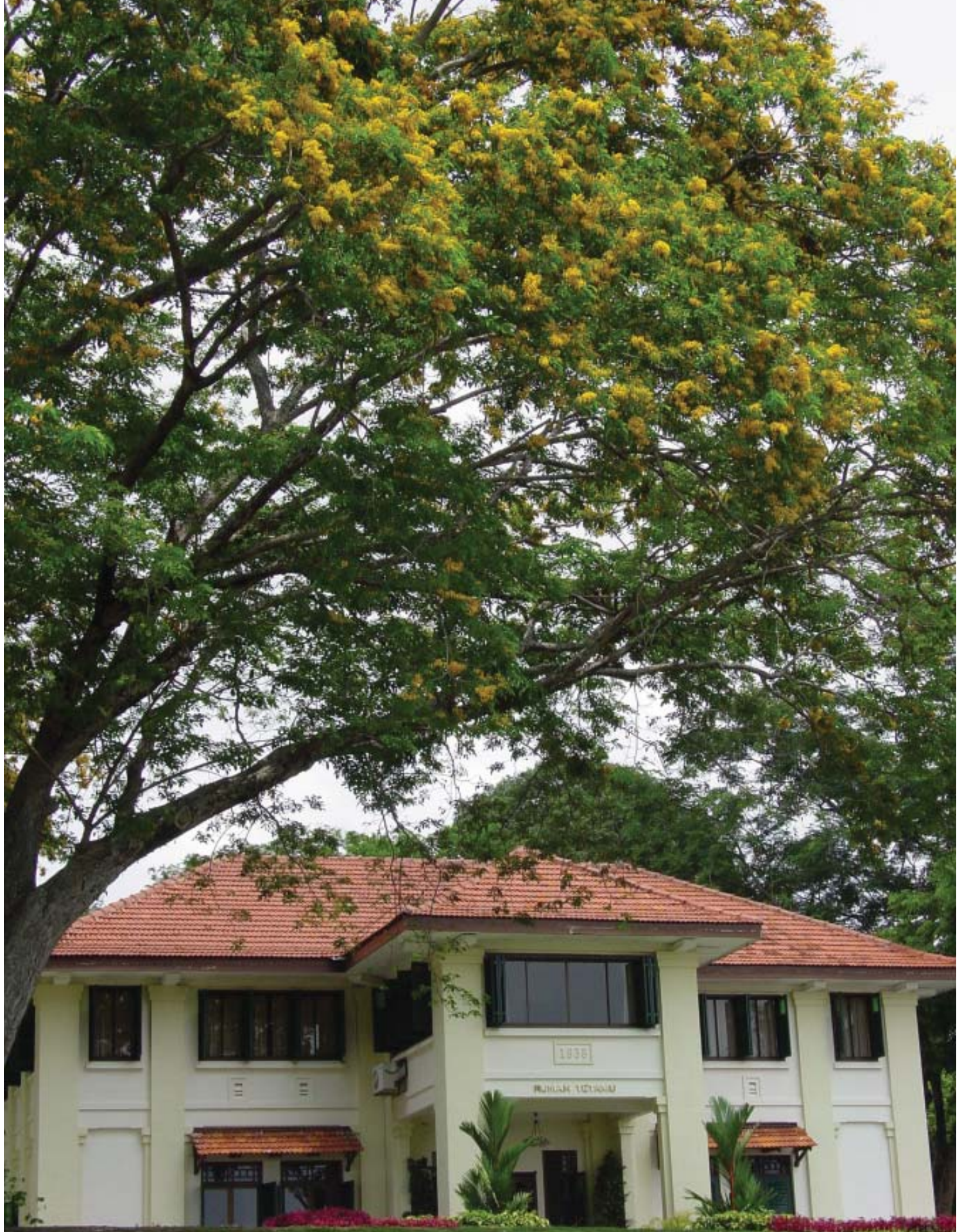
The green architecture formed by trees is a feast for the eyes and a soothing balm for the soul of the tired scholar. Many would agree that the delight of strolling in a garden is almost like coming into sunshine. The fresh air of the garden imbued with scents of fragrant flowers bestows health and spirit, which subsequently inspires one’s mind in learning, teaching and in the creation of knowledge.





The garden of nature boasts of numerous species of magnificent trees, some common, some stunning, others exotic and rare. The Angsana tree, Rain tree, Flame of the Forest tree and the unique Cannonball tree are some of the magnificent trees found in the campus.





The Angsana (*Pterocarpus indicus*) is a large tree with a dense, widespreading and drooping dome-shaped crown. Its floral buds develop inconspicuously until the right stimulus triggers a profuse bloom, covering the entire crown in yellow overnight. In a matter of days the entire bloom will rain down laying a yellow carpet on the ground.







The Rain tree (*Samanea saman*) was introduced in this region around 1876. The Malay name for this tree is Pukul Lima (Five o'clock) aptly describing the closing of its leaves at dusk. The leaves also close when it rains. The Rain tree is planted for its massive umbrella-shaped and widespreading crown providing much-needed shade from the hot tropical sun.

Its flowers are small but bear proud spiky pink and whitish stamens protruding in clustered heads and emit a light perfume. The mature Rain tree is also a generous host to beautiful epiphytes such as Pigeon orchids, Stag's Horn ferns and Bird's Nest ferns.



The Cannonball (*Couroupita guinensis*) tree received its name from its round brown fruits, the size of a cannonball, hanging in clusters around the tree trunks, like stringed balls. Its large beautiful flowers of apricot pink, snowy white and yellow emit a refreshing fruity fragrance. The fruits, though edible are usually untouched due to its rather offensive smell. Interestingly, both flower and fruit grow directly on the bark of the trunk instead of on the branches.

There is only one Cannonball tree in USM, located in front of the old Chancellory building. The other location in Penang where they can be found is the Botanical Gardens.





A tropical garden is never complete without the swaying of coconut trees and this garden is no exception. The coconut grove, located on the eastern side of the campus reflects the identity of a tropical resort. The coconut trees evoke a carefree ambience to the garden for the enjoyment of the campus populace.

The scenery in USM is also punctuated with clusters of pine trees that are scattered throughout the campus especially on the hilly grounds. Although pine trees do not provide adequate shade from the sun, they present an interesting contrast in the view and mood of the campus, from that of tropical trees to 'highland' vegetation.





A Burst of Colours



The responsibility for providing colours and aroma in a garden naturally falls on the flowers. From time to time, the flowers in the campus provide absolutely spectacular and breathtaking array of colours and textures. Flame of the Forest, Frangipani, Golden Shower and Tecoma are exotic names for exotic flowers found in the campus. The campus is blessed with many flowering trees that will burst forth in colours every year especially during the months of February and May. The smell and sight of blooming trees transcend words . One could not turn without encountering a brilliant display of flowers and foliage making sharp contrasts of colour and shape.





True to its namesake, the flaming red flowers of the Flame of the Forest tree (*Delonix regia*) never fails to awe anyone who sets eyes on them. The Flame of the Forest, also known as Red Flame, originated from the island of Madagascar and was introduced to the tropics through the island of Mauritius. It has broad spreading umbrella-shaped crown of fine feathery foliage.







Tecoma trees (*Tabebuia pentaphylla*, *Tabebuia pallida*), also known as pink trumpet trees, provide fragile trumpetlike flowers that float down with the caress of a breeze to carpet the grounds in pink or white. When in season, the trees flower luxuriantly but last only for a few days.





Frangipani (*Plumeria alba*) also known as Lei flower grows into lovely trees in the campus, blooming profusely in pink, red, orange and white at the beginning of every year. The flowers' sweet fragrance provides an experience for the olfactory senses in the garden of nature.





My garden of flowers is also my garden of thoughts and dreams. The thoughts grow as freely as the flowers, and the dreams are as beautiful.

Abram L. Urban

The Golden Shower (*Cassia fistula*) flowers abundantly and the yellow flowers hang in massive groups conjuring up pictures of a golden shower. It is the best variety of the very large genus with about 500 species, some being fine flowering trees. The *Cassia fistula* is well spread out over the campus with a higher concentration on the high grounds.

At every nook and corner of the campus, one can find the spectacular beauty of nature in its wondrous glory. *Heliconia psittacorum* for instance, provides a striking red colour. This is in contrast to the soft, fragile and gentle appearance of wild flowers. The lowly grass flowers and wild flowers should not be chastised as weed as they are the ones to provide the colours and beauty to the garden upon the cessation of the flowering season for the trees. The minute beautiful flowers play an important role in the garden in providing a contrast between the powerful and the meek, the seasonal and the perennial.









*We journeyed in a land of
flowers and ideal tropical
vegetation, under smiling
skies, along roads shaded
by clustering palm trees
and made gay with miles
upon miles of small arches
of ribbon-like fringes of
tender leaves.*

Henry Steel Olcott



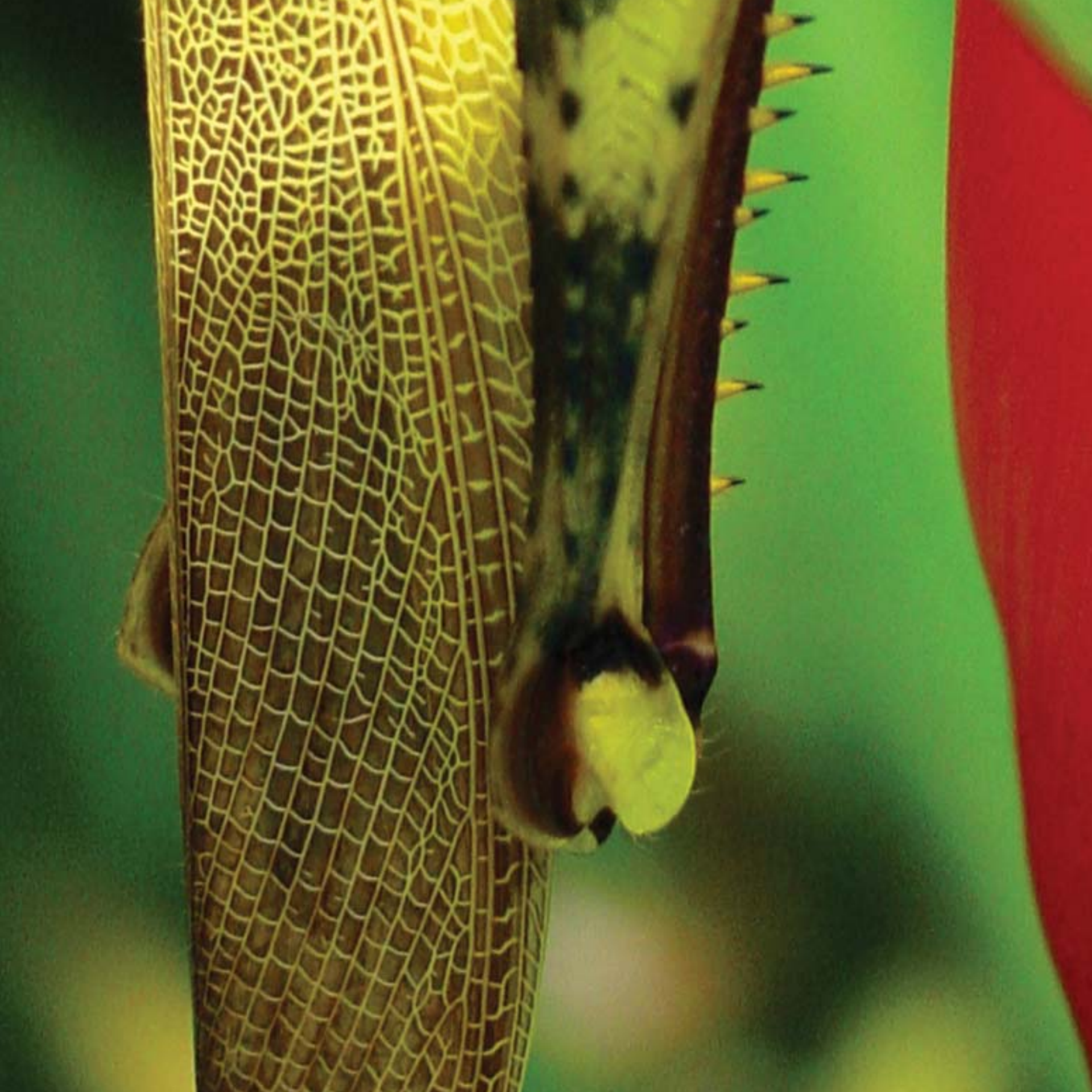
Workers of our Garden

*A garden without birds and insects is like
a world without people.*

Birds, insects and flowers are intricately intertwined in the garden life cycle. Flowers attract the insects, nourish them and induce them to control the pest population and the insects will reward the flowers by pollination. Insects such as bees pollinate flowers that birds and small mammals rely on for food. It is this unspoken teamwork in nature that the campus community would be wise to learn from.



The bees are nature's most industrious workers. If the colony is short on food, the male bees, the drone, will have to leave the hive since their sole purpose is just to mate with the queen.







Lakes

Two large lakes provide the water element in the garden of nature. Harapan Lake is 0.8 hectare in size while Aman Lake is smaller at 0.58 hectare. The lakes showcase harmony, beauty and tranquillity created by both man and nature. Built around the two lakes, the sprawling lake garden is a pleasant oasis within the campus, providing a cool and soothing ambience. The buffer zone of 20 m from the lake edge ensures that no built form will encroach into the serenity of the water feature. The lake is a unique habitat of animals and insects further enriching the biodiversity of the campus environment.







Hills and Fields

The hilly terrain on both the eastern and western borders of the campus taper to flat ground in the middle section. The landscape of rolling green hills is the pride of the USM garden as they form a majestic view at the entrance to the campus.

While the highlands kept watch for intruders, the deep valleys formed a natural habitat which serves as a living laboratory for scientists and nature-lovers alike. These are the thriving wetlands in the garden which dragonflies chose as their home. Dragonflies serve as excellent water quality watchdogs as they depend on pristine wetland or stream areas, with good water quality, for growth and sustenance. They are also proven pest controllers.

Two magnificent green fields on either side of USM main entrance never fail to awe visitors and passersby alike. These fields have played host to numerous national and international sporting events such as the annual International Penang Bridge Run. Apart from sporting events, it is also the place where the USM Family Day (*Hari Warga Kampus*) is celebrated every year.





Sanctuary for Nature



*Is not the forest a garden of nature,
not tampered by man but growing
as nature dictates?*



Nature is not restricted in a manicured garden but is free to grow and proliferate. The Durian Valley, located on the eastern side of campus is an excellent example of an area where the trees and undergrowth are left to grow, forming a jungle, which provides a natural laboratory for research and is home to numerous species of birds including eagles. It is a wonderful display of how nature has unobtrusively reclaimed the land previously cleared for development.





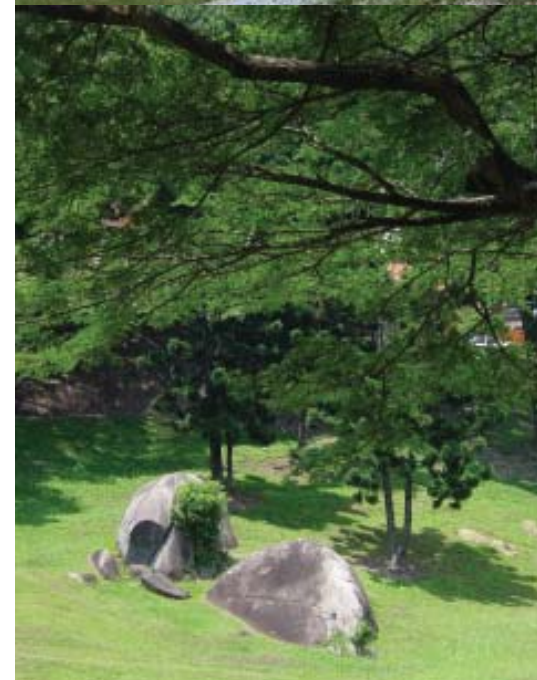




Designing With Nature

God has created the garden of nature with such diverse and ornate detailing. A person should look out into the garden and watch astoundingly at the elements of shapes, sizes, colours and textures of nature on the flora and fauna. There exist a perfect composition in nature of balance, contrast, unity, rhythm, proportion, repetition, symmetry, asymmetry and so on. In a garden, the ideal combination of these design principles is synchronised together in a symphony that touches the heart and soul. The hardness of rocks, the softness of leaves and flowers, the grains of the sand, the curves of the tree trunks and branches, and other elements create music for the eyes. There are the intangible delights of the smell, the touch and the feel of wind on one's face that evoke further sensuous pleasures. Every memorable encounter with nature is multisensory with all senses interacting with each other simultaneously.

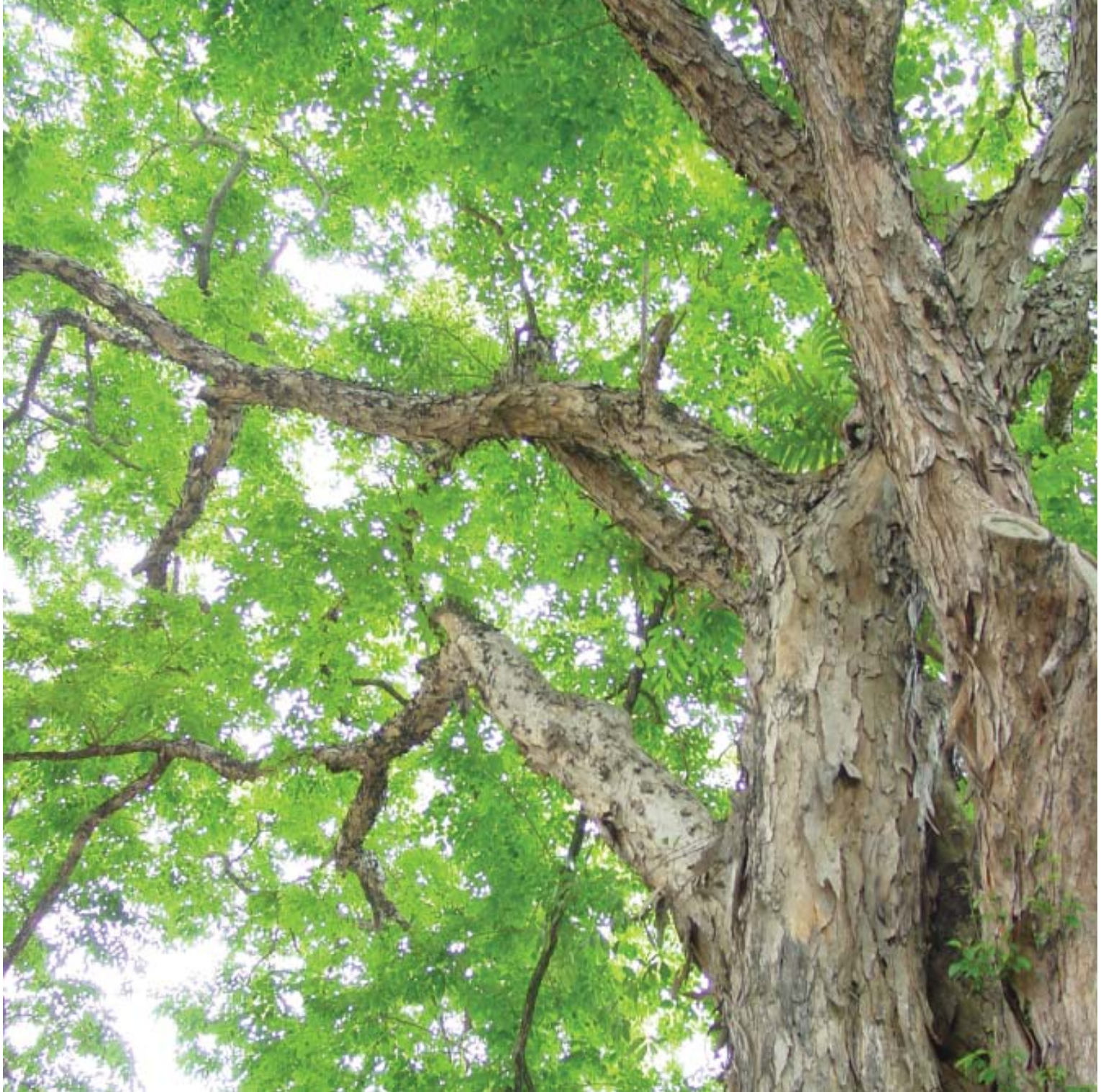
The design of the built environment and architecture must achieve the same results. The impact of man-made forms and spaces must evoke the same emotional and sensory experience. In order to create such elusive quality man must learn from nature and design in harmony with them. The natural



and the man-made must coexist as one entity. God created all creatures and other living things for the benefit of mankind and together they form an ecological balance. In the quest to create an ideal environment for himself, man must never forget that balance for he could destroy it to his own detriment.

An ideal environment should portray the interweaving interaction between the site, the human and the building. There should be fluid connections between the outdoors and the indoors, and the external and the internal spaces. A building should have the greatest respect for the big tree adjacent to it for it would provide a strong connection and inspire profound responses by the person in a room overlooking the tree. The tree would cast a shadow on his window creating different moods throughout the day. The rustle of the leaves on the tree on a windy day and the blooms of its flowers would infuse positive stimuli that will heighten the person's senses and inspire him.

It is crucial that the essence of the garden ambience is not unwittingly destroyed in the haste to develop more areas within the campus in the future. We need to show our deep respect and sensitivity towards the principles taught by nature for its existence is vital in the nurturing of our mind and soul. Every inch of concrete, brick and steel we build should be in empathy with the surrounding context. To disregard nature will be man's greatest folly for not only would he be destroying nature but he would be destroying his very own existence.



*To know harmony means to be in accord with the eternal.
To be in accord with the eternal means to be enlightened.*

Lao Tzu

Garden of Heritage



Architecture needs a memory of places.

Charles Moore



The Garden of Heritage aims to capture the interweaving connections between the elements of the natural and the built environment in USM. At the same time the focus is also on the timeless architectural heritage that enriches the campus and touches the hearts of those fortunate enough to be part of its enchanting surroundings.

The distinctive characteristic of the USM campus is heightened by the natural context of its hills, terrains and valleys, which are juxtaposed harmoniously with man-made features such as buildings. These man-made features do not pose a tension with nature nor hide its beauty but compliment it in an ambiguous manner which enhances the charming quality of the campus. Nature and the man-made features are seen as one entity within a vast tropical garden giving a contrasting feeling of tranquillity and exuberance, static and movement, simplicity and grandeur, organic and austerity, and solidity and transparency.

The first impression of the campus from Penang Bridge is breathtaking, that of a natural landscape with little intervention from man-made features which emerge only as sculptures or monuments that fit comfortably into the green landscape. The Chancellory building at the topmost part of the lush terrain appears like natural rock jutting out of a hill. This eastern corner of the



campus highlights the delicate balance between the natural and the built form. If more buildings were erected or even more trees planted within this area it would disturb that balance.

The uniqueness of the campus in comparison to other institutions of higher learning in Malaysia is also the sense of place that is created by the different languages spoken by the man-made structures built during different era and how they intersperse perfectly with the natural setting. The history of the campus growth and development has given USM a strong character like the face of an old man with many wrinkles telling so many tales.

The fascinating lure of the campus is also brought alive by the various changes of scenes and different moods created throughout the whole locale. It is the contrasting elements of urbanity around the Sungai Dua gate and the tranquillity and serenity of lush green fields facing Minden gate with a panoramic view overlooking the sea. On the western side there is the contrast of the open green field of the Stadium and hard open surface of the *Padang Kawad* (parade grounds) against the dramatic backdrop of the hillslopes of Bukit Jambul.







The varied environment is full of little surprises and the manifold delights of the garden are exhilarating to experience. There is the contrast of the lake in the *Desasiswa Harapan* (Harapan Halls of Residence) area greeting visitors with a sense of surprise and relief as a person does not expect to find such an oasis amidst the dense blocks of building in the vicinity of the Islamic Centre and Eureka building. Another element of surprise is the lush forest of the Durian Valley area located in the midst of the built up area of the *Desasiswa Gemilang* and the School of Social Sciences. The constant interplay of scenes creating different sets of moods is further enhanced by the intriguing elements of shadow and light.



The spaces we feel, the shapes we see, and the ways we move in buildings should assist the human memory in reconstructing connections through space and time.

Charles Moore



The History

The USM main campus was a former British Military Camp built in the 1930s. The British named it the Minden Barracks after *The Battle of Minden* of 1759 where the Allied Forces drove the French from the battlefield during *The Seven Years War*. *Minden, Penang* henceforth became a unique postal address for the USM campus.

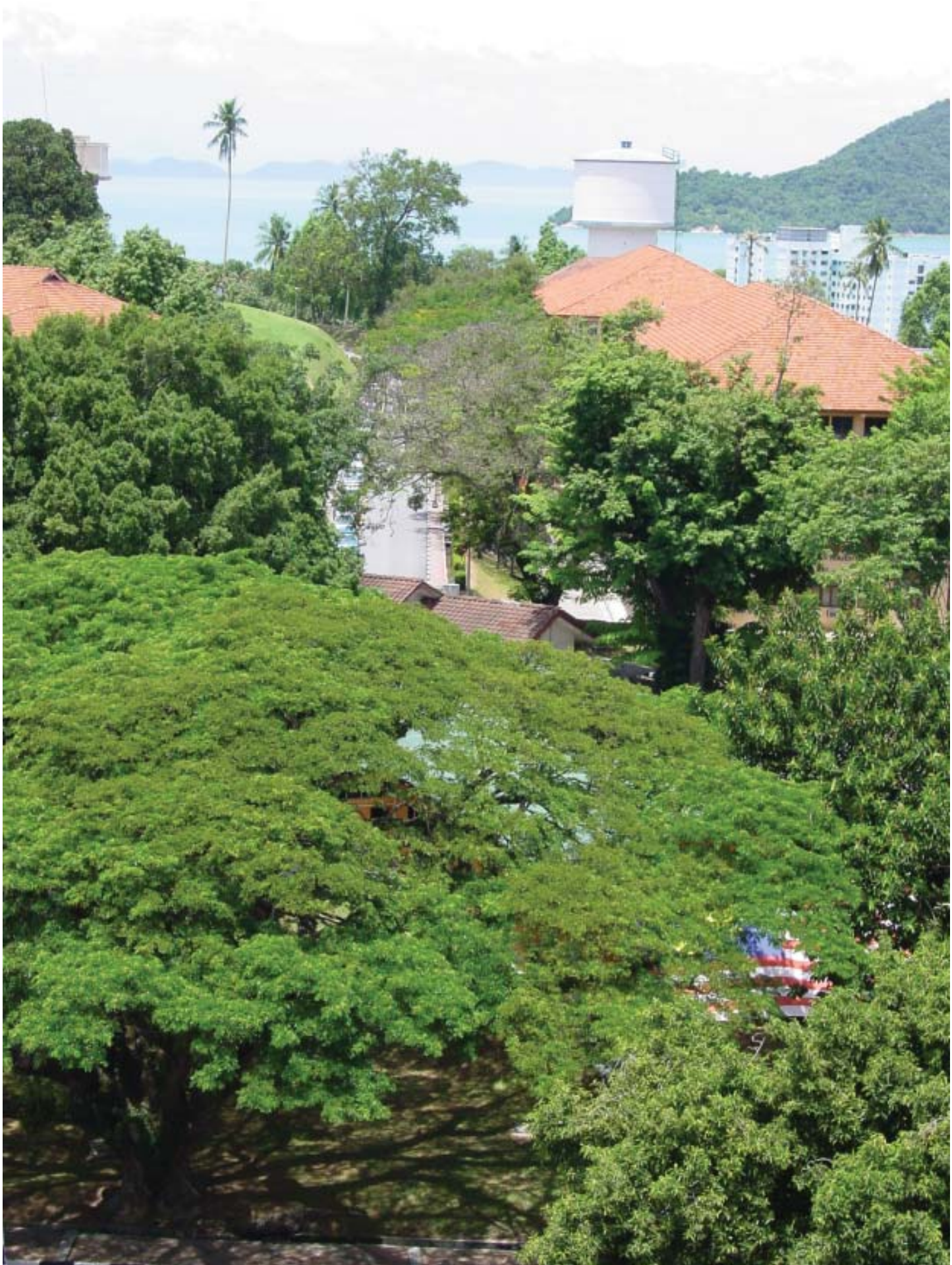
Its strategic location on top of the hill provides an unobstructed view of any invading enemies and intruders making it an ideal army post. The planning of the army camp was based on a hierarchy related to their defence strategies. The most dominant and important buildings were the administration buildings located in the middle of the hills. Some examples are the present Museum building and the Language Centre. The residences for high ranking officers were arranged along the high slopes overlooking a panoramic view of the island. These small mansions have been preserved as the official residences of the Chancellor and Vice Chancellor of USM while a few have been readapted as the Guest House complex. Residences for lower ranking personnel were terraced houses located in the vicinity of *Desasiswa Cahaya* but several units were demolished after a fire to make way for the International Hostel. The British army



camp has left us with a trail of other heritage buildings, which have since been readapted for their present uses in the campus. This legacy has enriched the architectural vocabulary of the whole campus giving it an aura of histrionics and character.

Apart from the majestic architecture, the British left another legacy, which is the English garden. Wherever they conquered, the British would leave this legacy of settlements with white buildings, magnificent trees and palms on sweeping lawns to conjure nostalgic memories of their homeland. The free form of the rural landscape was traded for avenues and rows of trees, carriageways and gravel driveways, green lawns for a game of cricket and front gardens with terraces on which to sip their afternoon tea. It is indeed a stark contrast to the typical natural landscape of the Malay kampung. The eastern garden of USM is an echo of the English landscape which is widespread all over Malaysia including Penang Island. The concept of the original garden has been maintained on the campus. The ambience created by the combination of the natural and built elements in the garden coupled with the canopy of the matured trees has left USM with a priceless treasure.







The Heritage

The heritage enclave is the focal point of the garden setting. Its ideal location up on the hills demonstrates a perfect synthesis between the man-made features and nature as one entity. This enclave comprises colonial pre-war buildings of the Neoclassical and Palladian influence. The architectural vocabulary is in contrast with vernacular Malay architecture but in its unique way has captured the essence of tropical living and is sensitive to nature as are their vernacular counterparts. Most of these colonial buildings have typical features such as louvred windows, shaped gables, shading devices, recessed walls, high ceilings, porticos, verandahs and air-wells which were designed in response to the local tropical climatic conditions.



The British had perfected the adaptation of these features learning from their earlier experiences in the East Indies. As the colonial buildings in USM were meant for the army, they portray a utilitarian image. The

ornaments and detailing are less elaborate in comparison to other public colonial buildings in Penang built earlier; for example, the Municipal Council Building built in 1879 and the State Religious Department in 1884. The simple yet elegant facade in USM devoid of excessive decorative elements is perceived as more functional and appropriate in context to the site.



Similar to its vernacular counterparts but in contrast to buildings of the modern movement of Corbusier's and Mies' influence, these colonial buildings are sensitive to the human need for variation and distinction. The modern buildings with their typical columns, blank facades and glass walls hide the true human nature, which thrives on distinctive qualities. The modern buildings are based on uniformity and standardisation whereas human beings and nature are unique and varied in characteristics. The glass cubes of the modern era show total disregard and insensitivity to nature. It has paved the way for the creation of mediocrities as illustrated in today's concrete jungle.

The opposition between the culture of the light and the culture of the heavy will manifest itself in different





cultures. In vernacular architecture the emphasis is on lightness, whereby buildings are raised on stilts with the use of light indigenous materials, which aptly portrays a friendly culture besides being suited to the climatic conditions. The colonial buildings in contrast, accentuate the image of stability and power with the intense use of masonry. The masonry base gives it *gravitas* of heaviness and age, while the use of the clay tile roof provides contrasting lightness and elegance. The facades express architectural proportion and language in a celebratory manner. Diverse ornaments in nature are echoed through the intricate detailing of the arches, ornamental columns, capitals, friezes and cornices.

As the Garden of Heritage unfolds, one cannot help but discover the poetics of the place, the delightful synthesis of simple materiality and humble structures synchronised with the lush beauty of nature that evokes an innate sense of joy, which one will see and hear with one's heart.





The Museum

During the British occupation this building was the army officers' mess. The small rooms upstairs were once used as hospital wards. When USM occupied the building in 1969 it became the University's first library before being converted into its present use as a museum in 1982. This formal and majestic building reflects a neoclassical style with Doric columns. Its facade replicates a typical Doric order of fluted shaft and rhythmic grooved triglyphs of the frieze with simple but elegant details of architraves and cornices.



Halls of Residence



Desasiswa *Cahaya* (*Cahaya* Halls of Residence), a 1938 heritage building, shows a simple expression of verticality from the rows of columns which portray elegance whilst the recessed walls with glazing create shadows that would induce a transparent quality to the facade. The softness of the cascading branches from the surrounding trees subdues and compliments the rigidity of the man-made structures.



The 1970s addition is an example of the modern movement's influence and glass cubes of Mies Van Der Rohe, where a question of sensitivity may be posed. Although there is an attempt to harmonise with the older blocks by repeating the line of columns, the omission of the roof profile has produced an unsatisfactory effect. It lacks the elegance and grace of the former blocks. The use of flat roofs also causes water stains on the white paint, which is not evident on the walls of the old blocks.









Guest House

The Guest House comprising several restored colonial buildings are elegant structures used as residences by high ranking military officers. They are sited on high slopes with superb views overlooking the sea. The use of large columns with base and heavy masonry walls reflects the image of power and strength. The use of timber louvred French windows allows airflow into the interior and provides contrast to the white plastered walls adding lightness to the entire facade. The hipped roof with clay tiles contrasts well with the whole envelope.

The Language Centre

Corridors are very important elements of tropical buildings. They diffuse sunlight to the main interior and act as transition spaces for interaction between humans with each other and with nature. Shadows cast from the branches of the tree also add richness to the paved floor textures.





Beyond Heritage

Inside the USM Garden of Heritage, one can partake in the planting and the buildings of various periods, uncover the history of the site and examine the qualities that have rendered the place its distinctive character.

The authentic flavour of the Garden of Heritage can be preserved only through careful restoration rather than by adding superficial ornaments. The charming Garden of Heritage in USM needs no gift-wrapping - it was originally conceived to compliment the natural landscape, with the designs and materials suitable for their purposes. To preserve the fine work, we must consider the wisdom and experience in the principles of design so as not to detract from the dignity.

We as artists and architects in the garden must possess the knowledge to be close to the soul and to the reality. A garden is after all a place of uncontrived beauty where quiet pleasures are satisfied, and the physical and spiritual well-being are bestowed for the quest of knowledge.



Garden of Knowledge



Knowledge comes, but wisdom lingers.

Alfred Lord Tennyson



The Garden of Knowledge embraces the nature of human beings as “thinkers” and “knowers”, a well-known concept in reference to the cerebral cortex, the locus of associative reasoning. The Garden of Knowledge cultivates a broad-based education comprising organised and sustained communication designed to bring about learning. This in turn nurtures the development of an individual’s mental capabilities, knowledge, skills, attitudes, behaviours and overall personality contributing positive values to society. The University as a symbol of intellectual independence in the pursuit of knowledge and wisdom is well-positioned to nourish and encourage the preservation of diverse cultures and values which will enhance national identity and develop new sources of wealth.

The University established within the Garden of Knowledge echoes the traditions of learning involving a process of understanding theories, problem-solving, judgment and critical reflections. In today’s knowledge society the hydraulics of the mind, the intellectual capital, is the driving force transforming the world.

As in any educational institution, the academic core is the heart of the whole university campus. The academic areas in USM sprawl over into the Minden green, separated by different academic disciplines. The inherent linkages between the natural asset and human architecture not only enhance the teaching and learning experience inside the campus but also increase the value of experiential learning and stimulation for continuous learning throughout one’s life.

*Teachers and teachings are everywhere,
if we keep our minds and hearts open.*

Anon.



The Great Hall

The Great Hall (officially known as Dewan Tuanku Syed Putra or DTSP) together with the Main Library I building and the adjoining lecture halls and tutorial rooms constitute an area called Balai Ilmu (Knowledge Hub). This is the nucleus of student academic activities and is strategically located in the heart of the campus. The pathways and corridors not only move human traffic but are places for chance encounters and informal meetings. They are also hotspots for scholars to engage in academic discourse.

DTSP which is named after the first Chancellor is influenced by the Modern Movement, with a touch of tropical architecture. The hall is purpose-built to hold big events such as the annual graduation ceremony and student functions. The green areas in front of the Main Library I, the square at the side to the Hall as well as the open spaces behind these buildings soften the hard concrete surfaces and enhance the beauty of the surroundings.









PERPUSTAKAAN UTAMA II

Main Library II

*No place affords a more striking conviction
of the vanity of human hopes than
a public library.*

Samuel Johnson

The Main Library II was built as an addition to the Main Library I to fulfil increasing demands by knowledge seekers. This building portrays Neoclassical architecture with the use of white facades. Scholars in the library are often deep in thought in their quest to be inspired and enlightened.

Benches set among the evergreen trees are well-placed along the pathway leading to the entrance. Scholars are often seen on the benches or on the grass having a reprieve after a hard day's toil in the library or just having a quiet moment, absorbing the tranquility of the garden before their eyes.





Academic



The Garden of Knowledge plays hosts to various academic programmes organised into respective Schools. The buildings are designed according to different architectural styles. The School of Physics reflects the typical modern architecture of the 1970s while the School of Housing, Building and Planning was designed with vernacular and traditional influences. Each building is unique yet complimentary to the surrounding contributing to an invigorating visual experience and mental stimulation.

*The loftier the building, the deeper must
the foundation be laid.*

Thomas Kempis



You see, Watson, but you do not observe.

Sherlock Holmes





Art & Culture

The surrounding buildings in this area have created a precinct for art and culture, elements crucial to the wholesome development of the campus community. It is dedicated to the exhibition of a variety of elements that reflect local and international arts and culture.

The School of Art is a 1970s building with the design style of the International School influenced by Le Corbusier's geometrical blocks. The building was readapted from its original function as the Student Centre which has since been relocated to the Cultural Centre opposite this building.





Cultural Centre

Styled by the students as *La Place*, it comprises a pedestrianised mall and a square outside the Cultural Centre. It is a favourite meeting point for scholars and an uncultivated place for people to gather. A tropical garden style arcade canopied by the trees allows one to walk through the Cultural Centre to the School of Education enjoying the cool shades of magnificent trees and buildings. It is also a place where thousands of graduates, friends and families congregate each year during the convocation ceremonies which are held at the nearby Great Hall. The Cultural Centre itself was built in Malay tropical architectural style and is the venue for numerous cultural and academic functions.



*If art is to nourish the roots of our culture,
society must set the artist free to follow his vision
wherever it takes him.*

John Fitzgerald Kennedy



The Oval

The Oval is an open field with huge trees standing majestically along the walkways leading to the Knowledge Hub. The trees provide sought-after shade for pedestrians walking across this open grounds. The magnificent seasonal displays of flowers and foliage add to the calming influence on the walkers. The shed foliage and petals from the blossoming Tecoma trees form pink and white carpeted grounds, adding to the beauty of the site. Come August, the peaceful and tranquil garden is awoken by the annual graduation festivities.

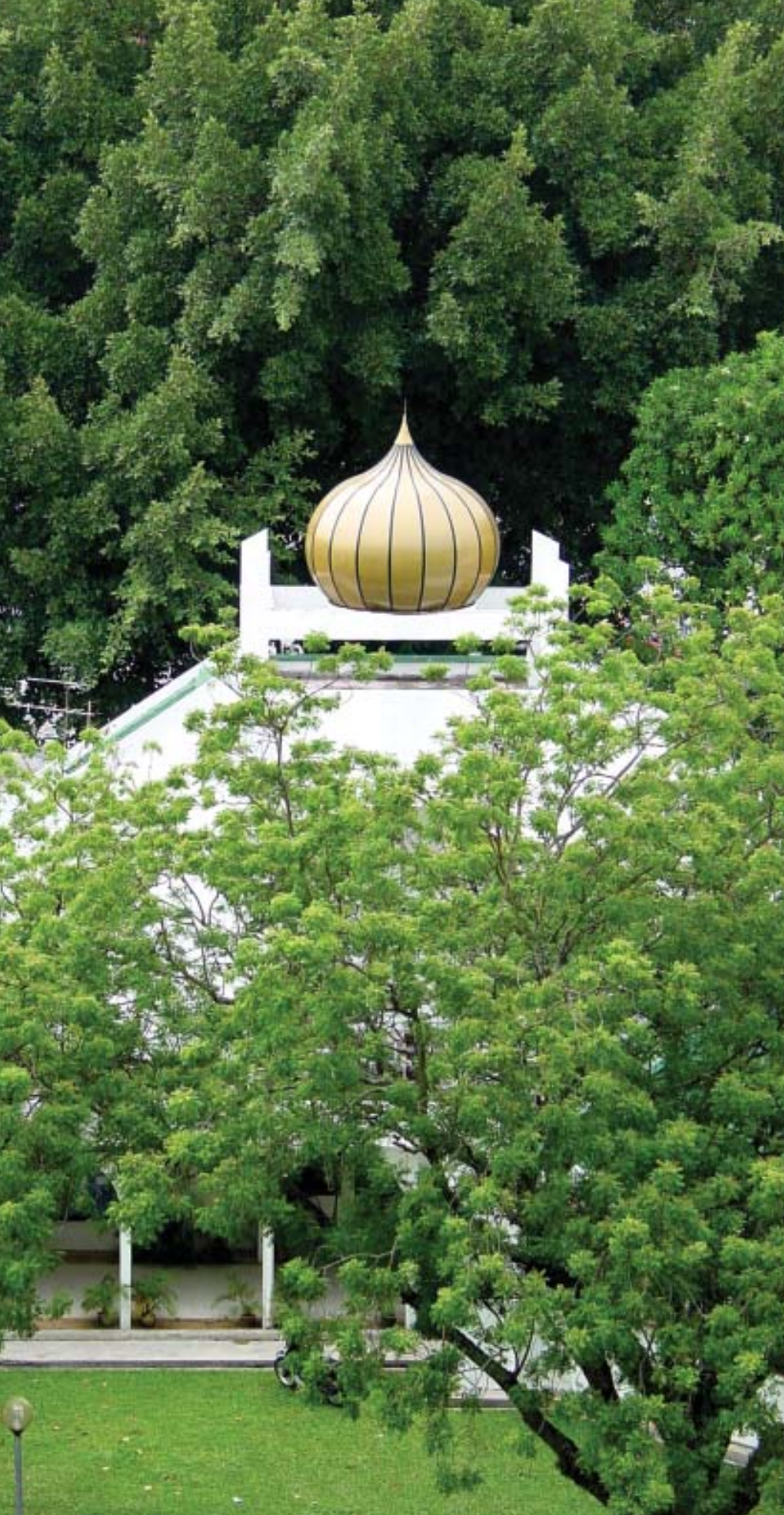
When one walks through The Oval enroute to the lecture halls and tutorial rooms, a sense of serenity and tranquility envelopes and consumes our being. Passing through the sprawling garden everyday before attending lectures would inspire one to start the working day with zest and purpose.

Calm, activity – each has its uses.

Soan







Faith

The Al-Malik Khalid Mosque

Named after the benefactor of the mosque, the religious building sits peacefully in a pleasant landscape. The magnificent view of Harapan Lake adds to the tranquility of the mosque. Its setting in a natural environment is always a pleasure to the eyes. The architecture of this holy building is reminiscent of the Tengkerah Mosque in Melaka.

The mosque has become a focal point for Muslims from all walks of life. The faithful living in the vicinity of the university irrespective of their positions congregate five times a day in the building to answer the calls to prayer for those who can



hear it with their ears and in their heart.

The *wakaf* or pavilion situated next to the administrative building of the mosque provides shade as well as a meeting place. Scholars of all races and beliefs congregate here as they rest their tired feet or wait for friends.

*We have sent cascading down
out of the rain-clouds water,
So that we can bring forth grain
and plants and luxuriant garden.*

*Al-Quran
An-Naba '78 : 14 - 16
The Tidings, The Announcement*



Abstract Expressionism

Entitled *Transformation*, the sculpture was designed by Peter Gelencser, a former lecturer in fine art of the School of Humanities. Situated in the centre of the roundabout at the top of the hill on the approach from the Minden gate, the marble sculpture was the first of its kind in Malaysia. The idea for this sculpture was conceived in October 1973. Work on the marble started in July 1974 and was completed 15 months later at a cost of RM45,000 (1975 price).

The design was largely motivated by the intoxicating experiences the lecturer had with his students in the studios and lecture theatres. The sculpture captures and immortalises the dynamic changes which take place within a student while studying in an institution of higher learning as well as the changes in the institution itself. It expresses how incomplete masses go through a transformation and react when they undergo higher education. These changes never end. Neither does the growth of the institution itself.

Our body and mind are not two and not one.

Shunryu Suzuki





Garden and the People



*God Almighty first planted a Garden.
And indeed, it is the purest of human pleasures.*

Francis Bacon



Gardens and flowers have a way of bringing people together, drawing them from their homes.

Clare Ansberry

A garden is analogous to a book telling an endless story. Each section of the garden presents its individual uniqueness in harmony with the diversity of the whole. People are integral to the garden. A garden is a place that bears witness to the relationship between man and his Creator, man with each other and man with other creations, where man is the main actor and a mediator in this strong yet delicate connection.

A garden without people is incomplete. It will be like a picture on a wall - beautiful but lifeless. It takes human interaction to inaugurate its form. The human eyes feast on it while the soul dwells and embraces its beauty. It is the human emotional response and sensory experience that brings the garden to life.

A garden must truly reflect the people's lifestyles and their surroundings. A garden accommodates changes in the daily cycles in fulfilling different functions at different times, from







the invigorating freshness of the early morning, to the rigorous physical activities and sports in the evening, and the serenity of the night.

While every garden is unique, the gardens in the USM campus are particularly special. They directly benefit the human spirit and conscience. The warmth of sunshine, the smell of fresh-cut grass, the bright colours of flowers in bloom - these pleasures entice and excite almost everyone. In addition to providing a place for outdoor exercise, gardens indulge the senses and stimulate the mind. Thoughtful design and planning of the natural and man-made elements at USM have created a distinctive campus in a garden, boasting of stories about the people who live, work and play here whilst enjoying and appreciating the beauty within.



The Dramatis Personae in The Garden

With a populace of about 22,000 comprising different races and backgrounds, the people of USM is a dominant element of *The University in a Garden*. The campus population is made up of numerous categories of people, from the enduring scholars, the professionals, the educationists, researchers, support staff, students and workers to those conducting businesses in the campus. Smiles and



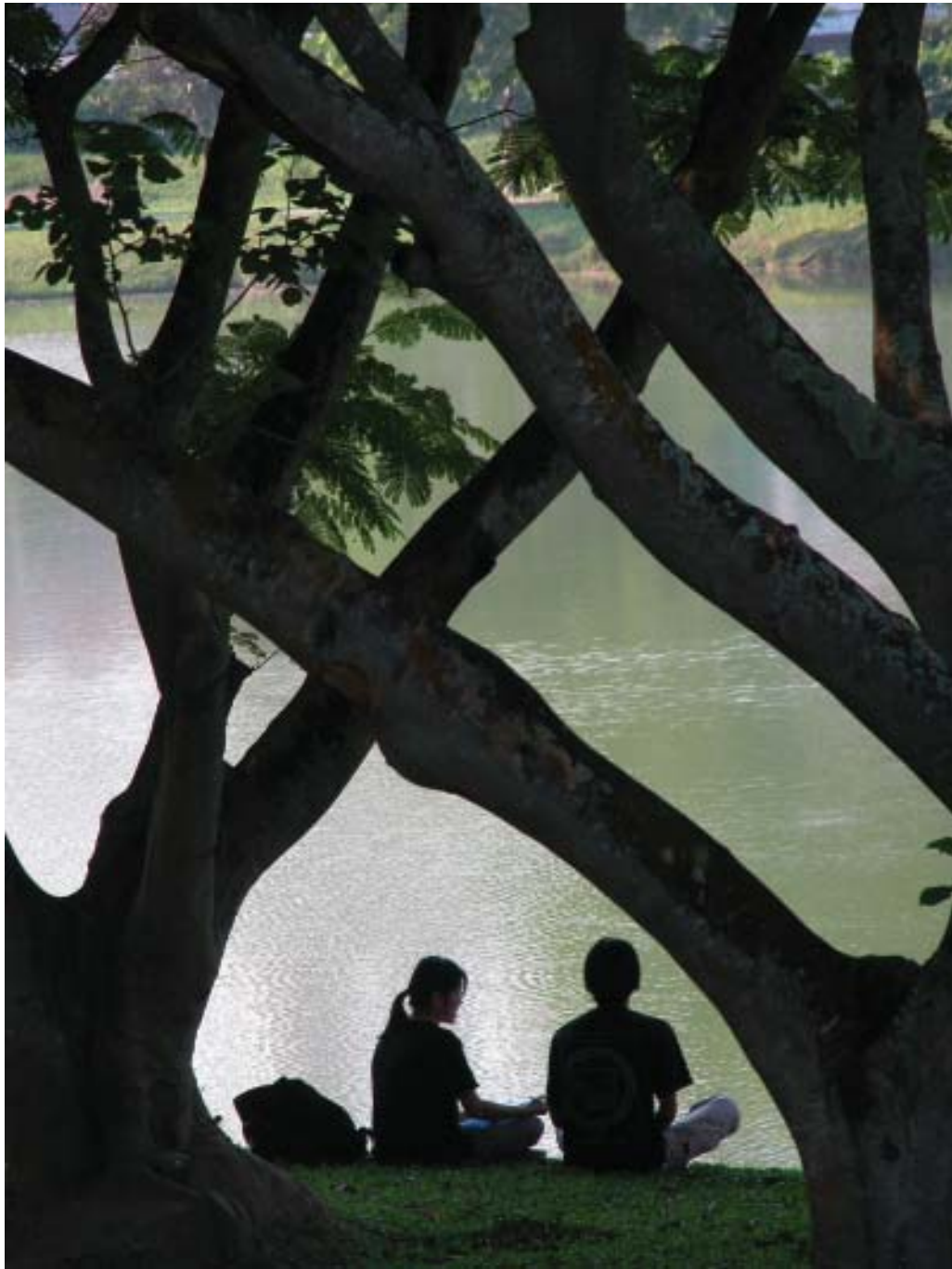


greetings are everywhere, welcoming anyone passing through or entering the garden campus. Activities by groups of people break the stillness and enliven the entire garden. Throughout the day, every part of the garden vibrates and comes to life.









Everything has its beauty but not everyone sees it.

Confucius

Day Break



*The childhood shews the man,
As morning shews the day.*

John Milton

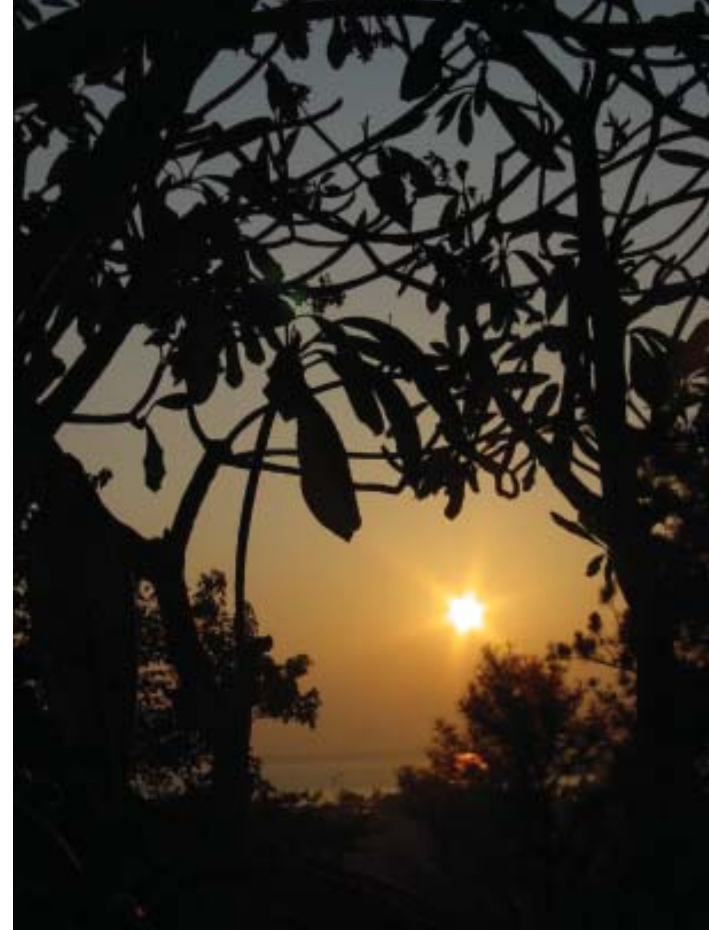
As the sun rises to greet another glorious day, it is welcomed by the melodious chirping of the early birds flying above the campus. Birds in myriad hues and glorious plumage fly from one big tree to another, building nests and seeking refuge under the canopies.

Some early risers are jogging and exercising on the green fields in the campus as the security guards greet them. Others are enjoying a leisurely walk around the Harapan and Aman Lakes as they partake in the precious elements of nature: fresh air, water, flora and fauna. At the lakeside, one could explore the ecology contained within one huge garden. Occasionally, a few scholars can be seen sitting at their favourite viewing point, waiting for sunrise, to enjoy that wonderful moment looking intently into the great wonder of nature. The fresh air invigorates the soul and spirit of the individuals in the early morning. The greenery and the

stunning views provide nourishment to begin a wonderful day for everyone on the campus.

During the day, activities are concentrated in the area surrounding the academic core, namely the Garden of Knowledge. People are by nature gregarious and the campus residents are often found in groups studying or simply enjoying themselves in deep conversation or tête-à-tête. The morning draws groups of scholars for discussions on the previous day's lectures and assignments and can be seen congregating around the lecture halls and formal sitting areas such as the corridor outside the Main Library I nicknamed *Penang Road*. The more adventurous and outgoing will sit down on the fields under the shade of the numerous trees.

As one sits under the open-air verandah of the Red House enjoying lunch, one can appreciate the serene view of the open green field, tree-lined main street and the surrounding natural landscape whilst being entertained by the melodious chirping of birds. A front-row seat guarantees a spectacular display of light, sound and water extravaganza during the







occasional thunderstorm. Every person has a significant role to play in the campus' everyday life, from the sweeper, postman to the most renown academician. Such is the rhythm of life here where thousands of people are involved in the daily manifold activities.

The gardeners, the garden's best friend, have the privilege of maintaining and enhancing the gardens to ensure that the gardens are always in their pristine condition and a sight to behold. They play the crucial role of transforming the garden with their magical brooms and assorted tools.



An Active Evening

In the evening, the campus community will wind down from a hectic day as they look forward to leisure and recreational activities. The academic core will be subdued into a quiet oasis as it reenergises to prepare for another day ahead. The scholars head back to their hostels as they await an evening of entertainment and recreation or for some, to bury their heads mugging for the next exam.

At the *Padang Minden* life starts at 5 pm. Scholars who love football, softball or archery rush to the lush greenery of the Minden fields to join their teams for practice or for a friendly match. The more athletic scholars can be seen running with racquets in their hands as they warm up on their way to the tennis courts at the stadium. As the evening light fades, the sporting activities continue uninterrupted as the spotlights are turned on.

The swimming pool complex comprising a 50-metre pool and a much smaller one which was built in 1941 is situated near the Minden entrance and is open daily to both the public and campus community. Children and adults swim together under the watchful eye of the lifeguards. During weekends school children and members of the public flock to enjoy a dip in the pool. The location of the pool surrounded by higher ground, greenery and open spaces creates a pleasantly cool environment around the poolside for swimmers and accompanying parents to hangout and relax under the protective shade of various majestic trees including the Rain and pine trees.



For those who love jogging or walking as a form of exercise, the whole campus is a splendid jogging track. It begins from the stadium, up and down the gentle and steep inclines of the rolling hills on the campus. On a typical journey, which can be a modest 30 minutes to more than one hour, all quaint sights of beautiful scenery are there to behold. The light perfume of blooming flowers fills the air. Occasionally, the colourful blossoms of the majestic Angsana trees float down like snowflakes.

All scholars are encouraged to participate in co-curricular activities to produce well-rounded graduates. Some join the uniformed groups with active outdoor activities. One or two evenings a week, cadets are trained to be army and navy officers while self-defence students are engaged in sparring and training sessions on the green open fields or under the shade. Athletic scholars enjoy aerobic sports like speed running, endurance running, the long jump or high jump at the stadium near the Bukit Gambir gate with the forested hills in the background.



*Slowly,
silently,
now the moon*

*Walks
the night
in her
silver shoon.*

Walter de la Mare



The Silent Night

As night falls, a huge transformation transcends. The campus becomes a refuge of calm and quiet. Someone seemed to have pressed the “pause button” as most activities come to a halt except for a few night classes breaking the silence.

Scholars can still be seen walking in groups. The more adventurous will nonchalantly walk through dark places but the majority will choose the well-trodden paths in the comforting glow of the street lights overhead. The garden at night is seen in a different light as natural light is replaced by artificial lighting providing an interplay of light and darkness. Many of the campus residents may be enjoying a leisurely night walk in the garden after a heavy dinner. The quietness of the garden at night further dramatises the sounds of wild life hidden in the trees and shrubs and might make the timid uncomfortable or eerie. But for some, night provides perfect camouflage as they forage the Durian Valley for the precious *King of Fruits*.



A Place for Everyone

*Golden slumbers kiss your eyes,
Smiles awake you when you rise.*

Thomas Dekker

The campus resembles a mix of simple and complex gardens populated by people of diverse origins and backgrounds, all enjoying a healthy life-style and good quality of life. *The University In A Garden* is indeed a little world of its own where everyone works hand-in-hand to maintain relationships between the teacher and the student, the professor and the research assistant, the administrator, stenographer, librarian, gardener and even the birds and the bees. The strong interconnections between people, nature and all other creatures will encourage and sustain a balanced ecology in this garden campus. The quintessence of the populace in the university is undeniable. The exotic essence of the beauty within include natural art such as the natural designs of flora and fauna as well as man-made art such as architecture. The beauty of the garden is so elegant yet delicate. The garden is meant for everyone and it benefits all in different ways.



Garden of Vista



*What is called a road there ...
is only an indistinct vista through the wood ...
which takes an experienced eye to detect.*

Henry David Thoreau

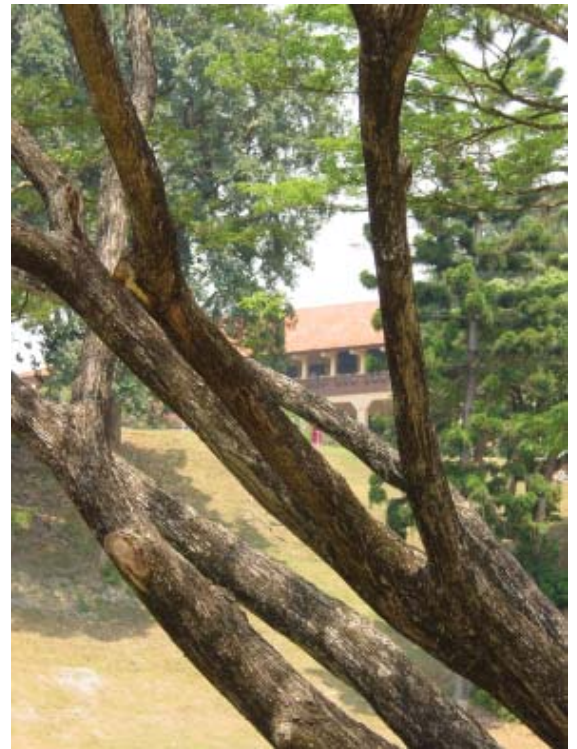


They are consciously constructed facades, which are filled with life by suppliers and consumers. They are there to generate a beautiful experience, a moment of happiness.

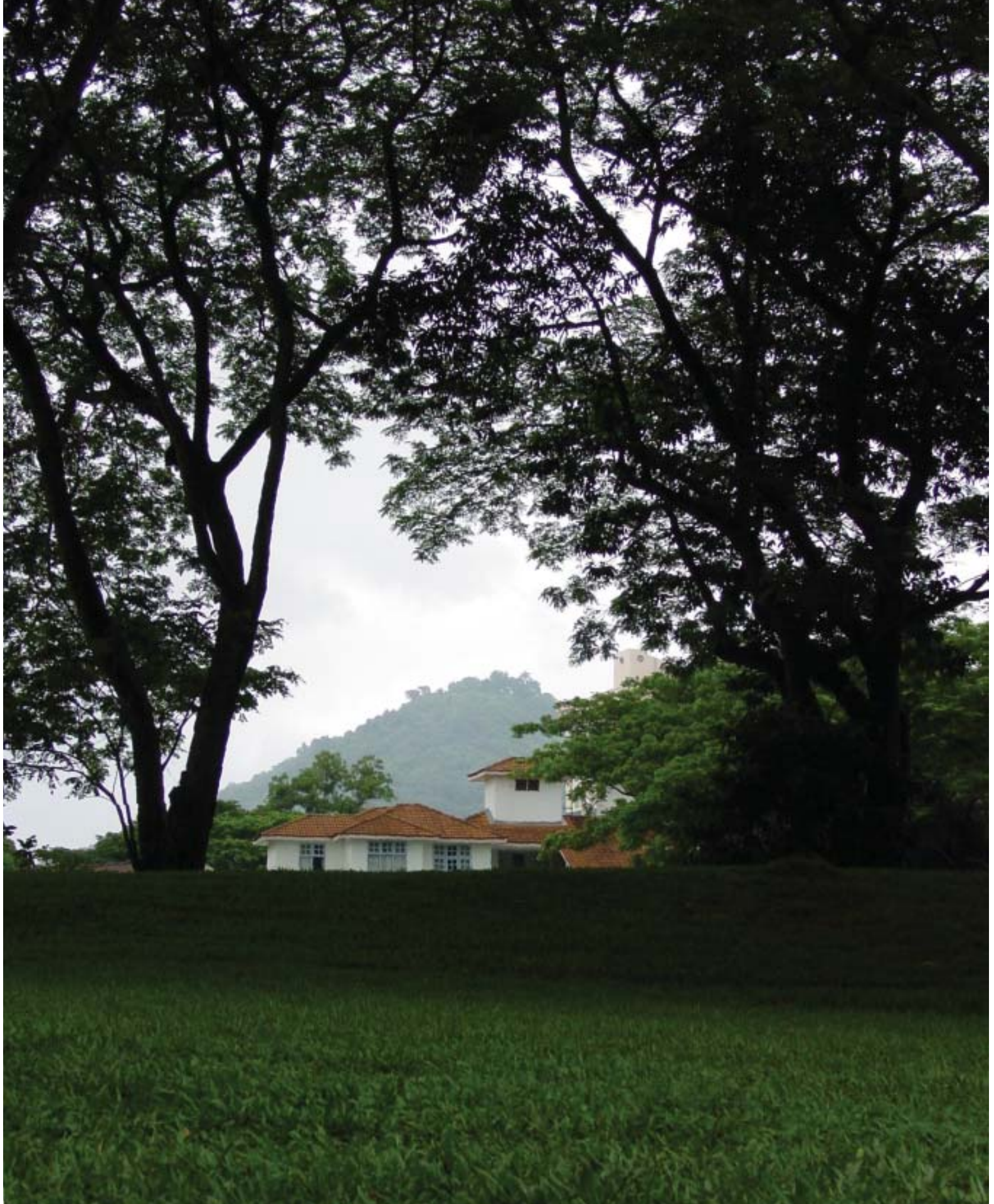
Gerhard Schulze

Walking through the USM campus from one end to another at a uniform pace provides a sequence of revelations. The even progress of travel is illuminated by a series of sudden contrast, be it forms, shapes, colours or materials. All require to be observed with great human sensitivities. All senses must be active. And so an impact is made on the eye bringing the beauty of the garden to life.

Vista is created for every moment which passes by. Part of experiencing the garden within is to experience it at different angles, different positions, different places and different nodes. It involves possession at great length, as it requires occupied territory, advantage, enclosure, focal point and indoor landscape. All nooks and crevices must be discovered as they need detailed observation. For the lack of sensitivities, all that has been offered will be lost and go unnoticed. The beauty that exists will never be revealed.







Vista



Vista is created by bisecting the angle of vision into two roughly equal parts and not by dividing the line into two equal lengths. To enjoy vista, possession comes into play. Vista involves a relationship between here and there, where Thereeness is perpetually out of reach and Hereness is the feeling of identity with a place.

The USM campus provides a place that everybody can, in one way or another, identify with. A sense of place is not particularised by the enclosing walls but exists throughout like a scent, which hovers in a particular place. The interplay between a known here and a known there defines vista even further.

A grandiose vista shows exclusivity of an angle on the USM campus, producing a sense of power or omnipresence. The spatial drama of relationships is set up illustrating the influence it has on the passersby. Continuity of space is apparent, a complex interlocking of volumes in which the quality of light and materials denies the concept of outside and inside. One is there in a space. Controlled by vista, a whole new identity is established, a space within a space. And the effect of space on infinity is not normally apparent in the sky but happens when one might reasonably expect to walk at ground level.



Screened Vista

Screened vista operates with the sense of increased Hereness by the screen of foliage and the outside world made correspondingly remote. The use of foliage is to withhold a view until one has penetrated past the foliage when the space of structure is revealed at close quarters. The dramatic impact at close range is only possible by withholding the view, framing the view unintentionally but resulting in a powerful influence on oneself. As certain objects in the vista possess the quality of being evocative and absolutely unmistakable, the extension of this well known fact in order to clarify or underline the character of different places could well be exploited further.









The screened vista positions oneself in a direct relationship between two categories, juxtaposition between the moving and the static. They are brought together unequivocally in character, no fuzziness occur. A contact of immediacy is happily accepted, it is implicit in the conception of categories and their juxtaposition gives drama and clarity to the landscape, a consideration of Thisness and Uniqueness. Thisness needs immediacy, understanding and sensitivity. It facilitates the process of appreciation that leads to identification. This belongs to somebody. Identification requires intricacy before declaration can be made. It is an extra dimension obtained through the knowledge and experience of true professionalism as opposed to the crudities of the amateur.

Closed Vista



Closed vista is purely an architectural attitude. It is inorganic but capable of infinite adaptation. It comes hand in hand with deflection as deflection arouses thought, expectation and anticipation. It is caught up in the mind of the meanderer and the result is a repose or dwelling of the mind, caught in the projection and recession of the vista.

Incident plays an important role in closed vista, as its purpose is to entrap the eye so that it does not slide out into the beyond with resulting boredom. This is made clear by punctuation, to clarify the demarcations made by closed vista. Punctuation is a pause in a long continuity interrupting the rhythm creating another set of melodic harmony. It further eases the pressures of nearness created by elements closely arranged, another small space in the making.

Diversity produces variety and variety enhances the reckoning of an identity. The juxtaposition of buildings and gardens in USM provide entities that one may identify and relate with.



The Garden Tomorrow



*The only limit to our realisation of tomorrow will be
our doubts of today.*

Franklin D. Roosevelt





USM is blessed with a beautiful campus, rich in natural and man-made assets. As a public institution these treasures should not only be enjoyed and admired by those privileged to work or study at the university. The USM campus is a landmark and an icon which must be valued as a state and national treasure, to be protected and nurtured for eternity. As a jewel of Penang Island its beauty and attractions lie not only within the physical limits of the campus but stretches beyond to embrace the hills, the lowlands, the coast and the sea.

Within a relatively short span of just over thirty years, the campus has grown tremendously to meet the requirements of the national agenda, to produce highly skilled and knowledgeable workers to drive the development of the country. It was thus inevitable that more and more buildings and facilities had to be constructed to cater for the ever-increasing demand for more teaching, office, laboratory and other types of floor space. Implementation lapses however, resulted in heritage trees, open spaces and buildings being destroyed or degraded, while



new structures appeared to be inappropriately sited and their designs visually unappealing and uninspired. Increasing vehicular volume and movement on campus also gave rise to concerns over air quality and congestion. The prevailing philosophy towards development was to measure success in terms of the amount of development funding which the university was able to obtain. The bigger the development allocation, the more prestigious the university.

Such relentless pursuit of development may have been necessary during the formative years of the university but concerns and alarm have been voiced by various bodies including students, staff, alumni and even the university's top management, especially the Vice-Chancellor, leading to notable changes in development policies. Policies and principles as encapsulated in the *i-Campus Doctrine* have been formulated to guide the development of the campus to stop the decay. The doctrine promotes the conservation of our natural and man-made assets to create a garden which favours the pedestrian. The most noticeable result of this doctrine is the program to landscape and beautify strategic locations on campus to enhance the visual experience on campus.









The USM Trees Policy prohibits the cutting and trimming of trees without the permission of the Vice-Chancellor's Office. The principle is that nature must be allowed to flourish with little or no impediment. The Vice-Chancellor has also enforced a moratorium on new buildings. No new building will be constructed unless it takes over the footprint of an existing structure.

The university has also accepted the concept of "giving back to nature" and "bringing back nature". Old buildings of no historical or architectural value or alternative use will be demolished and the site returned to nature as an open space. Natural streams which have since been buried underground may be brought back to the surface to provide both visual and microclimatic benefits. Efforts are also being made to create a more pedestrian-friendly and barrier-free campus through its walkable campus agenda.



As an overall yardstick to gauge an acceptable level of development, the university is exploring the use of the hard : soft surface ratio to maintain its image as *The University in a Garden*. It is suggested that the ratio of hard to soft surface for our garden should be about 35:65 which is close to the current level of development on campus. It is thus now time to focus our resources and energy on protecting and enhancing our assets to create a dream campus - a place where nature and people can coexist in harmony.

Greater efficiency in space-usage is now on the university's agenda with a space audit conducted on four Schools during a pilot project in August 2003. This is expected to become an important focus of the university to enforce accountability in the allocation of funds and space to avoid excessive construction which could lead to further depletion of the campus' open spaces and greenery.



This coffee-table book and a video, *The Beauty Within*, are small steps towards achieving that dream. They draw attention to details which are often taken for granted - to look closer where one would normally gloss-over, to seek and see beauty in the most unlikely places, and to discover and admire "the good side" of things and people.





Where one would normally close the curtains to protect one's privacy from prying eyes, draw them open to feast upon the wonder of the vista framed by the window. If one is shy, leave gaps in the shutters to stimulate one's curiosity of the beauty that lies just beyond. If one is generous, invite others not fortunate to have a window-office to share in the fortune.

When one goes to the library for a few hours of quiet reading, choose a seat closer to the window so that one can rest the tired eyes and mind by looking through the huge picture-window and soak in the soothing greenery and the melodious chirping of birds seeking sanctuary in the trees nearby.

As one walks in the stifling heat under a parasol, remember to look up and sideways for the seasonal burst of colour. Stop for a moment to smell nature's fragrance. Admire the wonders of technology and creativity instrumental in shaping the built-form, which is hardly noticed in the rush for lectures or to beat the office clock.

The garden tomorrow is already here today. One needs to tune the senses to the right channels to discover and uncover the many secrets nature has in its treasure troves. It must be nurtured as a campus to be enjoyed by all, regardless of ability.

*The mind can go
in a thousand directions.*

*But on this lovely path,
I walk in peace.*

*With each step,
a gentle wind blows.*

*With each step,
a flower blooms.*

Mu Mon





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We wish you many fond memories and inspired moments.



*Why shouldn't the flower wither,
The dew falls on another.*

Mohd Taib Osman

