

ICASAS'24

INTERNATIONAL CONFERENCE ON

ENHANCING ARTSCIENCE IN THE AGE OF SUSTAINABILITY

ARTSCIENCE SOLUTIONS FOR PLANETARY HEALTH

12 - 13 **JUNE 2024** AUDITORIUM, GROUND FLOOR, BLOCK B, INSTITUTE FOR ADVANCED STUDIES (IAS), UNIVERSITI MALAYA 9.00 AM - 5.00 PM



PROF. DR. ABRIZAH ABDULLAH DEAN INSTITUTE FOR ADVANCED STUDIES (IAS) UNIVERSITI MALAYA





EMERITUS PROF. DR. AZIRAH HASHIM ARTMENT OF ENGLISH LANGUAGE, FACULTY OF LANGUAGES AND LINGUISTICS, UNIVERSITI MALAYA DEP



EMERITUS PROF. DR. NG KWAN HOONG DEPARTMENT OF BIOMEDICAL IMAGING, FACULTY OF MEDICINE, UNIVERSITI MALAYA

SPECIAL OPENING ADDRESS BY:

PROF. DR. YATIMAH ALIAS

(ACADEMIC & INTERNATIO UNIVERSITI MALAVA



INTRODUCTORY REMARKS BY: EMERITUS PROF. DATUK DR. AZIZAN BAHARUDDIN IRECTOR, CENTRE FOR CIVILISATIONAL DIALOGUE UKM-YSD CHAIR FOR SUSTAINABILITY, UNIVERSITI KEBANGSAAN MALAYSIA HONORARY FELLOW, INSTITUT MASA DEPAN MALAYSIA



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FOI

ANITA MANSOR ARCHITECTURE, UNIVERSITI PUTRA MALAYSIA

ORGANISED BY: UNIVERSITI MALAYA CENTRE FOR CIVILISATIONAL DIALOGUE (UMCCD) INSTITUTE FOR ADVANCED STUDIES (IAS) UNIVERSITI MALAYA AZMAN HASHIM CHAIR OF MUSIC UNIVERSITI MALAYA UNIVERSITI MALAYA UNESCO CLUB (UMUC)





PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ENHANCING ART SCIENCE IN THE AGE OF SUSTAINABILITY: ARTSCIENCE SOLUTIONS FOR PLANETARY HEALTH ICASAS '24

12-13 June 2024

Auditorium, Ground Floor, Block B Institute for Advanced Studies (IAS), Universiti Malaya, Kuala Lumpur, Malaysia

Edited by

Nur Lisa Mohd Yusoff Nurulain Natasha Muhammad Aris Fadzilah Azizan Baharuddin

Organised by Universiti Malaya Centre for Civilisational Dialogue (UMCCD) https://dialogue.um.edu.my/

Institute for Advanced Studies (IAS), Universiti Malaya Azman Hashim Chair of Music Universiti Malaya Universiti Malaya UNESCO Club "First study the science, and then practice the art which is born of that science."

Leonardo da Vinci (1452 - 1519)

Source: https://www.azquotes.com/quote/1337485





"ArtScience enables us to achieve a more complete and universal understanding of things."

Todd Siler (1953 – 2011)

Source: https://artscience.um.edu.my/artsciencemanifesto

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."

Alvin Toffler (1928 - 2016)

Source: https://www.azquotes.com/quote/346046



CONTENTS

Acknowledgements	1
Background of Azman Hashim Chair of Music	2
Background of the Conference	4
Programme	5
Introductory remarks by YBhg. Emeritus Professor Datuk Dr. Azizan Baharuddin	11
Welcome speech by YBhg. Professor Dr. Abrizah Abdullah	14
Official address by YBhg. Professor Dr. Yatimah Alias	17
DAY 1 (12 JUNE 2024) PRESENTERS' PROFILES AND ABSTRACTS	20
Restoring The Unity of the Arts and the Sciences: An Imperative for Malaysia Madani Osman Bakar, Al-Ghazali Chair of Epistemology and Civilizational Studies and Renewal, International Institute of Islamic Thought and Civilisation (ISTAC), International Islamic University Malaysia	20
Artscience for Understanding Human Experience of Nature through the Synthesis of Scientific Exploration and Artistic Expression <i>Jillian Ooi Lean Sim, Department of Geography, Faculty of Arts and Social</i> <i>Sciences, Universiti Malaya</i>	27
Beyond Boundaries: The Anthropocene, ArtScience and the Quest for Planetary Health <i>Mona El-Sherbini,</i> Narrative Medicine and Planetary Health, Faculty of Medicine, University of Cairo, Egypt	43
Global Challenges: The Role of the Social Sciences and Humanities Azirah Hashim, Department of English Language, Faculty of Languages and Linguistics, Universiti Malaya	45
Sustainability Leadership Fieldwork (SLF): Enhancing Arts and Science Integration for Global Impact in the Age of Sustainability Zeeda Fatimah Mohamad, Universiti Malaya Sustainability and Development Centre (UMSDC)	61
Preserving Soundscape Heritage as Part of Immersive Planetary Health and Psycho-Social Wellbeing Indicator Sithi Vinayakam A/L Muniandy, Center for Theoretical and Computational Physics, Universiti Malaya	75

The Lotus Sutra - A Message of Peace and Harmonious Coexistence Exhibition and Its Impact: An Analysis <i>Eiichi Tsutaki, Institute for Oriental Philosophy (IOP), Japan</i>	91
DAY 2 (13 JUNE 2024) PRESENTERS' PROFILES AND ABSTRACTS	93
The Science and Art of Well-Being	93
Raymond Ooi, Department of Physics, Faculty of Science, Universiti Malaya	
Exploring Service Learning from Different Religious and Belief Systems Vishalache A/P Balakrishnan, Department of Educational Foundations and Humanities, Faculty of Education, Universiti Malaya	108
Social Enterprise Incubation through the <i>Rezeki Tani</i> Project at MARDI <i>Kamaruzaman Bin Ahmad, Universiti Malaya</i>	122
Polymathic Thinking and Holistic Knowledge as a Driver for a Sustainable Future Ng Kwan Hoong, Department of Biomedical Imaging, Faculty of Medicine, Universiti Malaya	133
Artscience as a Pathway to Sustainability: Reimagining Knowledge through Contemporary Art and Cultural Initiatives in Southeast Asia Farid Mohammadi, English Department, Faculty of Arts and Social Sciences, Universiti Malaya	161
Artscience for Achieving a More Complete and Universal Understanding of the Sustainability Imperative Abdelaziz Berghout, International Institute of Islamic Thought and Civilisation (ISTAC), International Islamic University Malaysia (IIUM)	181
Usable Interior Design for Ageing in Place Noranita Mansor, Department of Architecture, Faculty of Design and Architecture, Universiti Putra Malaysia	201
Artscience for the Rehumanisation of All Knowledge Mohd Hazim Shah Abdul Murad, School of Languages, Civilisation, and Philosophy, College of Arts and Sciences, Universiti Utara Malaysia	215
Artscience for Achieving a More Complete and Universal Understanding of the Sustainability Imperative Azizan Baharuddin, Universiti Malaya Centre for Civilisational Dialogue (UMCCD), UKM-YSD Chair for Sustainability, Universiti Kebangsaan Malaysia and Institut Masa Depan Malaysia (MASA)	224
Organising Committee	241
Snapshots of the Conference	242

ACKNOWLEDEGMENTS

The Universiti Malaya Centre for Civilisational Dialogue (UMCCD) would like to convey its special appreciation to YBhg. Professor Dr. Yatimah Alias, Deputy Vice-Chansellor (Academic & International), Universiti Malaya who graced the conference with her special opening remarks. Our utmost appreciation also goes to Professor Dr. Abrizah Binti Abdullah, Dean, Institute for Advanced Studies (IAS), Universiti Malaya and the **Azman Hashim Chair of Music** for the support and opportunity given to UMCCD to organise this conference.

On behalf of the organisers, the UMCCD also records our utmost gratitude to the keynote speakers, presenters and moderators. The keynote addresses were delivered by Emeritus Professor Dato' Dr. Osman Bakar "Restoring the Unity of The Arts and The Sciences: An Imperative for Malaysia Madani"; Dr. Jillian Ooi Lean Sim "Artscience for Understanding Human Experience of Nature Through the Synthesis of Scientific Exploration and Artistic Expression"; Associate Professor Dr. Mona El-Sherbini "Beyond Boundaries: The Anthropocene, Artscience and The Quest for Planetary Health"; Emeritus Professor Dr. Azirah Hashim "Global Challenges: The Role of The Social Sciences and Humanities"; Datuk Professor Dr. Abdelaziz Berghout "Artscience For Achieving a More Complete and Universal Understanding of The Sustainability Imperative"; Professor Dr. Hazim Shah Abdul Murad "Artscience For the Rehumanisation of All Knowledge" and Emeritus Professor Datuk Dr. Azizan Baharuddin "Artscience For Achieving A More Complete And Universal Understanding Of The Sustainability Imperative". The UMCCD would also like to record special appreciation to Professor Dr. Yvonne Lim Ai Lian, Associate Deputy Vice-Chancellor (Academic and International), Universiti Malaya for her positive remarks and intervention at the end of the morning session of the second day.

In total there were 16 presentations, which included different research organisations and universities such as the International Institute of Islamic Thought and Civilisation (ISTAC), International Islamic University Malaysia, Universiti Malaya, University of Cairo, Egypt, Institute for Oriental Philosophy (IOP), Japan, Universiti Utara Malaysia, and the Malaysian Agricultural Research and Development Institute (MARDI). The audience comprised local and international academicians, researchers and students. We would like this conference to continue to become, once more, an opportunity for researchers to meet, exchange ideas on their research, and discuss future developments in the field of ArtScience.

Finally, the UMCCD would like to thank all participants of ICASAS'24 once again for their general support. Our appreciation also goes to all members of the organising committee for ensuring the success of the event.

BACKGROUND OF AZMAN HASHIM CHAIR OF MUSIC



The creation of the Chair of Music in March 2023 has been made possible by the unwavering support and deep passion for music of its esteemed donor, Tan Sri Azman Hashim. He recognises the transformative power of music in enriching lives and communities and its potential to transcend boundaries. He has a profound appreciation for the arts and a strong belief in the importance of nurturing creativity and artistic expression.

The objectives of the Chair of Music are:

- 1. To fostering excellence in music education, performance, and interdisciplinary research collaboration.
- 2. To cultivating a vibrant musical community, nurturing aspiring musicians, bridging the gap between the arts and sciences.
- 3. Provide a platform for aspiring musicians to not only develop their artistic skills but also engage with scientific concepts
- 4. To explore the intersections between music and the sciences, nurturing a holistic approach to learning that transcends traditional boundaries.

Tan Sri Azman Hashim was appointed to the Board on 9 June 1988 and has been the Executive Chairman of the Company since 1993. Tan Sri Azman Hashim, Fellow Chartered Banker (FCB), a Chartered Accountant (FCPA), a Fellow of the Institute of Chartered Accountants and a Fellow of the Institute of Chartered Secretaries and Administrators, has been in the banking industry since 1960 when he joined Bank Negara Malaysia (Malaysia's Central Bank) and served there until 1964. He practised as a Chartered Accountant in Azman Wong Salleh & Co from 1964 to 1971. He then joined the Board of Malayan Banking Berhad (MBB) from 1966 until 1980 and was its Executive Director from 1971 until 1980. He was the Executive Chairman of Kwong Yik Bank Berhad, a subsidiary of MBB, from 1980 until April 1982 when he acquired AmInvestment Bank Berhad which he grew into a financial conglomerate – the AmBank Group.

He helmed the position of Executive Chairman and subsequently, Chairman of AMMB Holdings Berhad until his retirement in 2022. Tan Sri Azman is currently the Chairman Emeritus/ Honorary Advisor of AMMB Holdings Berhad (AmBank) Group.

Tan Sri Azman is also the Chairman of the Asian Institute of Chartered Bankers, Asian Banking School Sdn Bhd, Financial Industry Collective Outreach (FINCO), Malaysia South-South Corporation Berhad and Chairman Emeritus of Pacific Basin Economic Council (PBEC). He was a Member of the APEC Business Advisory Council (ABAC) from 1999 to 2017 and Chairman, Asian Productivity Organisation in 1993 and in 2012 and Council Member of the Governing Body from 1988 to 2018.

He is the President of Malaysia South-South Association, Malaysia-Japan Economic Association, Malaysian Prison FRIENDS Club and a Member of the East Asia Business Council. He is also the Leader of the ASEAN Japanese Business Meeting (Malaysia Committee, Keizai Doyukai). He is the Chancellor, International University of Malaya-Wales, Pro-Chancellor of Open University of Malaysia and University Malaysia Sabah and he is also one of the 5 Vice Presidents of Kuen Cheng High School.

Tan Sri Azman is also involved in several charitable organisations as Chairman and Trustee of AmGroup Foundation, Perdana Leadership Foundation, Yayasan Canselor Open University Malaysia and Trustee for Yayasan Azman Hashim, Malaysian Liver Foundation and Yayasan Tuanku Najihah. Tan Sri Azman is also the Founder and Council Member of Azman Hashim Family (L) Foundation and Azman Hashim Charitable (L) Foundation.

In 2008, Tan Sri Azman was conferred the Medal of the Order of Australia (A.O.) by the Governor-General of the Commonwealth of Australia and Chancellor of the Order of Australia (the highest award for a foreigner).

In 2021, he was conferred the Order of the Rising Sun, Gold and Silver Star award from the Japanese Government for his contribution in strengthening the economic ties between Japan and Malaysia.

Information retrieved from:

Website of the Institute of Advanced Studies, Universiti Malaya (page Azman Hashim Chair of Music) at https://artscience.um.edu.my/the-donor#.

BACKGROUND OF THE CONFERENCE

In the current era of great concern for planetary health, the sustainability approach in every field of human endeavour, be it theoretical or practical is no longer a choice but is an inevitable imperative. More than sufficient scientific evidence is now available to substantiate the move towards a mode of living (better described through 'art') that is more reverential and more suited to the actual carrying capacity of the planet. In fact, scientists are today calling for the humanities and the arts to help change human perception and behavior towards this end.

The Ecoliteracy Centre in California for example has identified 15 core competencies that we need to develop for living in sustainable communities. These competencies Include the harmonised functioning of the head (cognitive), heart (emotional), hand (action) and spirit (connectivity) which in reality encompasses the ArtScience elements of life and/or of the human being.

Future solutions towards sustainability also rest in STEM (science, technology. engineering, and mathematics) that is enriched/enhanced by art and values (referring to the move from STEM to STEAM/STREAM) among the scientific community. Unfortunately, however, this fact is still not much understood today. The ArtScience element/factor is also critical in the implementation of the MADANI spirit which aims to elevate the nation to a better civilisational and peaceful condition.

Sub-themes of the conference include:

- Art Science for Achieving a More Complete and Universal Understanding of the Sustainability Imperative.
- Art Science for Understanding Human Experience of Nature through the Synthesis of Scientific Exploration and Artistic Expressions.
- Teaching Art, Science, Technology, Engineering and Mathematics in an Integrated Manner.
- Art Science for the Rehumanisation of all Knowledge.

PROGRAMME

DAY 1 (12 JUNE 2024)

Time (MYT)	Programme
9:30 AM – 10:30 AM	Registration & Refreshments
10:30 AM – 10:45 AM	UMCCD Corporate Video & Introductory Remarks
	Emeritus Professor Datuk Dr. Azizan Baharuddin
	Director, Universiti Malaya Centre for Civilisational Dialogue (UMCCD)
	Welcome Sppech
	Professor Dr. Abrizah Abdullah
	Dean, Institute for Advanced Studies (IAS), Universiti Malaya
	Official Address
	Professor Dr. Yatimah Alias
	Deputy Vice-Chansellor (Academic & International),
	Universiti Malaya
	Token of Appreciation & Photography session
11:00 AM – 11:15 AM	Break - Presentation of 3 short ArtScience videos
11.15 AM – 1.00 PM	Keynote Addresses
	Moderator:
	Associate Professor Dr. Durriyyah Sharifah Hasan Adli
	Senior Research Fellow, Universiti Malaya Centre for
	Civilisational Dialogue (UMCCD)
11:15 AM – 12:00 PM	Emeritus Professor Dato' Dr. Osman Bakar Al-Ghazali Chair of Epistemology and Civilizational Studies and Renewal, International Institute of Islamic Thought and Civilisation (ISTAC), International Islamic University Malaysia "Restoring the Unity of the Arts and the Sciences: An Imperative for Malaysia Madani"
12:00 PM – 12:30 PM	Dr. Jillian Ooi Lean Sim Department of Geography, Faculty of Arts and Social Sciences, Universiti Malaya "Artscience for Understanding Human Experience of Nature through the Synthesis of Scientific Exploration and Artistic Expression"

12:30 PM – 1:00 PM	Associate Professor Dr. Mona El-Sherbini
	Founding Director, Narrative Medicine and Planetary Health,
	Faculty of Medicine, University of Cairo, Egypt
	"Beyond Boundaries: The Anthropocene, Artscience and the
	Quest for Planetary Health"
	.
	Token of Appreciation
1:00 PM – 2:30 PM	Lunch
2.30 PM – 4.30 PM	Keynote Addresses and Paper Presentations
	Moderator:
	Associate Professor Dr. Durriyyah Sharifah Hasan Adli
	Senior Research Fellow, UMCCD
2:30 PM – 3:00 PM	Emeritus Professor Dr. Azirah Hashim
	Department of English Language, Faculty of Languages and
	Linguistics, Universiti Malaya
	"Global Challenges: The Role of the Social Sciences and
	Humanities"
3:00 PM – 3:30 PM	Associate Professor Dr. Zeeda Fatimah Mohamad
	Founding Director, Sustainable Development Centre, Universiti
	Malaya
	"Sustainability Leadership Fieldwork (SLF): Enhancing Arts and
	Science Integration for Global Impact in the Age of Sustainability"
3:30 PM – 4:00 PM	Professor Dr. Sithi Vinayakam A/L Muniandy
	Head, Center for Theoretical and Computational Physics,
	Universiti Malaya
	"Preserving Soundscape Heritage as Part of Immersive Planetary
	Health and Psycho-Social Wellbeing Indicator"
4:00 DM 4:00 DM	
4:00 PM – 4:30 PM	Mr. Eiichi Tsutaki
	Commissioned Research Fellow, Institute for Oriental Philosophy
	(IOP), Japan
	"The Lotus Sutra - A Message of Peace and Harmonious
	Coexistence Exhibition and Its Impact: An Analysis"
	Taken of Approxistion
	Token of Appreciation
4:30 PM – 5:00 PM	Afternoon Tea
5:00 PM	End of Day 1

DAY 2 (13 JUNE 2024)

Time (MYT)	Programme
9:00 AM – 9:30 AM	Registration & Refreshments
9.30 AM – 11.00 AM	Keynote Addresses and Paper Presentations Moderator: Dr. Asmawati Muhamad Deputy Director, UMCCD
9:30 AM – 10:00 AM	Professor Dr. Raymond Ooi Department of Physics, Faculty of Science, Universiti Malaya "The Science and Art of Well-Being"
10:00 AM – 10:30 AM	Associate Professor Dr. Vishalache A/P Balakrishnan Department of Educational Foundations and Humanities, Faculty of Education, Universiti Malaya "Exploring Service Learning from Different Religious and Belief Systems"
10:30 AM – 11:00 AM	Mr. Kamaruzaman Ahmad Academy of Malay Studies, Universiti Malaya "Social Enterprise Incubation through the <i>Rezeki Tani</i> Project at MARDI"
	Token of Appreciation
11.00 AM – 11.15 AM	Break - Presentation of 3 short ArtScience videos
11.15 PM – 12.45 PM	Keynote Addresses and Paper Presentations Moderator: Dr. Fong Chng Saun Senior Lecturer, Institute for Advanced Studies
11.15 PM – 11.45 PM	Emeritus Professor Dr. Ng Kwan Hoong Department of Biomedical Imaging, Faculty of Medicine, Universiti Malaya "Polymathic Thinking and Holistic Knowledge as a Driver for a Sustainable Future"
11.45 PM – 12.15 PM	Dr. Farid Mohammadi English Department, Faculty of Arts and Social Sciences, Universiti Malaya "Artscience as a Pathway to Sustainability: Reimagining Knowledge Through Contemporary Art and Cultural Initiatives in Southeast Asia"

12.15 PM – 12.45 PM	Datuk Professor Dr. Abdelaziz Berghout
	Dean, International Institute of Islamic Thought and
	Civilisation (ISTAC), International Islamic University Malaysia
	"Artscience for Achieving a More Complete and Universal
	Understanding of the Sustainability Imperative"
	Token of Appreciation
1:00 PM – 2:30 PM	Lunch
2.30 PM – 4.00 PM	Keynote Addresses & Paper Presentation
	Moderator:
	Dr. Asmawati Muhamad
	Deputy Director, UMCCD
2:30 PM – 3:00 PM	Dr. Noranita Mansor
	Department of Architecture, Faculty of Design and
	Architecture, Universiti Putra Malaysia
	"Usable Interior Design for Ageing in Place"
3:00 PM – 3:30 PM	Professor Dr. Hazim Shah Abdul Murad
	School of Languages, Civilisation, and Philosophy, College of
	Arts and Sciences, Universiti Utara Malaysia
	"Artscience for the Rehumanisation of All Knowledge"
3.30 PM – 4.00 PM	Emeritus Professor Datuk Dr. Azizan Baharuddin
	Director, UMCCD, Chairholder, UKM-YSD Chair for
	Sustainability, Universiti Kebangsaan Malaysia, Honorary
	Fellow, Institut Masa Depan Malaysia (MASA)
	"Artscience in the Context of Transformational Sustainability
	Leadership"
	Token of Appreciation
4:00 PM – 4:30 PM	Closing & Afternoon Tea
4:30 PM	End of Conference

VIDEO PRESENTATIONS

DAY 1 (12 JUNE 2024)

Video 1 (2 min 56 sec)

Launching of ASM ArtScience[™] Initiative

YouTube Channel: Akademi Sains MY

Link: https://www.youtube.com/watch?v=nZlvO4PrsF4

Synopsis: In recognition of the amalgamation of art and science, the Academy of Sciences Malaysia (ASM) has set up the ArtScience[™] Initiative. This Initiative is a programme that recognises outstanding creations in the nation's fields that showcases the fusion of art and science.

Video 2 (3 min 39 sec)

ASM ArtScience™ Prize 2022

YouTube Channel: Akademi Sains MY

Link: https://www.youtube.com/watch?v=YHxDz7JQKME

Synopsis: The ArtScience Prize 2022 Exhibition, held from June 19 to July 7, 2023, at Balai Seni Maybank in Kuala Lumpur from 10 am to 5 pm, featured the works of 24 finalists exploring the theme "ArtScience Lens on Planetary Health," celebrating the fusion of art and science.

Video 3 (2 min 59 sec)

The Tagal System

YouTube Channel: Akademi Sains MY

Link: https://www.youtube.com/watch?v=ATsUK0BvIJQ

Synopsis: Tagal means "prohibited" in the Dusun language. A Tagal river is demarcated depending on the size of the deep pools or Lubuk that can reach a maximum of 5km in length. Each tagal river is divided into three zones: Green zone, Yellow zone, Red zone. The concept of sustainability practiced by the tagal system aligns with the Planetary Health initiative currently being actively implemented by ASM. This system is one of the best examples showcasing the health balance of nature, humans, and animals.

DAY 2 (13 JUNE 2024)

Video 1 (1 min 39 sec)

I AM the earth

YouTube Channel: **I AM**

Link: https://www.youtube.com/watch?v=MuqsIYfCmdc

Synopsis: The I AM project aims to showcase the beauty of languages worldwide and nature, with a focus on preserving endangered languages for future generations. It emphasizes the interconnectedness of humans and nature. The initiative serves as a cultural endeavour, highlighting the importance of preserving languages as a matter of memory.

Video 2 (1 min 44 sec)

How innovation is creating a sustainable future

YouTube Channel: **CPI**

Link: <u>https://www.youtube.com/watch?v=KWfyKAzkaTg</u>

Synopsis: The video is about the development of innovative products that tackle the climate crisis and promote environmental health. This includes improving battery sustainability, creating sustainable fuels, producing biomaterials for food, designing recyclable packaging, innovating sustainable fashion, and developing recyclable composites for high-performance applications.

Video 3 (4 min 08 sec)

Art + Science = Environmental Humanities

YouTube Channel: UWcas

Link: https://youtu.be/bdNSBdt6vWg?si=xA1Qscoq1g0JaVoP

Synopsis: Environmental Humanities is an emerging area of study that looks at how our views of the environment are shaped by culture through the lens of literature, cinema, and art. The "Art + Science =" video series reflects our dedication to fulfilling the mission of the College, which is, in part, to provide a liberal arts education in a research university with rich opportunities to explore our cultural and natural worlds.

INTRODUCTORY REMARKS BY EMERITUS PROFESSOR DATUK DR. AZIZAN BAHARUDDIN DIRECTOR, UNIVERSITI MALAYA CENTRE FOR CIVILISATIONAL DIALOGUE



Bismillahirrahmanirrahim.

YBhg. Professor Dr. Yatimah Alias, Deputy Vice-Chansellor (Academic & International), Universiti Malaya, YBhg. Professor Dr. Abrizah Binti Abdullah, Dean of the Institute for Advanced Studies, Universiti Malaya, YBhg. Professor Dr. Mohd Nasir Hashim, Dean of the Faculty of Creative Arts and Holder of the Azman Hashim Chair of Music, Institute for Advanced Studies, Universiti Malaya, Emeritus Professor Dato' Dr. Osman Bakar, Al-Ghazali Chair of Epistemology and Civilizational Studies and Renewal, International Institute of Islamic Thought and Civilisation (ISTAC), International Islamic University Malaysia, also Emeritus Professor of philosophy of Faculty of Science, Universiti Malaya and the Founding Father of the Universiti Malaya Centre for Civilisational Dialogue (UMCCD). Honorable guests, presenters, moderators and all participants of the conference.

Good morning and Assalamualaikum wrt. May Peace be with you.

First of all, thank you so much for being with us today. We have all talked about sustainability for more than 50 years now and as evident from the Stockholm+ 50 conference which took place in 2022, the millennial goals or currently the Sustainable Development Goals (SDGs), the Conference of Parties (COP) 28 last year and next year the Conference of Parties (COP) 29, we know that there is still much more to be done. We say that not with cynicism, not with disrespect but with great hope. This is what ArtScience is all about and I think this is why we are all excited to be here today.

Ladies and Gentlemen,

With the SDGs coming to a close in 2030, as we all know, we need to work harder at making our home, planet Earth, more sustainable and livable in the future. In the last decade, the

experts from the physical sciences especially are calling out for their colleagues in the Social Sciences and Humanities to come forward more prominently so that the desired behavioural changes needed to bring back sustainability can be made possible.

The ArtScience project is often seen as a collaborative process between artists, scientists and technologists or engineers. It involves autonomous actors interacting through formal and informal negotiations, jointly creating rules and structures governing their relationships and ways to act or decide on the issues that bring them together. Therefore, it is a process involving shared norms and mutually beneficial interactions. This involves relooking at our worldview, our belief systems and what we all desire in common. We feel that this collaborative process is very much a dialogical process, so this is where the UMCCD feels that it may have some of the know-how and the know-why of ArtScience endeavours. This is why we are boldly standing here and boldly inviting you to come together.

In this context, for example, the UMCCD expresses its gratitude to the Azman Hashim Chair of Music and the Institute of Advanced Studies for granting us the opportunity to invite all of you to enhance further the process of mutual learning and mainstreaming the ArtScience mindsets in the context of our teaching and researching.

Ladies and Gentlemen,

When we first advertised the conference, we were happily surprised by the fact that we received overwhelming support and interest in the conference such that we had to shorten the period for submission of abstracts. I think this overwhelming response can only mean that there are so many ArtScience advocates in our midst and here we would like to specially mention the name of Dato' Seri Zaini Ujang, our chief Secretary General of the Ministry of Higher Education, who cannot be with us at the last minute because he has a very critical change in his schedule. Many, if not all of our speakers, are ArtScience experts in their own rights and the examples are our two special guests on stage at the moment.

The ArtScience approach or project gives added meaning, purpose and (to me personally), hope, to the important things that we are currently working on *vis-à-vis* the sustainability agenda. I think you would have seen the literature that pessimism is creeping in among the people who have worked very hard towards sustainability. This shows that we have to do something quickly and ArtScience is one way forward that is very important.

We would like to acknowledge and thank in particular the Academy of Sciences Malaysia (ASM), whose fellows actually make up 25% of our speakers at this conference, and for allowing us to build upon the ArtScience precedence that they have set for us actually. We will be watching a couple of short videos on what the ASM has embarked upon vis-à-vis the ArtScience agenda. Finally, I would just like to remind us of Newton's famous expression, "If I have seen further, it is by standing on the shoulders of giants". This is something for us to think about because in the rapid changing world of today, thanks to the

latest technologies, we sometimes forget that there is so much foundation already put in place by great thinkers in the past as well as before us and in our context today, Emeritus Professor Dato' Dr. Osman Bakar has laid a very important foundation for the UMCCD and Professor Diraja Ungku Abdul Aziz who is also very much remembered in this program today, as he was the figure who initiated the establishment of the Institute for Advanced Studies, Universiti Malaya itself.

We feel that finally, to be able to make the ArtScience outlook something that is impactful and sustainable, we need to decide our moral compass. The word morality is not understood perhaps by certain quarters but I think this is where we need to dialogue with mutual respect and mutual appreciation between the Arts and the Sciences. We need, via dialogue, to come to a consensus on a set of values. This lack of values is a stumbling block, I feel, for a momentous project like the Sustainable Development Goals to actually be achieved. We have read reports that the Sustainable Development Goals thus far has been successful to a very insignificant degree only, and I think this is because of the lack of the human element especially ethics.

Ladies and Gentlemen,

With that, I thank you so very much once again and I welcome all of you to the International Conference on Enhancing ArtScience in the Age of Sustainability: Artscience Solutions for Planetary Health (ICASAS '24).

Thank you and Assalamualaikum Warahmatullahi Wa Barakatuh.

WELCOME SPEECH BY PROFESSOR DR. ABRIZAH BINTI ABDULLAH DEAN, INSTITUTE FOR ADVANCED STUDIES, UNIVERSITI MALAYA



Bismillahirrahmanirrahim.

YBhg. Professor Dr. Yatimah Alias, Deputy Vice-Chansellor (Academic & International), Universiti Malaya, YBhg. Professor Dr. Mohd Nasir Hashim, Dean of the Faculty of Creative Arts and Holder of the Azman Hashim Chair of Music, Institute for Advanced Studies, Universiti Malaya, Professor Emeritus Datuk Azizan Baharuddin, Director of the Universiti Malaya Centre for Civilisational Dialogue, Chairman of the Organising Committee. Honorable guests, presenters, moderators and all participants of the conference.

Assalamualaikum wrt. wbt. and a very good morning.

On behalf of the Conference Organisers, it is indeed my honor and privilege to extend to you a big welcome to the Institute for Advanced Studies University of Malaya and to the International Conference on Enhancing ArtScience in the Age of Sustainability with the major theme of ArtScience Solutions for Planetary Health.

Our special welcome and appreciation also goes to Professor Yatimah Alias for agreeing to officiate our conference despite her very demanding schedule as the Deputy Vice-Chancellor of Academic and International Affairs.

Ladies and Gentlemen,

First established in 1979, the Institute of Advanced Studies is the country's first multidisciplinary postgraduate and advanced research centre existing within a university. Meticulously upholding high teaching and research standards, it provides an excellent platform for the evolution and sharing of fresh ideas that are made possible by distinguished local and international scholars from various faculties within the university's research centres. These experts form an "ArtScience" pool of intellectual resource, that have been instrumental in the founding of new niche areas such as planetary health, climate change, sustainability

science to name a few. Currently, the Institute of Advanced Studies (IAS) offers multidisciplinary programs and focus areas that are jointly coordinated by the Higher Education Centre of Excellence (HiCOE) as well as the Universiti Malaya Centre of Excellence (UMCoE).

Ladies and gentlemen,

The ArtScience COLLABORATOTY at IAS is a prime example of an innovative platform focusing on explorations that are interdisciplinary, multidisciplinary and transdisciplinary in nature that bring together faculty and students from the Arts and Science disciplines to collaborate on creative projects. Uniquely also, the IAS COLLABORATORY provides funding and resources for such projects such as being carried out via the conference put together by the University Malaya Centre for Civilisational Dialogue (UMCCD) today and tomorrow.

Established in 1996, the UMCCD has been promoting interfaith and intercivilisational dialogue as a mechanism for peace and sustainability and inevitably today it is most obvious that the future of human civilization itself is in jeopardy if the reality of planetary health is not taken seriously. Due to the UMCCD's own long standing efforts in promoting holistic development and the sustainability agenda whilst extending awareness of planetary health issues as can be seen from their involvement with the Transformational Leadership research project under the National Planetary Health Action Plan Initiative, the IAS has deemed it appropriate to award the Artscience Fellowship Grant under the Azman Hashim Chair of Music in February 2024 to the UMCCD. Congratulations to the UMCCD.

Inspired by the leadership of the founding father of the Institute, who himself was given the title of "The Renaissance Man," we at the IAS take cognizance of the fact that whilst "Art" and "Science" functioned in a complementary manner in antiquity, especially during the Renaissance Era ($14^{th} - 17^{th}$ century), their perspectives and methodologies parted ways, such that and especially after the Industrial Revolution and the 19^{th} century, today, Art and Science are described as the "two cultures."

More recently and especially in light of the unsustainability crisis dominating the global scenario as underlined by the current imperatives of Planetary Health and Climate Change, the Artscience movement is now gaining momentum with the aim of ensuring that the intuitive, imaginative methods of the "Art" and the rational rule-oriented methods of Science, are brought together again. In other words, in the context of the search for solutions for today's needs, the focus of science to seek an understanding that is objective and unambiguous and the focus of Art on an understanding that is unique, and that are based on open-ended subjective experiences, need to be harmonised and harnessed.

The ArtScience Specialist Todd Siler (b. 1953) describes this challenge of harmonising Art and Science as "breaking the mind barrier" and his elaboration of what Artscience forms the basis of the 17 Artscience Manifesto at our COLLABORATORY. Among the definitions in the ArtScience Manifesto that I would like to quote are as follows:

- 1. "Artscience enables us to achieve a more complete and universal understanding of things."
- 2. "Artscience involves understanding the human experience of nature through the synthesis of artistic and scientific modes of exploration and expression."
- 3. "Artscience molds subjective, sensory, emotional and personal understanding with objectives analytical, rational, public understanding."
- 4. "We must teach art, science, technology, engineering and mathematics as integrated disciplines, not separately."
- 5. "The vision of Artscience is the rehumanisation of all knowledge and the mission of Artscience is the reintegration of all knowledge."

In summary, Artscience is about knowing, analysing, experiencing and feeling simultaneously.

Ladies and gentlemen,

Looking at the topics that will be presented, and no doubt discussed at this conference, I have no doubt that the aims and objectives of the Artscience for Sustainability ideal will be very well responded to, by our speakers.

With that it is my pleasure once again to especially welcome YBhg. Professor Dr. Yatimah, our honoured guests and everyone, and I look forward to our future collaborations.

Thank you and Assalamualaikum Warahmatullahi Wa Barakatuh.

OFFICIAL ADDRESS BY PROFESSOR DR. YATIMAH ALIAS DEPUTY VICE-CHANSELLOR (ACADEMIC & INTERNATIONAL), UNIVERSITI MALAYA



Bismillahirrahmanirrahim.

YBhg. Professor Dr. Abrizah Binti Abdullah, Dean of the Institute for Advanced Studies, Universiti Malaya, YBhg. Professor Dr. Mohd Nasir Hashim, Dean of the Faculty of Creative Arts and Holder of the Azman Hashim Chair of Music, Institute for Advanced Studies, Universiti Malaya, Professor Emeritus Datuk Azizan Baharuddin, Director of the Universiti Malaya Centre for Civilisational Dialogue, Chairman of the Organising Committee. Honorable guests, presenters, moderators and all participants of the conference.

Good morning, Assalamualaikum wrt. wbt.

First of all, I would like to thank the organisers for inviting me to speak to you today about the significance and relevance of, as well as to officiate this conference. I believe that what I will be sharing will also be a way of my expressing the university's support to this unique endeavour of encouraging and enabling us to appreciate the fact that ArtScience is a critical way for us to experience nature through the synthesis of artistic and scientific modes of exploration and expression, that is much needed today.

Ladies and Gentlemen,

Undeniably our main concern today is Planetary Health (PH) in which human health and environmental health cannot be uncoupled from one another. Planetary health as a concept was first coined in 2015 and it is championed by the International Planetary Health Alliance. Its first roadmap and Action Plan was announced via the Sao Paulo Declaration in 2021. In 2024, Malaysia is the first country, via its 12th Malaysia Plan to embark on a National Planetary Health Action Plan (NPHAP). Under this plan, an integrated STIE driven initiative to mainstream Planetary Health/PH in all national level policies and plans through a holistic and a whole-nation approach to tackle issues linked to biodiversity-ecosystem, health and climate change for sustainable development will be carried out. As we can imagine, this landmark effort inevitably would require the contribution of all sectors, not least the educational and research components of local universities such as the University of Malaya.

In this regard, I would like to congratulate the Institute of Advanced Studies for taking up Planetary Health and Climate Change as one of the critical research areas in its postgraduate programs. My appreciation also goes to the UM Centre for Civilisational Dialogue (UMCCD) for heading a team of experts from within and outside the campus to carry out research and development of the Transformational Leadership Module which would be one of the mechanisms for activating the NPHAP itself. The expertises within the campus include those from the UMCCD itself, the UM Centre for Sustainable Development, Rimba Ilmu, Department of Science and Technology Studies as well as the *Sains Gunaan dengan Pengajian Islam* (SGPI) or the Applied Science with Islamic Studies (ASIS) Programme of the Academy of Islamic Studies, whose members are also researching on sustainability related topics. Kudos to the UMCCD for its leadership in promoting not only intercultural and interfaith dialogue on topics related to the Sustainability Imperative but also for enabling the dialogue between the "Art" disciplines with the "Science" disciplines to take place.

I am also informed that a significant element of the effectiveness of the Transformational Sustainability Leadership Module to move Planetary Health awareness is the "Artscience" approach, both in the theoretical and practical senses of the term and that there will indeed be a presentation to clarify further this point during the conference.

Ladies and gentlemen,

"ArtScience" discourses are also of critical importance currently as it can potentially address the challenges of what is today termed as post-normal times (PNT) in which novel solutions not previously thought of that requires the integrative power of ArtScience need to be worked upon more seriously.

This point was in fact was highlighted by the Honorable/ Yang Berhormat Minister of Higher Education Malaysia during his address on the "Halatuju Pengajian Tinggi" 2024 on the 21st of January 2024 at the Universiti Malaya.

Points that were highlighted which I think is pertinent to ICASAS'24 include the following:

 That change is inevitable and in the post-normal times condition of today, this change is characterized by the 3C's, that is "Contradiction," "Complexity" and "Chaos." This idea is also described by the acronym VUCA which stands for "Volatility", "Uncertainty", "Complexity" and "Ambiguity". We can imagine how solutions in the context of VUCA and the post-normal times need to rely on the Arts (philosophy, ethics, values and the social sciences) and the Sciences (all disciplines pertaining to natural physical phenomena) working in synergy with one another. This to me is one of the major message of this conference, which I hope will be the first of the series in the future.

- 2. Educators and leaders need to understand the zeitgeist or "Spirit of the Age" that we find ourselves in today. Zeitgeist refers to the general set of ideas, beliefs, and feelings that is typical of a period; and that period, we have just seen is an uncertain, volatile, ambiguous and complex one. Therefore, the "ArtScience" frame of mind will be the way forward in terms of our moving forward to a sustainable future.
- 3. The Honorable Minister also reminds us that in our struggle for greater physical progress, the importance of ethics and moral values such as integrity, justice and compassion based on our indigenous values and belief systems must not be neglected. In this context, the Artscience mentality can also help us tremendously. The presentation by Professor Emeritus Dato' Dr. Osman Bakar will be explaining more on this topic, I am sure. In the context of re-evaluating the importance of our indigenous values, this is where we can touch base with our own UM's Leadership aspiration for the Universiti Malaya which says "Here (UM) is Home of the Bright and Land of the Brave" which itself is an Artscience expression. Via this motto, the UM and this conference is responding to the national MADANI philosophy that aims to create and sustain a society that is civilized, just and sustainable, which is the goal of the Planetary Health Initiative to begin with.

Ladies and gentlemen,

Finally, I am also happy to take note that the university's role and objective in building human capacity holistically and in a balanced manner is also being responded to very interestingly by presentations in the ICASAS'24 in these two days. Finally, it is also my belief that the novel impact of the special ArtScience Initiative of the Azman Hashim Chair of Music under the IAS is a significant contribution to the cultivation of what the university describes as HECAP, or the Higher Education Capital which the nation is looking for.

Once again, kudos to the Azman Hashim Music Chair, the IAS and the UMCCD for their efforts in promoting ArtScience in a more prominent way. We hope it will be the first of many more to come.

Our utmost appreciation also goes to all the conference speakers, moderators and participants who have come with their creative and fresh ideas. Thank you for your attention and with the Divine phrase *Bismillahirrahmanirrahim*, I hereby declare this conference officially open.

Wabillahi taufik wa al hidayah wassalamualaikum warahmatullahi wabarakatuh.

Thank you.

DAY 1 (12 JUNE 2024) PRESENTERS' PROFILES AND ABSTRACTS

EMERITUS PROFESSOR DATO' DR. OSMAN BAKAR



Osman Bakar, a doctorate in Islamic philosophy from Temple University, Philadelphia (USA) is currently Holder of Al-Ghazali Chair of Epistemology and Civilizational Studies and Renewal at ISTAC-IIUM. He is also Emeritus Professor in Philosophy of Science at University of Malaya. He was formerly Distinguished Professor and Director of Sultan Omar 'Ali Saifuddien Centre for Islamic Studies (SOASCIS), Universiti Brunei Darussalam. Professor Osman was also formerly Malaysia Chair of Islam in Southeast Asia at the Prince Talal al-Waleed Centre for Muslim-Christian Understanding, Georgetown University, Washington D.C., and Deputy Vice Chancellor (Academic and Research) at University of Malaya. Dr Osman is author and editor of 44 books and numerous articles on various aspects of Islamic thought and civilization, particularly Islamic science and philosophy in which he is a leading authority. His most well-known books are Classification of Knowledge in Islam (1992) and Tawhid and Science (1992). His latest books are Colonialism in the Malay Archipelago: Civilizational Encounters (eds) (2020), Environmental Wisdom for Planet Earth: The Islamic Heritage (2022), and Islam-Buddhism Eco Dialogue (IBED): Application of Religion and Science to Ecology and Sustainability (eds) (2023). Dr Osman is a recipient of several prestigious awards, including Ibn Ishaq Al-Kindi Intellectual of the Year Award (National, 2020) and the 13th Farabi International Award on Humanities and Islamic Studies (International Top Researcher, 2022). His writings have been translated into numerous languages, including Arabic, Turkish, Persian, Japanese, Chinese, Bosnian, Urdu, Bengali, Spanish and Italian. He has been named among the 500 most influential Muslims in the world since 2009. He was made a Dato in 1994 by the Sultan of Pahang and a Datuk by the King of Malaysia in 2000.

ABSTRACT

RESTORING THE UNITY OF THE ARTS AND THE SCIENCES: AN IMPERATIVE FOR MALAYSIA MADANI

Emeritus Professor Dato' Dr. Osman Bakar

Al-Ghazali Chair of Epistemology and Civilizational Studies and Renewal, International Institute of Islamic Thought and Civilisation (ISTAC), International Islamic University Malaysia Email: <u>obbakar@yahoo.com</u>

It is very difficult to draw a clear line of separation between art and science. The main reason for this difficulty, as argued by many epistemologists and philosophers of science, is that art and science are inextricably linked to each other. In the words of one traditional epistemological wisdom, there is art in science and there is science in art. This means that science and art are not mutually exclusive. As a rule, it may be said that science is about knowledge of the nature and properties of objects that form part of the ontological reality. According to Aristotle, this knowledge is demonstrable through syllogistic reasonings, which he calls scientific. Science is thus knowledge that arises as the end-product of true reasoning. As for art, it is the state of capacity to make something or do some specific work, which also employs reasoning but of a different kind. The end-product of art is the making of something or the doing of some action. Both art and science conform to the nature of things. It is this understanding of art and science that serves as the epistemological foundation of the arts and the sciences in Islamic and Western civilisations. The unity of the arts and the sciences, which is essential to a healthy civilisation, needs to be renewed but for different reasons. The unity in question was once a reality in all traditional civilisations - in China, India, the West, and the Muslim world. In the light of this civilisational fact, it is thus imperative for Malaysia Madani to restore and renew this fundamental idea for the sake of its own success.

RESTORING THE UNITY OF THE ARTS AND THE SCIENCES AN IMPERATIVE FOR MALAYSIA MADANI

Osman Bakar, PhD, FASc

Al-Ghazali Chair of Epistemology and Civilisational Studies and Renewal ISTAC-IIUM

Keynote Address at International Conference on Enhancing ArtScience in the Age of Sustainability at IAS, Universiti Malaya on 12-13 June 2024

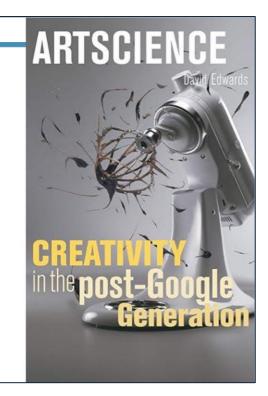
WHAT IS ARTSCIENCE? OLD CONTENT NEW NAME?

The word ArtScience was first used by Todd Siler (1990)

- A new term for a new type of knowledge appreciation: ArtScience champions the virtues of interdisciplinary work even crossing the conventional line between the arts and the sciences
- ARTSCIENCE Creativity in the post-Google Generation (2010) by Harvard Professor David Edwards.
- How Singapore and Academy of Science Malaysia appreciate ArtScience

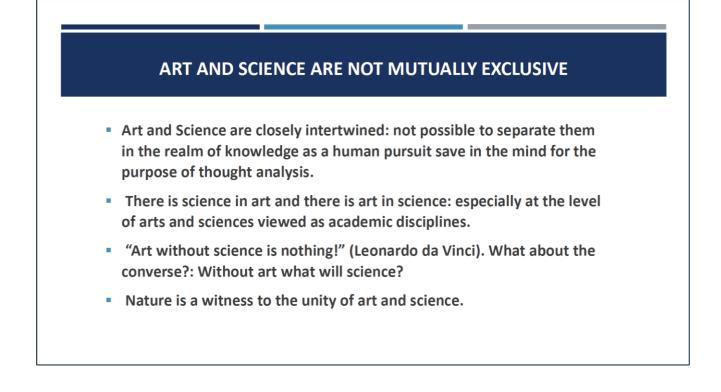
ARTSCIENCE – Creativity in the post-Google Generation (2010) by Harvard Professor David Edwards.

This book is an attempt to show how innovation in the "post-Google generation" is often catalyzed by those who cross a conventional line so firmly drawn between the arts and the sciences.



ART AND SCIENCE BEFORE ARTSCIENCE

- The roots of art and science in human thought: the Greek origin episteme and techne; the Arabic-Islamic origin – 'ilm and sana'ah; the Latin origin – scientia and ars;
- Art and Science: the epistemological roots science is knowledge for the sake of knowledge; art is knowledge for the sake of doing and producing things.
- Art and Science: two personal and civilisational needs of man
- Art and Science: always needed in every age before, now, and in the future.



ARTSCIENCE ON THE CIVILISATIONAL SCALE: THE ARTS AND THE SCIENCES

- The civilisational logic of ArtScience its place and role in civilisational building – integration of facts and values; realisation of wholeness and balance; sustainability.
- Will the traditional unity of the arts and the sciences be restored?
- ArtScience: the end of the epistemological conflict between and science and humanities, the Two Cultures of Charles Percy Snow?
- > ArtScience: will it be the new face of the 21st century universities?

ARTSCIENCE IN THE LIGHT OF TAWHIDIC EPISTEMOLOGY The legacy of pre-modern civilisations: unified or tawhidic epistemology ArtScience may be seen as an attempt to return to this pre-modern idea even if some of its advocates do not have this perception. As far as the history of ideas goes ArtScience is just the beginning of a new epistemological consciousness among a segment of the world's thinking community. ArtScience as currently understood is still far away from many ideas embodied in the tawhidic epistemology that shaped the universal character of Islamic civilisation. Tawhidic epistemology is not only Islamic but also universal. A noticeable change towards tawhidic epistemology: see Simon Glynn, "Towards a unified epistemology of the human and natural sciences" in *Journal of the British Society for Phenomenology*.

ARTSCIENCE AND BEYOND AN IMPERATIVE FOR MALAYSIA MADANI

- Sustainability and Innovation are two of the six civilisational pillars of Malaysia MADANI
- ArtScience and more generally tawhidic epistemology (unity of the human and natural sciences) is the foundation of sustainability and innovation. Without unified epistemology the quest for sustainability and innovation would be impaired thereby weakening the aspirations of Malaysia MADANI itself.
- MOHE and Malaysian universities need an urgent internal reform in the light of the ArtScience as the new epistemological catalyst for meaningful civilisational renewal.

CONCLUSION

It is argued here that ArtScience will find in traditional unified (tawhidic) epistemology a great source of inspiration for knowledge advancement!

THANK YOU

ICASAS'24

DR. JILLIAN OOI LEAN SIM



Dr. Jillian Ooi is a marine ecologist at the Department of Geography, Faculty of Arts and Social Sciences, Universiti Malava. Her research focuses on seagrass, a vital but often overlooked flowering plant in shallow coastal seas. She explores the requirements for seagrass ecosystems to thrive, their role in supporting fish, dugongs, and the livelihoods of local communities, and methods for their restoration. Jillian was awarded the Pew Fellowship in Marine Conservation in 2022 and the Komai Fellowship in 2015 to advance seagrass restoration and conservation in Malaysia. Her efforts contributed to establishing the Kepulauan Lima marine park in Johor, enhancing protection for the Tioman and Sibu Island marine parks, and providing key data for a proposed Dugong Sanctuary in Johor. Jillian enjoys engaging with coastal communities, having initiated and supported community-based seagrass conservation in the Sungai Johor and Sungai Pulai estuaries. By empowering local residents to participate in citizen science, she hopes to foster a collective effort toward conservation. To further public education, Jillian uses music to amplify her scientific work and inspire conservation action. As the Artistic Director and Music Director of Rhythm in Bronze, an award-winning Malay gamelan orchestra founded in 1997, she and her team have pioneered innovative performances that blend movement, song, dance, text, and visual elements to tell powerful stories about social and environmental issues. The Sea is the main source of her creative inspiration.

ABSTRACT

ARTSCIENCE FOR UNDERSTANDING HUMAN EXPERIENCE OF NATURE THROUGH THE SYNTHESIS OF SCIENTIFIC EXPLORATION AND ARTISTIC EXPRESSION

Dr. Jillian Ooi Lean Sim

Department of Geography, Faculty of Arts and Social Sciences, Universiti Malaya Email: jillian_03@um.edu.my

This presentation explores the fusion of science and the arts in conveying compelling messages about nature conservation, highlighting how this synthesis enhances our understanding of the human experience of nature. It begins by exploring the diverse mediums used by Malaysian artists to express their views on nature and conservation, drawing from the country's rich cultural heritage. Shifting its focus, the presentation emphasizes the potency of music as a tool for advocating nature conservation and enriching human experience. A case study featuring Seruan Setu – Secret Gardens of the Sea, a gamelan music performance dedicated to seagrass ecosystems, illustrates how the integration of science and the arts can yield a potent instrument for environmental advocacy even for an ecosystem that is often regarded as uncharismatic. Seruan Setu was created by scientists from Universiti Malaya, produced and performed by the Rhythm in Bronze gamelan orchestra, funded by the Ministry of Communications and Digital via MyCreative Ventures and the Pew Fellows in Marine Conservation Program, and supported by the Institute of Research Management and Monitoring, Universiti Malaya. Seruan Setu was staged at the Kuala Lumpur Performing Arts Centre, 23 – 27 August 2023. Gain valuable insights into the key elements that contributed to the critical success of Seruan Setu, including how collaborative relationships were built between Malavsian arts practitioners, scientists, and the local community of Mukim Tanjung Kupang, Johor, ultimately enhancing the human experience of nature through this ArtScience approach.



ARTSCIENCE

for understanding human experience of nature through the synthesis of scientific exploration and artistic expression

1

Dr Jillian Ooi

Department of Geography, Faculty of Arts and Social Sciences, <u>Universiti</u> Malaya

> Rhythm in Bronze Gamelan Orchestra

12th June 2024 Institute of Advanced Studies, UM

"Human attention is a limited resource"

Ganga Shreedar, London School of Economics

"Music enhances the communication of emotions, ideas, and intentions, leading to better understanding and empathy between people" Daniel Levitin, neuroscientist, cognitive psychologist, musician

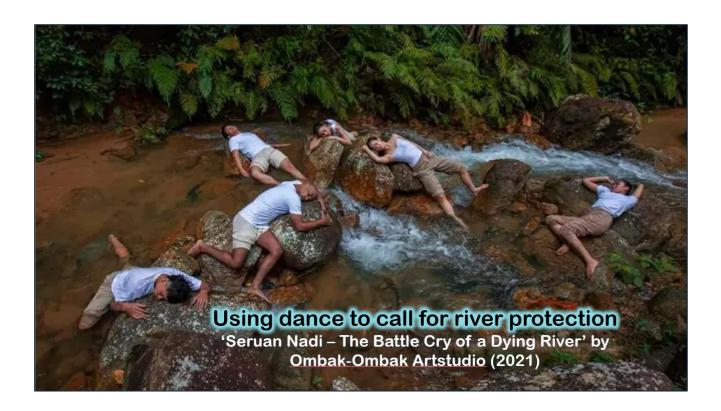






Using art to highlight e-waste 'No time to waste' by Nor <u>Tijan</u> Firdaus Front cover of IMF publication, Sept 2021







Accelerating loss of seagrasses across the globe threatens coastal ecosystems

Michelle Waycotts¹, Carlos M. Duarte^b, Tim J. B. Carruthers⁴, Robert J. Orth⁴, William C. Dennison⁴, Suzanne Olyarnik⁴, Ainsley Calladine⁴, James W. Fourqurean⁴, Kenneth L. Heck, *Jr.s³*, A. Randall Hughes⁴, Gary A. Kendrick⁴, W. Judson Kenworthyl, Frederick T. Short⁴, and Susan L. Williams⁴

School of Marine and Tropical Biology, James Cook University, Townsville, Queensland 4811, Australia, ⁴Institut Mediterrani d'Estudia Avançata, Consejo Superior de Investigaciones Científicas (Scain)-Universitat de les Illes Salbaras, Miquel Marques 21, 017100 Esportes, Spain; "University of Maryland Centre for Enrorsonnena: Subarnes, Cambridge, MD 2183, "Vignati Institute of Marylane Sciones, College of Utiliani and Maryland Centre Subarnes, Cambridge, MD 2183, "Vignati Institute of Marylanes Sciones, College of Utiliani and Maryland Sciences (Sciences), Cambridge of Utiliani and Sciences), "University of Subarnes, Sciences, College of Utiliani and Maryland Centre University, Marni, R. 23198, "Otapatin Island Sciences, Nathana Maryland, Sciences, Tohones, Otapating, Cambridge, School of Plant University, Marni, R. 23198, "Otapatin Island, Scaines, "Reservent Australa (Science For Costal Fisherien and Habiata Research, National Oce Service, Rational Oceanic and Atmospheric Administration, Beaufort, NC 28516, and ⁵Jackson Estuartine Laboratory, University of Netro Maryland, Center for Costal Fisherien and Habiata Research, National Oce Jourham, Hol 2023.

Communicated by Robert T. Paine. University of Washington. Seattle, WA. May 20, 2009 (received for review October 26, 2008)

Communicated by Robert T. Paine, University of Washington, Seattle, WA, May 20, 2009 (received for review October 26, 2008) Coastal ecosystems and the services they provide are adversely affected by a wide variety of human activities. In particular, seagrass meadows are negatively affected by Impacts accruint ing an estimated 519 tillion per vaor in the form of nutrient cycling; an order of magnitude enhancement of coral reef fish productivity: a habitata for Musica form of nutrient species; and a major food source for endangeed dugon, mana-tee, and green turlle. Although Individual impacts income productivity: a habitata for Musica form of nutrient species; and a major food source for endangeed dugon, mana-tee, and green turlle. Although Individual impacts income areal extent of sagarasa loss until now. Our comprehensive global assesses ment of sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss until now. Our comprehensive global assesses ment of a sagarasa loss and the sagarasa sagarasa areas were litilative from a median of 0.5% yr⁻¹ berore 1940 to 7% yr⁻¹ since 1940 graduated and the areas of the global trajectorest and place sagarasa readows anomed the most thread end on sagarasa sagarasa sagarasa sagarasa sagarasa sagarasa loss until revise was a meadows incore to a sagarasa sagarasa sagarasa loss and loss beglobal to the version o

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stem decline | global trajectories | habitat loss | marine habitat

economication is grade adaptions i materia adapti materia materia. Construct, and sagarasas have declined, leading to growing contern because they have recognized ecological and economic two sidely distributed genera Zoorae. Thatasias, and Posidonia, form some of the most productive ecosystems on earth, rivaling even erosp of coro and sugar care (6). Further, segarass mead-ows provide high-value ecosystem services such as supporting commercial fisheries worth as much as \$3500 her ¹ yr⁻¹ (n), subsistence fisheries that support entire communities (8), nurri-ent cycling (9, 10), sediment stabilization (11), and globally significant sequestration of earbon (12). Segarasses and the uerices they anxietide an threatand be the immunities limited in the subside and the second the limit of the limit of the subside and the subsidiaria in the limit of the limit of the subside and the subsidiaria in the limit of the limit of the subside and the subsidiaria in the limit of the limit of the subside and the limit of the limit of the subside and the limit of the limit of the limit of the subside and the limit of the subside limit of the limit of the limit of the subside limit of the subside limit of the limit of the subside limit of th

deciming across the globe and that the rate of uses is a cecter range. **Results** Our analysis of the change in areal extent of seagrass populations demonstrates that, since the carfields records in 1879, seagrass meadows have declined in all areas of the globe where quantitative data are available, including both high and low latitudes. Comparing all sites across their total study length, there were significantly more declines in seagrass meadows than predicted by chance: 58% of sites declined, 25% increased, and 17% exhibited no detectable change (Table 1; $x^2 = 50, P < 0.002$, df = 2). Over the entire time period of our analysis, there was a mean decline in seagrass area of 1.5% yr⁻¹ (mediam = 0.5%, yrra loots is large. Overall, the measured area of seagrass has some way and the entire time period of our analysis, there was a mean decline its seagrass area to <math>1.5% yr⁻¹ (mediam = 0.5%, yrra loots is large. Overall, the measured area of seagrass has was 3.370 km⁻¹ between 1879 and 2005 (i.e., 27 km⁻²), representing 29% of the maximum area measured (1).592 km⁻²), the addition, the difference in area lost among sites that declined was more than 10 times greater than that among sites that declined was more than 10 subsimplis are covered similar overall rates of change independent of subsimple size (Fig. S1). Extrapolation to the global scale must be qualified by limited seagrass mapping diditional unmapped area (19), the current estimate of the total area of seagrass is ~17,000 km². Extrapolating our conservents of the state of the total area of seagrass area in the root state and the state of the total area of seagrass is ~17,000 km². Extrapolating our conservents of the state of the total area of seagrass is ~17,000 km².

Articles



A Global Crisis for Seagrass Ecosystems

December 2006 / Vol. 56 No. 12 · BioScience

ROBERT J. ORTH. TIM J. B. CARRUTHERS, WILLIAM C. DENNISON, CARLOS M. DUARTE, JAMES W. FOURQUREAN, KENNETH L. HECK JR., A. RANDALL HUGHES, GARY A. KENDRICK, W. JUDSON KENWORTHY, SUZANNE OLYARNIK, FREDERICK T. SHORT, MICHELLE WAYCOTT, AND SUSAN L. WILLIAMS

Seagnasses, marine flowering plants, have a long evolutionary history but are now challenged with rapid environmental changer as a result of cos human population pressures. Seagnasse provide key ecological services, including organic arbom production and export, nutrient cycling, solin addustion, enhanced historicity, and traphic transfers to adjacent habitats in trapical and temperature regions. They also errors "countal samu-table transfers, enhanced historicity, and traphic transfers to adjacent habitats in trapical and temperature regions. They also errors "countal samu-including enhanced historicity, and traphic hardfords to adjacent habitats in trapical and temperature regions. They also errors "countal samu-including enhanced historicity, and traphic hardfords, and they are not the samuella strategies and the samuella strategies and the samuella strategies and the samuella strategies and traphic strategies. They also errors, and and they are not samuella strategies and the samuella strategies and the samuella strategies and traphic strategies. There is a critical strategies of samuella compares, which has lagged behind awareness of other coastal ecosystems. There is a critical for a targeted global conservation of for that includes a credication of strategies methode and sadiment inputs to seagnass habitats and a targe educational program informing regulators and the public of the value of sagaras meadows.

Keywords: seagrass, decline, sentinels, ecological services, monito

Seagrasses—a unique group of flowering plants that have adapted to exist fully submersed in the sea— profoundly influence the physical, chemical, and biological en-vironments in costal waters, acting as ecological engineers (sensu Wright and Jones 2006) and providing numerous important ecological services to the marine environment portant ecological services to the marine environment (Costanza et al. 1997). Seagrasses alter water flow, nutrient cy-cling, and food web structure (Hemminga and Duarte 2000). They are an important food source for megaherbivores such as green sea turtles, dugongs, and manatees, and provide critical habitat for many animals, including commercially and recreationally important fishery species (figure 1: Beck et al. 2001). They also stabilize sediments and produce large

quantities of organic carbon. However, seagrasses and these associated ecosystem services are under direct threat from a

associated ecosystem services are under direct threat from a host of anthropogenic influences. Seagrasse are distributed across the globe (figure 2), but unlike other taxonomic groups with worldwide distribution, they exhibit low taxonomic diversity (approximately 60 species worldwide, compared with approximately 50,000 terrestrial angiosperms). The three independent lineages of seagrass (Hydrocharitaceae, Cymodoceaceae complex, and Zosteraceae) evolved from a single lineage of monocotyle-donous flowering plants between 70 million and 100 million years ago (figure 3a. Les et al. 1997). This is in stark contrast to other plant groups that have colonized the marine envi-

Mangroves, coral reefs

3 - 100 x more media attention

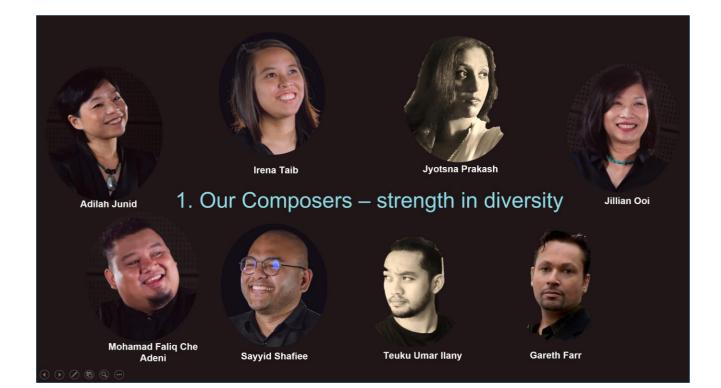


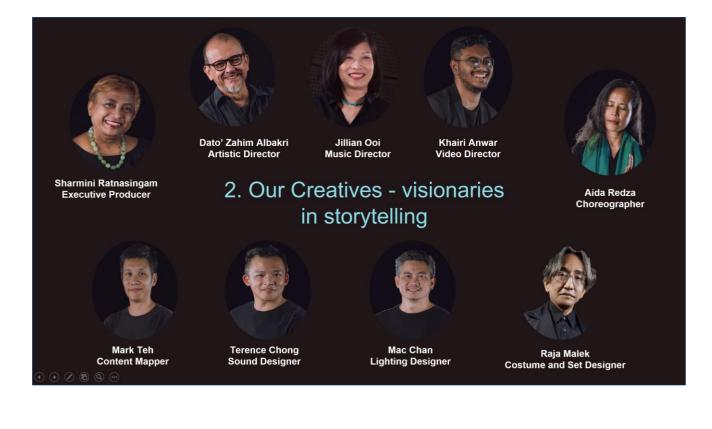


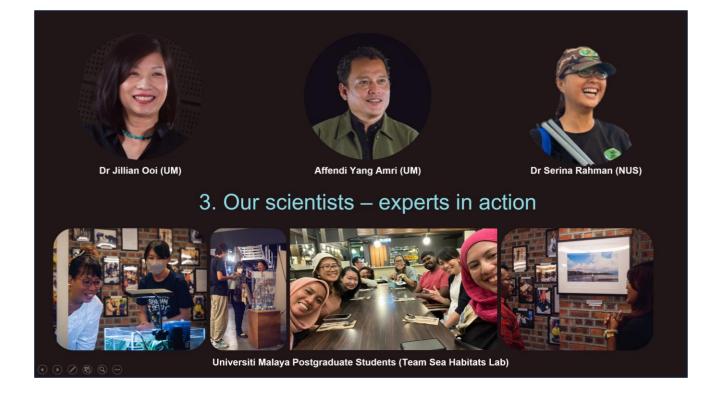






















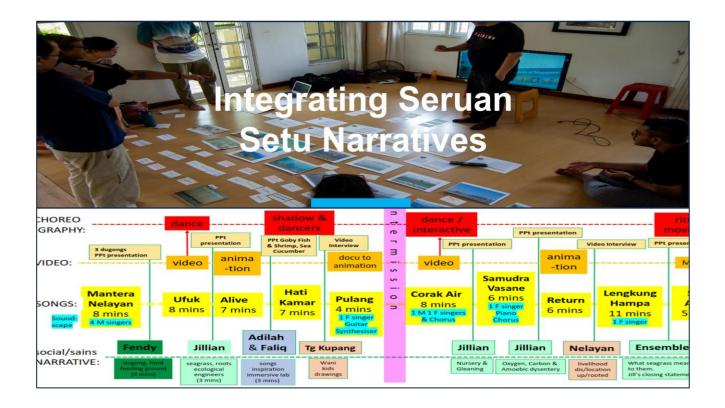
How to visualise ecosystem function of seagrass?

How to communicate the threats to seagrass?

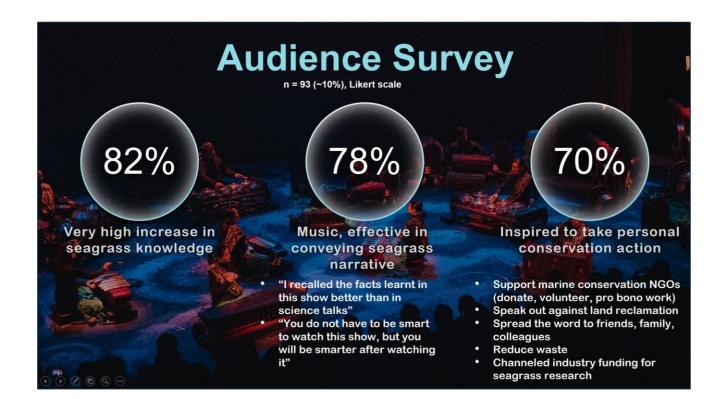
Climate change / water pollution / land reclamation

- How to 'people' the seagrass?
- How to show "traditional ecological knowledge?"











Seruan Setu

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Jillian Ooi Universiti Malaya Malaysia #seruansetu

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ICASAS'24

ASSOCIATE PROFESSOR DR. MONA EL-SHERBINI



Mona El-Sherbini, MD, is an accomplished medical doctor and Associate Professor of Medical Parasitology at the Faculty of Medicine, Cairo University, Egypt. She is the visionary founder and director of the Narrative Medicine and Planetary Health course at the Integrated Program of Kasr Al-Ainy (IPKA), Cairo University, where she passionately integrates medicine with humanities, the arts, and culture while advancing planetary health education and awareness. She is also a planetary health researcher and an invited faculty member at the Nova Institute for Health in the USA. Additionally, she serves as a guest editor at the International multidisciplinary Challenges Journal, MDPI. Mona's proactive leadership in the grassroots initiative of the Mentoring Research Network (MRN), a platform that facilitates collaboration and capacity building among diverse professionals researching pressing global public health challenges in Africa and the Global South, highlight her commitment to fostering meaningful change. She has participated in more than 20 peer-reviewed research articles and international conference talks dedicated to advancing human and planetary health. Throughout her work, Mona seeks to nurture a pro-planetary positive mindset among both individuals and communities. She strives to cultivate a holistic approach towards a positive shared future for all. Her foundational principle, "Embrace holism with a focus on pedagogy before technology and humanity before science," continues to inspire her vision and her passionate mentorship endeavours, toward her colleagues and students alike.

ABSTRACT

BEYOND BOUNDARIES: THE ANTHROPOCENE, ARTSCIENCE AND THE QUEST FOR PLANETARY HEALTH

Associate Professor Dr. Mona El-Sherbini

Narrative Medicine and Planetary Health, Faculty of Medicine, University of Cairo Email: monas.elsherbini@kasralainy.edu.eg

The Anthropocene epoch marks a critical phase in the history of humanity, where anthropogenic activities have profoundly impacted our planet. Alongside remarkable ecological crises, the Anthropocene worldview has raised existential questions, with a cultural and ethical discourse that recognizes the intrinsic value and calls for more responsible sustainable living. Addressing these collective challenges necessitates a broader perspective guided by a unified sense of purpose toward personal and planetary health. In this context, the role of religious leaders in shaping the social and environmental worldviews of their followers cannot be underestimated. Religious teachings provide a moral framework for promoting climate action, global ethics, the rights of Indigenous peoples, peace, and justice, and other aspects of planetary health. By examining the global ecological crises through the lens of Islam, the Religion of Nature, or Din al-Fitrah, and its environmental and spiritual teachings, we can gain valuable insights into humanity's connection to the fabric of creation and its interaction with the world. These principles, rich in moral values, are intertwined with accountability and social cohesiveness. Therefore, the role of Muslim religious leaders considering the planetary-scale threats warrants further elucidation, recognizing that many other faiths and faith leaders can similarly contribute together for the common good.

Link to video presentation (2:33:13 – 2:58:39): https://www.youtube.com/live/Ve-4q25u8zM?feature=shared

ICASAS'24

EMERITUS PROFESSOR DR. AZIRAH HASHIM



Azirah Hashim is Emeritus Professor at the Faculty of Languages and Linguistics, Universiti Malaya, Malaysia. Her roles at the university have included Executive Director of the Asia-Europe Institute, Director of the Centre for ASEAN Regionalism, Dean of the Humanities Research Cluster and Dean of the Faculty of Languages and Linguistics. She is on the editorial and advisory board of several journals such as English Today, World Englishes, International Journal of Applied Linguistics, Asian Journal of Applied Linguistics, Journal of Intercultural Communication and is Chief Editor of the ASEAN Journal of Applied Linguistics. She is the current President of the International Association of Applied Linguistics (AILA), an association with 36 affiliates around the world with members who work on interdisciplinary and transdisciplinary research and practice dealing with practical problems of language and communication. Fellowships awarded include the Georg Forster Research Fellowship for Experienced Researchers, Alexander von Humboldt Foundation, Germany and the Trinity Long Room Hub Arts and Humanities Research Fellowship at Trinity College Dublin. She was also Marie Curie Fellow at the University of Freiburg, Germany in 2022. In 2023, she was awarded Honorary membership of the Linguistic Society of the Philippines for distinguished contribution to research in language and linguistics. She was elected Fellow of the Academy of Sciences Malaysia in the same year.

ABSTRACT

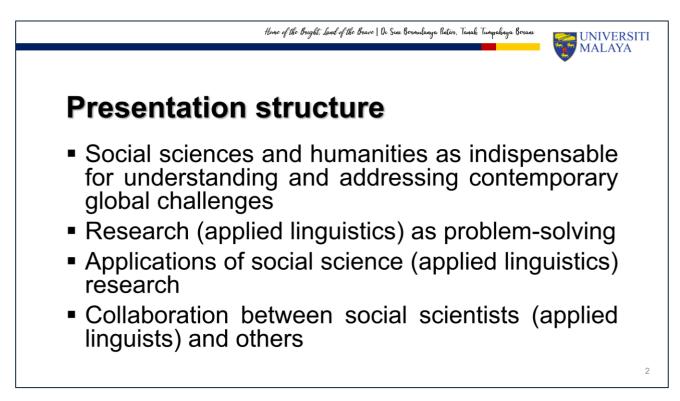
GLOBAL CHALLENGES: THE ROLE OF THE SOCIAL SCIENCES AND HUMANITIES

Emeritus Professor Dr. Azirah Hashim

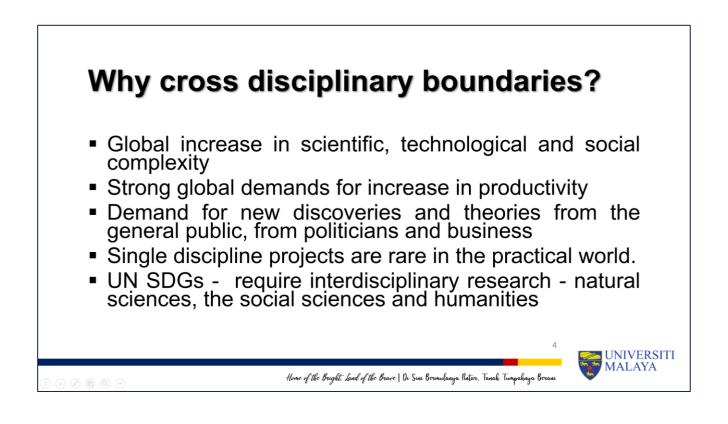
Department of English Language, Faculty of Languages and Linguistics, Universiti Malaya Email: <u>azirahh@um.edu.my</u>

Collaboration across disciplinary borders is both desirable and essential given the global increase in scientific, technological and social complexity and demand for increased productivity dependent on science and technology. In addition, environmental challenges require collaboration among the natural sciences, the social sciences and the humanities. These urgent challenges all have a human dimension and social science and humanities-based research provides data and analysis about behaviour, perspectives and attitudes leading to viable solutions. These disciplines are central to the issues and it is essential that they be included within the global research landscape and be recognised, promoted and nurtured. This presentation highlights the fundamental role that the social sciences and humanities play in research on global challenges and calls for an expanded role for them in tackling problems through interdisciplinary research. Examples of interdisciplinary research where Applied Linguistics and other disciplines play a key role will be discussed to illustrate how they can expand boundaries to produce new knowledge and understanding.

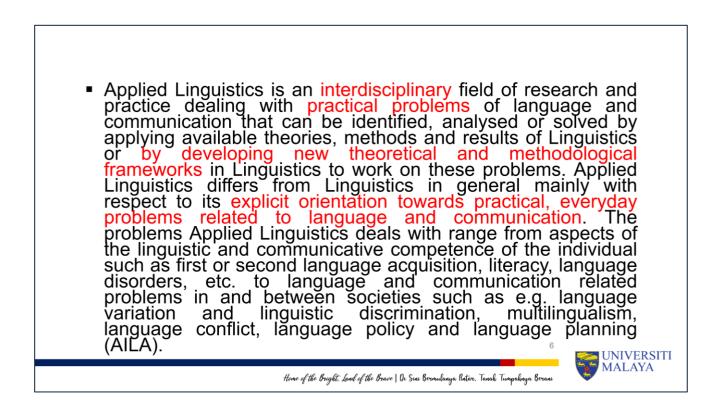






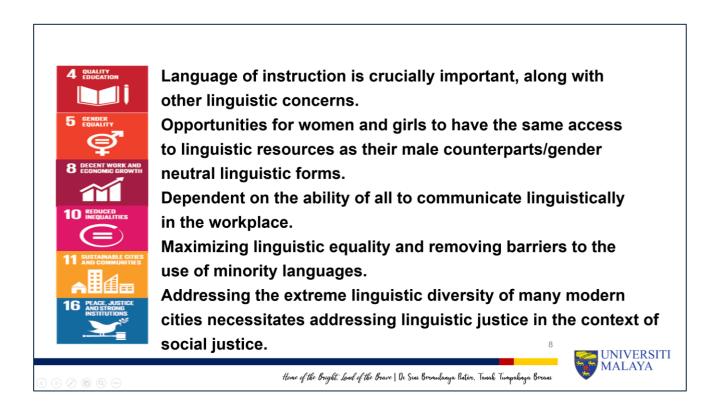


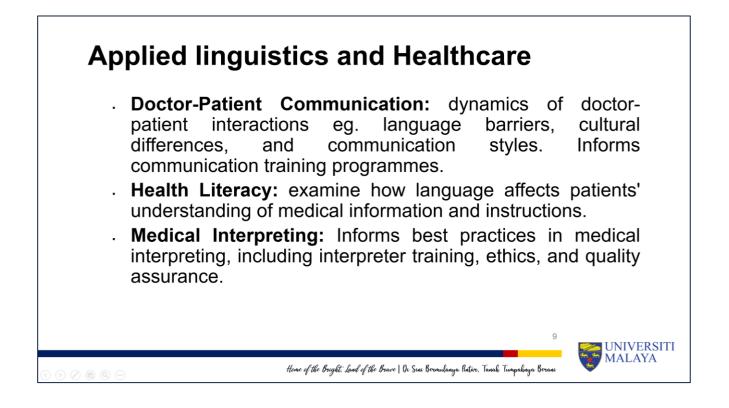


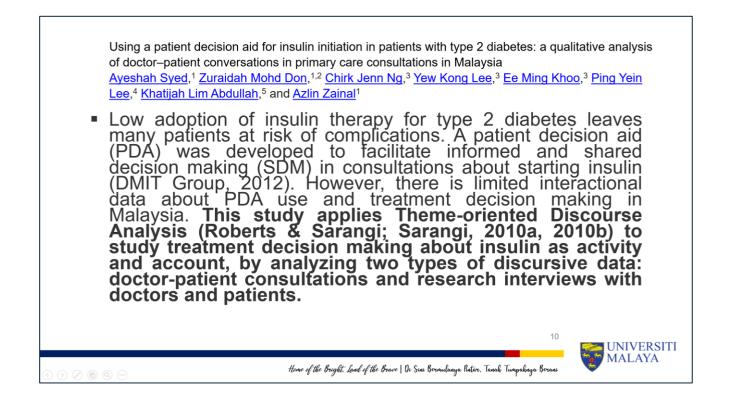


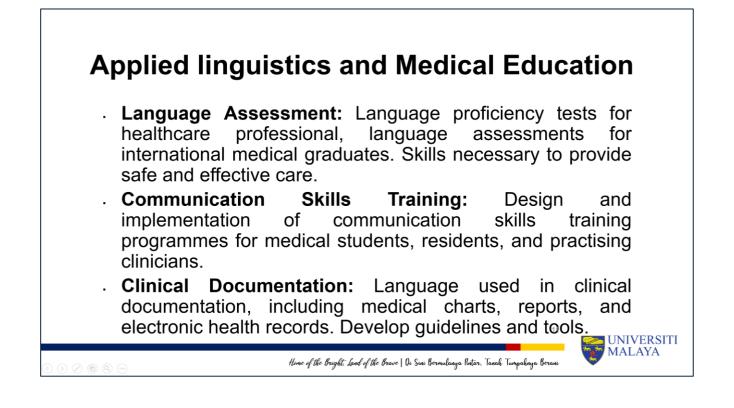
What does Applied Linguistics have to contribute to the realisation of the SDGs?











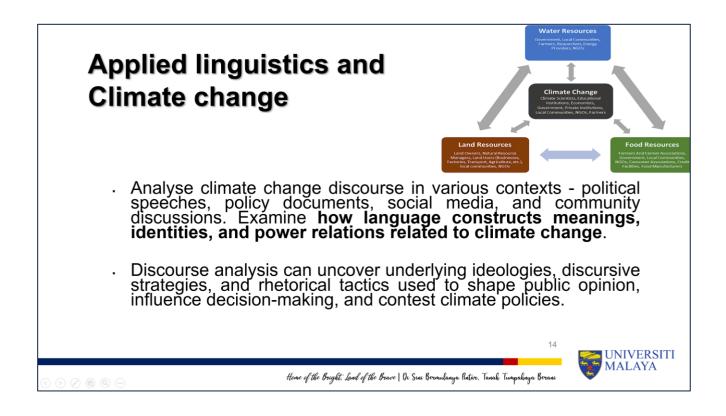


Applied linguistics and Climate change

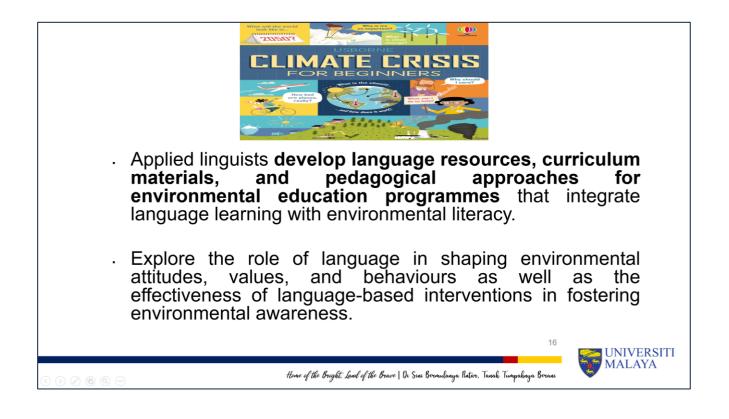


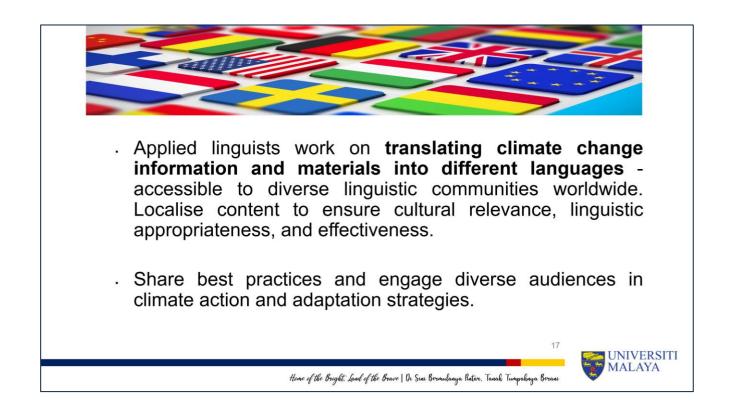
- Media coverage, public discourse, and educational materials. Develop communication strategies to effectively convey scientific findings, raise awareness, and motivate action on climate change among different audiences (eg. policymakers, general public, and vulnerable communities).
- Language framing, narrative strategies, metaphors, and linguistic devices that influence public perceptions, attitudes, and behaviour toward climate change mitigation and adaptation.

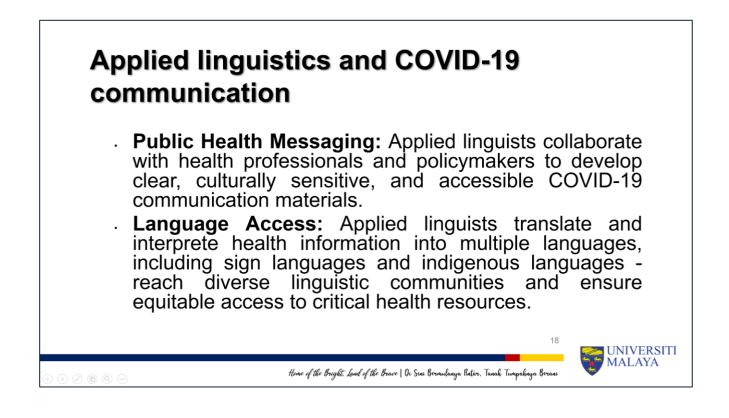


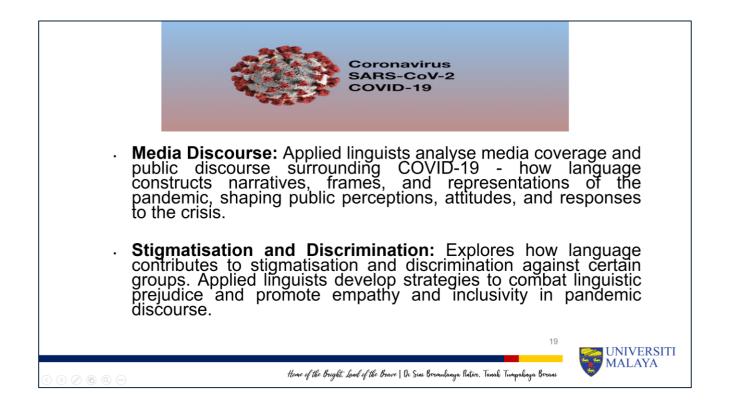


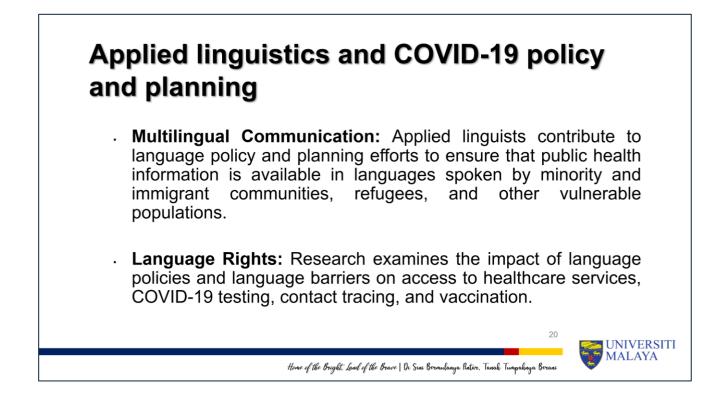
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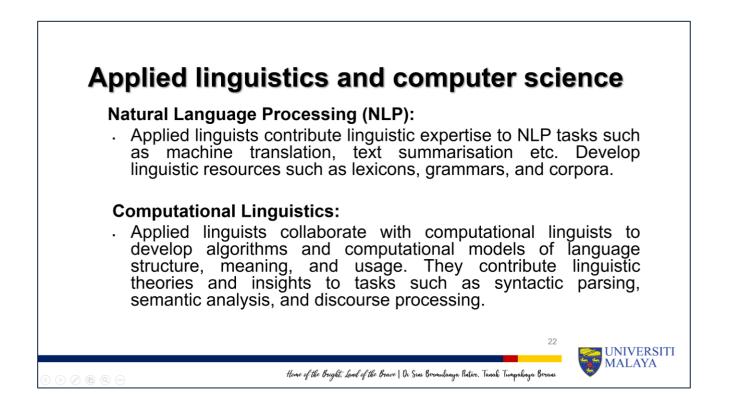


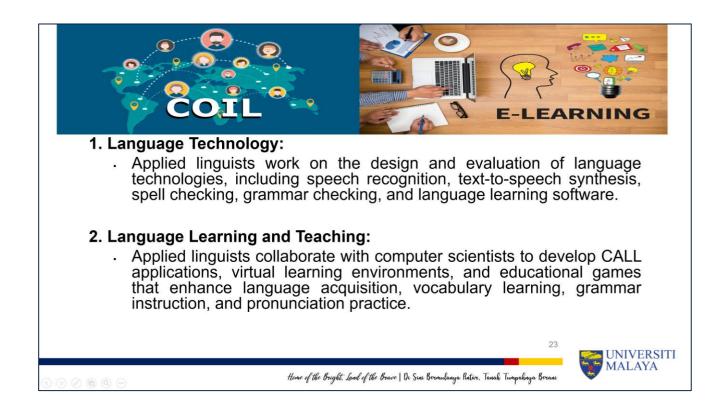


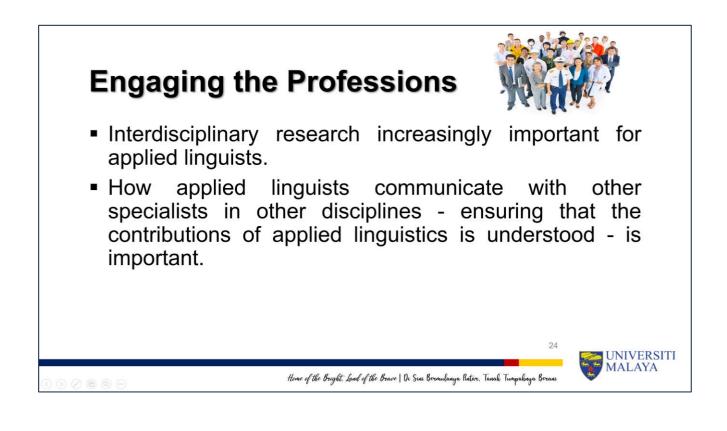


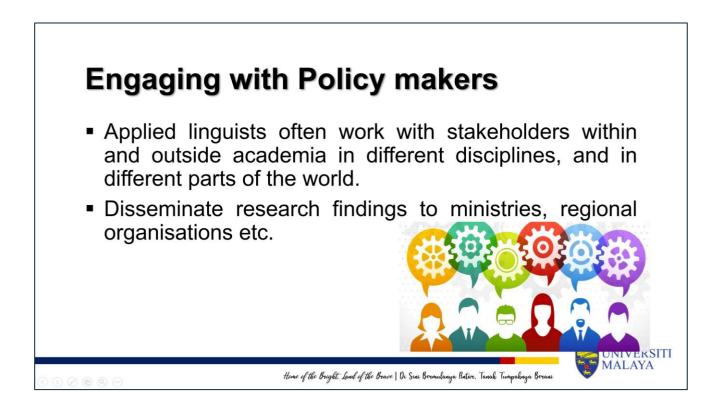


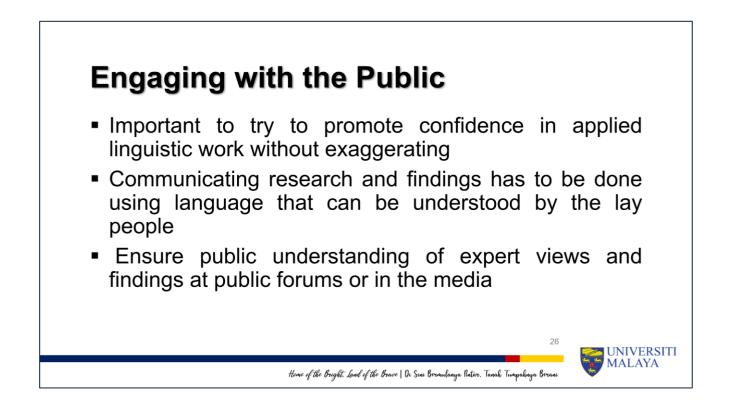




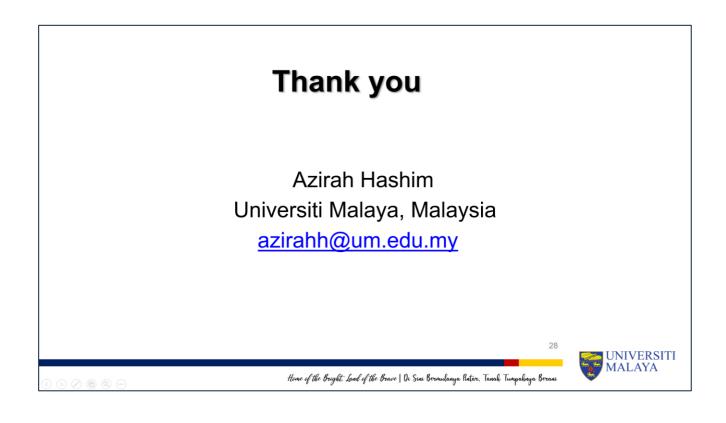












ASSOCIATE PROFESSOR DR. ZEEDA FATIMAH MOHAMAD



Zeeda Fatimah is an Associate Professor at the Department of Science and Technology Studies (STS), Faculty of Science, University of Malaya (UM) and the Founding Director of the Universiti Malaya Sustainability and Development Centre (UMSDC). She started my academic career in UM after the completion of my PhD in 2009. She graduated with a BSc. in Ecology from the Institute of Biological Sciences, Universiti Malaya; MSc in Environmental Management and Policy from the International Institute of Industrial Environmental Economics (IIIEE), Lund University, Sweden; and PhD in Science and Technology Policy from SPRU Science and Technology Policy, University of Sussex, United Kingdom. Her academic interest is primarily to understand the relationship between the development of science, technology, and innovation (STI) and environmental protection, particularly within the context of environmental, sustainable development and associated challenges to lateindustrialising countries. In the past few years, she has applied her interdisciplinary perspective in environmental and STI studies into the emerging field of Sustainability Science. This has broadened her work into the inter- and trans-disciplinary area of socioecological and socio-technical sustainability transitions, education for sustainable development, participatory watershed management and more recently, place-based citizen science. She teaches and supervises both undergraduate and postgraduate courses/programmes that relates the scientific field of environmental sustainability with policy, management and governance of STI. She represents UM for the ASEAN University Network on Ecological Education and Culture (AUN-EEC), the UN Sustainable Development Solutions Network (SDSN), Malaysian Chapter and the National Biosafety Committee on Socio-Economic Matters under the Department of Biosafety, Ministry of Natural Resource, Environment and Climate Change.

ABSTRACT

SUSTAINABILITY LEADERSHIP FIELDWORK (SLF): ENHANCING ARTS AND SCIENCE INTEGRATION FOR GLOBAL IMPACT IN THE AGE OF SUSTAINABILITY

Associate Professor Dr. Zeeda Fatimah Mohamad

Founding Director, Universiti Malaya Sustainability and Development Centre (UMSDC) Email: <u>zeeda21@um.edu.my</u>

This paper examines the integration of arts and sciences in the Sustainability Leadership Fieldwork (SLF) at Universiti Malaya (UM), which aims to cultivate transformational sustainability leaders skilled in both theory and practice. The UM Sustainability Living Labs, aligned with the university's Eco-campus Blueprint, leverage interdisciplinary collaboration and strategic fieldwork to foster practical skills essential for promoting planetary health globally. Methodology includes naturalistic observation and systematic data collection, deepening participants' understanding of environmental challenges and enhancing leadership capabilities through hands-on experiences. Additionally, the paper introduces innovative art science-focused and hands-on programs such as "Climate Superhero" and "Esports Exergaming," which employ gamification and digital technology to engage and educate, demonstrating the transformative potential of creative approaches in sustainability education. Through these initiatives, UM not only advances sustainability within its own community but also sets a precedent for global impact in the age of sustainability.



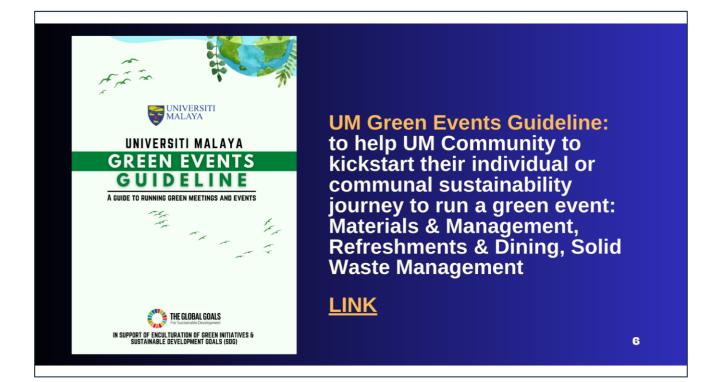






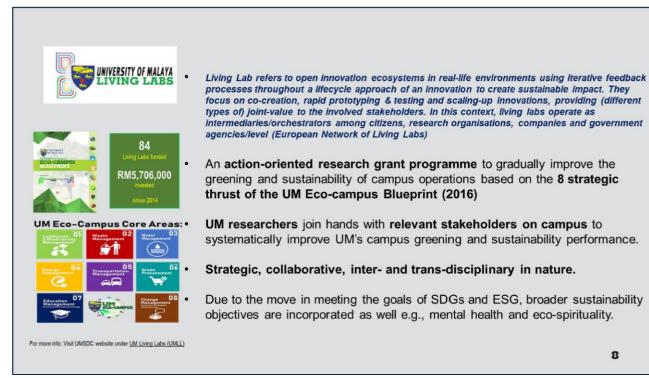


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Universiti Malaya Eco-Campus Blueprint Pelan Pembangunan Eko-Kampus Universiti Malaya UM Eco-Campus Core Areas:	Universiti Malaya Sustainability Policy 2021 - 2030 Dasar Kelestorian Universiti Malaya 2021 - 2030	
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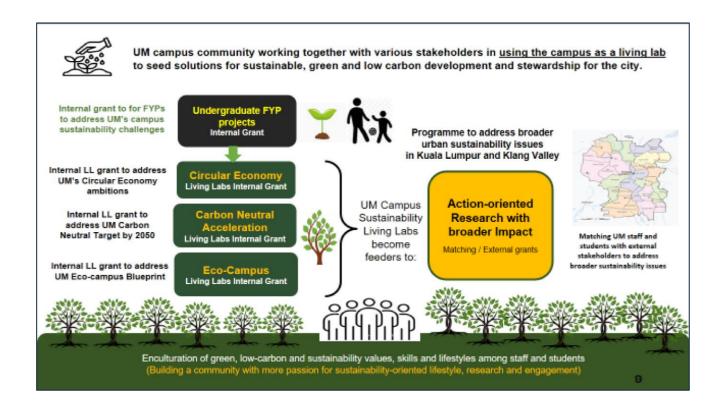
To transform UM into a model city campus

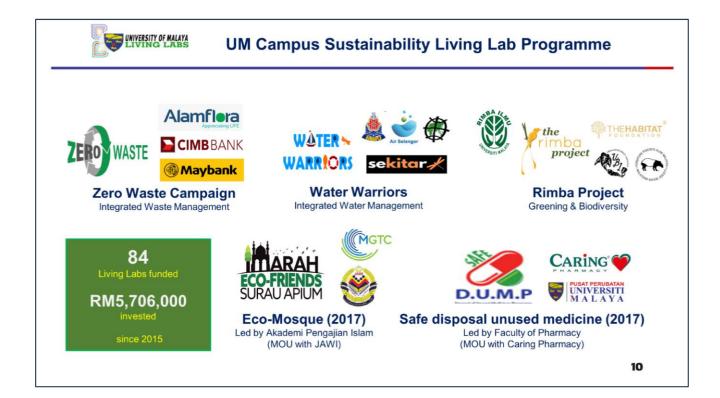
CO. TY POLIC in advancing sustainable, green and carbon-neutral lifestyle and innovation 2050 BY **Action-oriented Research RESEARCH & INNOVATION Inspire**, Be Inspired UMians as stewards CULTURE STEWARDSHIP



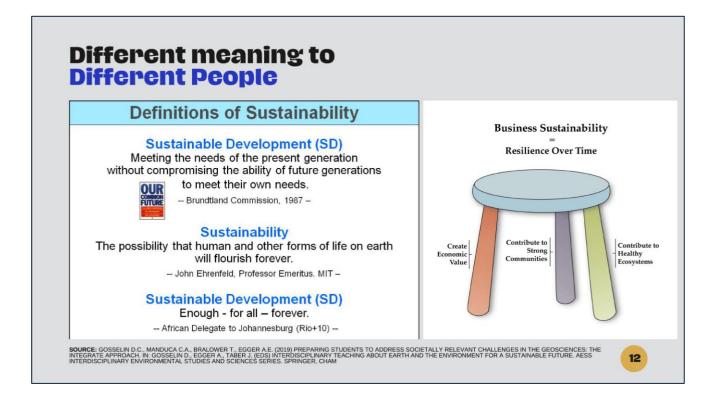
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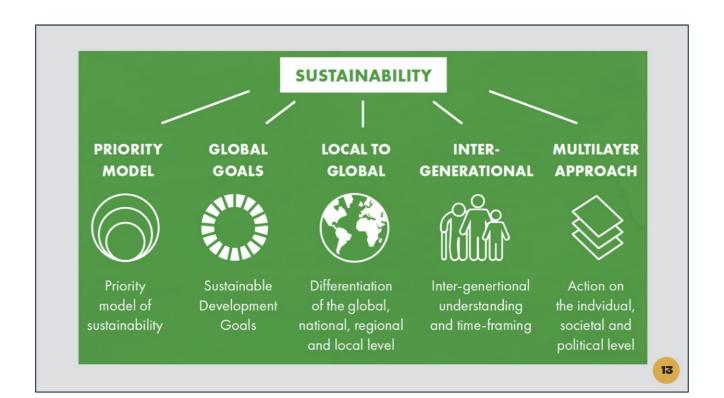
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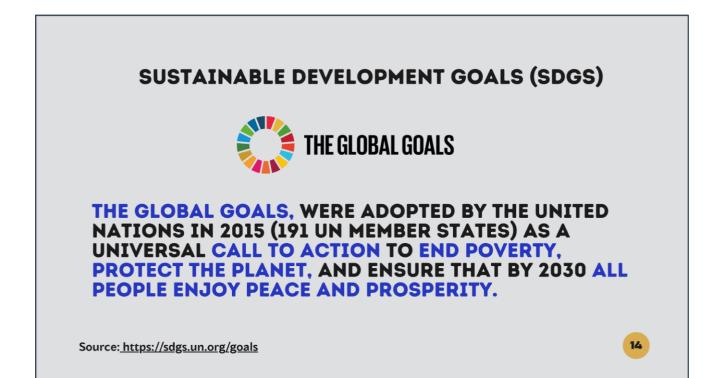




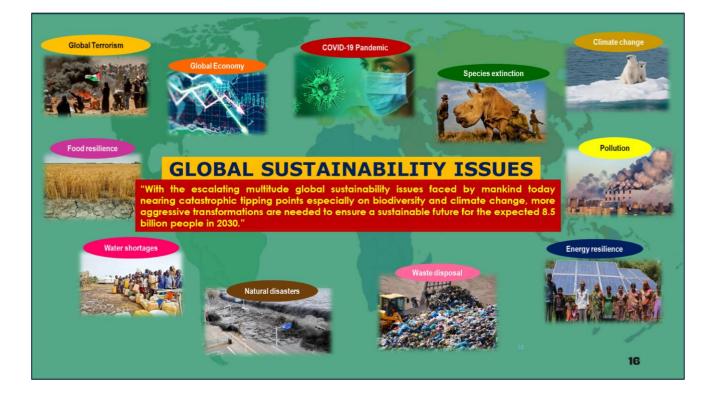














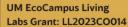
KISAH PLASTIK 2023 UMSDC @ KPPI UM

ARTS & SUSTAINABILITY

- Art and creativity can help raise awareness about environmental issues and inspire people to take action.
- Art can reflect cultural attitudes toward the environment and promote equity and inclusivity, particularly among young people.
- Communications, marketing, and storytelling (power of narrative) are powerful tools for promoting sustainability and influencing behavior change.
- Sustainability requires creativity and out-of-the-box thinking to develop new, more efficient ways to use resources and reduce waste.
- Sustainable practices need to be made more accessible and appealing to users/community through multiprong strategies, one of them via arts.

17

CASE STUDY 1 SUPERHERO IKLIM





DR. NOR AISHAH ABDULLAH FACULTY OF SCIENCE UM

Climate Superhero: Campus-led Climate Change Mitigation Campaign (CCMC) through Gamification

aishah.abdullah@um.edu.my



- Promote **climate action and creative solutions** through gamification in series of engaging activities and capacity building program both physical and online
- Creatively highlight the importance of Education for
 Sustainable Development especially for youth
- Create a sense of belonging, togetherness and awareness among campus community to champion climate action

CASE STUDY 2 E-SPORTS XERGAMING

UM EcoCampus Living Labs Grant: LL2023CO015







Unlocking the Keys behind Greater Adoption and Adaptation of **Esports Exergaming** as a Low Carbon Sport and Exercise Alternative

maziahmr@um.edu.my



- · Promote healthy lifestyle through e-sports
- Utilization of **arts in gaming technology** towards social sustainability
- Closing the gap / **reduced inequalities** among members of communities
- Alternative solutions in promoting well-being among staff and students: destressing platform via active exergaming
 19



CONDUCT Living Lab Research

Join UM's Living Lab programme to conduct quality research while being a change agent for campus sustainability!

SUPPORT

Sustainability Programmes

Support campus sustainability programmes through active contribution and participation.

EMPOWER

Your community to practice sustainable lifestyle

Empower students & staff in your own immediate faculties, academies, departments and network

Award > Publicity > Reputation > Satisfaction > Inspired Action

CONTRIBUTE

Sustainability Data

Help UM to collect more quality data and evidence for continuous improvements

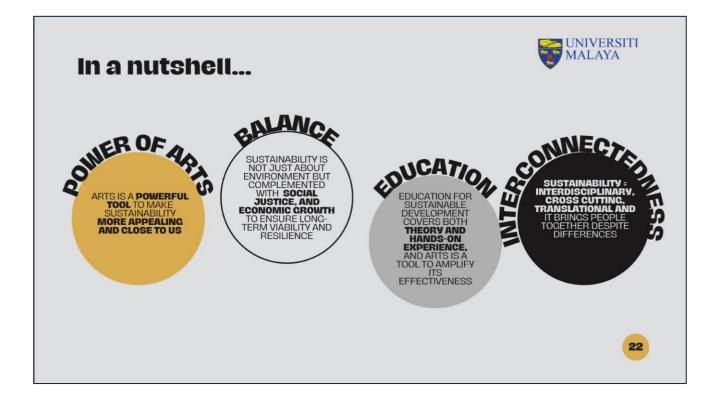
HIGHLIGHT Achievements

Highlight your sustainability strengths in teaching, research, engagement operations by publicizing widely in social media. Let's inspire each other!

ADVOCATE & LEAD Your cause

rour cause

Provide constructive inputs on how campus sustainability in UM can be improved. Take leadership in making it happen!





PROFESSOR DR. SITHI VINAYAKAM A/L MUNIANDY



Dr Sithi V Muniandy received his DPhil in Mathematics (Oxford, UK, 1998) for his work on wavelet multiscale theory of turbulence. His fundamental research covers areas in statistical physics and quantum dynamics, namely anomalous transport phenomena and information entropy of noisy classical and quantum systems. He finds solace in collaborating with naturalists, by promoting multidisciplinary tools from physics to system biology, for understanding animal movement ecology and pattern formation. His newfound passion for sound field recording is a response to worldwide calls for the protection of natural soundscape as the earmarks of Earth's primal voices. Dr Sithi advocates holistic STEM education using artscience approaches (eg. theatre, poetry/literature, sound design) and co-founded the Learning Enrichment Committee (LearnX) at the Department of Physics (2015), and kuREKA@Sains (2023) to promote design thinking in STEM education with enriched SGD intelligence.

ABSTRACT

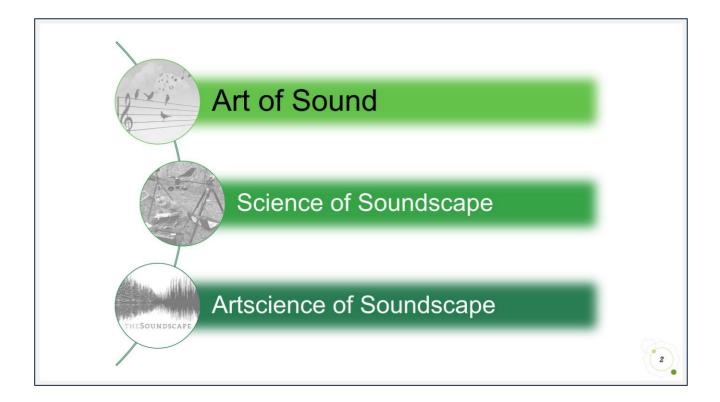
PRESERVING SOUNDSCAPE HERITAGE AS PART OF IMMERSIVE PLANETARY HEALTH AND PSYCHO-SOCIAL WELLBEING INDICATOR

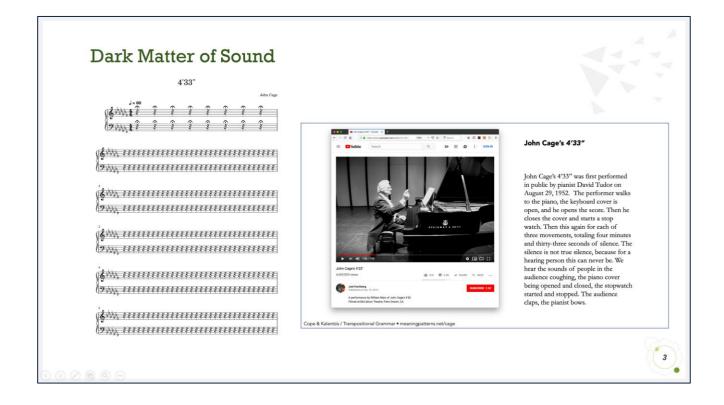
Professor Dr. Sithi Vinayakam A/L Muniandy

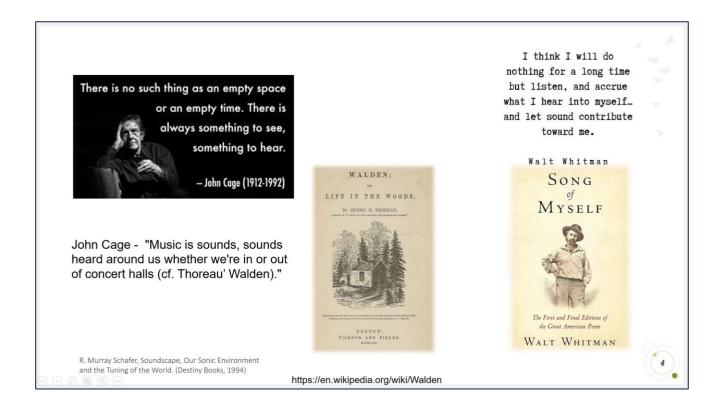
Head, Center for Theoretical and Computational Physics, Universiti Malaya Email: <u>msithi@um.edu.my</u>

Sound environment or soundscape plays a profound formative role our early physiological and psychological development. It continues throughout our life consciously or unconsciously. Soundscape adaptation and response determines the wellbeing, if not the survival living beings. Sounds from different sources - biophony, geophony and antrophony surround and define us. Oral tradition and sound in general, remains important through which history, tradition and aural ambience of a place or an event can be preserved, perpetuated, and revisited as a kindred spirit of the past. Audio memory is more than speech, music or recorded data that can be made audible. Soundscape includes the nuance of all things ever present in time and space, its immersion and reaction to the environment, the recording technology, and the people eavesdropping on Nature or man-made environment. Soundscape also binds kinship between places, cultures and people. In this talk, we will experience the soundscape of waterbodies in Universiti Malaya. Could we then be moved to empathize with troubled waters in other, increasingly challenged environment? We advocate human-Nature connection through active immersive listening of soundscape. This may lead to change behavior to protect and preserve our sonic heritage earmarking our community, our places and thus the Planet, provided we are willing to listen. "The Earth has music for those who listen"

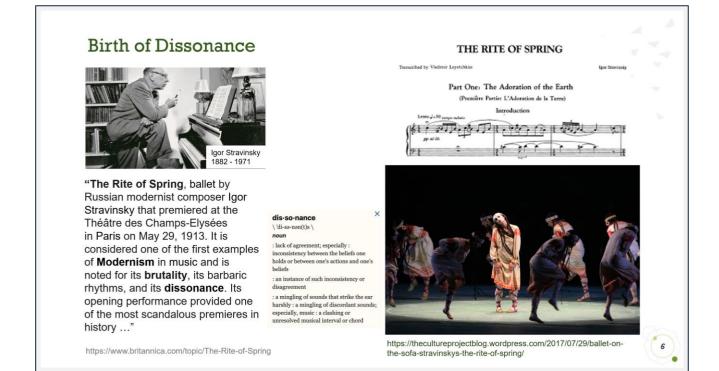
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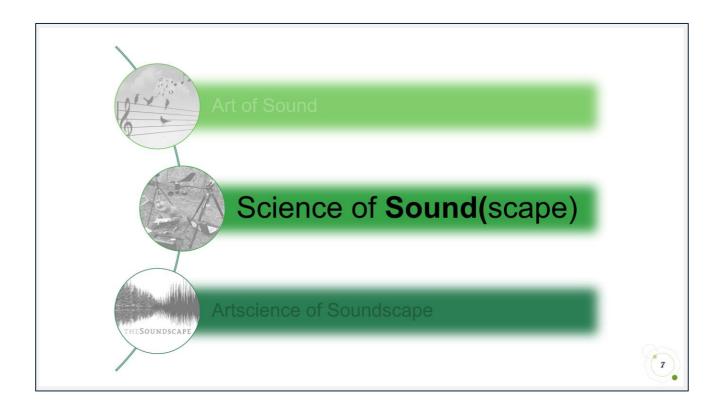


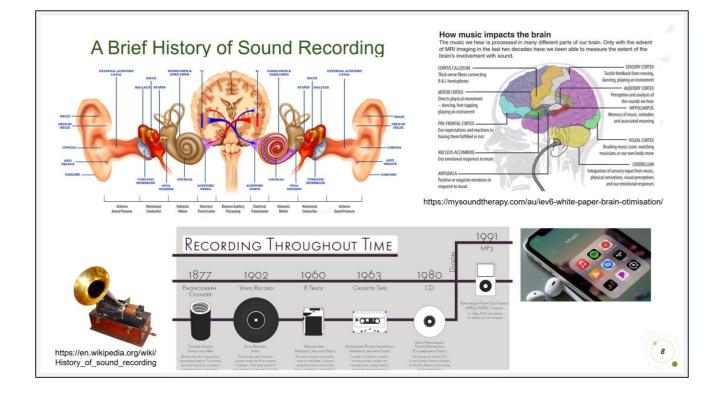


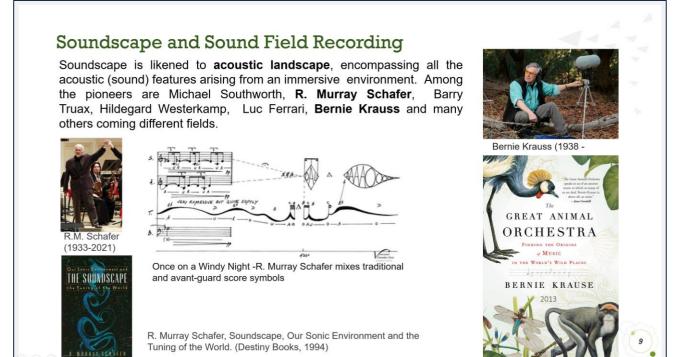












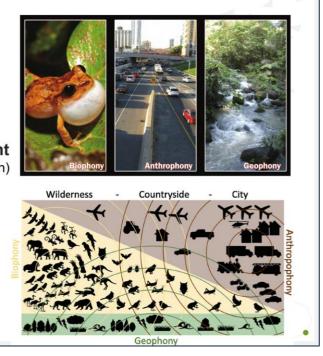
Soundscape sources

Soundscape can be grouped according to their source into **biophony** (sounds from animals), **geophony** (sounds from atmospheric and geophysical events), and **anthrophony** (sounds from human activities).

Soundscape ≠ **Acoustic environment** (perceptual construct) vs (physical phenomenon)

- ✓ Sounds as a "resource" rather than "waste"
- ✓ Focus on "wanted" (preference) rather than "unwanted" (discomfort)

Natural soundscapes change over time because of human activities that generate sound, alter land-use patterns, remove animals from natural settings, and result in climate change.



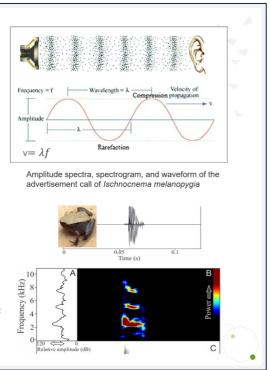
Characterizing Sound

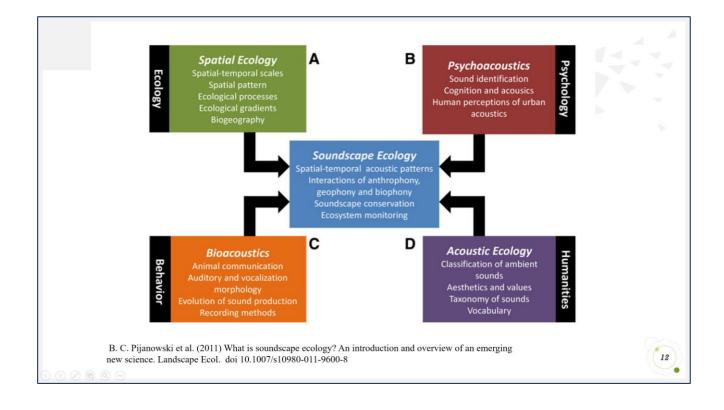
- · Sound travels in longitudinal sinusoidal waves.
- Humans can characterize sound by frequency, amplitude and tone.
- Frequency f is number of oscillation per second (Hz)
- The amplitude of a sound determines its volume (loudness).
- Speed of sound, *v* depends on the media its travelling.
- Sound signal can be analysed in time domain X(t), frequency domain (power spectrum S(f) or time-frequency domain (spectrogram, S(t,f))

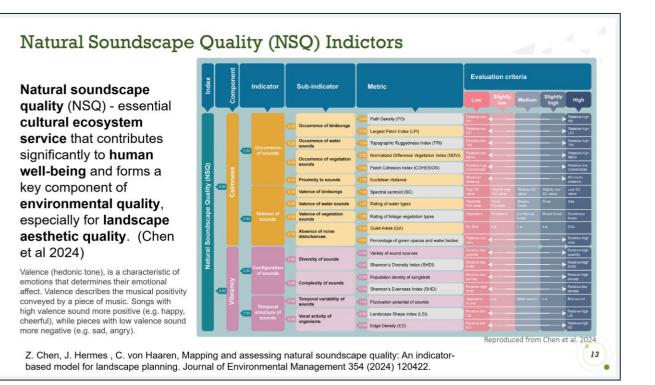
power spectrum $S(f) = \left|\hat{X}(f)\right|^2 = \left|\frac{1}{T}\int_0^T X(t)e^{-2\pi i f t} dt\right|^2$

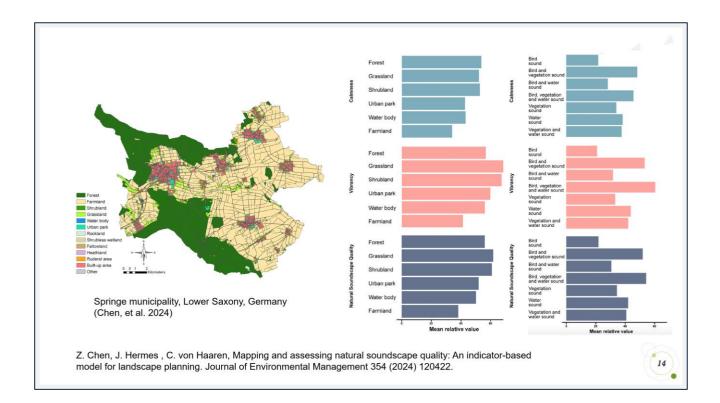
spectrogram $S(t,f) = \left|\hat{X}(t,f)\right|^2 = \left|\frac{1}{T}\int_0^T X(s)W(t-s)e^{-2\pi i f t}dt\right|^2$

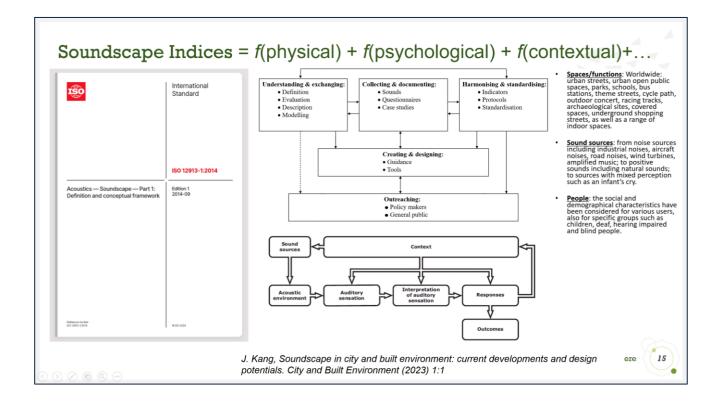
· Information entropy for acoustic diversity analysis

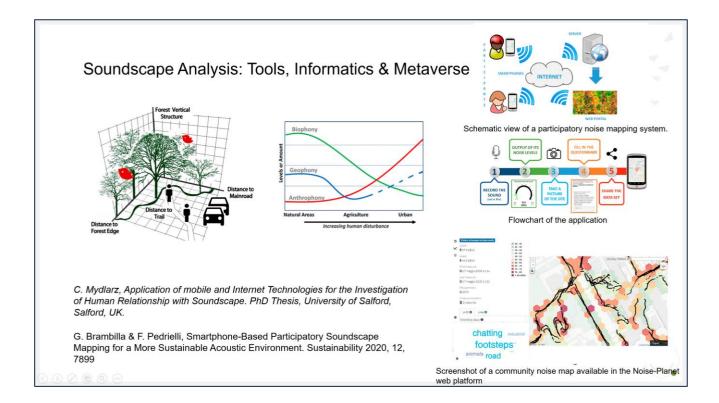


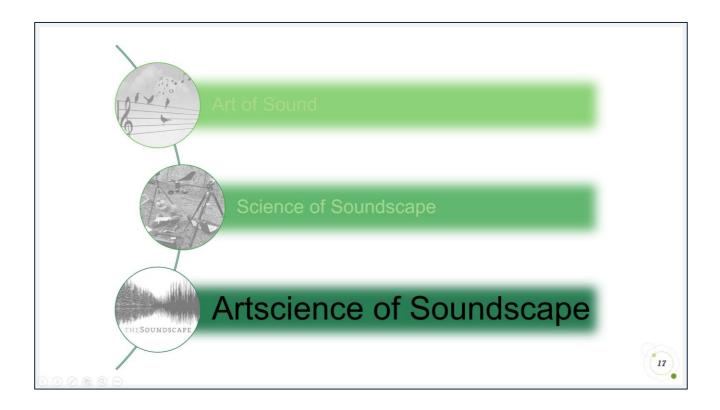












Soundmarks & Sonic Environment

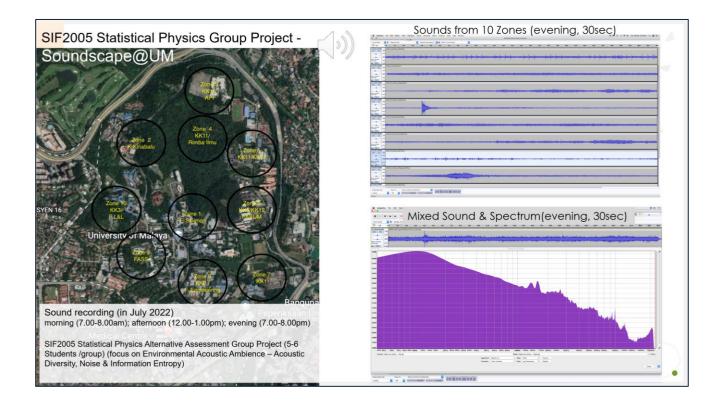
Soundmark derived from landmark refers to a community sound which is unique or possesses qualities which make it specially regarded or noticed by the people in that community.

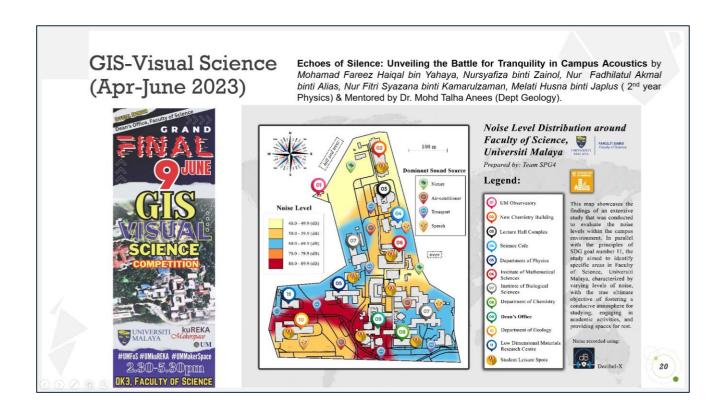
Soundmarks helps people and animals relate to certain spaces – sonic/aural identity

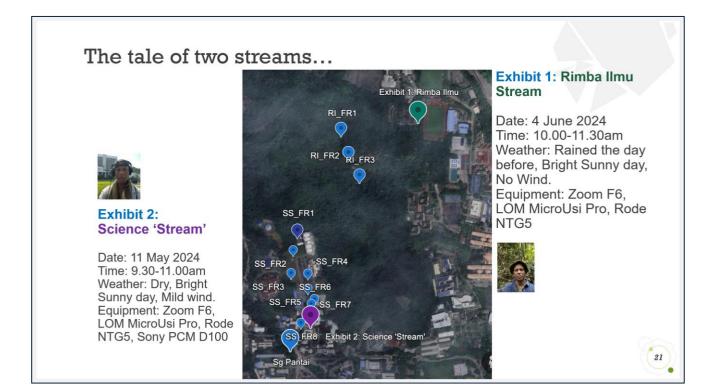
Once a soundmark has been identified, it deserved to be protected, for soundmarks make the acoustic life of the community unique.

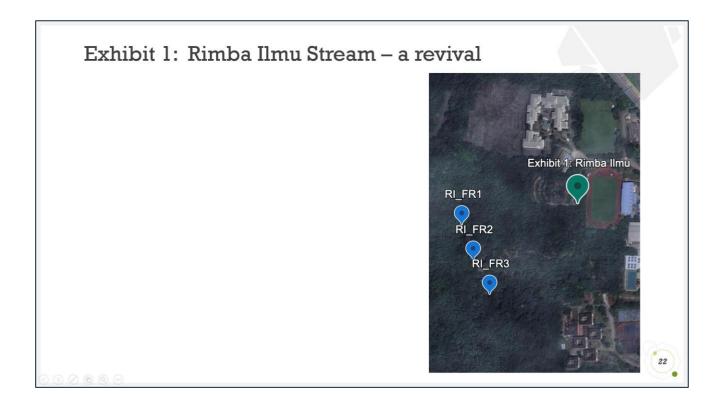
- (R.M. Schafer, Soundscape, pg.10)

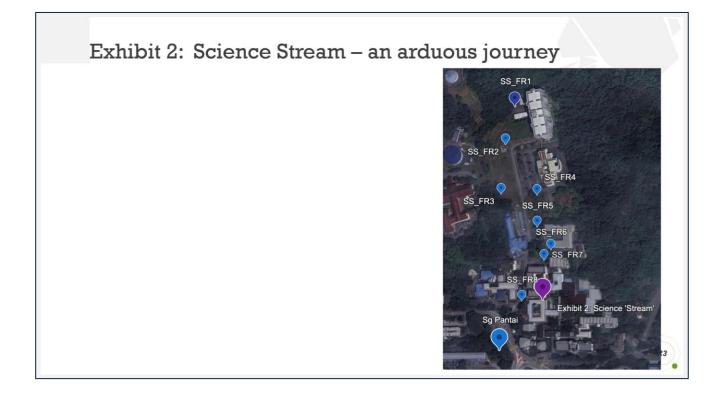


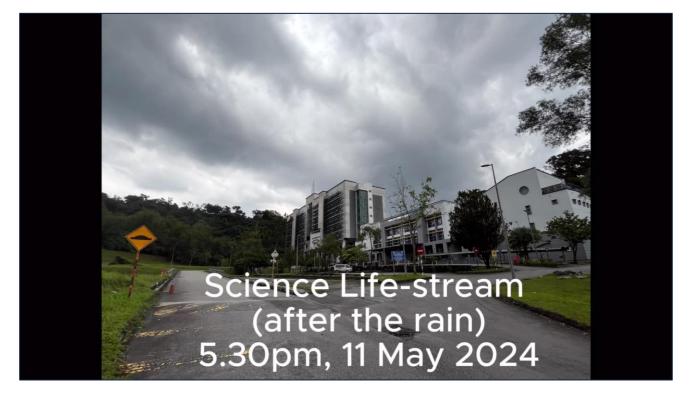


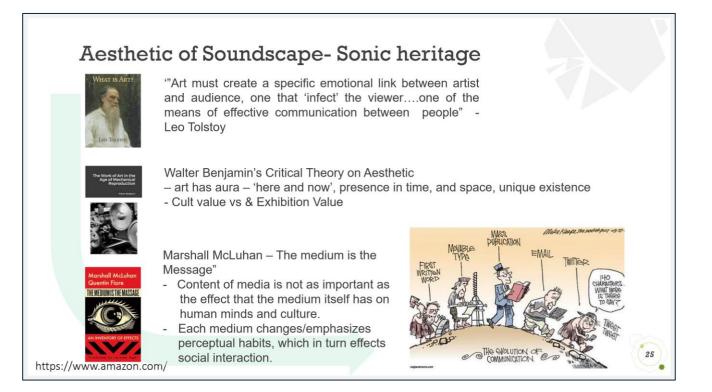


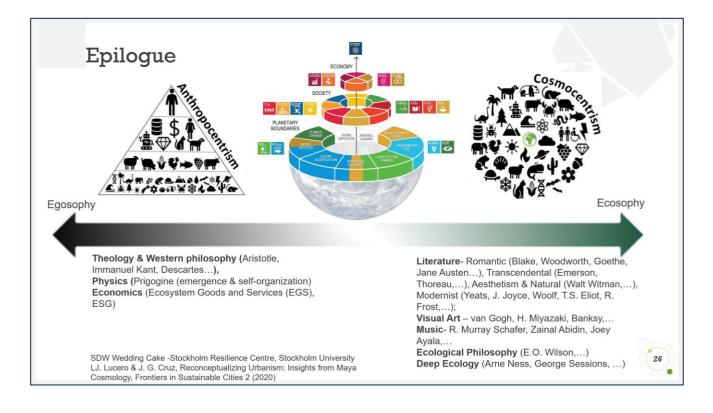


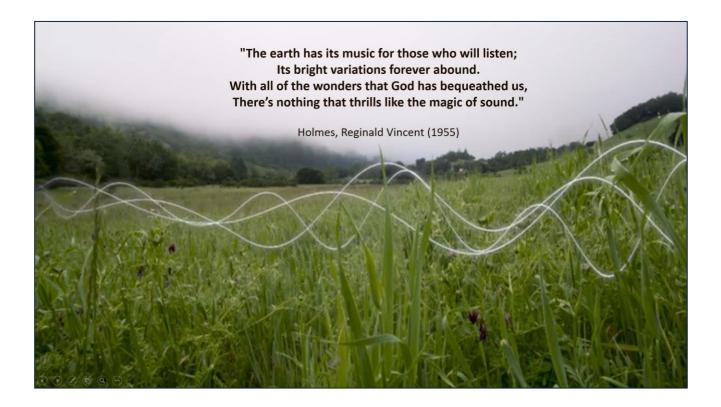












References

- R. Murray Schafer, Soundscape, Our Sonic Environment and the Tuning of the World. (Destiny Books, 1994).
- B. Krause. The The Great Animal Orchestra Finding the Origins of Music in the World's Wild Places. (Back Bay Books, 2013).
- B.Blesser, L.R. Salter, Space Speak, Are You Listening? Experiencing Aural Architecture. (MIT Press, 2009)
- C. Cox, Sonic Flux: Sound, Art and Metaphysics. (Univ Chicago, 2018).
- S. Street. The Memory of Sound. Preserving the Sonic Past. (Routledge, 2016).
- B. C. Pijanowski et al. What is soundscape ecology? An introduction and overview of an emerging new science. Landscape Ecol. (2011) doi 10.1007/s10980-011-9600-8
- C. Mydlarz, Application of mobile and Internet Technologies for the Investigation of Human Relationship with Soundscape. PhD Thesis, University of Salford, Salford, UK. 2013.
- G. Brambilla & F. Pedrielli, Smartphone-Based Participatory Soundscape Mapping for a More Sustainable Acoustic Environment. Sustainability 12 (2020) 7899.
- J. Kang, Soundscape in city and built environment: current developments and design potentials. City and Built Environment 1(2023) 1.
- Z. Chen, J. Hermes, C. von Haaren, Mapping and assessing natural soundscape quality: An indicator-based model for landscape planning. Journal of Environmental Management 354 (2024) 120422.
- SDW Wedding Cake -Stockholm Resilience Centre, Stockholm University
- LJ. Lucero & J. G. Cruz, Reconceptualizing Urbanism: Insights from Maya Cosmology, Frontiers in Sustainable Cities 2 (2020).
- Schwartz, W.A. A Universe of Subjects: Process Cosmology and Deep Ecology. In: Davis, A.M., Teixeira, MT., Schwartz, W.A. (eds) Process Cosmology. Palgrave Perspectives on Process Philosophy (Delerging Macmillan, Cham., 2022).

MR. EIICHI TSUTAKI



Eiichi Tsutaki is a Commissioned Research Fellow and Deputy Director of the Research Project Department at the Institute of Oriental Philosophy. He is also a Researcher at the Institute of Founding Soka Gakkai Presidents' Thoughts. Tsutaki earned an M.A. in Humanities from The Open University of Japan in 2019 and a B.A. from Tokyo University of Foreign Studies in 2001. His research interests include Cultural Anthropology, Buddhist Culture, Oriental Philosophy, and the interplay of Faith and Scholarship in Soka Gakkai. Tsutaki conducts research on Oriental philosophy and Buddhist thought, promotes research dissemination, and facilitates international academic exchanges. He is responsible for planning and managing research projects and organizing international symposiums and lectures. As a researcher at the Institute of Founding Soka Gakkai Presidents' Thoughts, he focuses on academic research based on Soka Gakkai faith, known as the "study of faith." Tsutaki manages "The Lotus Sutra - A Message of Peace and Harmonious Coexistence" exhibition, overseeing its planning and management. He explores the thoughts and philosophies of Daisaku Ikeda, president of Soka Gakkai International (SGI), and has authored papers on topics such as "Daisaku Ikeda's View of Islam" and "Daisaku Ikeda and the Gosho Gonpon (Writings of Nichiren Daishonin)." He studies the impact of the Lotus Sutra exhibitions and promotes research on the relationship between faith and scholarship in Soka Gakkai. In 2018, Tsutaki presented "The Worldwide Spread of the Lotus Sutra Exhibitions" at the Dunhuang Academy in China. In 2019, he presented "The Lotus Sutra Exhibitions and Diversity" at the University of Indonesia. In 2022, he gave presentations at the Daegu Lotus Sutra Exhibition and Higashi Nippon International University. Since 2007, Tsutaki has managed the Lotus Sutra exhibition in over 10 countries, including South Korea, Thailand, Malaysia, Indonesia, Singapore, France, and the UK. His major papers include "The Role of the Lotus Sutra Exhibition in Inter-civilizational and Inter-religious Dialogue" in 2021 and "Daisaku Ikeda's Reflections on the Characteristics of Islam" in 2023. He published "Foundational Studies I - What is Faith-based Studies?" in 2021, "Foundational Studies II -Nichiren Daishonin Discourse" in 2023 and many more.

ABSTRACT

THE LOTUS SUTRA - A MESSAGE OF PEACE AND HARMONIOUS COEXISTENCE EXHIBITION AND ITS IMPACT: AN ANALYSIS

Mr. Eiichi Tsutaki

Commissioned Research Fellow, Institute for Oriental Philosophy (IOP), Japan Email: <u>tsutaki@iop.or.jp</u>

The "Lotus Sutra - A Message of Peace and Harmonious Coexistence" exhibition, planned by the Institute of Oriental Philosophy (IOP), has attracted over 900,000 visitors across 17 countries as of 2024. This presentation examines the exhibition's role in promoting crosscultural understanding of the Lotus Sutra, an influential Mahayana Buddhist text, and making its message of peace and coexistence accessible to a wide audience. A key focus is the exhibition's adaptation to each location, with content tailored to the host country's history and culture in collaboration with local institutions. Drawing on contrasting examples from South Korea and Thailand, the analysis illuminates how the exhibition contributes to the IOP's mission of fostering inter-civilizational and inter-religious dialogue. The presentation argues for the exhibition's significance in spreading the Lotus Sutra's ideas and their modern relevance.

Link to video presentation (5:39:26 – 5:55:08): https://www.youtube.com/live/Ve-4q25u8zM?feature=shared

PROFESSOR DR. RAYMOND OOI



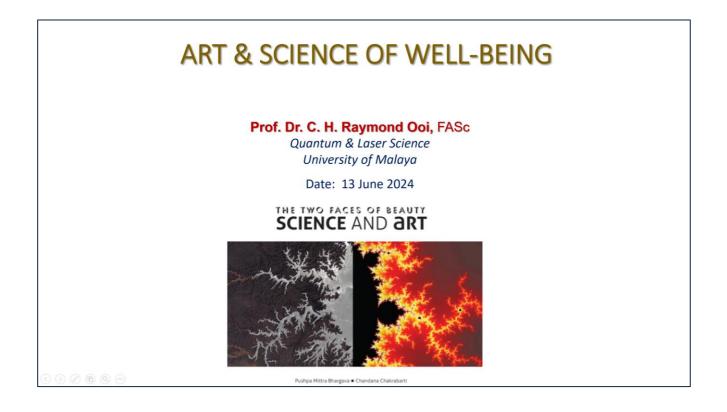
Prof Dr Raymond Ooi is a quantum physicist, has produced more than 120 publications on quantum optics, nonlinear optics, plasmonic and laser interactions. He was elected a Fellow of the Academy of Sciences Malaysia (ASM) in 2016. In 2013, he won the Malaysian Toray Science Foundation (MTSF) Science & Technology Award. Raymond Ooi obtained his Dr.rer.nat (PhD) from University Konstanz, Germany. During his tenure as a postdoc at Texas A&M University, he was a regular Visiting Scientist at Princeton University and Max-Planck Institute for Quantum Optics. He was a research professor at KAIST and assistant professor at Korea University before joining Universiti Malaya and initiated "Quantum and Laser Science" research lab equipped with a femtosecond laser optics facility under the High Impact Research grant. Raymond is the Principal Investigator for the national quantum technology research programme. He has 2 patents and has been invited/plenary speaker at more than 30 international conferences. In 2018 he initiated and chaired the first international conference on Quantum and Nonlinear Optics (QNO2018) that was attended by pioneers in the field and secured three international funds to run the conference. He served as a Judge for MIT Technology Review "Innovators Under 35 Asia Pacific". Currently he is the Editorial Board member for the prestigious journals; the Philosophical Transactions A of the Royal Society and the New Journal of Physics. Raymond has published a book "The Way of Creation, Nature & Life: Physics and Mathematics Perspectives". He writes articles in the media, connecting science with recent topics like green energy and climate change. He is the advisor for the Chinese Orchestra and Lion troupe. His current interest is to apply quantum principles to understanding Nature, Life, Health, Mind, Spirituality and Traditional Knowledge.

ABSTRACT

THE SCIENCE AND ART OF WELL-BEING

Professor Dr. Raymond Ooi Department of Physics, Faculty of Science, Universiti Malaya Email: rooi@um.edu.my

Human brains have two complementary parts: the logical and the non-rationale parts, corresponding to the Science and Art. Balance and synchronicity of the two parts of the brain would bring holistic well-being and optimum functionality of a person. As we rely more and more on modern technology and reasoning of science we might neglect the artistic aspect. In halth, we rely more on modern medicine than traditional medicine. It is conventionally believed that the latter is an art and non-scientific but with the increasing research and development of quantum science and technology, particularly quantum medicine, we begin to understand the art of traditional practices better from the scientific perspective. In this talk I will show some quantum physics concepts are connected to the human body and can help facilitate the art of healing and promote well-being.





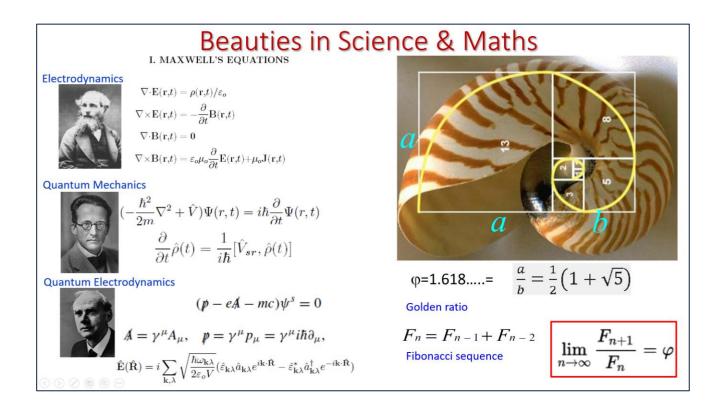
We tend to partition things around us

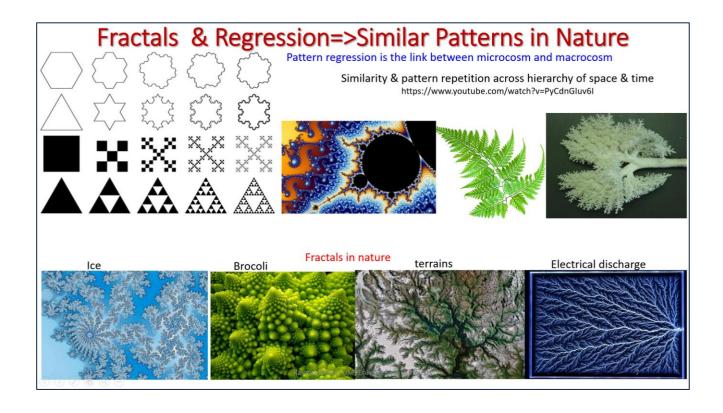
- Art when it is expressed from the Heart
- Pseudoscience when it does not make Sense
- Science when it makes Sense

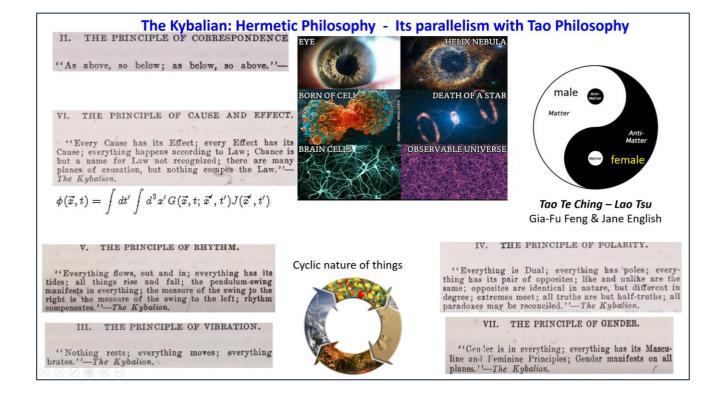
 We recognize something if it: makes sense, useful, beautiful



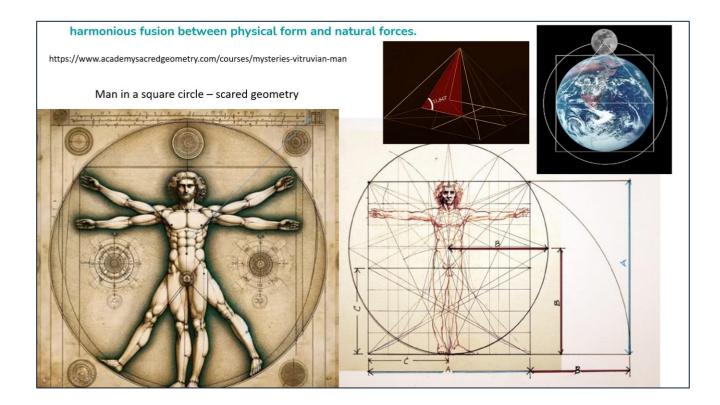
		Living a Life is an Art	
How you breath How you eat & drink How you work & play How you handle situations How you take things thrown at you He who takes upon himself the humiliation of He who takes upon himself the country's dis The truth often sounds paradoxical Lao Who are adept in the Art of Life? Millionaires Icons & Models materialism Leaders (politicians)			Is human civilization really progressing? with the scientific & technological advances, why are there more: • Cancer & chronic diseases • Mental illnesses • Natural disasters • Security threats
		isasters deserves to be king of the universe. o Tzu Education should be about the passion of learning to seek knowledge & truth for enhancing life & a better world	
Monks Priests Yogis Sage	spírítualísm	Do you think you can take over the universe and improve it? I do not believe it can be done. The universe is sacred. You cannot improve it. If you try to change it, you will ruin it. If you try to hold it, you will lose it.	



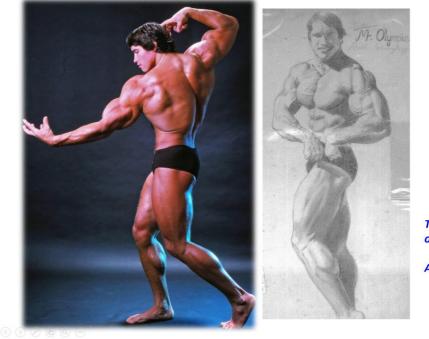








Arnold Schwarzenegger: the bodybuilding legend who connect beauty and science of bodybuilding



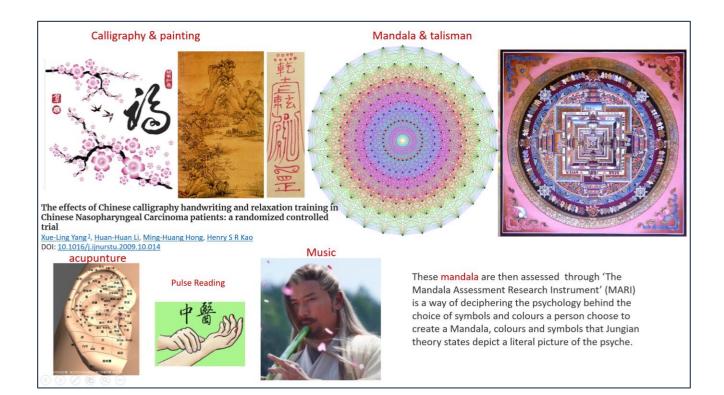
"I'd always wanted to tell people that when I work on my body I'm thinking about classical sculpture, so I jumped at the chance to show off body building as an art form."

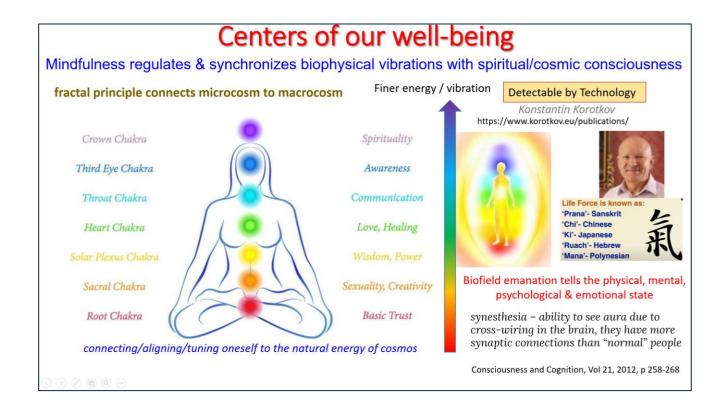
<u>Arnold Schwarzenegger</u>

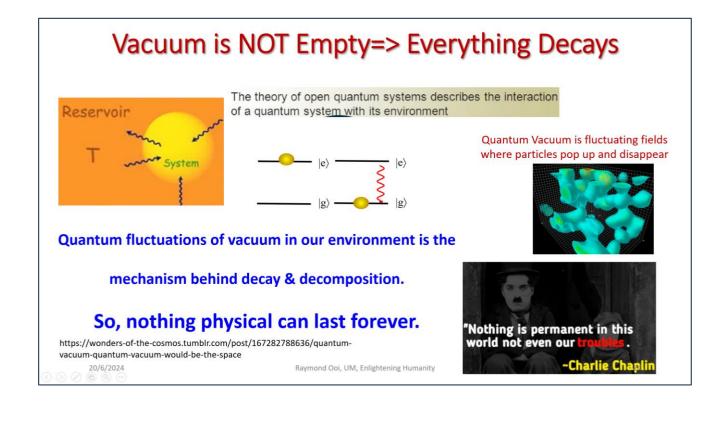
Human body is Master Art Designer

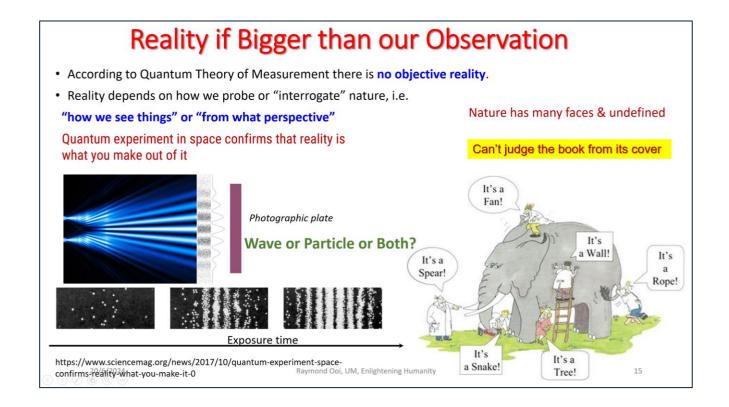
The ability to draw or do arts depends on our mood & well-being.

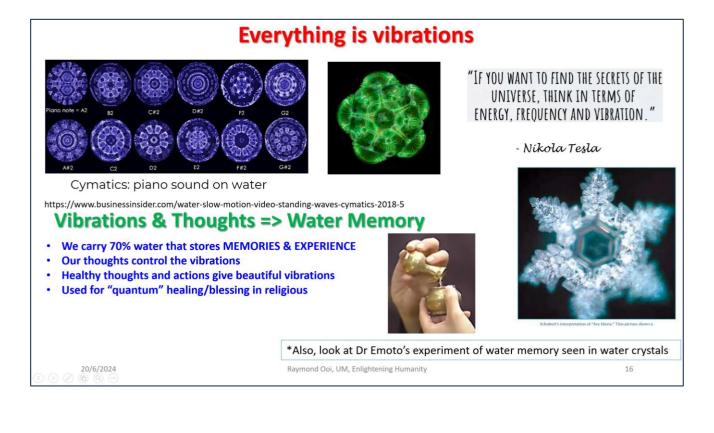
Art is an expression of heart, mind and soul











MODERN MEDICINE - SCIENCE TRADITIONAL MEDICINE - DIVINE WAY OF LIFE , ARTSCIENCE

- Quantum medicine
- Mind-body connection
- Homeopathy
- Energy healing
- Inner engineering

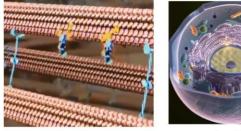
The most valid science is Quantum Physics

Closing the gap between Modern Science and Traditional Knowledge (Spirituality, Medicine,..)

The most sophisticated machines & chemical factory are inside us, they work by Quantum Effects

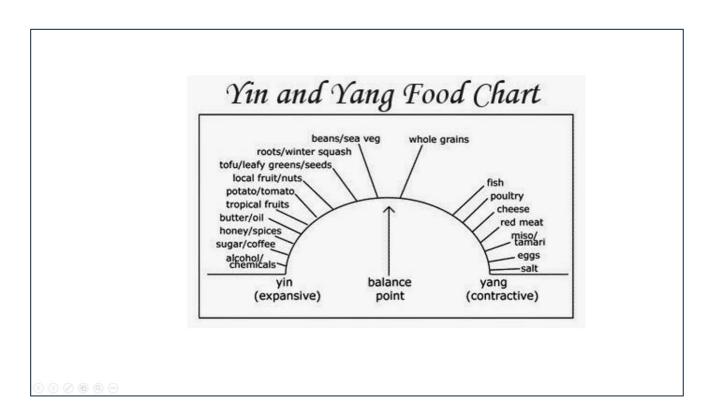


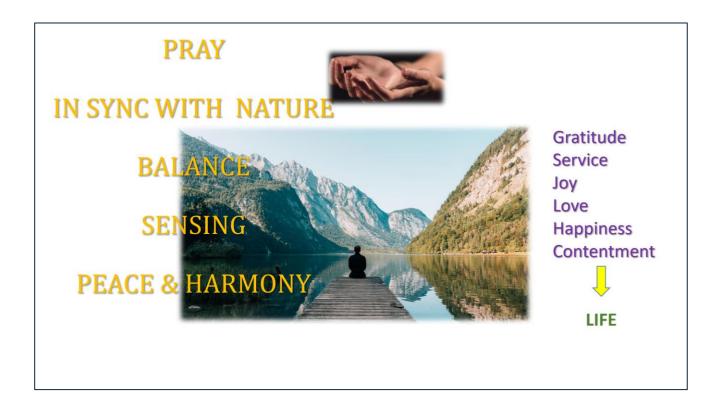
DNA replication: twisting & spiraling like a dragon

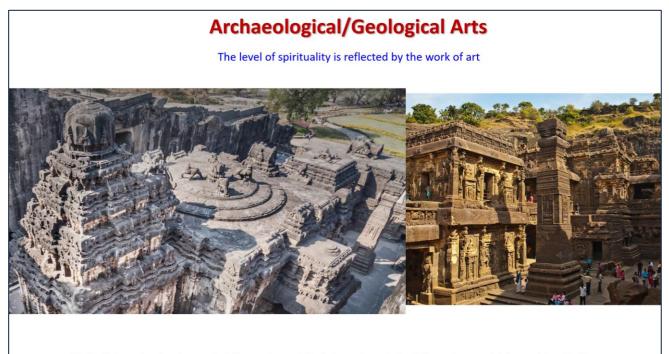


Microtubule

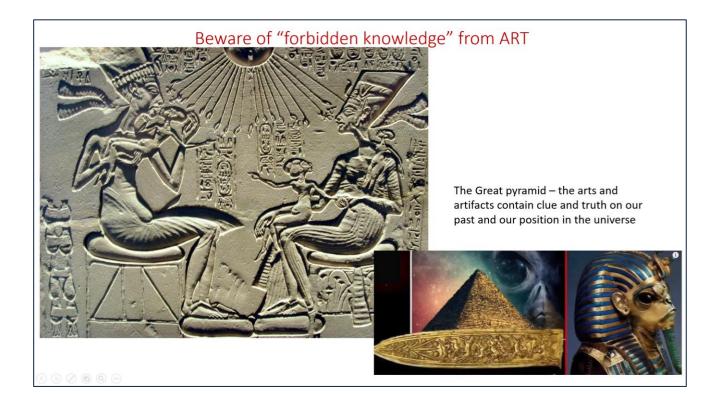
A cell

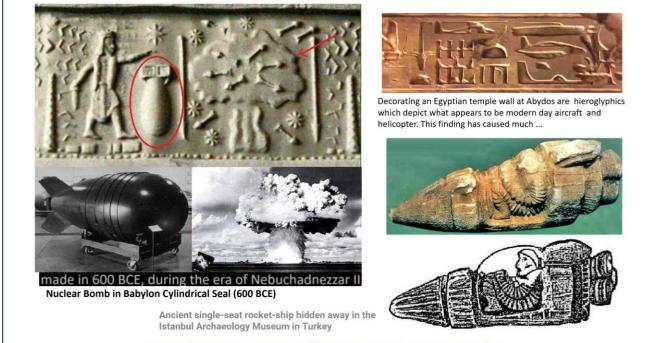




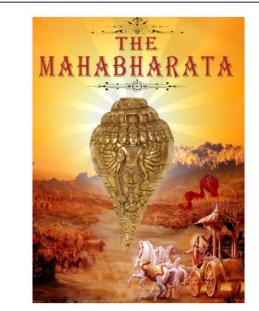


Kailash temple: the largest of the rock-cut Hindu temples at the Ellora Caves, Maharashtra, India







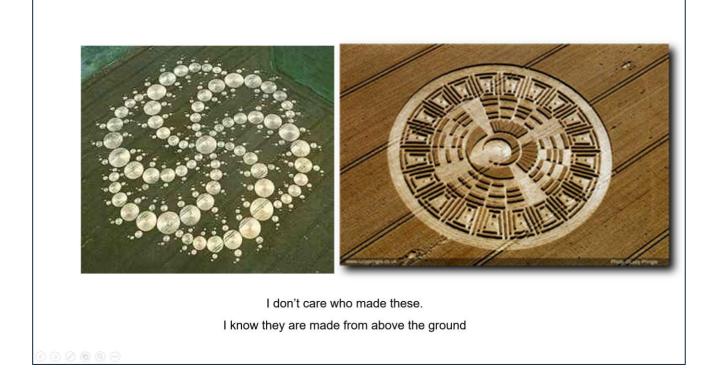


Gods, Kings, conflicts Advanced technology Nuclear war

"The day science begins to study phenomena of a nonphysical nature also, it will make more progress in a decade than it has in all the previous centuries of its existence.

"The peaks of the great Mount Taurus to the West. These peaks are of such a height that they seem to touch the sky, and in all the world there is no part of the earth, higher than its summi and the rays of the sun always fall upon its East side, four hours before day-time, and being of the whitest stone it shines resplendently to fulfill the function of these.

Leonardo Da Vino



Summary

- Philosophical + Quantum Principles
- Human body anatomy, elastic & plasticity
- Self-healing
- Energy storage centers /nodes or chakras
- · Regulating flow of bioenergy, Qi
- Yin-Yang balance with 5 elements
- Universal binding forces
- Cultivating, building up the energy
- Channeling, transmitting the energy

LOVE NATURE



Love is the 5th element that binds our existence

Quantum S&T is enhancing understanding of life, opening up unexplored new knowledge

Quantum Medicine: Eliminates philosophical controversy in the medical field

Music healing system, Life energy water, magnetic clothing therapy



PROFESSOR DR. VISHALACHE A/P BALAKRISHNAN



Professor Dr Vishalache Balakrishnan has over three and a half decades of experience working as a secondary school teacher, teacher-trainer, community facilitator, social science and humanities researcher, and member of various local and international Special Interest Groups (SIGS). The SIGS include Black/All Life Matters, Parliament of World Religions, and Service-Learning International. Apart from being actively involved in curriculum development, Moral Education teacher training in Malaysia since the 1990s, she is also actively involved in the international arena in the development of global Moral Education; is a committee member of the Asia Pacific Network for Moral Education (http://apnme.org/) and an elected executive board member of The Association for Moral Education (AME) from 2016-2018. She was an active member of CARN during her post-doctoral studies in Waikato University. New Zealand. Coming from a multicultural/multireligious background, Dr. Visha has a passion to listen to, educate and research minority students and marginalised socities. Dr. Visha is currently the Director of the Center for International and Comparative Education Research (CRICE) at Universiti Malaya. She is also the coordinator of SULAM @ Service-Learning Malaysia for Universiti Malaya.

ABSTRACT

EXPLORING SERVICE LEARNING FROM DIFFERENT RELIGIOUS AND BELIEF SYSTEMS

Professor Dr. Vishalache A/P Balakrishnan

Department of Educational Foundations and Humanities, Faculty of Education, Universiti Malaya Email: visha@um.edu.my

Service learning is an educational, experiential pedagogy where students apply what they have learned in the classroom to the real world. They engage in reflective activities that enable them to apply theory to practice. It is an authentic, valuable way for students to connect what they are learning in the classroom to the real world. Most religions and belief systems have been focusing on service learning for centuries. For example, when Hindu children went to study in the *gurukulams* those days, they had to serve their gurus by doing daily chores in the ashrams. In return, their guru would teach them life-time knowledge and daily sklills to pursue wisdom in many aspects of life. The Muslim children who attend *tahfiz* schools undergo similar leadership where they gave to perform daily chores, while their *ustaz* and *ustazahs* teach them based on their sacred books. By engaging in social outreach activities, students obtain a firsthand experience of applying what they learned which leads to what they are learning which in return leads to positive change. This presentation will share the service learning component from different religious, and belief systems. The saying "Service to human beings is service to God" will be analysed and discussed with examples from different religions and belief systems.

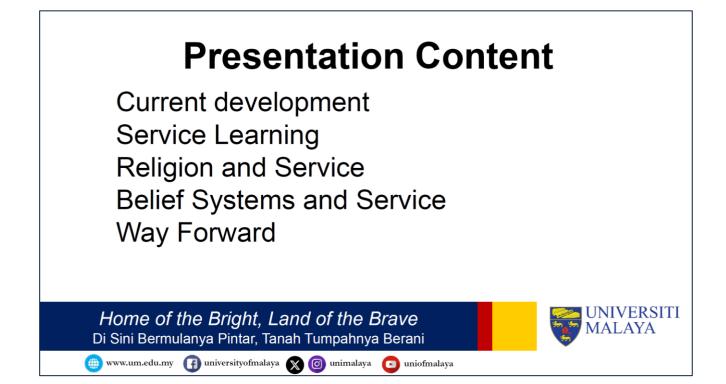
Exploring Service Learning from Different Religious and Belief Systems

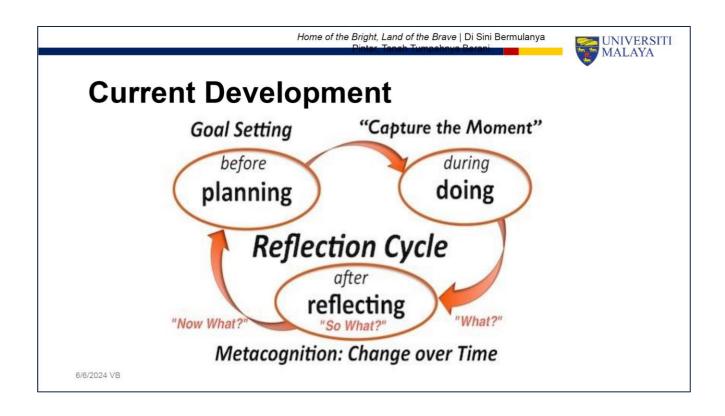
Vishalache Balakrishnan(Phd) Universiti Malaya SULAM Co-ordinator SULAM@Service Learning Malaysia-University for Society

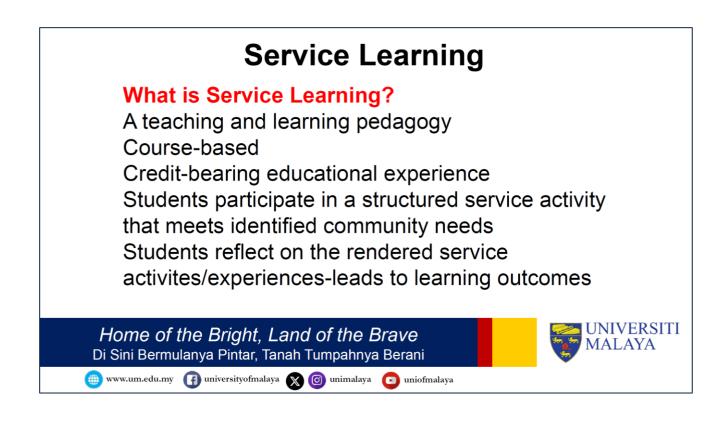
Home of the Bright, Land of the Brave Di Sini Bermulanya Pintar, Tanah Tumpahnya Berani

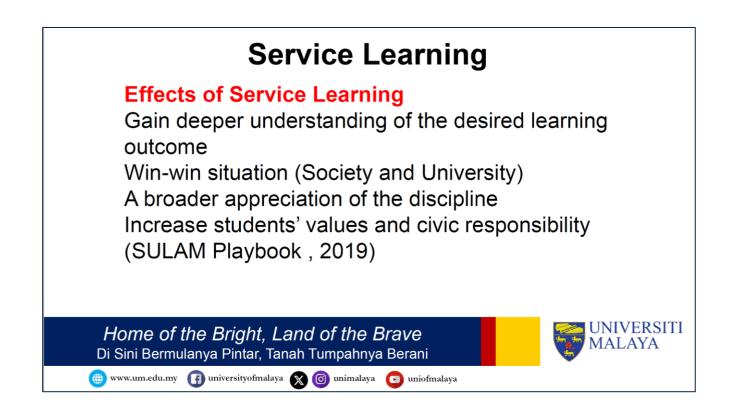


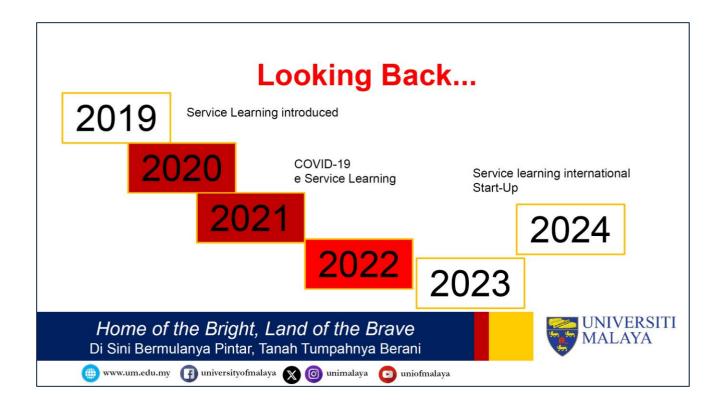
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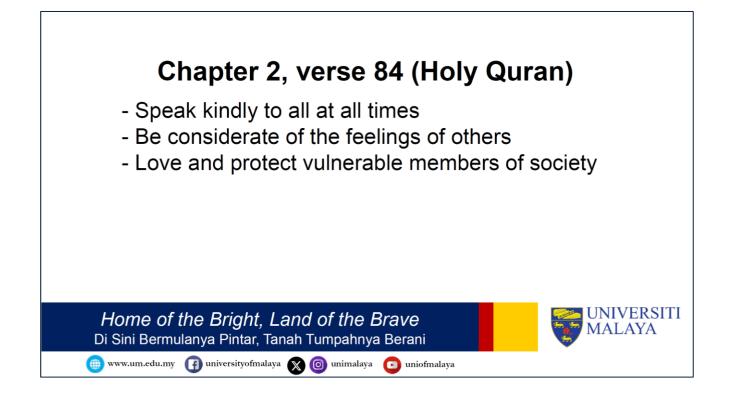


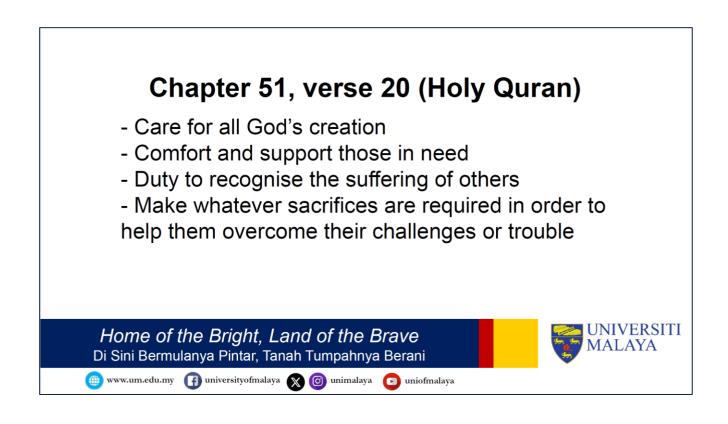




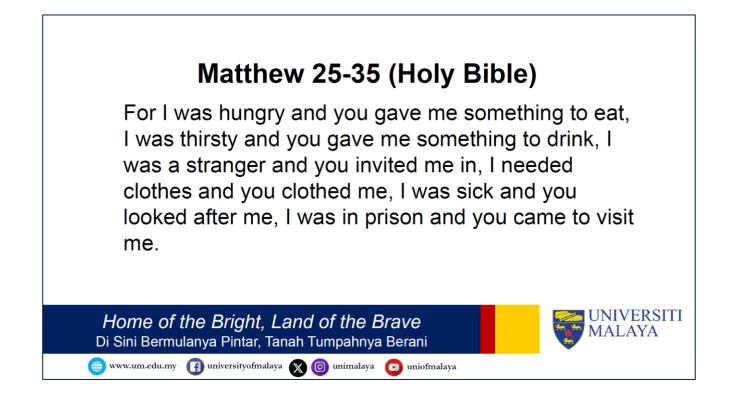


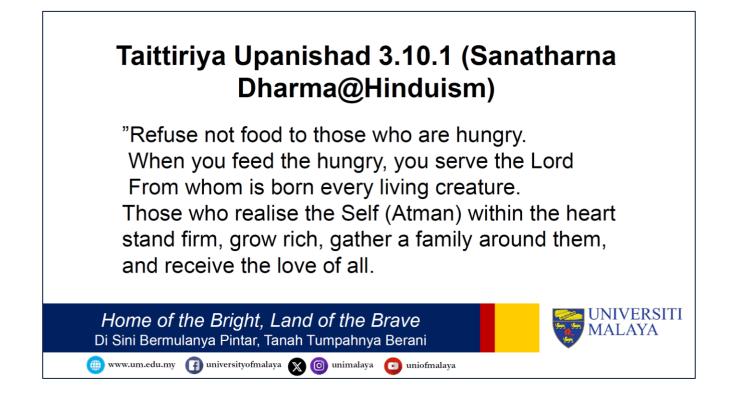




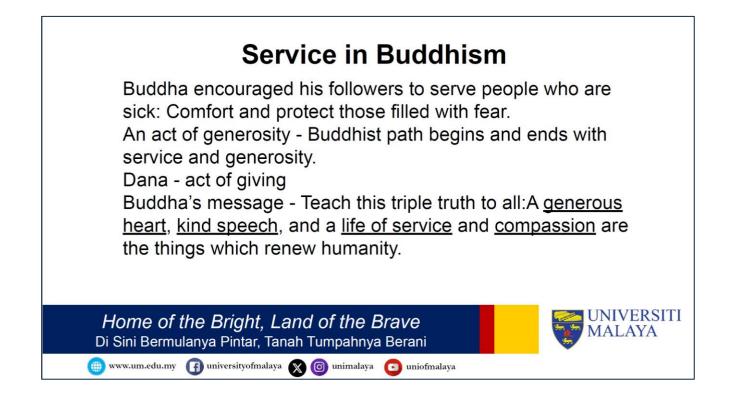


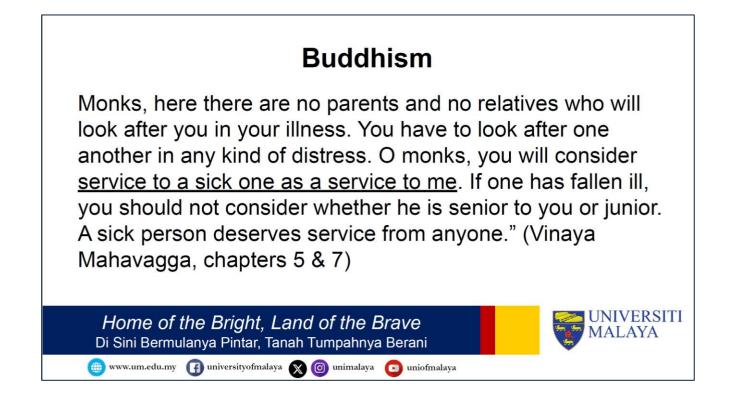








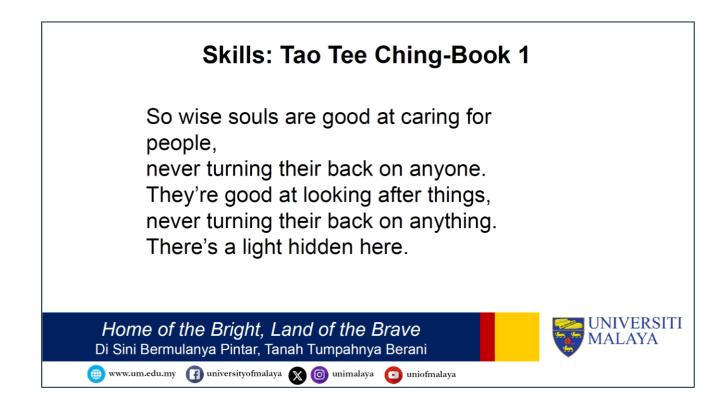




















MR. KAMARUZAMAN AHMAD



Kamaruzaman Ahmad, born on 27 March 1976 in Kuala Lumpur. Kamaruzaman studied at Pusat Pendidikan Persediaan/ ITM in Shah Alam from 1994 to 1996. He earned a Civil Engineering Certificate from the Entrepreneurs Development Institute (EDI) in 2001, a Bachelor of Decision Science (First Class Honours) from Management and Science University/ KUTPM in 2007, and a Bachelor of Social Science (Hons) in Anthropology & Sociology with a minor in History from Malaysia Science University in 2017. He also obtained a Postgraduate Diploma in Teaching from Open University Malaysia in 2018 and a Master of Arts in Malay Studies from the University of Malaya in 2019. Kamaruzaman started his career as a cabin crew member for Malaysia Airlines, Air Asia, EAAC (UK), and Air Atlanta (Iceland) from 1996 to 2008. In 2007, he worked as a management trainee at Guthrie (M) Berhad for a year. Since 2008, Kamaruzaman has been working at MARDI. He was part of the Unit Pembangunan Perniagaan from 2008 to 2015 and has been with the Pusat Pemindahan Teknologi dan Pembangunan Usahawan since 2018. As a Research Officer from 2008 to 2015, he managed and coordinated activities at the MARDI Technology Incubator and the TechnoFund MARDI Project. He is currently a Project Leader for initiatives like Projek AZAM Tani KPKM-MARDI and Projek Rezeki Tani KPKM-MARDI since 2018, and led the Ladang Contoh MARDI project from 2019 to 2020. He also heads Activity 4 for the RMK12 Sub-Project on Technopreneur Problem Solving since 2023. Kamaruzaman has received several awards, including the Bronze Medal at the International Poster Competition (IPC) 2024 at API, UM, the Silver Medal in the Knowledge Category at MSTE 2021, and the Best Writer Award (Second Place) at MTTE 2021. He also won Bronze Medals in the Knowledge Category at MSTE in 2020 and 2019, the Bronze Medal at the MARDI Grassroots Innovation Competition in 2020, and the Anugerah Perkhidmatan Cemerlang (APC) MARDI in 2013.

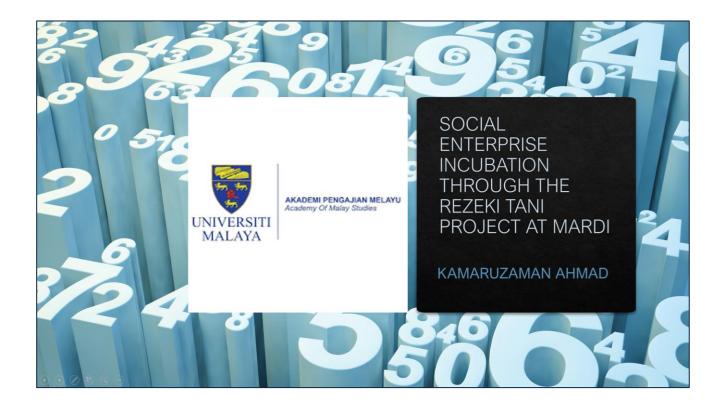
ABSTRACT

SOCIAL ENTERPRISE INCUBATION THROUGH THE REZEKI TANI PROJECT AT MARDI

Mr. Kamaruzaman Ahmad

Academy of Malay Studies, Universiti Malaya, Malaysian Agricultural Research & Development Institute (MARDI) Email: <u>17017666@siswa.um.edu.my</u>

Social entrepreneurship has become the main focus in efforts to overcome social and economic problems in society. The Rezeki Tani Project managed by the Malaysian Agricultural Research and Development Institute (MARDI) is an initiative that aims to increase the income of smallholder farmers while increasing agricultural productivity and sustainability. In this context, this research aims to investigate the potential of social enterprise incubation through the Rezeki Tani project at MARDI. The methodology used involves case studies and qualitative analysis of the implementation of Rezeki Tani projects in several agricultural locations in Malaysia. The results of the research show that this project has succeeded in increasing farmers' income as well as providing significant social benefits to the local community. However, there are still some challenges faced in the application of this model, including financial sustainability and adequate infrastructure support. Based on these findings, this research proposes a social enterprise incubation approach as a strategy to increase the success and long-term impact of the Rezeki Tani project. Social enterprise incubators can provide mentoring, training, and access to the resources needed for farmers to grow their businesses sustainably. In addition, collaboration between MARDI, the private sector, and the government was also identified as key to strengthening the social entrepreneurship ecosystem in the agricultural sector. Thus, this research provides an important contribution to the understanding of the role of social enterprise incubation in developing sustainable agriculture initiatives and improving the well-being of farmers in Malaysia. The conclusions and recommendations produced are expected to help related parties in planning more effective policies and strategies in supporting the development of social enterprises in the agricultural sector.



ENHANCING ARTSCIENCE IN THE AGE OF SUSTAINABILITY: SOCIAL ENTERPRISE INCUBATION THROUGH THE REZEKI TANI PROJECT AT MARDI

Mr. Kamaruzaman Bin Ahmad Academy of Malay Studies, Universiti Malaya

Introduction to the Rezeki Tani Project

Background:

- Origin and transformation from AZAM Tani Project
- □ Objective: Empower individuals through agricultural craft production

Key Elements:

- Combination of science and art
- □ Focus on sustainability and economic empowerment

Project Participants

Mr. M (Batu Pahat, Johor): Production of traditional and modern weapons

•Mr. F (Kuala Kangsar, Perak): □ Creation of labu sayong (earthenware)

•Mr. J (Kota Bharu, Kelantan):

Philosophy of the Project

Core Values:

Sustainability: Reusing discarded or surplus materials
 Ingenuity: Innovative approaches to traditional crafts

•Broader Impact:

- Environmental conservation
- Economic empowerment

Case Study 1: Mr. M (Batu Pahat, Johor)

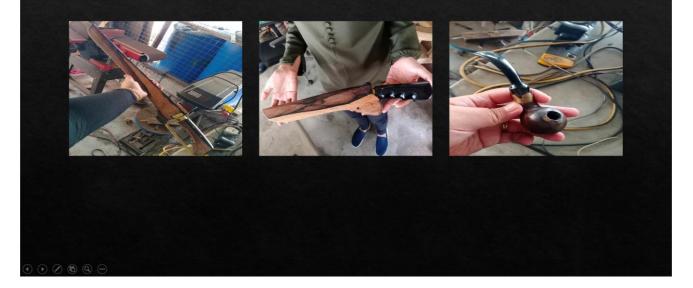
Background:

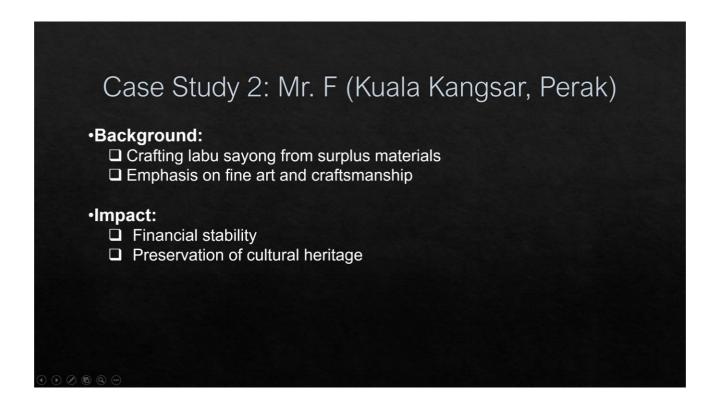
- □ Initial involvement as a leisure activity
- □ Transition to a viable livelihood

Impact:

- □ Increased production capacity and income
- Contribution to local economy

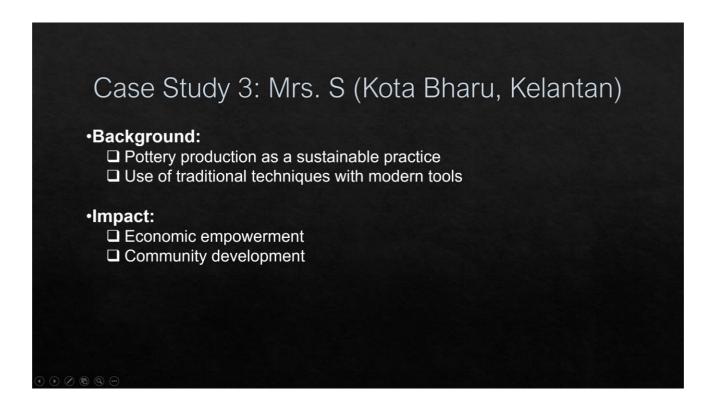
Participant Project Activities





Participant Project Activities









Economic Impact

•Transformation:

□ From financial insecurity to economic stability

•Examples:

- Owning vehicles (cars, motorbikes)
- Expanding workshops
- □ Supporting children's education

Social and Physical Impact

•Social Transformation:

- □ Providing stable support for families
- Improved quality of life

•Community Benefits:

- □ Enhanced social status and identity as artisans
- □ Strengthened community networks





Expanding the Initiative

•Broadening Scope:

- □ Inclusion of more participants and communities
- □ Emphasis on local economic resilience

•Sustainability Focus:

□ Harmonizing scientific innovation with artistic expression

Conclusion

•Summary:

- □ Recap of the project's impact on individuals and communities
- □ Importance of sustainability and economic empowerment

•Final Thoughts:

- □ Future potential of the Rezeki Tani Project
- □ Call to action for broader support and participation

EMERITUS PROFESSOR DR. NG KWAN HOO



Dr. Ng is Emeritus Professor at the Department of Biomedical Imaging, Universiti Malaya. He graduated with a M.Sc. (Medical Physics) University of Aberdeen and Ph.D. (Medical Physics) Universiti Malaya. He qualified with the American Board of Medical Physics (1999), being the first and only Malaysian to obtain such a qualification. He received the prestigious Marie Skłodowska Curie Award conferred by the International Organization of Medical Physics (IOMP) in 2018 in recognition of his outstanding contribution to research, education and leadership. In 2020 he received the Merdeka Award for outstanding scholastic achievement. In 2013 he was listed as one of the top 50 medical physicists in the world by IOMP for his significant contribution to the advancement of medical physics and healthcare. Professor Ng's contributions are highly regarded in the areas of medical imaging, breast density, radiological safety, artificial intelligence, medical physics education, and risk communication. He continues to pursue inter-disciplinary research collaboration on early detection of breast cancer, amongst other topics. Professor Ng also served as a consultant with the International Atomic Energy Agency (IAEA) and World Health Organization (WHO). He established the ASEAN College of Medical Physics (ACOMP) and the South East Asian Federation of Organizations of Medical Physicists (SEAFOMP), and co-founded the Asia-Oceania Federation of Organizations of Medical Physicists (AFOMP). Prof Ng also established the AsiaSafe in 2020 under the auspices of Asia-Oceania Society of Radiology (AOSR). He also founded the International Leadership and Mentoring Programme that nurtures early-career medical physicists, especially from developing countries, into inspiring leaders of their fields. An exhibition with the theme 'From darkness to clarity' organized by the Medical Library, Faculty of Medicine <u>https://www.youtube.com/watch?v=I-qvfrQPcoA</u> highlighted Prof Ng's groundbreaking innovations in medical imaging, his major publications as well as displaying his artistic side which beautifully complements his scientific achievements. This exhibition aims to inspire students and share his visionary journey in science, arts, and medicine. Professor Ng enjoys classical music and devotes his time to charity and humanitarian works.

ABSTRACT

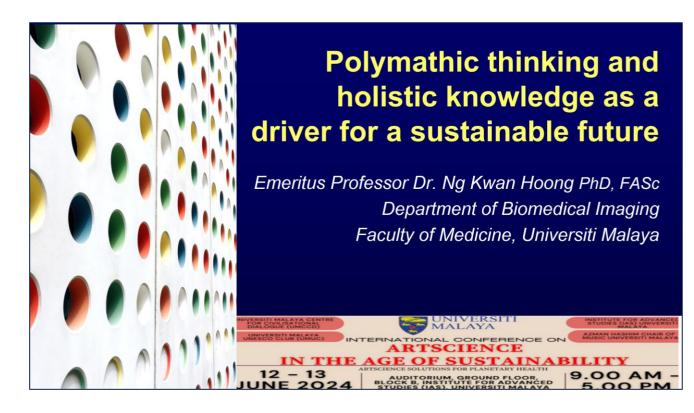
POLYMATHIC THINKING AND HOLISTIC KNOWLEDGE AS A DRIVER FOR A SUSTAINABLE FUTURE

Emeritus Professor Dr. Ng Kwan Hoong

Department of Biomedical Imaging, Faculty of Medicine, Universiti Malaya Email: <u>kwanhoong.ng@gmail.com</u>

The renaissance is seen as a golden age that brought about a "rebirth" of the arts, sciences, architecture, and culture. This was made feasible by the discovery of new knowledge and the emergence of polymaths. I will highlight the contributions by these "big four" Renaissance polymaths: Leonardo da Vinci, Raphael, Michelangelo, and Donatello; as well as other polymaths such as Avicenna, René Descartes, Enrico Fermi, and Albert Schweitzer. In his book 'The Polymath: Unlocking the Power of Human Versatility', Wagas Ahmed describes polymaths as people who excel in at least three domains. He retorts: "Every human is born with multifarious potential. Why, then, do parents, schools and employers insist that we restrict our many talents and interests; that we 'specialize' in just one?" He continues, "We've been sold a myth, that to 'specialize' is the only way to pursue truth, identity or even a livelihood. Yet, specialization is nothing but an outdated system that fosters ignorance, exploitation and disillusionment, besides thwarting creativity, opportunity and progress." The great philosopher Egar Morin in his book 'Seven complex lessons in education for the future' urges us to adjust our way of thinking to meet the challenge of an increasingly complex, rapidly changing, unpredictable world. He emphasizes the need to build a 'sustainable future'. He states in the preface that, "We must rethink our way of organizing knowledge. This means breaking down the traditional barriers between disciplines and conceiving new ways to reconnect that which has been torn apart. We have to redesign our educational policies and programmes ... "

We all possess an unrealized "polymathic state" that is only waiting to be realized.







We live in a complex, interconnected world.



Technological advances, climate change, environmental degradation, socio-economic inequalities, food shortage, geopolitical conflicts, cultural shifts, ...

KH Ng

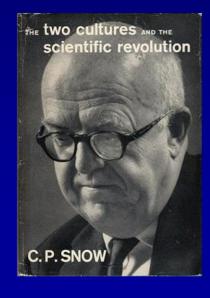


Building a "sustainable future" is something we (arts + science) must work toward.

The guiding principles of this 'new world' should be social justice, equity, peace, and harmony with our environment.

KH Ng

The Two Cultures



'The Two Cultures'

 first part of an influential 1959 Rede Lecture by British scientist and novelist C. P. Snow

 'The Two Cultures and the Scientific Revolution' (1959)

"Science and the humanities which represented "the intellectual life of the whole of western society" had become split into "two cultures" and that this division was a major handicap to both in solving the world's problems." - CP Snow

Snow argued that practitioners in both areas should build bridges, to further the progress of human knowledge and to benefit society.



While educators and politicians in many countries are debating curriculum reforms, we could learn from the old school holistic education.

Universities today speak of interdisciplinary research, while the polymaths of the medieval ages and the Renaissance used their polymathic skills and holistic knowledge for the benefit of society.

139



Renaissance A period of "**rebirth**" in arts, science and culture Originated in Italy AD **1359 - 1600**

Arts, architecture, fall of the Byzantine empire, discovery of America, mechanical clock and printing with moveable letters.



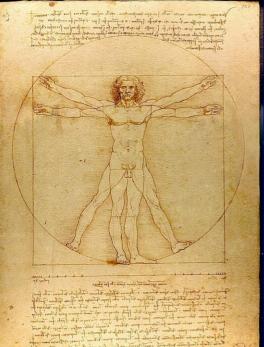


KH Na

The drawing of the '**Vitruvian Man**' (around 1490, Galleria dell' Accademia, Venice, Italy), one of the most iconic drawings in the world.

It portrays essential oneness of human beings, the world and the cosmos.





Renaissance man (Universal Man, Uomo Universale), an ideal that developed in Renaissance Italy from the notion expressed by Leon Battista Alberti (1404-72), that *"a man can do all things if he will."* The ideal embodied the basic tenets of Renaissance ...

wiki

Leonardo da Vinci is often described as a **'polymath**' - one who has "**learned much**" (Greek *polymathes*).

Emphasis is on *'learned much in different fields of study'* and Leonardo excelled in many subjects ranging from drawing, painting and music, to sculpture and architecture, and of course to science and engineering.





Omar Khayyam

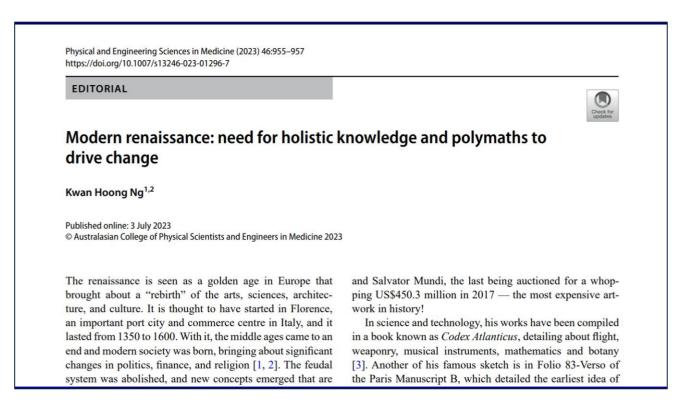
Ibn Sina



Blaise Pascal Benjamin Franklin Maria Curie

Polymath

- Driven by curiosity
- Passionate in learning
- Synergise different knowledge in sciences, humanities, <u>philosophy</u>, arts, ...
- Master >3 domains



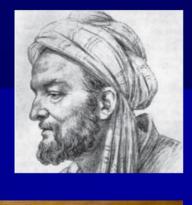
Ibn Sina (Avicenna)

AD 980-1037

physician, philosopher, theologian, mathematician, poet, astronomer (11th century Persia)

Father of early modern medicine







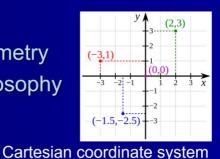
KH Ng

René Descartes

AD_1596 – 1650 French philosopher, scientist, mathematician, metaphysicist,

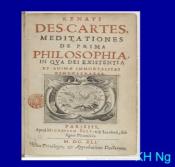
physiologist

Father of analytic geometry Father of modern philosophy





"Cogito, ergo sum" I think, therefore I am



Polymathy through time and space (mentioned by Waqas Ahmed)



Aristotle zoologist, botanist, physicist, philosopher, art theorist, political theorist, astronomer (4th c BC Greece) (10th c China)



Johann Von Goethe philosopher, poet, artist, lawyer, scientist, playwright (18th c Germany)



anatomist, astronomer, artist, poet, engineer, mathematician, bureaucrat



Florence Nightingale nurse, mathematician, theologian, feminist, humanitarian (19th c Britain)



lbn Khaldun philosopher, historian, economist, sociologist, diplomat, anthropologist (14th c Tunisia)



Lewis Carroll (Charles Dodgson) photographer, inventor, poet, novelist, clergyman, mathematician (19th c Britain)



Nicolaus Copernicus astronomer, artist, mathematician, economist, lawyer, diplomat, clergyman (16th c Poland)



Rabindranath Tagore poet, playwright, philosopher, painter, composer, novelist (20th c India)



Gottfried Wilhelm Leibnitz lawyer, diplomat, engineer, librarian, alchemist, historian, mathematician, physicist, geologist, philosopher (17th c Germany)



dancer, Maya Angelou singer, poet, writer, novelist, filmmaker, journalist, linguist, historian, activist (21st c US)

KH Ng



likely never heard of 8, 2024 2.24am BST Updated: May 9, 2024 8.42am I

Persian scientist and polymath Muhammad ibn Mūsā al-Khwārizmī (Father of algebra, grandfather of computer science) c 780-850

https://theconversation.com/why-are-algorithms-called-algorithms-a-brief-history-of-the-persian-polymath-youve-likely-never-heard-of-229286

al-Khwārizmī → algorithmi

مرببة المشبهة بالملينة

والحادة والمنفرجة . فأما القائمة فهي مثلة اذا ضر

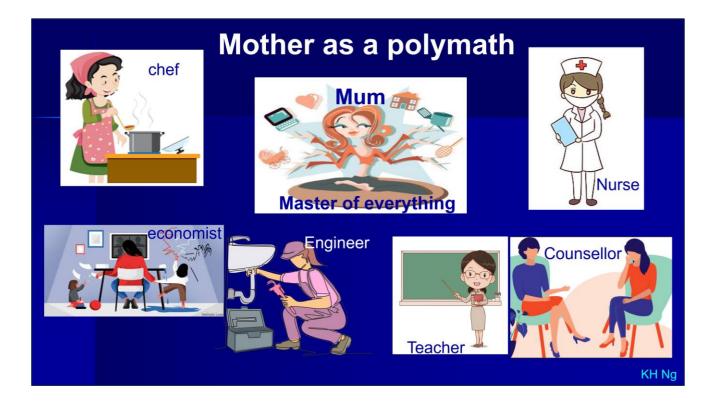
All of us could become a 'polymath' in some way.

Are we ready to unlock our potential?

Stigma of a polymath

'Jack of all trades and a master of none.

But there is an older expanded version! 'A jack of all trades is a master of none, but often better than a master of one'.

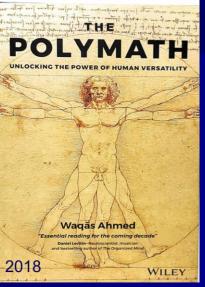


Unlocking the power of human versatility



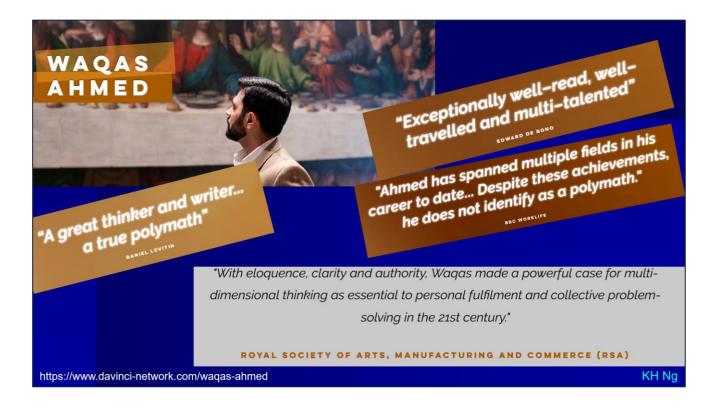
Waqas Ahmed author, curator, scholar, scientist, creator, artist, historian, journalist, trainer (21st c British)

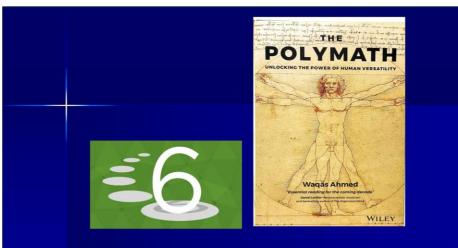
interdisciplinary and intercultural education



Every person has limitless potential from birth.

"Why, then, do parents, schools and employers insist that we restrict our many talents and interests; that we 'specialise' in just one?"





We can each take to unlock the various aspects of our talents and knowledge.

1. Know thyself

- Use the many talents that are within us. To truly understand ourselves and focus on the areas where talent and passion intersect to achieve success.
- May have some degree of eccentricity idealism, intense curiosity, a high degree of intelligence and a non-conformist attitude.

2. Unlock your curiosity

- Narrow the knowledge gap between what we already know and what we would like to know. Clear up doubt and ambiguity.
- Curiosity is inherent in us; however, this love and joy of learning is frequently driven out of us by schools and work.
- Rekindle our interest in learning and curiosity. Have an open mind and a growth attitude.

3. Nurture your various abilities

- In both academic and professional life, it's very easy to become 'pigeonholed', especially if we happen to excel at one particular field. In the workplace, our job title constraints us on how we function - KPI.
- Appreciate our rich and diverse intelligence.
 Also need social and emotional intelligence.



4. Tap into your versatility and move between fields of knowledge

- In a world that is pushing us towards super-/hyperspecialization, we must tap into our versatility. Need to move between different fields if we want to generate new ideas/ innovate - interdisciplinary.
- This ability to change intellectually is a key aspect of exploring ideas to survive in this rapidly and disruptive changing world.



6. Integrate many fields of expertise to offer clarity and overall perspective.

- Systems thinking to understand context and the interdependencies among components in the complex and interconnected world. To grasp the relationships, context, and connectivity of information.
- Our educational systems have historically compartmentalized knowledge into clearly defined subject areas, we must push for holistic learning.
- See the bigger picture. cf. tunnel vision

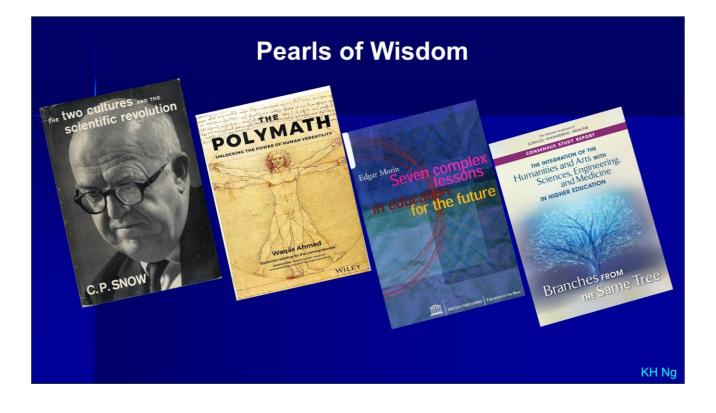
THE BIGGER PICTURE

Are we inspired to unlock the power of human versatility within us?

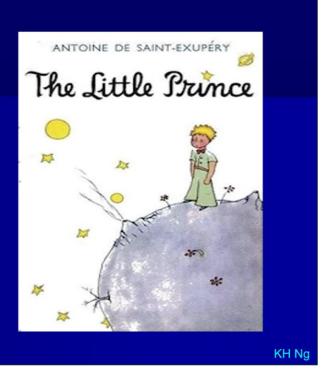


From the Preface

"We must rethink our way of organizing knowledge. This means breaking down the traditional barriers between disciplines and conceiving new ways to reconnect that which has been torn apart. We have to redesign our educational policies and programmes. And as we put these reforms into effect we have to keep our sights on the long term and honour our tremendous responsibility for future generations."



"As for the future, your task is not to foresee, but to enable it" - Antoine Saint-Exupe ry





Shaping a productive scientist-artist collaboration

Art-minded scientists and science-minded artists partner to create captivating art and challenge entrenched ideas. The overarching goal is the process of creating something new together - exchange and reshaping of ideas. Promoting public understanding of science.

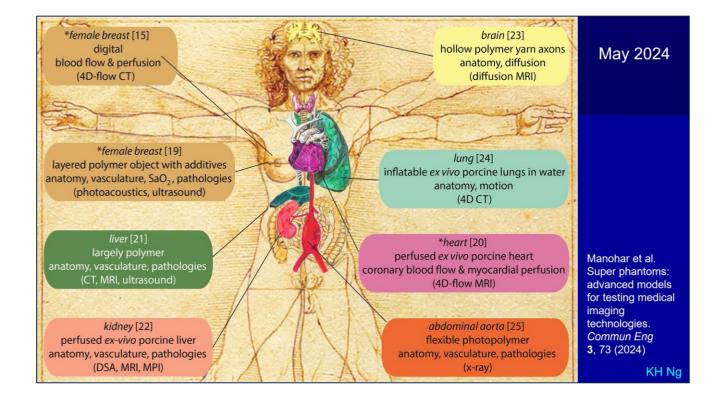


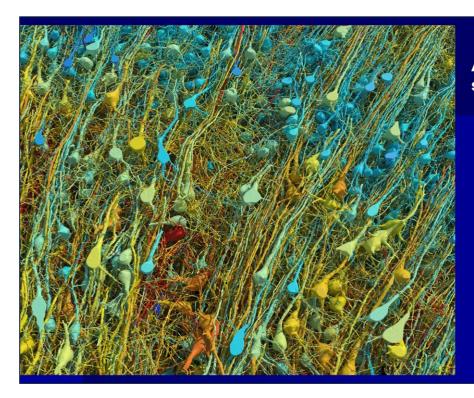
Nature 590 p516 Feb 18 2021

'Bird of M'sia' takes flight in KLIA Star May07 2023



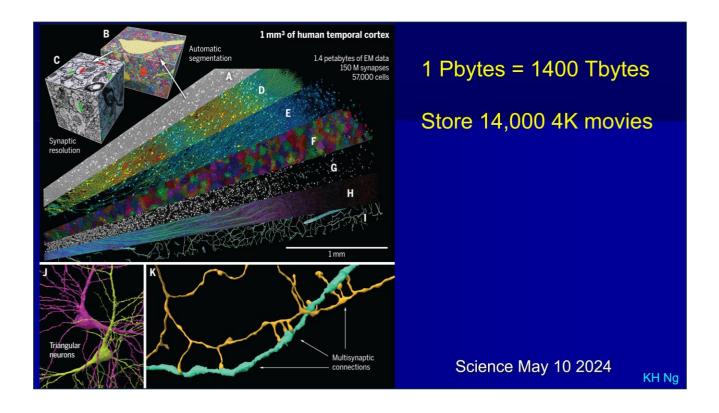
With Assoc Prof Dr Mohd Fakri Zaky, coordinating lecturer, UPM

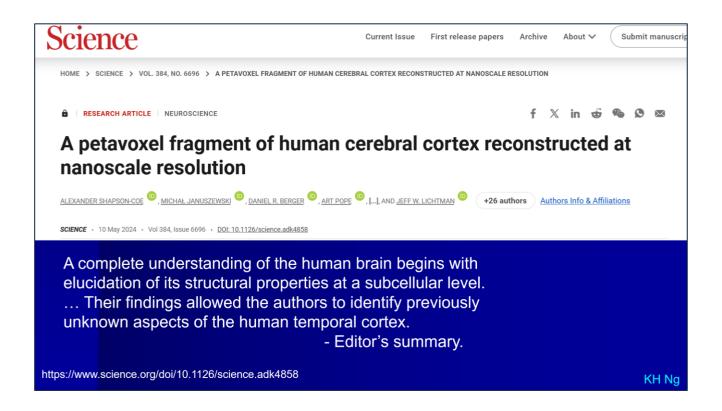


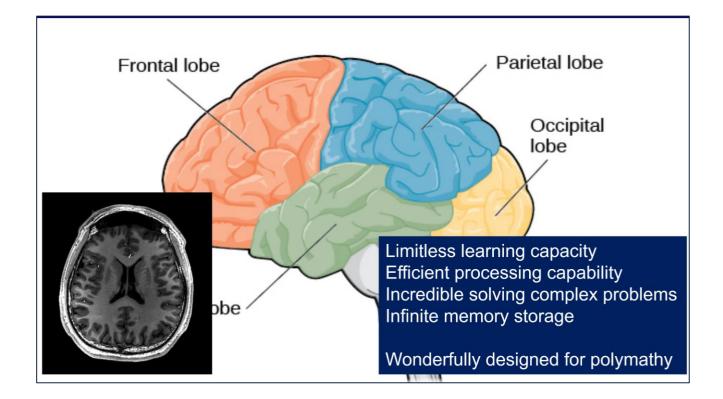


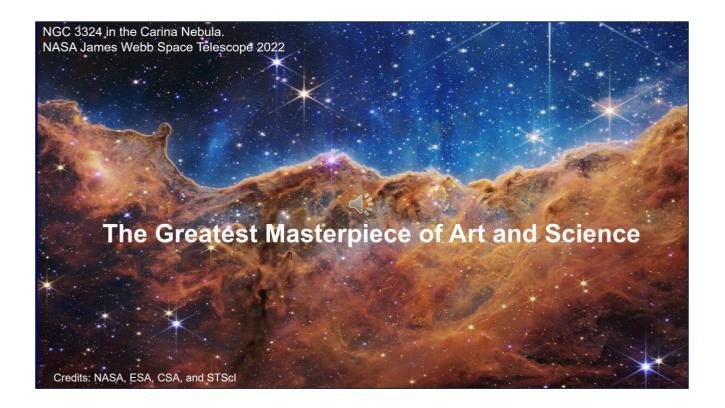
A millimetre of brain in spectacular detail

Rendering based on electronmicroscope data, showing the positions of neurons in a fragment of the brain cortex. Neurons are coloured according to size. Credit: Google Research & Lichtman Lab (Harvard University). Renderings by D. Berger (Harvard University)









We are certain:

If we want to ensure a sustainable future, we must undergo a real transformation by adopting polymathic thinking and holistic knowledge – yes, we must *CHANGE*.

To achieve more, we should imagine together and change.



Let us make a difference for the common good of humanity

ICASAS'24

DR. FARID MOHAMMADI



Farid Mohammadi is a lecturer in the English Department at the Faculty of Arts and Social Sciences, University of Malaya, Malaysia. His doctoral thesis investigated J.R.R. Tolkien's portrayal of space, place, and atmosphere in The Lord of the Rings (1954–1955) through the analytical framework of Environmental Aesthetics. He specialises in teaching courses on ecocriticism, literary theory and criticism, as well as Romantic and Victorian literature and culture. His research primarily concerns the intersection of environment, aesthetics, and continental philosophy. He has published several scholarly papers and has presented his work at international conferences, addressing subjects such as Tolkien, 19th-century literature, contemporary art and aesthetics, knowledge production and decolonisation. Additionally, he has moderated various academic panels and discussions.

ABSTRACT

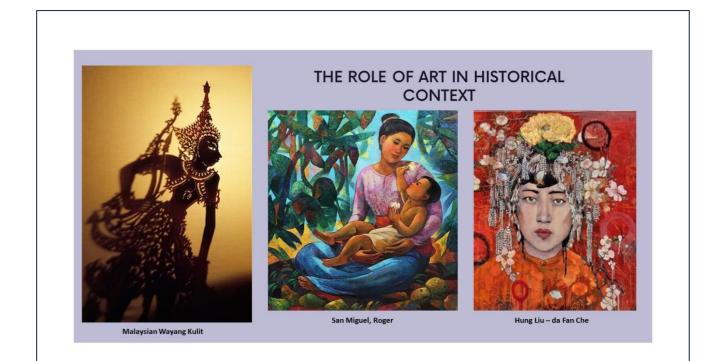
ARTSCIENCE AS A PATHWAY TO SUSTAINABILITY: REIMAGINING KNOWLEDGE THROUGH CONTEMPORARY ART AND CULTURAL INITIATIVES IN SOUTHEAST ASIA

Dr. Farid Mohammadi

English Department, Faculty of Arts and Social Sciences, University Malaya Email: <u>faridm@um.edu.my</u>

This paper investigates the intersection where contemporary art meets scientific principles to challenge and reshape the colonial legacies deeply embedded in the region's understanding of history and culture. This paper delves into the role of cultural initiatives like Ho Tzu Nyen's Critical Dictionary of Southeast Asia, using it as a paradigm to illustrate how art integrated with science—ArtScience—can lead to a decolonised and holistic knowledge system that promotes sustainable development. By fostering an inclusive dialogue that embraces diverse narratives and perspectives, the study emphasises the necessity of infusing ArtScience into knowledge production, advocating for a re-evaluation of traditional epistemologies. It posits that the conscious inclusion of decolonising methodologies and the symbiosis of artistic practices with scientific exploration is imperative for nurturing a sustainable and equitable future. The paper asserts that the union of art and science is instrumental in carving out pathways for sustainable knowledge re-evaluation and production in Southeast Asia, making it a cornerstone for the region's journey towards cultural sustainability.







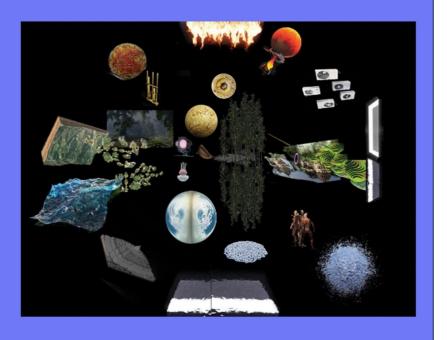




HO TZU NYEN

IS A SINGAPOREAN CONTEMPORARY ARTIST AND FILMMAKER WHOSE WORKS INVOLVE FILM, VIDEO, PERFORMANCE, AND IMMERSIVE MULTIMEDIA INSTALLATIONS.

Ho offers viewers new ways of perceiving his art through "Visions", an interactive outdoor augmented reality (AR) exhibitions.





The main feature of the exhibition is the moving image installation. The artist, along with a team of software developers and media artists, creates an algorithm that mixes texts, music, and found footage related to an alphabetized list of concepts. This algorithm generates new combinations each time it runs.

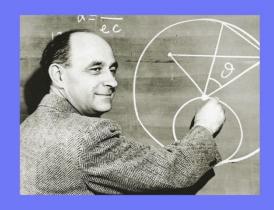


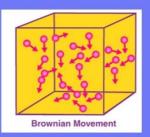
Artist Ho Tzu Nyen Digs Through Layers Of History To Create His Own Version Of Reality

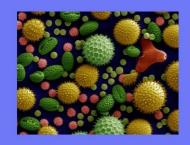


Moving from A to Z, ideas collide like particles in Brownian motion.

This phenomenon is named after the botanist Robert Brown, who first observed it in 1827. Brownian motion is a key concept in physics, illustrating how particles move unpredictably due to constant, invisible impacts from the surrounding molecules.

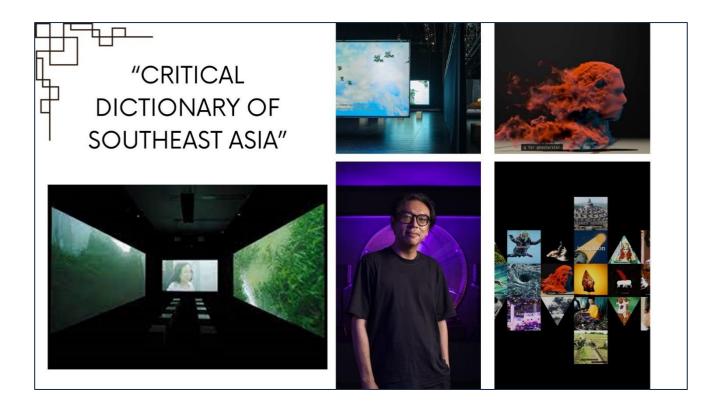


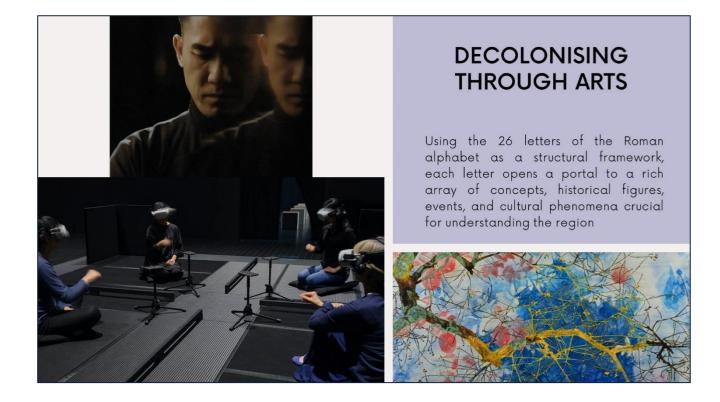




The Invisible Dance Of Particles.







VIDEO INSTALLATIONS, THEATRICAL PERFORMANCES, SOUNDSCAPES

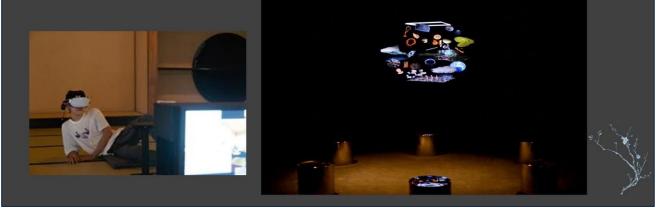


VIDEO INSTALLATIONS, THEATRICAL PERFORMANCES, SOUNDSCAPES



Multisensorial and Empirical Art Forms

Multisensorial Art: Involves engaging multiple senses (sight, sound, touch, etc.) to create a rich, immersive experience for the audience.



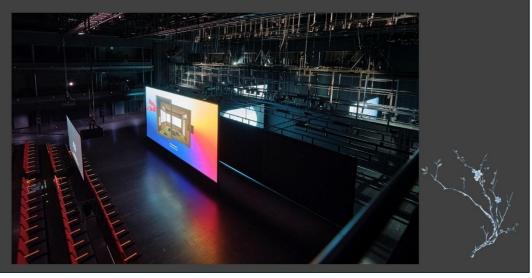
Multisensorial and Empirical Art Forms

Rhizomatic Structures: Combines scientific observation and experimentation with artistic expression.



Multisensorial and Empirical Art Forms

Performative Installations: Performative installations blend elements of theatre, dance, and live art with traditional static installations.

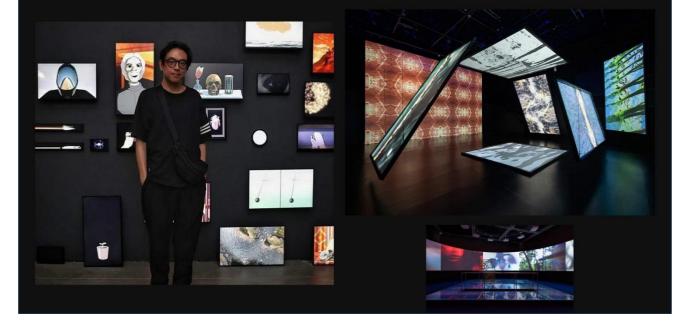


ArtScience as a Catalyst for New Historical Perspectives

Through this project, Ho Tzu Nyen creates a platform for alternative histories and narratives to be recognized and considered, significantly contributing to the broader efforts of decolonizing knowledge in Southeast Asia



EMBRACING THE TRANSFORMATIVE POWER OF ARTSCIENCE































THANK You

FARID MOHAMMADI

EMAIL: FARIDM@UM.EDU.MY



ICASAS'24

DATUK PROFESSOR DR. ABDELAZIZ BERGHOUT



Datuk Professor Dr. Abdelaziz Berghout is currently the Dean of the International Institute of Islamic Thought and Civilisation (ISTAC-IIUM) and the OIC's External Advisor on Cultural, Social, and Family Affairs (2020-2025). He served as the Deputy Rector of IIUM (2011-2018) and Dean of Corporate Strategy and Quality Assurance (2009-2011). Prof Aziz has a Ph.D. in Islamic History and Civilisation and a second Ph.D. in Education (Curriculum Development and Instruction). He was invited to serve as the chairman of the OIC's Committee on developing the Strategy for Empowerment of Family and Marriage Institution in OIC member Countries (2019); chief coordinator of the OIC committee for the Preparation of a Guiding Policy Document on the Integration of Ethics and Values in Children, Women, and Family for the Benefit of OIC Member Countries, (2023). He served as the Deputy President of the African-Asian Union of Universities (2021-2022), Member of the Board of Governors of the International Academics University (UK-Virtual University, 2022-2023). Prof. Abdelaziz's published 12 books, over 90 scholarly works in indexed and refereed journals both locally and internationally, and over 140 papers in conferences and seminars both locally and globally. His recent edited book is: SDG 18: Spirituality, Values and Culture for Humanising Sustainable Development: A Future Worldview, 2023. Datuk Prof. Abdelaziz has received several awards, including the Global Relevance and Citizenship Award from IIUM Malaysia on July 28th, 2022; The Jewels of the Muslim World from OIC Today in Malaysia. (International Award) (2019); Vicennium Appreciation Award, Ma'din Academy, Kerala, India, (2015); Ajman Award for Quality and Excellence, the Ruler of Ajman, (2011); Biography included in 2000 Outstanding Intellectuals of the Twenty-First Century (International -Biographical Centre, Cambridge, England, (2005); Biography included in (Marquis Who's Who in the World, 22nd Edition, 2005.

ABSTRACT

ARTSCIENCE FOR ACHIEVING A MORE COMPLETE AND UNIVERSAL UNDERSTANDING OF THE SUSTAINABILITY IMPERATIVE

Datuk Professor Dr. Abdelaziz Berghout

International Institute of Islamic Thought and Civilisation (ISTAC), International Islamic University Malaysia Email: berghout@iium.edu.my

In an era characterised by unprecedented and complex transformations, sustainability emerges as a powerful force shaping global policies and activities that impact the well-being of the people, planet, prosperity, and global peace. The issue of sustainability is now being addressed on a global scale due to its impact on the fundamental aspects of human being and human civilisation. Today, we are reimaging sustainability considering various challenges, including the global ecological catastrophe, global economic instability, and worldwide civilisational tension. Therefore, our comprehension and alignment with sustainability are essential at this juncture of humanity's global progress. To deal with this, the convergence of the two overarching narratives of science and arts is essential for the emergence of a cohesive and harmonious unifying paradigm that addresses the long-term sustainability of humankind and human civilisation. Sustainability that fails to harmonise the mind-body, soul-heart, knowledge and consciousness, action and wisdom, as well as the integration of art and science, and the combination of material and spiritual elements, will not effectively address the significant challenges of sustainability. Sustainability should be examined as a cohesive and harmonious ecosystem consisting of multiple interconnected sub-ecosystems, including arts, science, values, economics, politics, social dynamics, culture, technology, governance, and management. These components should work together synergistically to achieve optimal effectiveness in achieving sustainability. Therefore, the reimagining of the arts-science framework will bring about significant transformations in the future of knowledge and education, teaching and learning, philosophy and epistemology, worldview and vision, and objectives and applications, ultimately leading to a harmonious and sustainable development for humanity.



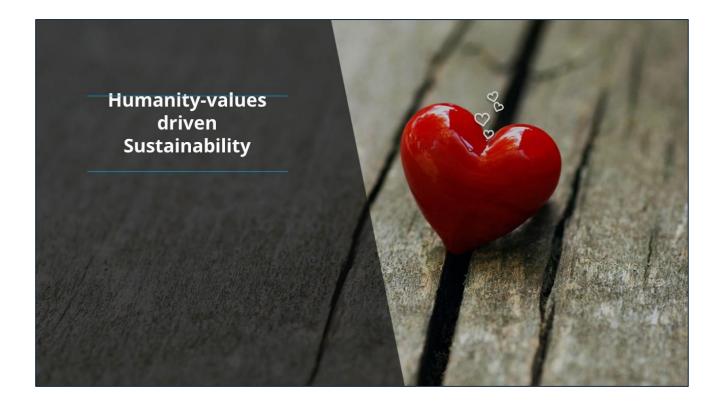
INTERNATIONAL CONFERENCE ON: ArtScience in the Age of Sustainability

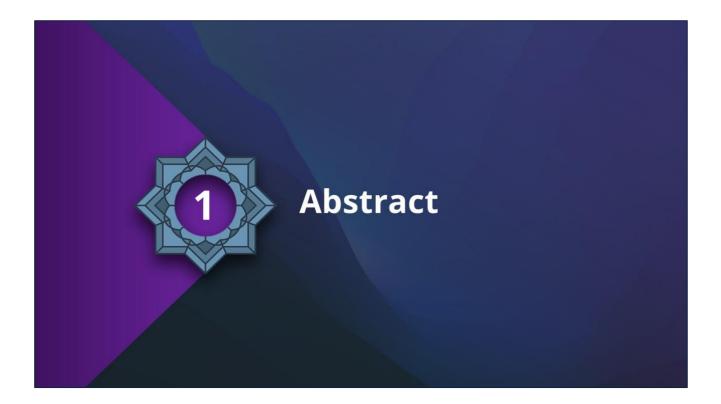
12-13 June, 2024 University Malaya Centre for Civilisational Understanding, Institute for Advanced Studies and Azman Hashim Chair for Music

THEME:

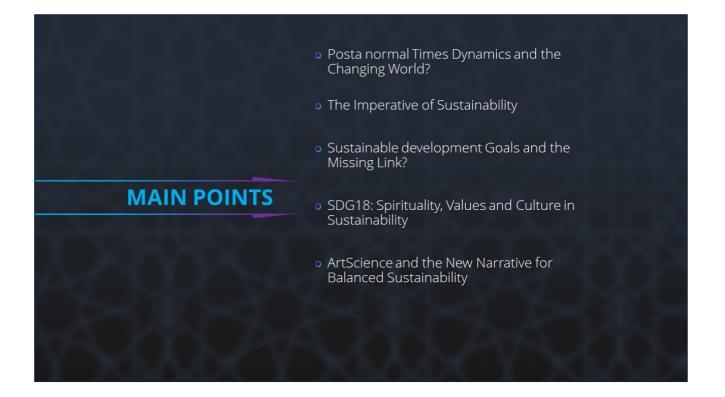
The ArtScience for Achieving A More Complete and Universal Understanding of Sustainability Imperative. ArtScience and Sustainability: Understanding the Bigger Picture and Urgency of Humanity-values Driven Narrative: Insights

> Datuk Prof. Dr. Abdelaziz Berghout, Dean, ISTAC-IIUM, Malaysia

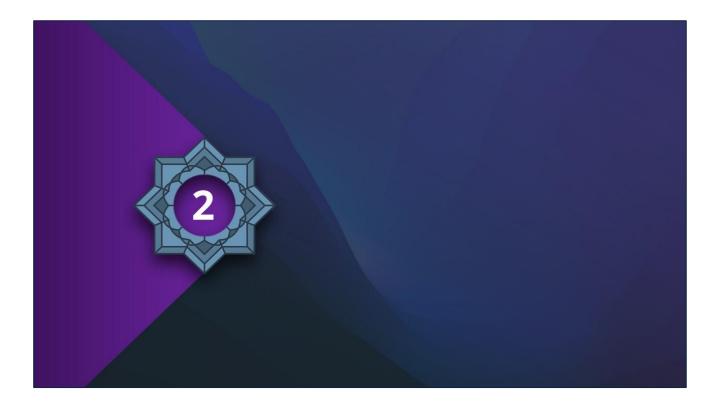


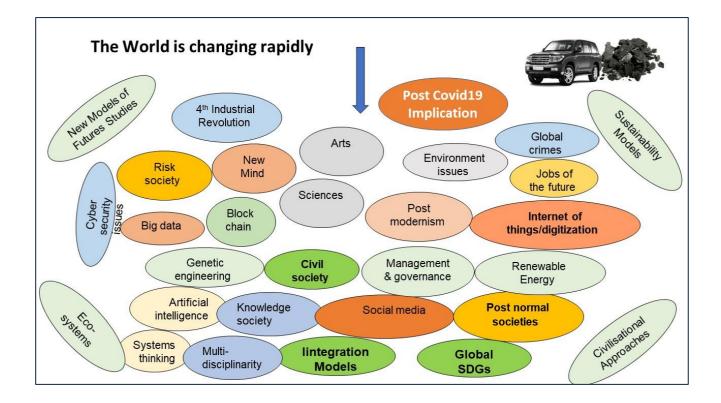


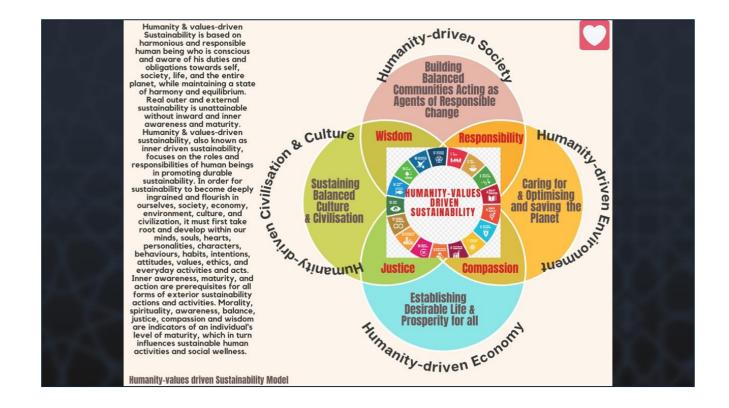
Artscience for Achieving a More Complete and Universal Understandi ng of the Sustainability Imperative	+	In an era characterised by unprecedented and complex transformations, sustainability emerges as a powerful force shaping global policies and activities that impact the well-being of the people, planet, prosperity, and global peace. The issue of sustainability is now being addressed on a global scale due to its impact on the fundamental aspects of human being and human civilisation. Today, we are reimaging sustainability considering various challenges, including the global ecological catastrophe, global economic instability, and worldwide civilisational tension. Therefore, our comprehension and alignment with sustainability are essential at this juncture of humanity's global progress.	→	To deal with this, the convergence of the two overarching narratives of science and arts is essential for the emergence of a cohesive and harmonious unifying paradigm that addresses the long-term sustainability of humankind and human civilisation. Sustainability that fails to harmonise the mind-body, soul- heart, knowledge and consciousness, actio n and wisdom, as well as the integration of art and science, and the combination of material and spiritual elements, will not effectively address the significant challenges of sustainability.	•	Sustainability should be examined as a cohesive and harmonious ecosystem consisting of multiple interconnected sub- ecosystems, including arts, science, values, science, values, politics, social dynamics, culture, technology, governance, and management. These components should work together synergistically to achieve optimal effectiveness in achieving sustainability.		Therefore, the reimagining of the arts-science framework will bring about significant transformations in the future of knowledge and education, teaching and learning, philosophy and epistemology, worldview and vision, and objectives and applications, ultimately leading to a harmonious and sustainable development fo r humanity.		Keywords: Artscience- Sustainability - balanced ecosystems- Reimaging Education	
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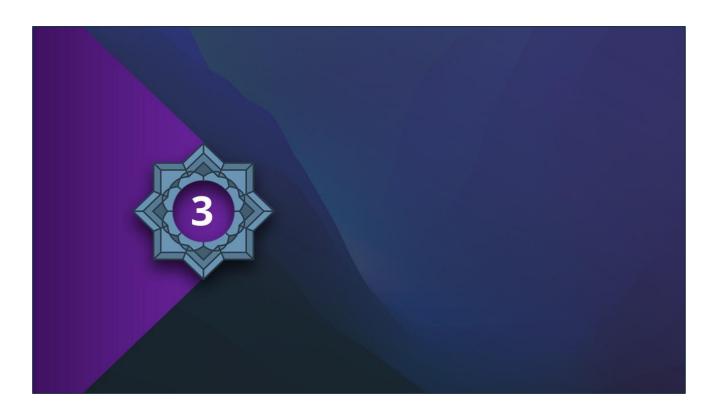










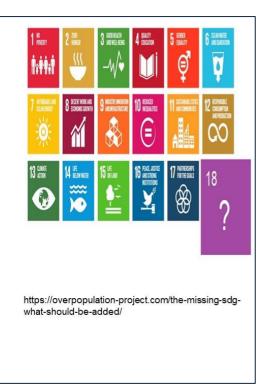


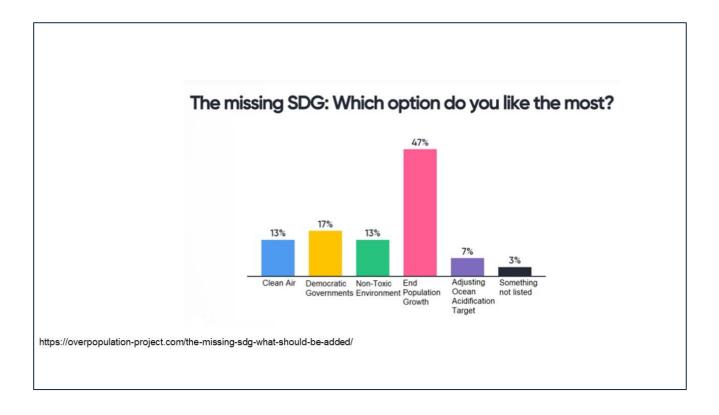


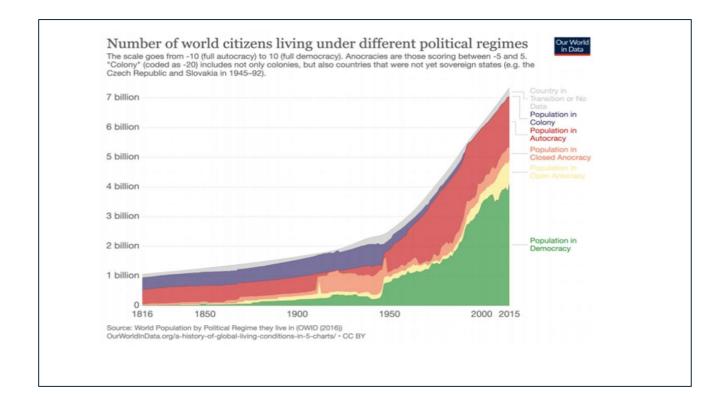
Background	
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Sustainable development goals moted by the United Nations and backed by 193 countries worldwide marked another unprecedented human effort of global scale engaging the member countries and related bodies and organisations. At the global level, this initiative has put the human consciousness in the face of big human problems and crises of global nature such as environmental, economic, political, social, cultural, moral, and ethical. The sustainable development goals and agenda have, somehow, brought to the fore of human civilisation issues of poverty and hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace, justice and strong institutions and partnerships for the achievement of goals.

The fact that such kind of global issues become, to some degree, institutionalised as part and parcel of the policies of international and global bodies such as the United Nations they bear heavily on sustainable development at the local and country levels. Accordingly, the SDGs agenda becomes more prevalent and dominating in local, reginal, and international fora and platform urging the entire humanity to act and respond as efficient as possible to achieve the goals, targets, and the key performance indicators of the success.







Category One: Specific Focus SDGs

- Goal #18: Reducing the Unexploded Ordnance (UXO) obstacle to development
- 2. Cambodia SDG 18
- 3. Sustainable future through Using HEMP

Category Two:

- 1. Youth Equity
- 2. Space for all
- 3. No homelessness, No Displacement of People
- 4. Space Economy (Sustainable Development of the Space Economy)

Category Three

- 1. Life with Artificial
- 2. Digital Technologies
- 3. A meaningful and safe digital life
- 4. Transportation
- 5. Physical activity and sport for all

Proposed SDGs

Category Four

- 1. Active Empathy for life
- 2. Life together
- 3. Self-Awareness and Personal Agency
- 4. Serving People and the Planet
- 5. Communication for All and Arts
- 6. Using the power of communication, media, and activism
- 7. Space environment, and culture and community
- 8. Future of Humanity
- 9. Indigenous People
- 10. Arts, Music, and Culture
- 11. Mother Earth and Earth Wisdom
- 12. Languages & Cultural Knowledge
- 13. Religion: Engagement and contribution

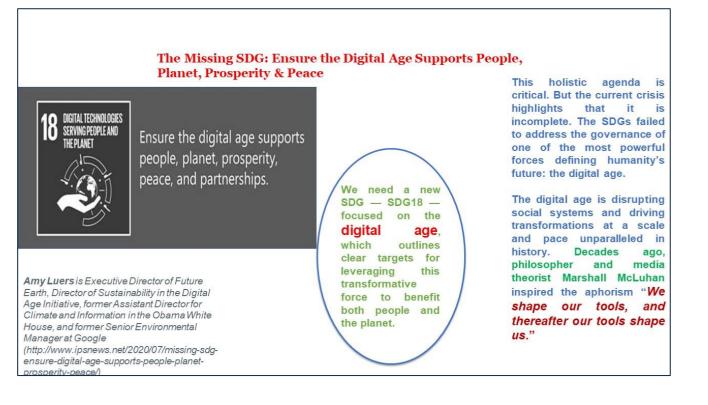
Category Five

- 1. Dampen Population growth
- 2. Population Continuity

Category Six

- 1. Disaster Risk Resilience
- 2. Animal Health, Welfare and Rights
- 3. Zero Animal Exploitation
- 4. Agriculture and Save the Bees





The Montreal Statement on Sustainability in the Digital Age.

This Statement calls on society to recognize that tackling the climate crisis, building a sustainable world, and working toward a just and equitable digital future are

inherently interconnected agendas. It lays the foundation for what could define an

action agenda for the missing SDG 18.

The statement outlines five near-term actions to overcome profound risks of the digital age and leverage its transformative capabilities to build a climate-safe, sustainable, and equitable world. These include the need to:

•Build a new social contract for the digital age, which addresses individual rights, justice and equity, inclusive access, and environmental sustainability: •Ensure open and transparent access to data and knowledge critical to achieving sustainability and equity; •Foster public and private collaborations to develop and manage AI and other technologies of sustainability and in support eauity: •Promote research and innovation to steer digital transformations toward sustainability and equity; and •Support targeted communication, engagement and education to advance the social contract.

Survey: Imagine a new SDG – SDG18: Ensuring the digital age serves people, planet, peace, prosperity and partnerships. What targets would SDG18 encompass? The absence of any mention of language in the SDGs was the topic of a UN Symposium titled 'Language, the Sustainable Development Goals and Vulnerable Populations', held in New York on 11-12 May 2017. It was the second event organised by a Study Group on Language and the United Nations, an independent group of scholars and practitioners.

We Need SDG18 focused on the Languages & Cultural Knowledge.

As a researcher on the project '<u>The Listening Zones of NGOS</u>: Languages and Cultural Knowledge in Development Programmes', jointly organised by INTRAC, the University of Reading and the University of Portsmouth, I participated in the symposium and contributed a paper on the role of languages in the development work of international UK-based NGOs (watch it below). I was curious to find out more about the work of other researchers as well as practitioners working on the role of languages in development. In this blog, I share some thoughts and insights on the discussions and debates that took place over these two stimulating days.

The role of languages in delivering the SDGs

In the opening discussion, Michael Ten-Pow, Permanent Representative of Guyana to the United Nations, pointed out that the SDGs include mechanisms for implementation that specifically focus on the inclusion of vulnerable groups. For example, SDG 2 'Zero Hunger' ensures 'access to safe, nutritious and sufficient food all year round'. SDG 4, 'Quality Education', aims to 'eliminate gender disparities in education and ensure equal access to all levels of education'.

Yet there are no mechanisms that take into account the language needs of vulnerable populations.

Cristina Diez, UN representative of ATD Fourth World movement, highlighted that 99% of negotiations on the SDGs were done in English, and 100% of negotiation outcomes were written in English. We have already excluded billions of people, she noted, and yet this agenda is for those who have not had the opportunity to have their voice heard. In delivering the SDGs, it is therefore critical to reflect on processes to include those most vulnerable.

https://www.intrac.org/languages-missing-sustainable-development-goals/

The Role of Religion, Spirituality and Faith in Development: a critical theory approach,

Jenny Lunn Third World Quarterly, Volume 30, 2009 - Issue 5

Religion, spirituality and faith have suffered from long-term and systematic neglect in development theory, policy making and practice, although there has been a noticeable turnover the past 10 years. This paper explores the role of religion, spirituality and faith in development in the past, present and future by applying three core concepts from critical theory—grounding of knowledge in historical context, critique through dialectical process, and identification of future potentialities for emancipation and self-determination.

It concludes that religion, spirituality and faith have a role to play in the future of development, particularly in ensuring that it is appropriate and sustainable. The paper also serves to counter critics who claim that critical theory has no resonance to contemporary social In terms of development, Card. Turkson pointed out that religions play a crucial role in providing education, a cornerstone of civil society for centuries or millennia. According to UNICEF, the UN's Children's' Fund, religions still Engagement provide or support 50% of all schools, and 64% of schools in sub-Saharan Africa. of Religion (Laudato Si' 49). Religious people, he continued, represent also the fourth largest identifiable investment community with around https://www.vaticannews.va/en/vatican-12% of the total capital investment worldwide, and run around a third of all medical facilities of the planet. turkson.html With their rich religious narratives, he said, religions can contribute to a sustainable future, together with all societies and institutions.

https://www.vaticannews.va/en/vatican-city/news/2019-03/vaticanconference-development-religions-poor-earth-sdgs-turkson.html

"After four years from the adoption of the SDGs," the Ghanaian said, "we have to realize even more clearly the importance to accelerate and tailor our actions to adequately answer to "both the cry of the earth and the cry of the poor"

city/news/2019-03/vatican-conferencedevelopment-religions-poor-earth-sdgs-



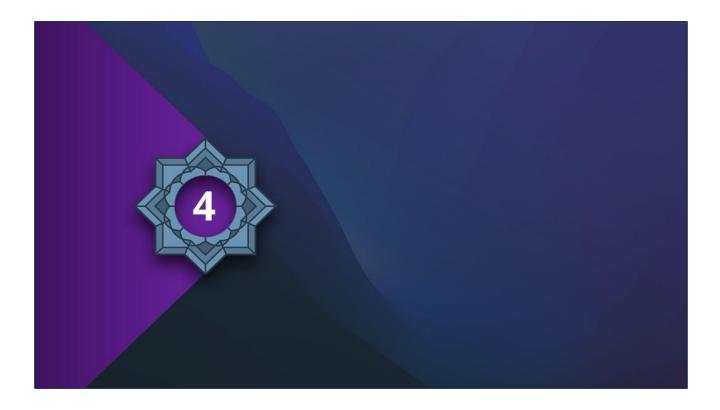
The new goals also serve another purpose: They keep everybody from thinking about any other possible goals. The plate is already overflowing with 169 of the damn things, why add more? (https://karmacolonialism.org/the-sdgs-whatsmissing/)

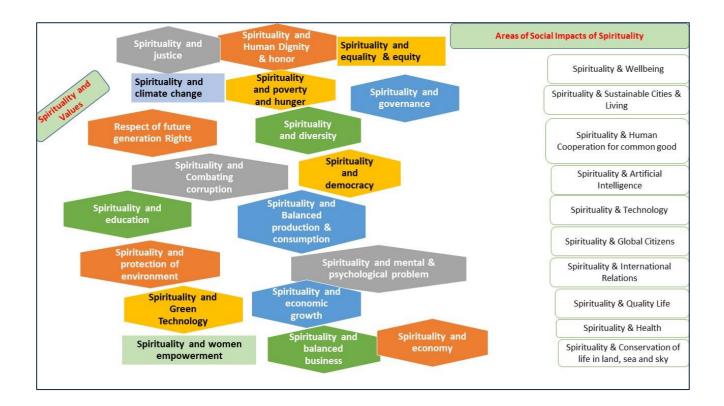
I have spent a lifetime in the field of global health and development. As the politics and approaches have changed over the decades, I have sometimes asked myself: "What has happened to our compassion? What has happened to the idea that those who are a little better off should help those who are in need?" SDG 1 answers these questions. It is perhaps the loftiest - and worthiest - goal we as a global community could ever aspire to: End poverty in all its forms everywhere. But what's missing? Health care as a human right.

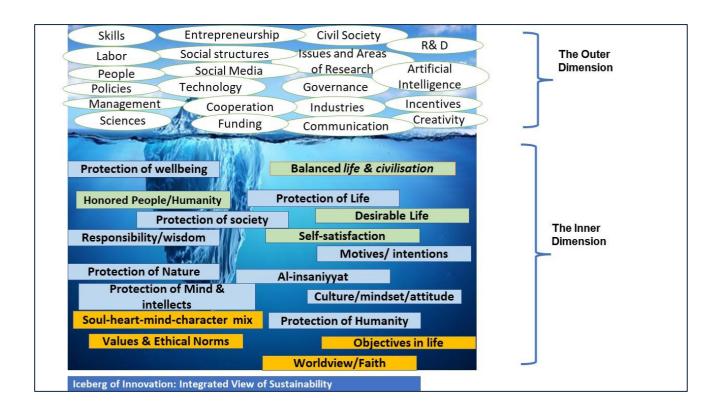
(By Pape Amadou Gaye Former President Emeritus In many parts of the world, the attainment of SDG 16 to achieve peaceful, just and inclusive societies is challenged by circumstances of increased fragility, social tensions and conflict.

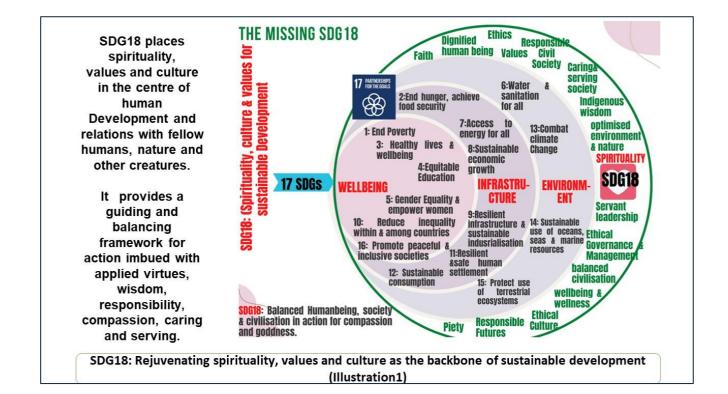
In his 2019 report on the progress towards the SDGs, the Secretary General expressed concerns at "the uneven advances in ending violence, promoting the rule of law, strengthening institutions and increasing access to justice, which continue to deprive millions of their security, rights and opportunities and to undermine the delivery of public services and broader economic development" (E/2019/68).

https://www.ohchr.org/EN/Issues/FreedomReligion/Pages/ReportEliminatin gIntoleranceAndDiscrimination.aspx The continued prevalence of internal and international conflicts, persecution, discrimination and violence, which particularly affect the most vulnerable, have resulted in the forced displacement of more than 68 million people, in placing approximately 10 million at risk of statelessness, and kept approximately 1 billion of them – with an estimated 625 million children – in the margins of society and rendered them legally "invisible", and many of them see their dignity and rights violated through arbitrary detention, enforced disappearances, extrajudicial killings, blatant disregard of due process, trafficking and other contemporary forms of slavery, as well as torture and other cruel or degrading treatment.

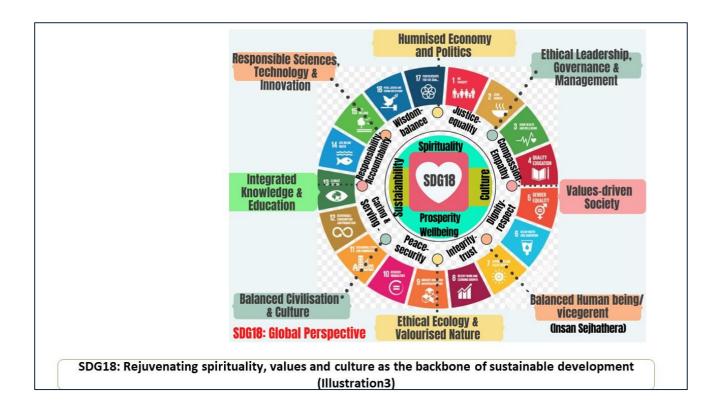


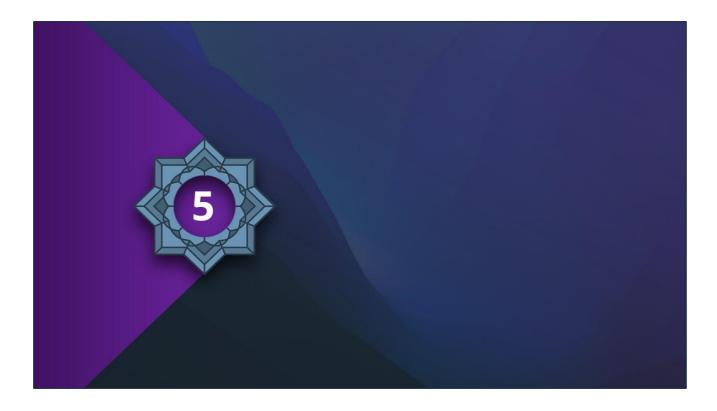


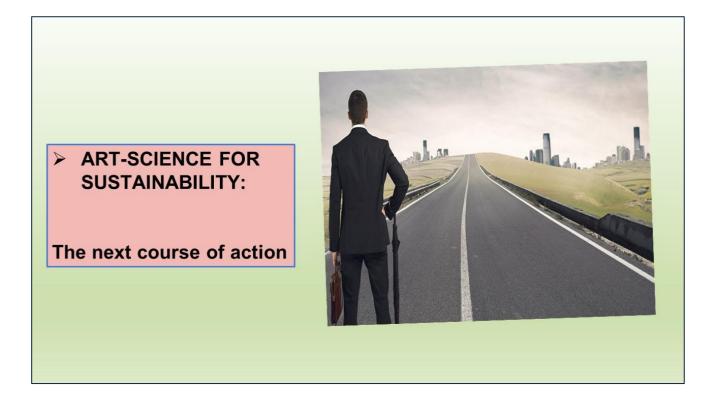


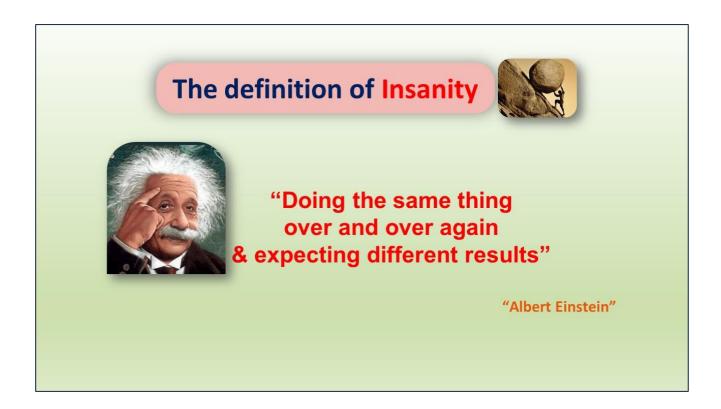


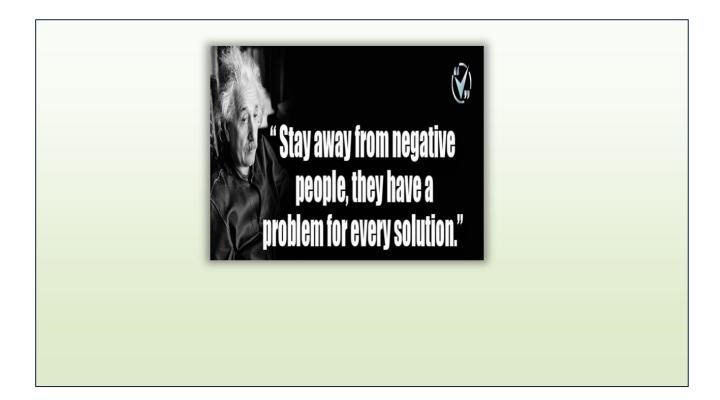








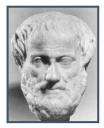




Excellence Is A Habit

We are what we repeatedly do; excellence

then is not an act, but a habit.



- Aristotle

Character Is Power!

- Booker T. Washington



Just as a spring breeze awakens tender new shoots of green, sincere encouragement can thaw a frozen heart and instill courage. It is the most powerful means to rejuvenate the human spirit."— Daisaku Ikeda

Great art is created only through diligent and painstaking effort to perfect and polish oneself.

The emotion generated by a work of art, be it poetry, painting, or music, may be that tangible, unquestionable feeling of a broadening of the self. It is a feeling of fullness, borne from a mysterious rhythm, a kind of flight toward the infinite, lived as a sharing, an exchange, whose source is our interior world.

Thank you very much

Knowledge alone does not produce wisdom. Transforming knowledge into wisdom requires input from the heart.

ICASAS'24

DR. NORANITA MANSOR



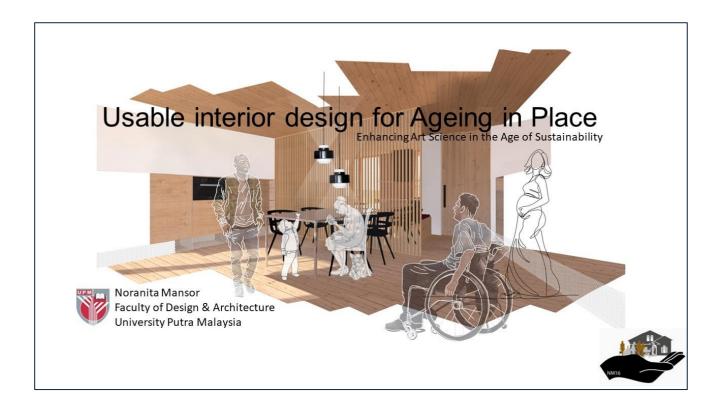
Noranita binti Mansor is a senior lecturer at the Department of Architecture, Faculty of Design and Architecture, University Putra Malaysia. Her research interest is in the area of interior architecture, ranging from inclusive design, universal design, ageing in place, and social sustainability and innovative design teaching and learning. With over 15 years of experience in teaching, she has delivered several courses for instance the Architectural Design Studio, Architectural Communication, Interior Design, and Inclusive Design Theory. She earned her Ph.D. in Architecture Studies and Master of Science (Architecture) from Universiti Putra Malaysia. Her first professional degree is in interior architecture, awarded from the University of Technology MARA, Malaysia. Her research interest focuses on inclusive design and agingin-place into architectural practices and teaching to foster environments that promote usability, community well-being, and social inclusion. She has been committed to bridging the gap between theory and practice. She led one research project funded by prestigious organizations such as Mudajaya Groups Bhd and the Technology Depository Agency of the Ministry of Finance Malaysia, by integrating inclusive design philosophy into a transit station on the university's campus. Her work has been published in several journals, including the Applied Mechanics and Materials Journal, Multidisciplinary Reviews, Management Academic Research Society, and the American Journal of Humanities and Social Sciences Research (AJHSSR). Her ultimate goal in education and research is to contribute to the development of built environments that are visitability and functional for everyone regardless of age and abilities.

ABSTRACT

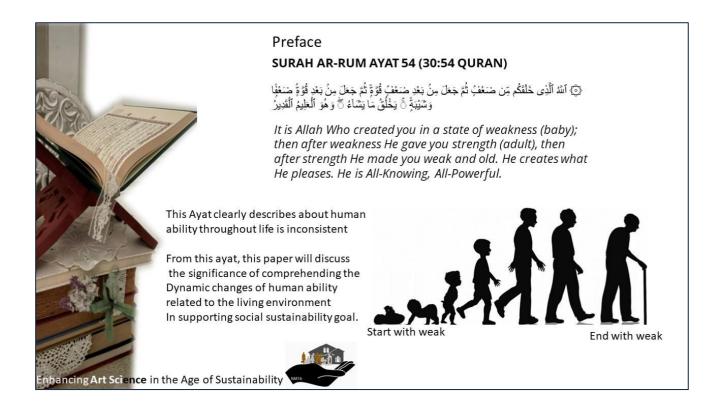
USABLE INTERIOR DESIGN FOR AGEING IN PLACE Dr. Noranita Mansor

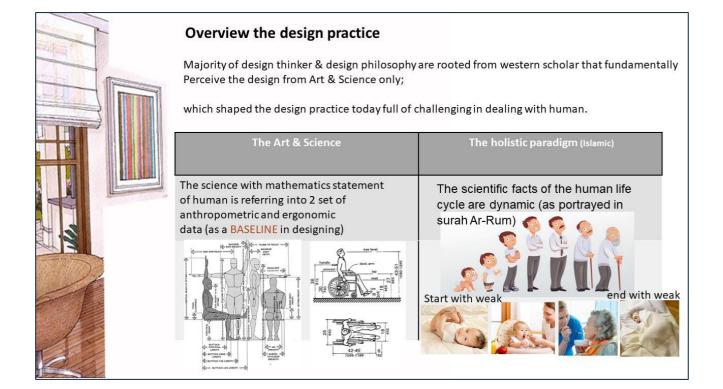
Department of Architecture, Faculty of Design and Architecture, Universiti Putra Malaysia Email: <u>nita@upm.edu.my</u>

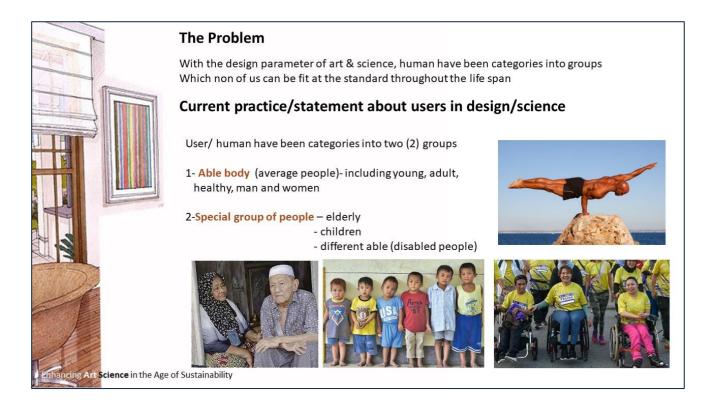
Visual aesthetics with functionality in interior design are potential components that can be innovated into the built environment in supporting ageing in place. In this paper, usable interior design can be considered as a shift of design thinking on societal attitudes toward disability devices which have often been viewed through a medical model that is aesthetically unpleasing and led to negative perceptions that synonym with dependency and abnormality. Ageing in place in this paper can be described as a social sustainability component that can be defined as the ability of one person to live in their current home with community safely, independently, and comfortably, regardless of age, income, or ability level through the lifespan. However, this paper believes the built environment that has been created to support people to age in place without aesthetic value can influence people's emotions, decreasing the ability to live independently and more miserably limiting the enjoyment of life's activities, especially during the golden age. For that reason, integrating creative and innovative interior design strategies into assistive technology (a medical model) can be visually appealing and usable for diverse users regardless of their age and abilities. Through theoretical analysis, this paper illustrates that the benefits of the art-science perspective in creating usable interior designs are both attractive and beneficial in supporting ageing in place in Malaysia. Therefore, this study believes that optimizing the interior design features through selecting an appropriate size, placement, materials, and furnishings, and incorporating technologies can facilitate ease of use and adaptability of the living environment to diverse users in Malaysia.











The Problem

Integrating the needs of everyone in design has been discussed worldwide (Steinfeld & Maisel 2012). Accommodating diverse users (including older people, children, and different able people) under one roof is a new challenge for interior designers in Malaysia

From the literature, many people are being reported to have unnecessarily excluded from using the interior spaces, products, and services in their daily activity (N.Mansor, 2008, 2017).

This issue start to rise because designers are trained to design for a mythical "average" group of people.

The fact is that "average people" do not exist because every individual is unique and human growth is dynamic (as referred to ayat 54 ArRum)



The **conventional design thinking** (divided human into 2 groups) had created a significant long-term impact on the **physical and mental condition** of people related to daily activities and design practice too (NM2017)





An Overview of the knowledge components of the study Related on categorise of users/people in environment									
SCIENCE	ART	ARTSCIENCE (Bridging the knowledge)							
1. Medical (medical treatment. curative; medicinal; therapeutic: medical properties) (special group of users)	 Architecture (the art and technique of designing and building) (2 group of users) 	Usable Interior Design for Ageing in place (addressing Dynamic changes of human ability Related to living environment)							
2. Engineering (principles of science and mathematics to solve individual ability) (special group of users)	2. Interior design (the spatial art of planning living environment and its furnishings) (2 group of users)								
3. Social-science (anthropology, economics, political science, psychology, and sociology) (2 group of users)	3. Industrial design (the art practice of designing products, devices, objects, and								
4. Gerontology (scientific study of old age, the process of ageing, and the particular problems of old people) (special group of users)	services used) (2 group of users)								



Lack of understanding and misinterpreted on who is 'the real users" in interior design becomes the most offender issue today.

This study foresee by comprehending "Dynamic human abilities" as a **new shift of design** thinking can support the social sustainable goal.



Unpleasant visual

The negative impact to society

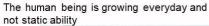
- 1-The discrimination of using space
- 2- Space segregation
- 3-Unwelcoming everybody
- 4- Designing for the current situation
- 5- Decrease independent life
- 6- Restricted freedom and active life



Who is 'the real users"

THE GLOBAL ISSUE : The world population is increased fertility and decreased mortality - People survive & live longer with medical advancement



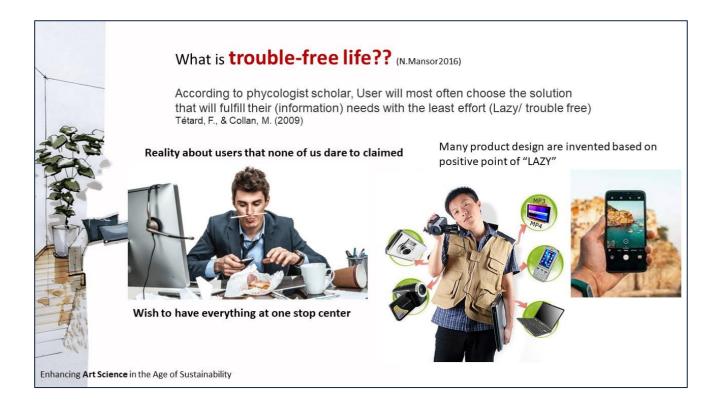






The **increase** in life expectancy, the growth of the elderly population and **the preference to age in**



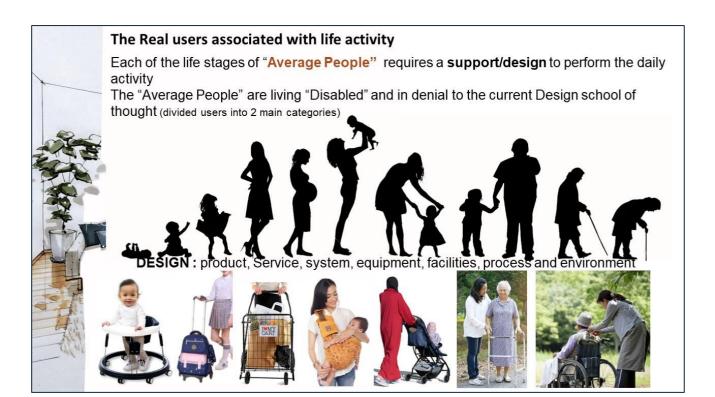


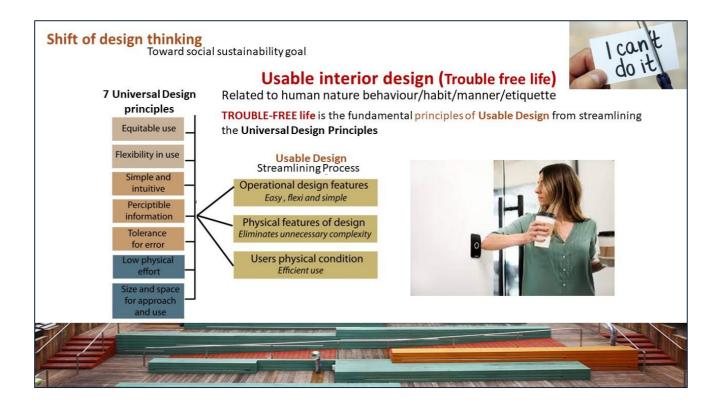


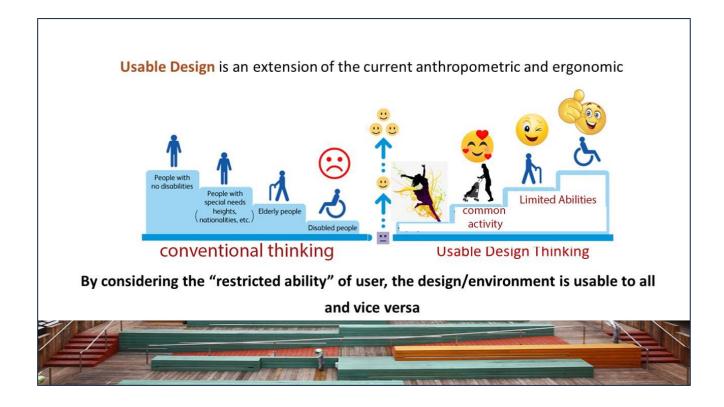
Enhancing Art Science in the Age of Sustainability

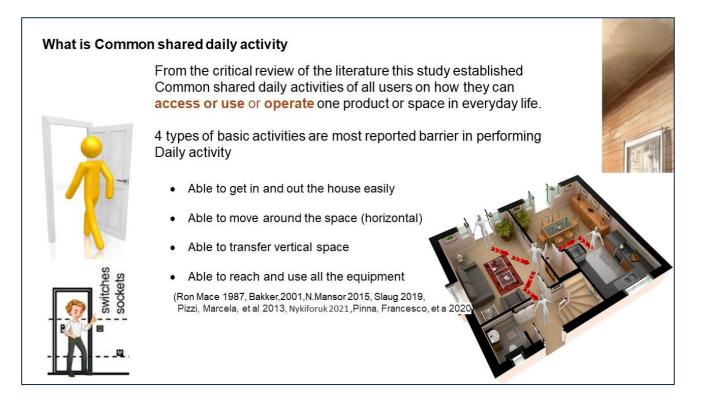


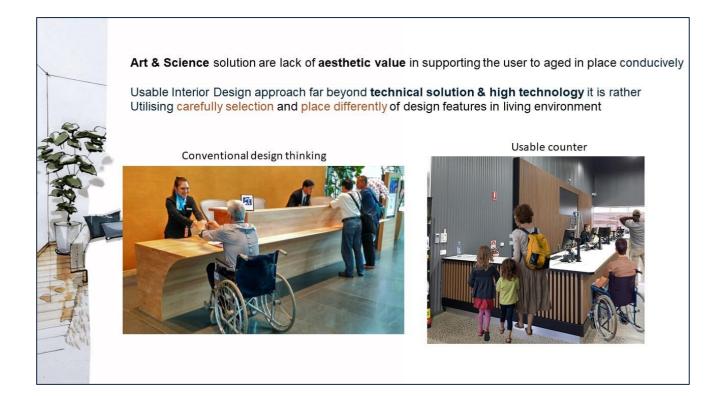
The so-call an "average users" are becoming temporary disabled due to environmental obstacle













Research finding :Example of obstacles in low cost housing in Malaysia (case study Serdang Selangor)



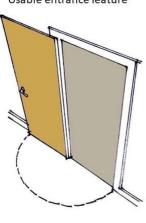


Limited space at the entrance door



Living environment obstacles Related to daily activity

Usable entrance feature







Research finding :Example of obstacles in low cost housing in Malaysia (case study Serdang Selangor)





Majority of the sample are using knob handle

Single operational

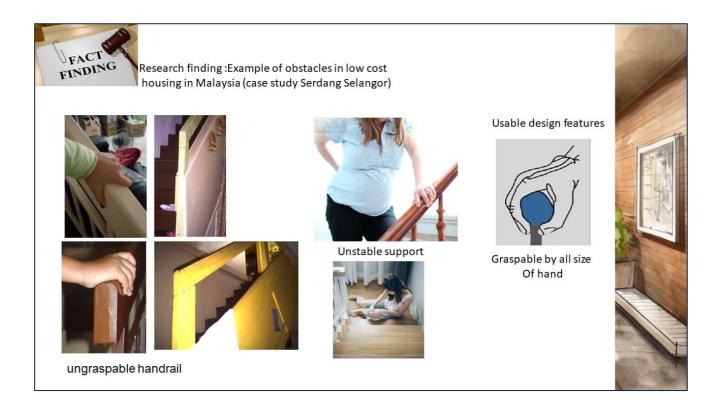


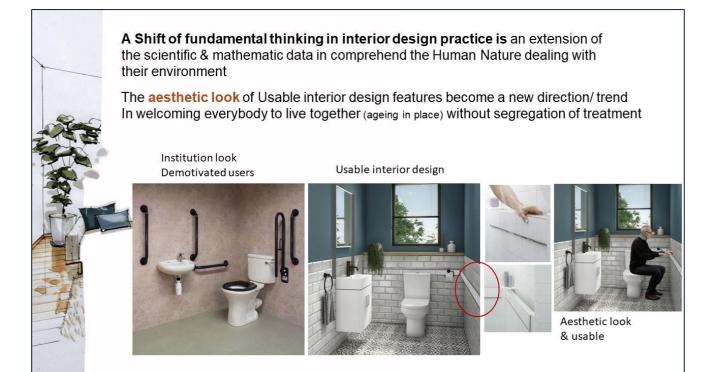
Usable design feature













Executive summary

- From evidence-based research, this study shows that the perception and behaviour of professional toward end-users in design is impracticable due to dynamic ageing process.
- Sustainable community planning may be hampered by incorrectly assuming end-user needs based on conventional design thinking.
- Usable design thinking is an alternative solutions towards social sustainability, not a new regulation and standard but rather an extension to bridging the art & science to the holistic understanding of users in the environment.
- This study proves that interior design is not an exclusive profession. it is an ARTSCIENCE that expresses Artistic Value for a usable environment that supports social-sustainable goals.



PROFESSOR DR. MOHAMMAD HAZIM SHAH ABDUL MURAD



Professor Dr. Mohammad Hazim Shah holds a Bachelor's degree in Liberal Studies in Science from the University of Manchester, a Master's degree in Philosophy from the London School of Economics, and a PhD in the History and Philosophy of Science from the University of Pittsburgh, USA. He spent most of his academic career at the University of Malaya, Kuala Lumpur where he taught the History and Philosophy of Science. Prior to his retirement in 2015, he was a Professor of the History and Philosophy of Science at the Department of Science and Technology Studies, University of Malaya, Kuala Lumpur, where he was the Head of Department from 2001 to 2007. Upon retirement he served as a Senior Research Fellow in the same department from May 2015 to May 2016. Prof Hazim was appointed as Deputy Director of International Institute of Public Policy and Management (INPUMA), University of Malaya from June 2013 to May 2015 and later, as Research Fellow of INPUMA, October 2017 to October 2018 before joining the Universiti Utara Malaysia. He was the President of the Malaysian Social Science Association from 2010 to 2014. Prof Hazim has published widely in a number of local and international journals, as well as book chapters and edited books. His areas of expertise cover the history and philosophy of science, the relationship between science, religion, and culture, and comparative studies on science and philosophy in Islamic and Western civilisations. He has been appointed as a member of the "Science and Islam Task Force", which was headed by the former secretary-general of the Organisation of Islamic Cooperation (OIC), Professor Dr Ekmeleddin Ihsanoglu in 2015/2016. He has also spent time as a Visiting Research Fellow at the University of Melbourne, Australia in 1993, and at the Department of History and Philosophy of Science, University of Cambridge, in 2008. He is currently serving as a Professor in the School of Languages, Civilisation, and Philosophy, College of Arts and Sciences, at the Universiti Utara Malaysia in Sintok, Kedah, where he teaches philosophy courses.

ABSTRACT

ARTSCIENCE FOR THE REHUMANISATION OF ALL KNOWLEDGE

Professor Dr. Mohammad Hazim Shah Abdul Murad

School of Languages, Civilisation, and Philosophy, College of Arts and Sciences, Universiti Utara Malaysia Email: hazimshah@gmail.com

The relatively recent attempt to reconnect the Arts with the Sciences in a substantive manner that is not only programmatic and rhetorical, has implications which could revolutionise thinking, education, learning and the knowledge sector in general. At the heart of the attempt towards a new orientation in knowledge, is the desire to bring about a new human being, who is wholistic and wholesome in nature, in other words a contemporary Ideal Man. The main obstacle that stands in the way of this proposed ideal is the compartmentalisation of knowledge that was brought about by specialisation through the continued process of division of labour that is the hallmark of modernisation. A related challenge that lurks in the way is the attempt to bring about social cohesion in modern societies through the privileging of science and technology over the Arts and Humanities, culminating in the identification of humanity with artificial intelligence. The antidote to such a potential lopsided evolution of man in favour of logos and techne, is the reconceptualisation of the foundation of knowledge through efforts such as the ArtScience initiative. In this lecture, I will discuss the philosophical foundations of such an attempt and how man or humanity should emerge at the centre-stage at the end of the process, and not become an instrument to some logical or technological abstraction. In order for this to be possible, the domains, aims and nature of both the Arts and Sciences have to be properly understood, and their relationships and interconnections, and their common goals identified and clarified.

The New Field of ArtScience and Its Implications for Human Knowledge

Prof Dr Mohammad Hazim Shah School of Languages, Civilisation, and Philosophy College of Arts and Sciences Universiti Utara Malaysia

What is the meaning of ArtScience?

ArtScience transcends and integrates all disciplines or forms of knowledge. One who practices ArtScience is both an artist and a scientist simultaneously and one who produces things that are both artistic and scientific simultaneously.

ArtScience

- ArtScience involves understanding the human experience of nature through the synthesis of artistic and scientific modes of exploration and expression.
- It not only attempts to understand the world through the synthesis of the arts and the sciences, but also recreates the world through the combination of both.

Historical Background

- The attempt to integrate the arts and the sciences, not only in abstract, conceptual or philosophical terms, but also in actual artistic or musical productions that utilise the resources of science, technology, and mathematics, is a relatively recent phenomenon.
- The MIT journal *Leonardo*, which takes it name from Leonardo Da Vinci, the 15th century Italian polymath who lived during the Italian Renaissance and who himself exemplifies the attempt to combine art with science, started as far back as 1968, and is dedicated towards developing knowledge where the arts and sciences are combined in creative ways to produce new knowledge or artistic forms.
- Such fusions between the arts and the sciences, however, have already existed in existing forms of knowledge such as Architecture, and scientific drawings/illustrations in Botany and Medicine, prior to the attempt at an explicit and exclusive ArtScience. However, they act and function more as 'disciplinary mergers' in which the component disciplines still retain their individual identities.

The New Attempt Through ArtScience and Its Significance for Human Knowledge

- However, the newly emerging field which now goes under the new name "ArtScience", is an attempt to integrate the arts and the sciences at a deeper level--deeper than what we have seen in architecture and scientific drawings/illustrations.
- It has the ambitious aim of cultivating the human potential to the full by '...assimilating with the scientist's brain, the poet's heart and the painter's eyes. It is an integrated vision that we need'. And we need it because currently 'our awareness and understanding of the world and its realities are divided into the rational – the knowledge frozen in words and quantities – and the emotional – the knowledge vested in sensory image and feeling...' with no connection between them.

Understanding Our Present Predicament Through Philosophy and the History of Science

- The predicament faced by modern man is that he is torn between two realities, the reality experienced in the
 everyday world which is full of images, colour, sounds and smells, and the reality presented to him by the world of
 science, which consists of atoms in motion, of nuclear subparticles, of electromagnetic waves and quantum gravity,
 all of which are unobservable.
- Classically, this was referred to as the problem of Eddington's 'two tables'.
- Western thinkers have responded to this problem in different ways, for example through the attempt made by the phenomenologist Edmund Husserl, who tried to reinstate objectivity to mental phenomena, which has been hijacked by scientists to the realm of the physical.
- The problem also expresses itself in the philosophy of mind, where following Descartes, through the 'mind-body problem', man is seen as a composite of mind and body, where the relationship between the two remains a mystery.
- In contemporary philosophy of mind, materialists or physicalists have tried to reduce the mind to matter since for them only the material is real.
- To get a grip on the nature of the predicament faced by modern man, it is helpful if we turn to philosophy and the history of science.

Knowledge, Objectivity, and the Human Subject

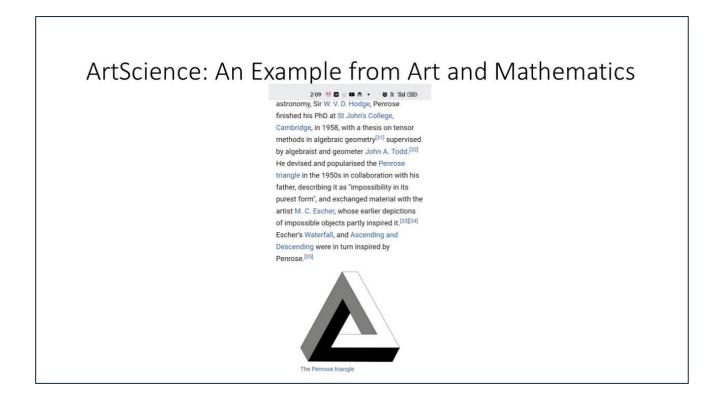
- One of the ideals of knowledge that emerged from Enlightenment thought of the 18th century, is the idea that knowlege must be rational, i.e. based on reason, objective and true. In fact, rationality and objectivity became the hallmark of truth.
- In such an epistemology of human knowledge, the human subject becomes a passive spectator of an objective reality, which he tries to capture and embody in the form of knowledge that is made explicit through writing and the use of language and symbols.
- The truth captured by such knowledge is thought to be 'mind-independent' in the sense that its nature is independent of the human mind, and that the role of the human mind in the production of knowledge is merely to reflect the objective reality out there so to speak.
- Such a strategy in the pursuit of knowledge has led to the advancement of the natural sciences, even though it has led to the alienation of man from the world-picture, because his exclusion (due to his subjectivity) is seen as crucial to the process of knowledge production.

Science and Reality

- This revolution in knowledge, which began with the Scientific Revolution of the 17th century, has made the natural sciences, especially Physics, the paradigm of legitimate and genuine knowledge, and serves as a model for what is to count as knowledge in a cognitive sense.
- In time, it also serves as a reference point in determining the nature of reality. For the logical positivists, as in science, only that which can be rationally and empirically verified can be accepted as knowledge. Others are relegated to the realm of value, culture, preference and taste and are subjective, i.e. that for which the notions of 'true' and 'false' cannot be applied.
- Philosophically, this has created a crisis in western thought, because western man is now torn between the 'reality of his everyday world'--which is not reducible to the parameters of space, time and matter alone--and the reality presented to him/her by the natural sciences, where only matter and motion are real. This takes the form of the dichotomy between the so-called primary qualitities such as shape, size and motion, and the secondary qualities such as the sense of smell and taste. Amongst philosophers of science, it is also referred to as the problem of scientific realism, epitomised for example by 'Eddington's two tables'.

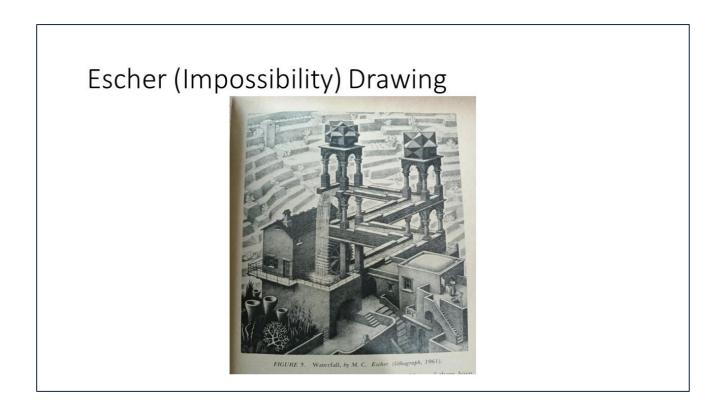
On Why ArtScience is Significant in Helping Resolve the Knowledge Predicament

- The development of ArtScience in resolving the predicament of the 'two realities' is by engaging both realities in a single enterprise and by acknowledging the contribution of both in the synthesis which leads to new knowledge and forms of experience.
- In this new enterprise, neither one is priviledged over the other, but both are accepted in their own right in this new production.



Geometrical Blocks: Possible To Actualise





Lesson to be drawn

 What those images teach us is that: (i) that art and mathematics can be related, as seen in the Penrose triangle and the Escher drawings (ii) that artistic vision can raise philosophical problems about the nature of reality, as when something can be visualised but not actualised.

Conclusion

 The interrelation and fusion of the Arts and Sciences, through the new venture called "ArtScience" raises interesting possibilities for the future advancement of human knowledge in which our experience of the world becomes more wholistic, where the intellect becomes unified with sense-experience, and where reality is not reduced to the physical alone but instead combined with the experiential reality of the human subject.

EMERITUS PROFESSOR DATUK DR. AZIZAN BAHARUDDIN



Azizan Baharuddin received her BSc (Hons) in Biology from the University of Tasmania, Australia in 1978, MSc (Univ. College London) in 1979 and PhD in Philosophy of Science (Science & Islam) from University of Lancaster, United Kingdom in 1989. She specialises in several areas such as environmental ethics, religion and sustainable development, Islam and science, bioethics, interfaith/intercivilisational dialogue. She has published more than 200 books, book chapters, monographs, journal articles and newspaper articles in the abovementioned fields, including books Harmony between Religion and Science: An Islamic Perspective (2019), Environmental Ethics in Islam (2018), co-editor of Islam and Ecology: A Bestowed Trust (2003) and Environment, Values and the Future of Civilisations (2013) and Islam-Buddhism Eco Dialogue (IBED): Application of Religion and Science to Ecology and Sustainability (eds) (2023). She is active in several governmental and non-governmental organisations connected with her areas of specialisation, as well as being a member of various advisory and consultative committees for various ministries in Malaysia. She was appointed by the Prime Minister as the Chairman of the National Committee for the Promotion of Understanding and Harmony Among Religious Adherents (JKMPKA) (2014–2015); appointed by the Minister of Science, Technology and Innovation as Chairman of the National Bioethics Council (MBEN) (2014-2017). She was appointed by the Director-General of UNESCO as a Member of the International Bioethics Committee (IBC) in Paris (2014-2017). Due to her works and contributions in the area of Science & Religion, she received an award from the Centre for Theology & Natural Sciences, USA in 2001. She was also awarded the Federal Territory Maal Hijrah Award in 2016. In 2016, she received the Langkawi Award from the Ministry of Natural Resources and Environment (NRE) for her work in environmental education and activism at the national level and abroad. Recently, she received the National Maal Hijrah Award 2022 (Icon of Science and Civilisation) from His Majesty the Yang Di-Pertuan Agong. She was a lead member of the drafting team for the Islamic Declaration on Global Climate Change (IDCC) endorsed by the UN United Nations Framework Convention on Climate Change (UNFCCC) and submitted to the President of the 70th United Nations General Assembly (UNGA), New York in 2016. She is also a Member of the Drafting Team of UNEP's AI-Mizan: A Covenant for the Earth (Islamic Ethics of the Environment) launched during the 6th UN Environment Forum in Kenya February 2024 (https://www.almizan.earth/islamic-covenant).

ABSTRACT

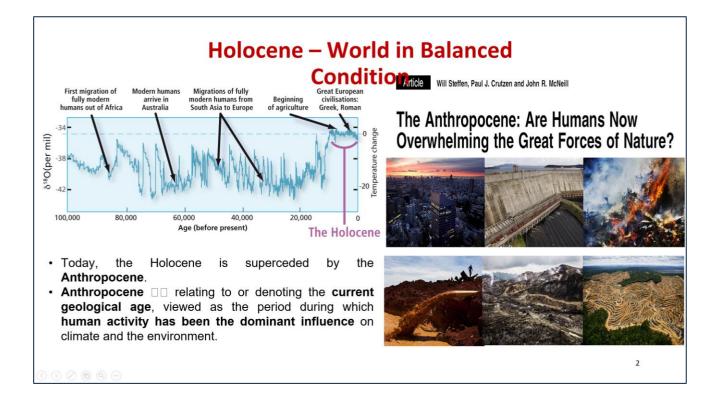
ARTSCIENCE IN THE CONTEXT OF TRANSFORMATIONAL SUSTAINABILITY LEADERSHIP

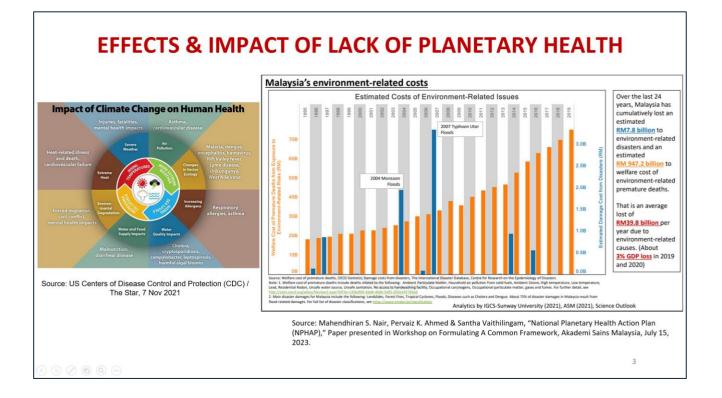
Emeritus Professor Datuk Dr. Azizan Baharuddin

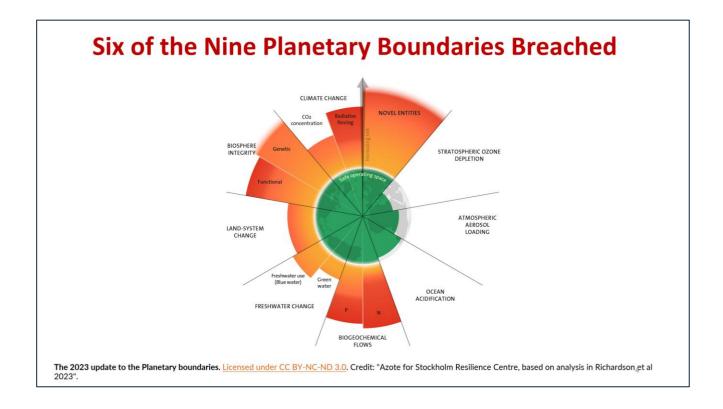
Director, Universiti Malaya Centre for Civilisational Dialogue (UMCCD), Chairholder, UKM-YSD Chair for Sustainability Honorary Fellow, Institut Masa Depan Malaysia (MASA) Email: azizanbaharuddin@gmail.com

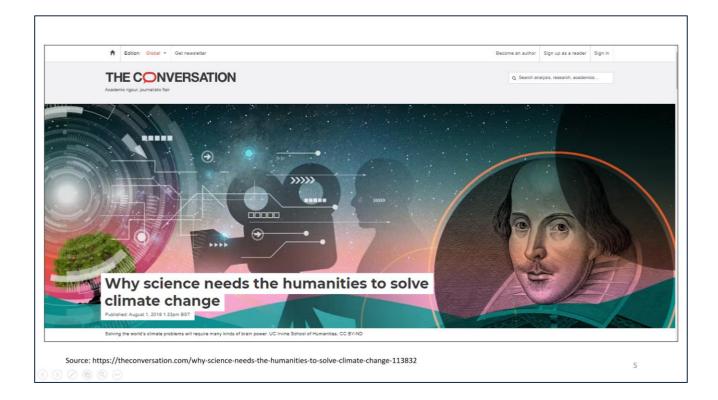
In the current era of great concern for planetary health, the sustainability approach in every field of human endeavour, be it theoretical or practical is no longer a choice but is an inevitable imperative. More than sufficient scientific evidence is now available to substantiate the move towards a mode of living (better described through 'art') that is more reverential and more suited to the actual carrying capacity of the planet. In fact, scientists are today calling for the humanities and the arts to help change human perception and behavior towards this end. The Ecoliteracy Centre in California for example has identified 15 core competencies that we need to develop for living in sustainable communities. These competencies Include the harmonised functioning of the head (cognitive), heart (emotional), hand (action) and spirit (connectivity) which in reality encompasses the ArtScience elements of life and/or of the human being. Future solutions towards sustainability also rest in STEM (science, technology. engineering, and mathematics) that is enriched/enhanced by art and values (referring to the move from STEM to STEAM/STREAM) among the scientific community. Unfortunately, however, this fact is still not much understood today. The ArtScience element/factor is also critical in the implementation of the MADANI spirit which aims to elevate the nation to a better civilisational and peaceful condition.



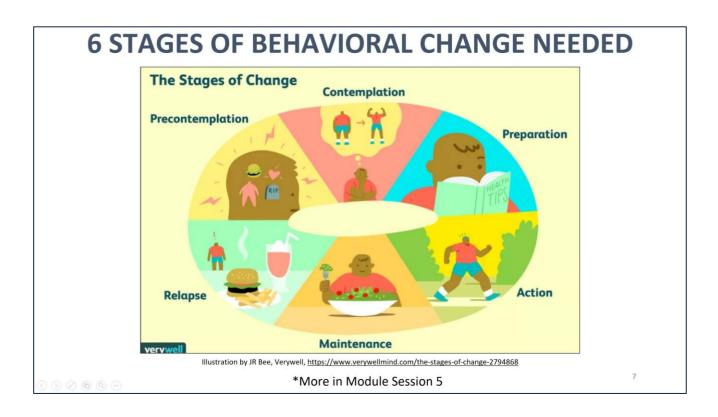










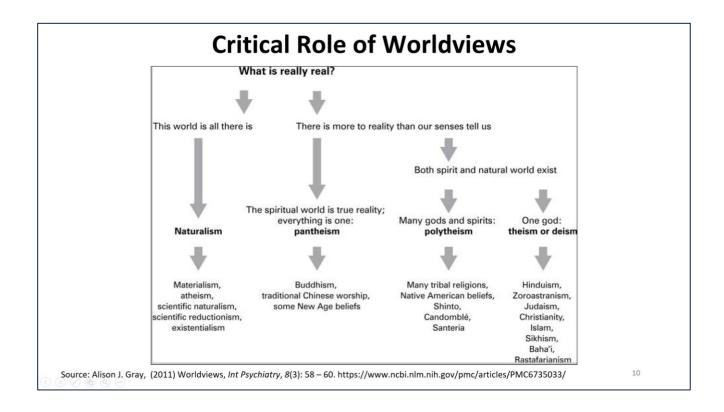


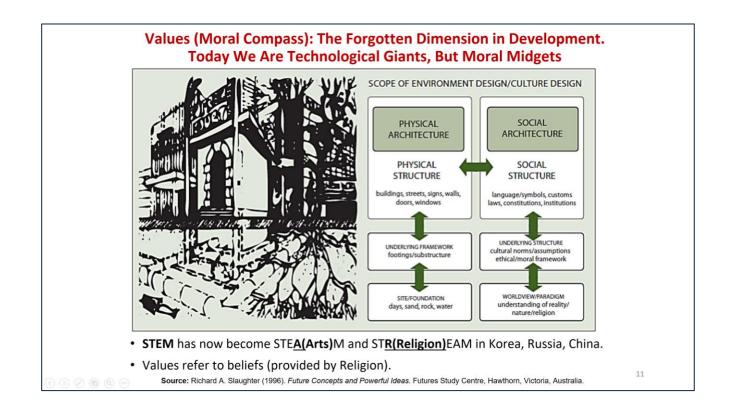
Transformational Sustainability Leadership as One of the Methods to Materialise the NPHAP

- 1) The 12th MP is a comprehensive document challenging for some stakeholders to fully understand and take action upon.
- 2) How government and stakeholder sectors can lead the sustainability agenda needs to be looked at.
- 3) One fundamental method is via the TRANSFORMATIONAL SUSTAINABILITY LEADERSHIP (TSL) which is the basis of the TSL Module.
- 4) TSL involves a **visionary** style, that **inspires individuals** to drive and effect sustainable change, taking care of environmental, social and economic dimensions.
- 5) The TSL module aligns with Malaysia's cultural and religious values e.g. Rukun Negara and the Madani philosophy.
- 6) TSL module is part of the Research & **Education** pillar of the NPHAP. The other pillars are GOVERNANCE, ENVIRONMENT & HEALTH, SUSTAINABLE FOOD & COMMUNICATION BEHAVIOURAL CHANGE & CULTURAL SHIFT.
- What Artscience knowledge do we need to effect the change towards leadership?
- Role of belief system.
- Integration of all capacities.

8

	ing Worldviews: Challe Educational Paradigm	
675	Man-Centered	Life-Centered
	 Man is the measure of everything By his reason alone he can know and solve everything Resources are infinite, other species are of utilitarian value only In synchrony with materialism 	 Man is not the measure of everything Reason need to be aided by revelation (values) Resources are finite, limits exist The material dimension is balanced with the spiritual dimension
	RELIGIOUS W	I VORLDVIEW
	Religion and Science	ce are harmonized
 In (201 	3). Changing Our Worldview for a Sustainable Future and the Role of	Dialogue. Journal of Oriental Studies. 23: 40-51. 9





How do we transition to a new development framework?

Take inspiration from the work of Seyyed Hossein Nasr:

• 'although science is legitimate in itself, the role and function of science and its

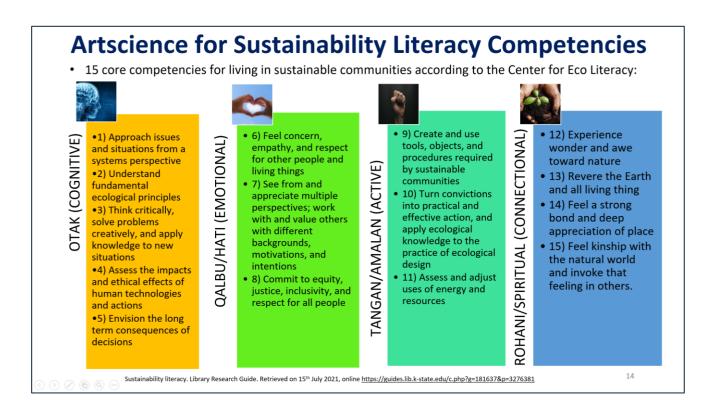
application have become illegitimate and even dangerous because lack of a high form of knowledge into which science could be integrated and the destruction of the sacred and **spiritual value of nature**'

- 'the destruction of the equilibrium between man and nature' is a result of humankind's 'further conquest and dominion of nature' (Nasr, 1997, p. 13). He states that the challenges of society today can be traced back to the development model that is centered on the 'dominion of nature'
- Hence, to overcome the current challenges, 'the metaphysical knowledge pertaining to nature must be revived and the sacred quality of nature given back to it once again' (Nasr, p.14).

Source: Mahendhiran S. Nair, Pervaiz K. Ahmed & Santha Vaithilingam, "National Planetary Health Action Plan (NPHAP)," Paper presented in Workshop on Formulating A Common Framework, Akademi Sains Malaysia, July 15, 2023.









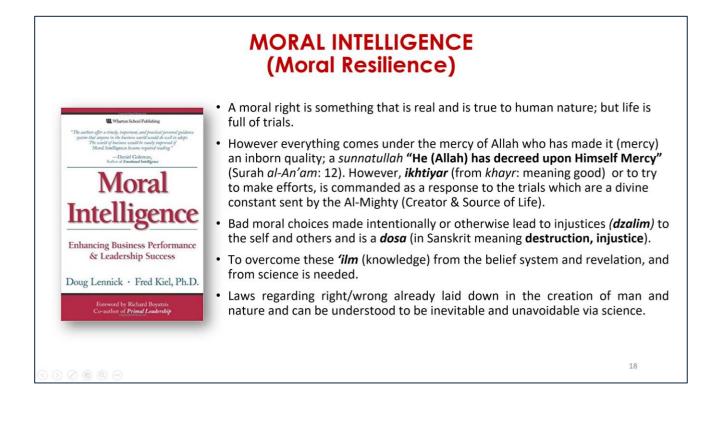
Elements of Hybrid Knowledge: Knowledge/ Science and Spirituality to be Harmonised (E.g. of Artscience Project) Restoring the Balance: Maslow's Hierarchy of Needs Theory HABLUN MINALLAH (Man - Creator) Protection of Religion (حفظ الدين) Self-fulfillment Self-HABLUN MINALBIAH HABLUN MINANNAS actualization: needs Protection of Life achieving one's full potential, (Man -Environment) (حفظ النفس) (Man - Man) Good behavior including creative activities Protection of Reason Esteem needs: prestige and feeling of accomplishing Dignity (حفظ العقل) Psychological needs ongingness and love needs: Family Protection of Progeny ate relationships, friends (حفظ النسل) Home Safety needs: security, safety Basic Protection of Property need (حفظ المال) Physiological needs: food, water, warmth, rest Food https://www.simplypsychology.org/maslow.html Source: https://www.simplypsychology.org/maslow.html

Importance of Spiritual, Other Than Intellectual & Emotional Intelligence

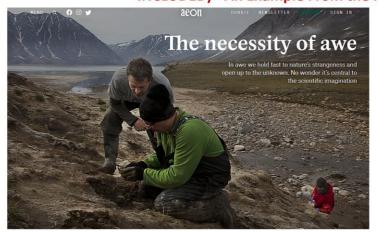


- SQ is the innate human need to connect with something larger than self
- Faith traditions for example see SQ as an integrated view that deals with questions of existence and creation, modelling the texture of human intention, morality law and social interactions
- **SQ** is the ability with which we exercise goodness, truth, beauty and compassion in our lives
- SQ implies presence of intuitively gifted knowledge and soft skills that includes one's worldview & purpose of life, ego and self plus the awareness of the universe and laws of the Divine.
- Seat of SQ is the HEART/QALB.

17



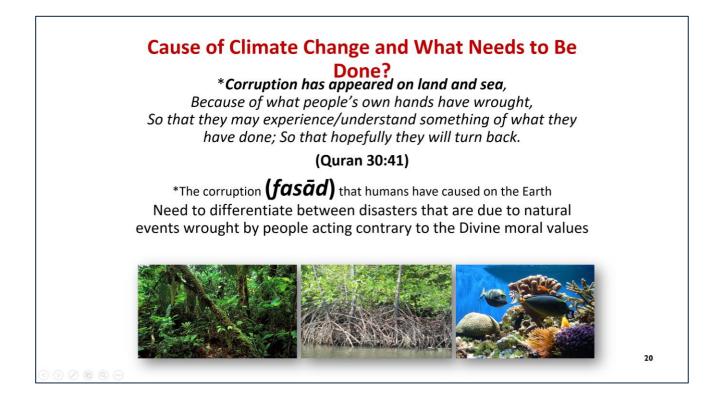
SCIENCE IS INSPIRED THROUGH AWE TOWARDS NATURE (THE PANDEMIC INCLUDED) - An Example From the Islamic Case



'Those who dwell ... among the beauties and mysteries of the Earth are never alone or weary of life' – Anonymous

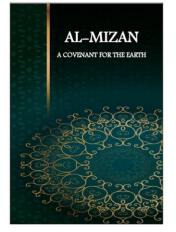
Source: https://aeon.co/essays/how-awe-drives-scientists-to-make-a-leap-into-the-unknown

- Role of *Tadabbur* and *Tafakkur* (to relate what we observe in nature with what is revealed).
- The importance of kauniyah verses in the Quran (referring to objects, phenomena and events in nature and history).
- The significance of Ulul Albab (those who never fail to reflect on the phenomena of nature as signs of the greatness of the Creator.
- New way to teach science examples from NSWVQ.¹⁹



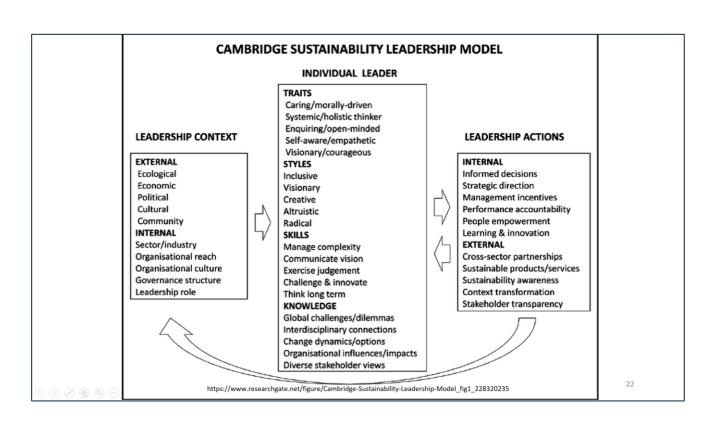
Natural Science from the Worldview of the Spirituality

- Repeated exhortations by Revealation to think, ponder, investigate & know the secrets of nature.
- Via knowledge/ilm/science to produce all kinds of good deeds from such knowledge.
- Seekers of knowledge to apply the knowledge (technologies for the good).
- Polymathic geniuses of the Golden Age of Islam (711–1492)



Launched
 February 2024
 under UNEP
 headed by
 Muslim
 Engineer Dr.
 Iyad Abu
 Moghli.

21



The Handbook of

LITERACY Skills for a changing world

SUSTAINABILITY

Edited by Arran Stib

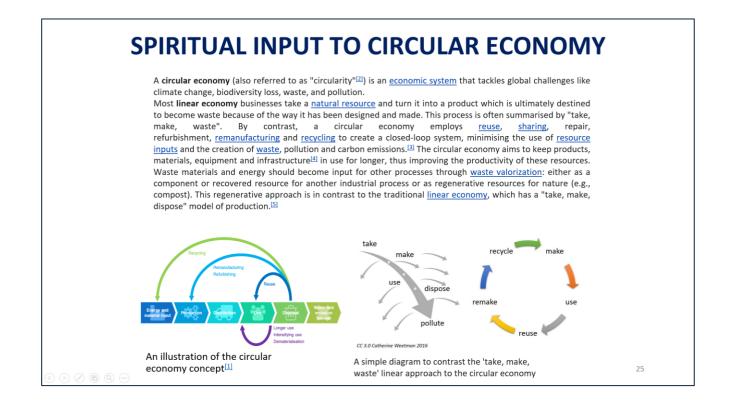
Artscience in TSL for Enculturing Sustainability Literacy (SL)

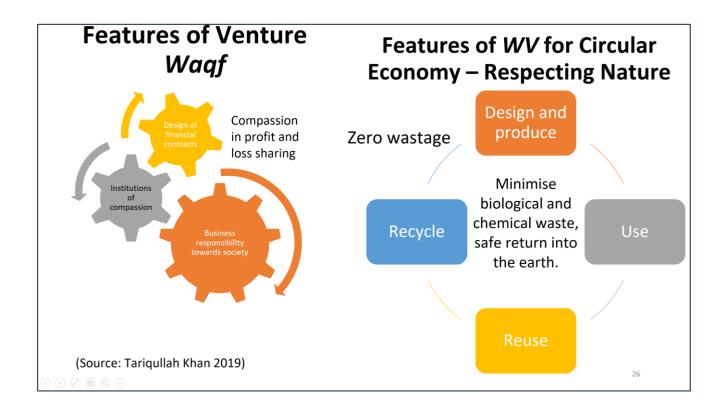
6 Strategies for Sustainability Literacy:

- 1) Creating Learning Communities
- 2) Learning from Experience
- 3) Fostering a New Cultural Worldview
- 4) Thinking Systemically
- 5) Embracing Diversity
- 6) Whole Person Learning
- SL is the basis for sustainable living, SDGs & planetary health.
- SL requires associated skills such as communication, problemsolving, change management and systems thinking.
- **Challenge**: Dissonance between beliefs and actions. Desire to make the world a better place but behaviors are hard to change.

Source: Azizan Baharuddin,"What is Sustainability?," paper presented in Sustainability Pocket Talk Pengurusan Aset Air Berhad (PAAB) at Intercontinental Hotel KL, 14th Dec 2023.

Development Must be Anchored on Spiritual Values Key Planetary Religions and 8R Values-Based Health Perspectives Belief Systems Development Philosophy Humans have no dominion over Earth, Judaism Earth resources or other creations. Christianity · Humans have a primary role to look after Islam Earth for the benefit of all creations Hinduism Human activities that adversely impact Jainism Earth will impact all other earth systems & creations Sikhism Rethin (Anthropocene) Buddhism Risk of extinction of the human species. Confucianism Vitality and biodiversity of the natural system Daoism must be respected and preserved. **Indigenous Population** Redu Sustainability Earth & all sentient species are critical for the survival of humanity. Cultivate balance, harmony, and restraint for the preservation of the state of natural equilibrium. Source: Mahendhiran S. Nair, Pervaiz K. Ahmed & Santha Vaithilingam, "National Planetary Health Action Plan (NPHAP)," Paper presented in 24 @Copyright: Sunway IGSC Workshop on Formulating A Common Framework, Akademi Sains Malaysia, July 15, 2023.





Synergy Between Religion And Economics: Waqf & Religious Financial Instruments

- Example of Artscience Project.
- Waqf something that is given for the use of public; or something provided or reserved for the needs of the public.
- Paper by Sukmana 2020: Since 2010, 84,860 papers were published covering microfinance banking, non-bank finance → financing education, agriculture, housing among others.
- Lessons: 1) collaboration between *awqaf* and financial institution may have a significant impact on development. 2) Cash *awqafs* managed by financial institutions have zero costs the money need not be returned to the *waqif* (*waqf*-giver).
- However better governance is crucial, government has to focus on *waqf* innovation through comprehensive and updated rules and regulations, particularly on the use of CSR as a *waqf*.
- Study showed that the 17 SDGs are in line with the long-term objectives of the Shariah.
- Stakeholders can undertake developments on the basis of *awqaf* for the SDGs framework.
- Example of water *waqf* (*wakaf air* under KASA) under Ministry of Environment and Water.



MAKING SENSE OF DISASTERS & HUMAN SUFFERING

- Natural and reasonable for people to ask questions:-
 - What is the real causes of the losses?
 - Is it a result of God's fury or man's folly?
 - Do the calamities have something to do with the moral behavior of the victims or are they outcomes of negligence & lack of respect for the limits of the Earth's capacities?
- How do we answer these questions?

Climate Change (CC) and Political Instability (globally)

- CC affects socio-political parameters leading to wars/conflicts.
- Competition over resources.
- 1980 2010 statistical research is heatwaves, droughts & other natural disasters increased because of global warming pushing countries into armed conflicts, particularly those already split along ethnic lines. (eg. in Africa)



http://talesfromthelou.wordpress.com/2011/04/02 /natural-disasters-or-divine-retribution/

http://thecomingcrisis.blogspot.com/2011/03/mark s-second-guessing-how-aftershock.html



Source: Schleussner et al. (2016). Armed-conflict risks enhanced by climate-related disasters in ethnically fractionalized countries. Proceedings of the National Academy of Sciences of the United States of America (PNAS). 111 (33).

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ICASAS'24

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Emeritus Professor Datuk Dr. Azizan Baharuddin Director, Universiti Malaya Centre for Civilisational Dialogue (UMCCD)



Honorary guests of the conference



Honorary guests of the conference



Honorary guests of the conference



Honorary guests and attendees of the opening ceremony



Associate Professor Dr. Durriyyah Sharifah Hasan Adli (Research fellow, UMCCD) Moderator of the first day of the conference



Keynote Address

Emeritus Professor Dato' Dr. Osman Bakar

Al-Ghazali Chair of Epistemology and Civilizational Studies and Renewal, International Institute of Islamic Thought and Civilisation (ISTAC), International Islamic University Malaysia







Keynote Address Dr. Jillian Ooi Lean Sim Department of Geography, Faculty of Arts and Social Sciences, Universiti Malaya



Keynote Address Emeritus Professor Dr. Azirah Hashim Department of English Language, Faculty of Languages and Linguistics, Universiti Malaya



Keynote Address Emeritus Professor Dr. Ng Kwan Hoong Department of Biomedical Imaging, Faculty of Medicine, Universiti Malaya





Keynote Address

Datuk Professor Dr. Abdelaziz Berghout

Dean, International Institute of Islamic Thought and Civilisation (ISTAC), IIUM





Keynote Address Professor Dr. Hazim Shah Abdul Murad School of Languages, Civilisation, and Philosophy, College of Arts and Sciences, Universiti Utara Malaysia



Mr. Mohd Fadhli Rahmat Fakhri Research Officer, Sustainable Development Centre, Universiti Malaya



Professor Dr. Sithi Vinayakam A/L Muniandy Head, Center for Theoretical and Computational Physics, Universiti Malaya



Keynote Address Associate Professor Dr. Mona El-Sherbini

Founding Director, Narrative Medicine and Planetary Health, Faculty of Medicine, University of Cairo, Egypt



Mr. Eiichi Tsutaki Commissioned Research Fellow, Institute for Oriental Philosophy (IOP), Japan



Dr. Asmawati Muhamad (Deputy Director, UMCCD) Moderator of the first and third sessions on second day of the conference



Dr. Fong Chng Saun (Senior Lecturer, Institute for Advanced Studies) Moderator of the second session on the second day of the conference



Professor Dr. Raymond Ooi Department of Physics, Faculty of Science, Universiti Malaya



Associate Professor Dr. Vishalache A/P Balakrishnan Department of Educational Foundations and Humanities, Faculty of Education, Universiti Malaya



Mr. Kamaruzaman Ahmad Academy of Malay Studies, Universiti Malaya



Dr. Farid Mohammadi English Department, Faculty of Arts and Social Sciences, Universiti Malaya



Dr. Noranita Mansor

Department of Architecture, Faculty of Design and Architecture, Universiti Putra Malaysia



Attendees and presenters of the conference





Professor Dr. Yvonne Lim Ai Lian Associate Deputy Vice-Chancellor (Academic and International), Universiti Malaya





